Development Review Committee

January 11, 2024 at 2:00 PM
Howey-in the-Hills Town Hall
101 N. Palm Ave.,
Howey-in-the-Hills, FL 34737

Join Zoom
Meeting: https://us06web.zoom.us/j/81365489069?pwd=DOpa5AIlSg7NEwbRcTkLUaHW8IAMso.1
Meeting ID: 813 6548 9069 | **Passcode:** 394863

AGENDA

CALL TO ORDER
ATTENDANCE

NEW BUSINESS

1. Discussion: **Lake Hills - Preliminary Subdivision Plan Submittal**

PUBLIC COMMENTS
Any person wishing to address the Development Review Committee and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.

ADJOURNMENT

To Comply with Title II of the Americans with Disabilities Act (ADA):

Qualified individuals may get assistance through the Florida Relay Service by dialing 7-1-1. Florida Relay is a service provided to residents in the State of Florida who are Deaf, Hard of Hearing, Deaf/Blind, or Speech Disabled that connects them to standard (voice) telephone users. They utilize a wide array of technologies, such as Text Telephone (TTYs) and ASCII, Voice Carry-Over (VCO), Speech to Speech (STS), Relay Conference Captioning (RCC), CapTel, Voice, Hearing Carry-Over (HCO), Video Assisted Speech to Speech (VA-STS) and Enhanced Speech to Speech.

Howey Town Hall is inviting you to a scheduled Zoom meeting.
Topic: **Development Review Committee**
Time: **Jan 11, 2024 06:00 PM Eastern Time** (US and Canada)
Join Zoom Meeting
https://us06web.zoom.us/j/81365489069?pwd=DOpa5AIlSg7NEwbRcTkLUaHW8IAMso.1
Meeting ID: 813 6548 9069
Passcode: 394863
Dial by your location
+1 646 558 8656 US (New York)

+1 346 248 7799 US (Houston)
Meeting ID: 813 6548 9069
Passcode: 394863
Find your local number: https://us06web.zoom.us/u/kdWkYN654J

Please Note: In accordance with F.S. 286.0105: Any person who desires to appeal any decision or recommendation at this meeting will need a record of the proceedings, and that for such purposes may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is based. The Town of Howey-in-the-Hills does not prepare or provide this verbatim record. Note: In accordance with the F.S. 286.26: Persons with disabilities needing assistance to participate in any of these proceedings should contact Town Hall, 101 N. Palm Avenue, Howey-in-the-Hills, FL 34737, (352) 324-2290 at least 48 business hours in advance of the meeting.

TMH CONSULTING, INC.
Community Planning Services

TMHConsulting@cfl.rr.com
97 N. Saint Andrews Dr.
Ormond Beach, FL 32174
PH: 386.316.8426

MEMORANDUM

TO: Town of Howey-in-the-Hills Development Review Committee
CC: J. Brock, Town Clerk
FROM: Thomas Harowski, AICP, Planning Consultant
SUBJECT: Lake Hills Residential Preliminary Subdivision Plan Resubmittal

DATE: January 4, 2024

These comments are based on the letter and resubmittal package dated December 22, 2023.

The applicant has assigned 10.95 acres of the minimum open space to be provided by others. The applicant needs to identify who is providing the additional open space and provide a firm commitment from that source.

Total project open space by my calculation is 86.58 acres while the 66 acres refers to the minimum required open space.

Net developable land for the residential portion of the project is calculated as 154.37 acres. (220 acres less the 55.05 acres of required open space allocated to the residential portion of the project less the remaining wetlands and water bodies.) The required allocations for other project assigned uses are calculated from this amount.

With regard to the alley lot requirements, it appears the applicant can request the Town Council revise the agreement. We will discuss the procedure with the Town attorney, but assume at a minimum a written request will be needed along with a justification supporting the amendment.

With regard to the dedication of the access road, it is still not clear which entity is actually dedicating the right-of-way.

The sidewalk on CR 48 needs to be extend from its current terminus to the edge of the school district property.

The intersection plans for SR-19 and CR-48 seem to be clear in that a roundabout is to be constructed. Timing for the roundabout needs to be coordinated with the traffic impact assessment findings.

Town Council will need to accept using the required park to hold stormwater runoff from the entrance road. Be prepared to identify the anticipated volume from the road and from the park as separate totals.

The response on the tree protection requirements is inadequate. The applicant was asked to identify the total number of specimen trees and historic tree on the site and the number of trees preserved. As this factor may affect subdivision design, it cannot wait to future phases. A quick scan of the tree table ideentified the planned removal of at least one historic tree which is not permitted by the code except for specifc circumstances.

The tree legend was included in the submittal, but either the actual ttree layer was turned off or was unreadible through the other information.

The proposed language for the pool and accessory structure setbacks needs to include a statement that the owner waives his right to seek a variance to the setback requirement. Alternatively, provide larger rear setbacks.

GRIFFEY ENGINEERING, INC.

January 9, 2024
Lake Hills Preliminary Subdivision Plan
Engineering Review Comments
Page 1

Traffic

Access connections and offsite improvements need to be coordinated between the residential and commercial portions of Lake Hills PUD. The town and FDOT are working to develop an improvement plan for this area. Approval of this PSP should include a condition that the construction plans will incorporate those improvements.

MADDEN
MOORHEAD & STOKES, LLC
CIVIL ENGINEERS

December 22, 2023

Howey-in the-Hills Town Hall
101 N. Palm Ave.,
Howey-in-the-Hills, FL 34737

RE: Lake Hills Residential Preliminary Subdivision Plan

To whom this may concern:

Below please find our responses to those comments.

Village Mixed Use Standards

Comment 1: The standards for development of Village Mixed Use designated properties are presented in Policy 1.1.1 of the future land use element. The following analysis summarizes the current status of the master project with regard to the adopted policy. Note that open space requirements are based on gross project acreage while density and land use allocations are based on net land area.

Response 1: Acknowledged

Calculation of Net Land Area

Comment 2: Net land area is determined by total project area less the minimum required open space and any wetland and surface water bodies that do not contribute to the required open space. The minimum open space requirement is 25% with a maximum of 50% of wetland area contributing to the required open space. Based on the survey submitted with the application, the following calculations have been made:

Minimum Required Open Space: 66 acres (264 x 0.25)

Total Wetlands on Site: 30.61 acres (Wetlands parcels 1 through 6)
Wetlands assignable to Minimum Open Space: 15.30 acres

Surface water bodies on site: 5.27 acres (Waterbodies 1 through 7)

Total Required Open Space: 66.00 acres (minimum requirements)
15.31 acres (additional wetland area)

5.27 acres (surface water bodies)
86.58 acres (total minimum open space)

Net Land Area: 177.42 (264 – 86.58 acres)

Response 2: ***Please see PUD and net land area calculations added to the PSP sheet C0.01. Note that the project total acreage, wetlands, and surface waters are taken directly from the survey submitted. Note the total residential parcel acreage per the survey is 220.21 acres and not total PUD gross acreage of 264 acres.***

Calculation of Land Use Assignments

Comment 1:

- Residential land use must occupy between 70% and 85% of the net land area. This range is 124.19 acres to 150.81 acres. The calculation for the residential portion of the project totals 98.64 acres. (Includes residential property, stormwater ponds, and wetland buffers.)
- Non-residential uses must occupy between 30% and 15% of the net and area. This range is 53.23 acres to 26.61 acres. The civic and commercial land uses total 43.23 acres and the park area an additional 4.23 acres.
- Five percent of the non-residential land is to be dedicated for public and civic uses. The minimum amounts to 2.37 acres but the total allocated for the school site and the water treatment plant is 25.23 acres.
- Public recreational uses need to be at least 10% of the useable open space (less wetlands and water bodies). Open space excluding wetlands and waterbodies is reported as 79 acres, which makes the recreation requirement 7.9 acres total. The public park (4.38 acres) and the community recreation/park (6.36 acres) provides 10.74 acres in combination.
  The minimum open space requirement is 25% of the total project area. Required open space is 66 acres. The reported open space is 110.85 acres. The pond areas are not counted as open space as they are not designed to meet the threshold criteria.

  The only issue is that the land area devoted to residential use falls below the 70% floor. Since the other factors fall within the specified ranges, expanding the residential use area is likely to come at the expense of open space. Some additional analysis will be needed to address the residential percentage factor.

Response 1: ***Please see added tables to PSP sheet C0.01 documenting the various residential, non-residential, and public uses per the PUD. Please advise how the Town would like to proceed with regard to compliance with the current residential minimum acreage.***

Concurrency Considerations

Comment 1: There are three areas where concurrency compliance needs to be verified. The first is traffic, and a traffic study has yet to be submitted. The second issue is sewer service. The applicant will need to provide a plan and program to address sewer service. The third item is school capacity. The applicant needs to submit a request to the Lake County School Borad for a capacity determination using the district process. These items will need to be addressed prior to Planning Board consideration.

The assumption is that the Town's plan for the new water treatment plant will provide sufficient supply for domestic use and fire protection. The assumption is also that on-site stormwater retention will meet the Town's standards.

Response 1: ***The TIA methodology has been agreed to and the TIA is being finalized and will be submitted soon. The TIA includes current roadway capacity and recommended improvements for the development. The applicant has contacted Lake County Public Schools (LCPS) and a school capacity determination will be completed. As a reminder it is the intent of the applicant to restrict home (via deed restriction) to a 55+ active adult segment. This restriction will be coordinated with LCPS as the Applicant completes the concurrency process through the County Attorney's office. LCPS has indicated that with a 55+ active adult segment there will be no issues created by concurrency. The applicant requests to complete the formal concurrency determination prior to completion of the Final Subdivision Plan approval. The applicant is working with the Central Lake CDD to secure treatment capacity for the project. Upon securing this commitment the applicant will meet with the Town to update the existing utility agreement for the property (2012 Bouis Property Agreement) between the Town and Central Lake CDD. This will update and better define the details of sewer and water service for the property. The applicant acknowledges the DRC comment regarding a dual water system and not utilizing potable water for irrigation. As part of the Final Subdivision design and approval process the applicant will work to secure alternative water supply for irrigation via surface water ponds and supplemental wells as approved by SJRWMD. The Applicant requests to complete the utility agreement update prior to completion of the Final Subdivision Plan approval.***

Preliminary Subdivision Plan Comments

Comment 1: The preliminary subdivision plan submittal was reviewed for compliance with Section 4.04.11 and Section 4.05.12 along with the adopted development agreement and the design standards set out in the Town codes. The minimum submittal requirements as specified in 4.05.12 are included in the application, except for the minimum required open space which has been calculated above. Note the following comments:

- The detail for the paired home requirements is incorrect. The development agreement requires the paired homes to be served by alley access. Alleys should be a simple addition to the design as presented.
  Response: The applicant is working to provide a commonly desired product segment specific to the 55+ active adult market segment and requests to discuss this product with the Town Council at the public hearing. Given the "Conceptual" clarification noted in the PUD the applicant requests this adjustment to be allowed as an alternative standard allowed under the PUD or alternatively, approved as a waiver in accordance with paragraph 14 of the PUD.
- The plan for the access road through the commercial section of the project is unclear. Is the intent to dedicate the portion of the collector road through the commercial section to the Town?
  Response: The access road through the commercial and residential sections will be public. The commercial developer and residential project are working together on the necessary documents and timing to ensure this road segment is addressed properly. The access road will be designed and approved with the commercial project application. It also be shown on the Final Subdivision Plan approval for the residential project. The applicant will reserve a construction and access easement for this road allowing the applicant to complete this road segment should the timing of the commercial project become delayed.
- The Town has requested that a future road access be provided from the Lake Hills project to properties to east. The intent is to allow future development to the east to access the commercial area without using SR-19. Based on the design presented, the most logical places to make the connection are at the service driveway to the commercial area or at the access point opposite the outparcel east of the access road. The applicant is directed to coordinate with the commercial project applicant to settle on which of these locations will be proposed.
  Response: This item applies to the commercial development and not this residential application. The commercial developer as agreed to add a reciprocal access provision to their PSP application.
- With the proposal to gate the project, will the bicycle path along the collector road be open to the general public?
  Response: The collector road and trail will be open to the public, it will include gates however the gates will be the type that open to anyone once approached. The development would not be restricted to public entry.
- Sidewalk will be required along County Road 48.
  Response: Please see revised PSP, a sidewalk has been shown along CR 48. The applicant requests the ability to elect to delay the installation of this sidewalk to a later phase to allow time for the intersection improvement at

US 19 and CR 48 so the sidewalk is not installed and subsequently removed or relocated.

- A connection from the project to the commercial access drive needs to be considered for the adjacent residential area.
  Response: This item applies to the commercial development and not this residential application. The applicant will not install a connection to the commercial access drive.
- The buffer detail for CR 48 includes a buffer area to the inside of the screening wall required by Town code. This area should be landscaped. Additional shade tree plantings in this area will add significant depth to the screening.
  Response: The CR 48 buffer has been revised to no longer include any additional areas per discussion at DRC. Please see revised PSP sheet C1.00
- All buffer areas should be in separate tracts controlled by the property owners association.
  Response: Acknowledged, all buffers are in tracts to be dedicated to the HOA or CDD.
- Phase 2 includes the stormwater pond that is proposed to accommodate runoff from the commercial project as well as for residential area runoff. How is this timing to be addressed if the commercial parcel precedes either Phase 1 or Phase 2?
  Response: The stormwater pond is being coordinated with the commercial development and residential development. Both projects will show the retention pond and necessary stormwater conveyance systems. The pond would be shown on both projects set of plans submitted to the Town and WMD for permitting.
- The public park area in Phase 1 shows a stormwater pond as included. If this pond serves residential development it needs to be outside of the park area.
  Response: This pond serves only the park and a portion of the public roadway.
- When the final subdivision plan is presented, the applicant needs to include the proposed park improvements in that design. According to the development agreement, the park to be dedicated to the Town.
  Response: Acknowledged
- The tree protection analysis needs to identify historic trees and specimen trees to be preserved and to be removed. All historic trees and a minimum of 50% of specimen trees must be preserved.
  Response: The project site is predominantly clear and was an old orange grove. The existing trees are centralized within the wetland areas. Since the majority of the wetlands will remain, so will majority of the existing trees within the wetland areas. A detailed tree preservation and removal plan will be provided with the final subdivision plan once a detailed grading analysis and stormwater analysis can be performed.

- The stormwater retention ponds seem to have a significant impact in terms of trees proposed for removal. Section 7.11.04 B directs that stormwater facilities be located and designed to minimize tree removal. The plan needs to be reviewed with this outcome in mind. For example Tract B4, a dry retention pond, calls for the removal of trees that should be easily avoided.
  Response: The site is an old orange grove, the existing trees within the wetland areas to remain will be preserved. The retention ponds are predominantly located in upland areas and do not affect the tree removal criteria. Detailed tree removal calculations will be provided with the final subdivision plan, once a detailed grading analysis and stormwater analysis can be performed.
- The plan generally needs to be reviewed to minimize tree removal.
  Response: The plan has been designed to minimize tree removal by significantly keeping the developed areas outside of existing wetlands. The site is an old orange grove and the areas outside of the wetlands are predominantly clear of trees.
- An official wetlands determination has not been done for the parcel. This will be required for the final subdivision plan.
  Response: Acknowledged
- Wetland and lakefront buffers are shown but not dimensioned. Section 3.02.03 specifies a 25-foot buffer to wetlands and a 50-foot buffer to buildings and impervious surfaces. The 50-foot buffer requirement excludes wet retention ponds.
  Response: wetland buffers are shown and are 25 ft wide minimum, and structures are a minimum setback of 50 ft.
- There is a shoreline protection zone of 50-feet from the landward extent of wetlands and shoreline. Docks and piers are excepted.
  Response: Acknowledged, the project complies with this requirement.
- Residential rear yard setbacks need to be sufficient to allow for the Town's 10- foot setback for swimming pools along with the pool itself. The Town has been requiring a 25-foot setback to accommodate pools. The lots as proposed do not meet this requirement. If the lot designs are to be retained, then the deed restrictions need to state that pools and other accessory structures are not allowed.
  Response: As discussed at DRC the applicant will include a deed restriction to clarify and notify residents of a minimum 10 – foot pool setback.
- Why is there a difference in setbacks for the cottage homes not on CR-48? The setback proposal generally seems to be too small to conform to Town Council policies.
  Response: The lots adjacent to CR 48 are designed to accommodate a 50 ft building setback, this exceeds the Town policies.
- The minimum floor area per unit is 1,800 square feet per the development agreement.

Acknowledged, the applicant request assistance from the Town to confirm the conditions of the development agreement requirement.

- Garage setbacks are to be recessed a minimum of 5-feet from the building front façade per the development agreement.
  Response: Acknowledged, the applicant request assistance from the Town to confirm the conditions of the development agreement requirement.
- Does the project propose one-car or two-car garages? If one-car garages are proposed, what alternatives are proposed for additional parking demand?
  Response: 2-Car garages are proposed for all lots.
- The Town has a wellhead protection requirement which needs to be considered and clearly marked on the plans.
  Response: Per DRC this item does not affect the project, no changes are needed at this time.

Response 1: ***Please see individual responses above to each item.***

Traffic

Comment 1: The project needs to submit a Traffic Impact Study for review.

The developments at this location (Lake Hills, Lake Hills Commercial, and Thompson Groves) will necessitate roadway improvements on SR 19 and CR 48. A copy of my recommended improvement plan for this area is attached.

The turn lanes along SR 19 and CR 48 at the access points are the responsibility of the developers.

The improvement to the SR 19 / CR 48 intersection (conversion to a roundabout) will require the cooperative efforts of the Town, Lake County and FDOT. This project should also receive proportionate share funding from the impacting projects.

The intersection of SR 19 and the main entrances to Lake Hills Residential & Commercial, and Thompson groves will most likely require a traffic signal at some point in the future. The cost of that signal should be borne fully by the impacting projects.

Response 1: ***The TIA methodology has been agreed to and the TIA is being finalized and will be submitted soon. The TIA includes current roadway capacity and recommended improvements for the development. . The applicant acknowledges turn lanes for the development are the responsibility of the development. We recommend further discussion between the traffic consultant and City to discuss future improvements.***

Plan

Comment 1: Revise the plan to incorporate the modifications to the SR 19 entrance road shown in the SR 19 & CR 48 Improvement Plan including turn lanes, sidewalks, trails, and traffic control. Widen the proposed right-of-way as needed to accommodate the improvements.

Include a road stub out at the south end of the Public Park to provide access to the neighboring property to the east. This should also be the park's access drive.

Some of the lots adjacent to the CR 48 commercial/WTP access road have an access easement over them (refer to the submitted survey). This will need to be resolved as the project goes forward.

Call out the depth of asphalt in the roadway details. The town standard is 1½" SP 9.5.

Stormwater ponds need to have practical access for maintenance. A drainage easement along lot lines is not acceptable as the sole access route. If access is to be between lots, it needs to be in a dedicated tract, not an easement.

Show on the plan proposed lift station tracts.

Response 1: ***Per DRC discussion we have modified the entrance to the development on SR 19 to add the sidewalk. The stub-out from the park was discussed and moved to the commercial lot per DRC discussion. Please see revised pavement section which now includes the asphalt thickness. All stormwater ponds have been reviewed and modified as necessary to have a dedicated tract for access and not an easement as requested. The lift station tract will be added at the time of final subdivision plan as we are working on coordination with the Central Lake CDD and Town for sewer service, and also need to extensively evaluate the grading in order to ensure the minimum number of lift stations is used while also keeping gravity sewer pipe depth to reasonable levels. Due to the severe topography, this exercise will be done in conjunction with the final subdivision plan. However I would note that the lift station tract will be placed in an appropriate location to buffer from residents as much as practical.***

If you have any questions, please don't hesitate to contact our office.

Sincerely,

David A. Stokes

David A. Stokes, P.E.
Vice President

DAS/ja

LEGAL DESCRIPTION:

(As per Title Commitment 11166639 issued by Fidelity National Title Insurance Company bearing an effective date of May 24, 2023 at 8:00 AM with Revision 1 dated June 6, 2023)

PARCEL 1:

GOVERNMENT LOTS 2, 4, 5, 6, 7, 8 AND 9, LYING NORTH OF HIGHWAY 48 AND THE WESTERLY OF HIGHWAY 19, ALL LYING IN SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, LESS THE FOLLOWING DESCRIBED PARCEL OF LAND: BEGIN AT SOUTHEAST CORNER OF THE NORTHWEST ¼ OF THE SOUTHEAST ¼ OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, AND RUN NORTH 00°04'21" EAST 1314.20 FEET, MORE OR LESS, TO THE SOUTHERLY WATERS EDGE OF LAKE HARRIS AND A POINT HEREBY DESIGNATED AS POINT "A"; RETURN TO THE POINT OF BEGINNING AND RUN SOUTH 89°35'28" WEST ALONG THE SOUTH LINE OF THE NORTHWEST ¼ OF THE SOUTHEAST ¼ OF SECTION 23 A DISTANCE OF 1100.00 FEET; THENCE NORTH 00°27'54" EAST 1484.76 FEET, MORE OR LESS, TO THE SOUTHERLY WATERS EDGE OF LAKE HARRIS; THENCE EASTERLY ALONG SAID SOUTHERLY WATERS EDGE OF LAKE HARRIS TO POINT "A".

LESS any portion conveyed in those certain deeds recorded in Official Records Book 6019, Page 212 and Official Records Book 6068, Page 2222.

LESS AND EXCEPT COMMERCIAL 1

A PORTION OF GOVERNMENT LOTS 2, 8, AND 9 LYING WESTERLY OF HIGHWAY 19, ALL LYING IN SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: AS A POINT OF REFERENCE COMMENCE AT SOUTHWEST CORNER OF THE SOUTHWEST ¼ OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA AND PROCEED N 00°53'14" E, ALONG THE WEST BOUNDARY OF THE SOUTHWEST 1/4 OF SAID SECTION 23, A DISTANCE OF 1171.08 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF COUNTY ROAD 48 SAID POINT LYING ON A CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 5679.58 FEET AND A CHORD BEARING AND DISTANCE OF S 69°35'43" E, A DISTANCE OF 1186.12 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE LEFT AND SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 1188.29 FEET; THENCE S 75°35'20" E, ALONG SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 1460.31 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 2341.83 FEET AND A CHORD BEARING AND DISTANCE OF S 72°35'58" E, A DISTANCE OF 223.25 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE RIGHT AND ALONG SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 223.33 FEET; THENCE LEAVING SAID NORTHERLY RIGHT OF WAY LINE, N 15°36'38" E, A DISTANCE OF 52.62 FEET; THENCE N 75°08'12" E, A DISTANCE OF 258.80 FEET TO THE POINT OF BEGINNING; THENCE N 15°36'16" E, A DISTANCE OF 306.32 FEET; THENCE N 60°15'03" E, A DISTANCE OF 218.37 FEET; THENCE N 46°59'01" E, A DISTANCE OF 705.92 FEET; THENCE S 43°00'59" E, A DISTANCE OF 404.25 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 100.00 FEET AND A CHORD BEARING AND DISTANCE OF S 27°52'48" E, A DISTANCE OF 52.22 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE RIGHT, A DISTANCE OF 52.84 FEET TO A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 120.00 FEET AND A CHORD BEARING AND DISTANCE OF S 27°52'48" E, A DISTANCE OF 62.67 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE LEFT, A DISTANCE OF 63.40 FEET; THENCE S 43°00'59" E, A DISTANCE OF 125.00 FEET TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF STATE ROAD 19; THENCE S 46°59'01" W, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 650.20 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD 19; THENCE S 75°06'54" W, ALONG SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 210.88; THENCE LEAVING SAID NORTHERLY RIGHT OF WAY LINE, N 41°20'52" W, A DISTANCE OF 270.98 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE NORTHWESTERLY HAVING A RADIUS OF 133.42 FEET AND A CHORD BEARING AND DISTANCE OF S 62°15'27" W, A DISTANCE OF 62.77 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE RIGHT, A DISTANCE OF 63.36 FEET; THENCE S 75°51'45" W, A DISTANCE OF 298.03 FEET; THENCE S 75°08'12" W, A DISTANCE OF 229.89 FEET; THENCE S 15°36'38" W, A DISTANCE OF 28.52 FEET TO A POINT ON THE AFOREMENTIONED NORTHERLY RIGHT OF WAY LINE OF COUNTY ROAD 48 AND A POINT ON A CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 2341.83 FEET AND A CHORD BEARING AND DISTANCE OF N 69°15'12" W, A DISTANCE OF 50.20 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE LEFT AND ALONG SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 50.20 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINING 630854 SQUARE FEET OR 14.48 ACRES MORE OR LESS.

LESS AND EXCEPT COMMERCIAL 2

A PORTION OF GOVERNMENT LOT 9 LYING WESTERLY OF HIGHWAY 19, ALL LYING IN SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: AS A POINT OF REFERENCE COMMENCE AT SOUTHWEST CORNER OF THE SOUTHWEST ¼ OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA AND PROCEED N 00°53'14" E, ALONG THE WEST BOUNDARY OF THE SOUTHWEST 1/4 OF SAID SECTION 23, A DISTANCE OF 1171.08 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF COUNTY ROAD 48 SAID POINT LYING ON A CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 5679.58 FEET AND A CHORD BEARING AND DISTANCE OF S 69°35'43" E, A DISTANCE OF 1186.12 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE LEFT AND SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 1188.29 FEET; THENCE S 75°35'20" E, ALONG SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 1460.31 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 2341.83 FEET AND A CHORD BEARING AND DISTANCE OF S 68°56'00" E, A DISTANCE OF 521.94 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE RIGHT AND ALONG SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 523.03 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF STATE ROAD 19; THENCE N 75°06'54" E, ALONG SAID NORTHERLY RIGHT OF WAY LINE, A DISTANCE OF 742.75 FEET TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF STATE ROAD 19; THENCE N 46°59'01" E, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 1328.28 TO THE POINT OF BEGINNING; THENCE LEAVING SAID WESTERLY RIGHT OF WAY LINE, N 89°48'40" W, A DISTANCE OF 738.20; THENCE S 46°59'01" W, A DISTANCE OF 50.00 FEET; THENCE S 43°00'59" E, A DISTANCE OF 269.48 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE NORTHEASTERLY HAVING A RADIUS OF 100.00 FEET AND A CHORD BEARING AND DISTANCE OF S 58°09'10" E, A DISTANCE OF 52.22 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE LEFT, A DISTANCE OF 52.84 FEET TO A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 120.00 FEET AND A CHORD BEARING AND DISTANCE OF S 58°09'10" E, A DISTANCE OF 62.67 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE RIGHT, A DISTANCE OF 63.40 FEET; THENCE S 43°00'59" E, A DISTANCE OF 125.00 FEET TO A POINT ON THE AFOREMENTIONED WESTERLY RIGHT OF WAY OF STATE ROAD 19; THENCE N 46°59'01" E, ALONG SAID RIGHT OF WAY LINE, A DISTANCE OF 558.08 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINING 155,772 SQUARE FEET OR 3.58 ACRES MORE OR LESS.

LESS AND EXCEPT ACCESS EASEMENT

COMMENCE AT THE NORTHEAST CORNER OF THE SOUTHEAST 1/4 SECTION 23-20-25; THENCE SOUTH 00°28'42" WEST ALONG THE EAST LINE OF THE SOUTHEAST 1/4 OF SECTION 25, A DISTANCE OF 765.11 FEET TO THE NORTHERLY RIGHT OF WAY OF STATE ROAD 19; THENCE SOUTH 46°59'01" WEST ALONG THE NORTHERLY RIGHT OF WAY, A DISTANCE OF 1,350.12 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 46°59'01" WEST, A DISTANCE OF 120.00 FEET; THENCE NORTH 43°00'59" WEST, A DISTANCE OF 125.00 FEET; TO A POINT OF CURVATURE OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 120.00 FEET AND A CHORD WHICH BEARS NORTH 27°52'48" WEST, A DISTANCE 62.67 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE RIGHT, A DISTANCE OF 63.40 FEET; TO A POINT OF REVERSE CURVATURE OF A CURVE HAVING A RADIUS OF 100.00 FEET AND A CHORD WHICH BEARS NORTH 27°52'48" WEST, AND A DISTANCE OF 52.22 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE LEFT, A DISTANCE OF 52.84 FEET; THENCE NORTH 43°00'59" WEST, A DISTANCE OF 404.25 FEET; THENCE NORTH 46°59'01" EAST, A DISTANCE OF 60.00 FEET; THENCE SOUTH 43°00'59" EAST, A DISTANCE OF 404.25 FEET; TO A POINT OF CURVATURE OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 100.00 FEET AND A CHORD WHICH BEARS SOUTH 58°09'10" EAST, A DISTANCE 52.22 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE LEFT, A DISTANCE OF 52.84 FEET; TO A POINT OF REVERSE CURVATURE OF A CURVE HAVING A RADIUS OF 120.00 FEET AND A CHORD WHICH BEARS SOUTH 58°09'10" EAST, AND A DISTANCE OF 62.67 FEET; THENCE ALONG THE ARC OF SAID CURVE TO THE RIGHT, A DISTANCE OF 63.40 FEET; THENCE SOUTH 43°00'59" EAST, A DISTANCE OF 125.00 FEE; TO THE POINT OF BEGINNING.

CONTAINING 49,343.34 SQUARE FEET OR 1.13 ACRES, MORE OR LESS.

PARCEL 2:

BEGIN AT THE NORTHEAST CORNER OF THE SOUTHEAST ¼ OF SECTION 22, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, RUN SOUTH 89°09'42" WEST ALONG THE NORTH LINE OF THE SOUTHEAST ¼ A DISTANCE OF 330 FEET; THENCE SOUTH 81°15'42" WEST TO THE EAST LINE OF TRACT "I", OF DRAKE POINT PARK REPLAT, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 10, PAGE 63, OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA; THENCE CONTINUE SOUTH 81°15'42" WEST TO THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 48; THENCE SOUTHEASTERLY ALONG SAID NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 48 TO THE EAST LINE OF THE SOUTHEAST ¼ OF SECTION 22; THENCE NORTH ALONG THE EAST LINE OF THE SOUTHEAST ¼ TO THE POINT OF BEGINNING.

PARCEL 3

FROM THE SOUTHEAST CORNER OF THE NORTHEAST ¼ OF SECTION 22, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, RUN SOUTH 89°09'42" WEST ALONG THE SOUTH LINE OF THE NORTHEAST ¼ A DISTANCE OF 330 FEET; THENCE NORTH 00°15'45" WEST 210 FEET; THENCE NORTH 38°44'24" EAST 583.17 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 89°10'02" EAST 1177 FEET TO THE WATERS OF LAKE HARRIS; THENCE SOUTHEASTERLY ALONG SAID WATERS OF LAKE HARRIS TO A POINT ON THE EAST LINE OF THE NORTHWEST ¼ OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA; THENCE SOUTH ALONG THE EAST LINE OF THE NORTHWEST ¼ TO THE SOUTHEAST CORNER OF THE NORTHWEST ¼ OF SECTION 23; THENCE WEST ALONG THE SOUTH LINE OF THE NORTHWEST ¼ TO THE SOUTHWEST CORNER OF THE NORTHWEST ¼ OF SECTION 23, SAID POINT HEREBY DESIGNATED AS POINT "A", RETURN TO THE POINT OF BEGINNING AND RUN SOUTH 38°44'24" WEST TO A POINT ON THE WEST LINE OF THE NORTHWEST ¼ OF SAID SECTION 23; THENCE SOUTH ALONG THE WEST LINE OF THE NORTHWEST ¼ TO POINT "A". LESS AND EXCEPT THAT PORTION DESCRIBED IN THAT CERTAIN CORRECTIVE WARRANTY DEED RECORDED IN BOOK 4103, PAGE 313, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

PARCEL 4:

THAT PART OF THE N.W. 1/4 OF THE S.E. 1/4 OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, IN LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: BEGIN AT A CONCRETE MONUMENT (NO NUMBER) AT THE SOUTHEAST CORNER OF THE N.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, AND RUN N.00°04'21"E ALONG THE EAST LINE OF THE N.W. 1/4 OF THE S.E. 1/4 A DISTANCE OF 1202.20 FEET TO AN IRON PIN LABELED L.B. 707; THENCE CONTINUE N.00°04'21"E ALONG THE EAST LINE OF THE N.W. 1/4 OF THE S.E. 1/4 A DISTANCE OF 112 FEET, MORE OR LESS, TO A POINT ON THE SOUTHERLY WATERS EDGE OF LAKE HARRIS AND A POINT HEREBY DESIGNATED AS POINT "A", RETURN TO THE POINT OF BEGINNING AND RUN S.89°35'28"W. ALONG THE SOUTH LINE OF THE N.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 23 A DISTANCE OF 1100.00 FEET TO AN IRON PIN LABELED L.B. 707; THENCE N.00°27'54"E. 1451.76 FEET TO AN IRON ROD PIN LABELED L.B. 707; THENCE CONTINUE N00°27'54"E, 33 FEET, MORE OR LESS, TO A POINT ON THE SOUTHERLY WATERS EDGE OF LAKE HARRIS; THENCE EASTERLY ALONG AND WITH SAID SOUTHERLY WATERS EDGE OF LAKE HARRIS TO INTERSECT THE AFOREMENTIONED POINT "A".

SUBJECT TO AND TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS LYING OVER, UPON AND THROUGH THE FOLLOWING DESCRIBED PARCEL OF LAND;

THE NORTH 50 FEET OF THE S.E. 1/4 OF THE S.E. 1/4 OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, IN LAKE COUNTY, FLORIDA LYING WEST OF THE NORTHWESTERLY RIGHT-OFWAY LINE OF STATE HIGHWAY NO. 19, AND AN EASEMENT FOR INGRESS AND EGRESS LYING OVER, UPON AND THROUGH THE FOLLOWING DESCRIBED PARCEL OF LAND: BEGIN AT THE SOUTHEAST CORNER OF THE N.W. 1/4 OF THE S.E. 1/4 OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, IN LAKE COUNTY, FLORIDA AND RUN S.00°04'21"W, ALONG THE EAST LINE OF THE N.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 23 A DISTANCE OF 50.00 FEET TO A POINT AT THE BEGINNING OF A CURVE CONCAVE NORTHEASTERLY AND HAVING A RADIUS OF 100.00 FEET AND A RADIAL BEARING OF S.00°02'52"W.; THENCE WESTERLY AND NORTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 28°35'47" AN ARC LENGTH OF 49.91 FEET TO THE END OF SAID CURVE AND THE BEGINNING OF A CURVE CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 100.00 FEET; THENCE NORTHWESTERLY AND WESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 28°35'47" AN ARC LENGTH OF 49.91 FEET TO THE END OF SAID CURVE; THENCE S.89°35'28" W., PARALLEL WITH THE SOUTH LINE OF THE N.W. 1/4 OF THE S.E. 1/4 OF THE AFOREMENTIONED SECTION 23 A DISTANCE OF 1029.81 FEET; THENCE N.00°27'54"E., 1510 FEET, MORE OR LESS TO A POINT ON THE SOUTHERLY WATERS EDGE OF LAKE HARRIS AND A POINT HEREBY DESIGNATED AS POINT "A"; RETURN TO THE POINT OF BEGINNING AND RUN N.00°04'21"E LONG THE EAST LINE OF THE N.W. 1/4 OF THE S.E. 1/4 OF THE AFOREMENTIONED SECTION 23 A DISTANCE OF 25.00 FEET; THENCE S.89°35"28"W., PARALLEL WITH THE SOUTH LINE OF THE N.W. 1/4 OF THE S.E. 1/4 A DISTANCE OF 1074.82 FEET; THENCE N.00°27'54"E., 1459 FEET, MORE OR LESS, TO A POINT ON THE SOUTHERLY WATERS EDGE OF LAKE HARRIS; THENCE WESTERLY ALONG AND WITH SAID SOUTHERLY WATERS EDGE OF LAKE HARRIS TO INTERSECT THE AFOREMENTIONED POINT "A".

PARCEL 5:

BEGIN AT THE SOUTHEAST CORNER OF THE NORTHEAST 1/4 OF SECTION 22, TOWNSHIP 20 SOUTH, RANGE 25 EAST, LAKE COUNTY, FLORIDA, RUN SOUTH 89°09'42" WEST ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 A DISTANCE OF 330 FEET; THENCE NORTH 00°15'45" WEST, 210 FEET; THENCE NORTH 38°44'24" EAST TO A POINT ON THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 22; THENCE SOUTH ALONG THE EAST LINE OF THE NORTHEAST 1/4 TO THE POINT OF BEGINNING. LESS AND EXCEPT THAT PORTION DESCRIBED IN THAT CERTAIN CORRECTIVE WARRANTY DEED RECORDED IN BOOK 4103, PAGE 313, PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

PARCEL 6:

THAT PART OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, IN LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCE AT A CONCRETE MONUMENT (NO NUMBER) AT THE SOUTHEAST CORNER OF THE NORTHEAST 1/4 OF SECTION 22, TOWNSHIP 20 SOUTH, RANGE 25 EAST, IN LAKE COUNTY, FLORIDA, SAID POINT ALSO BEING THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 25 EAST, IN LAKE COUNTY, FLORIDA, RUN S.89°52'11" W. ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 OF SECTION 22, A DISTANCE OF 330.00 FEET TO AN IRON PIPE LABELED LB707; THENCE N.00°09'33"E., 210.05 FEET TO A CONCRETE MONUMENT LABELED LS1916; THENCE N.39°31'51" E., 583.79 FEET TO AN IRON PIN LABELED LB7514; THENCE N.89°52'31"E., 468.45 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION, FROM SAID POINT OF BEGINNING RUN N.70°57'18"E., 519 FEET MORE OR LESS TO A POINT ON THE SOUTHWESTERLY WATERS EDGE OF LAKE HARRIS AND A POINT HEREBY DESIGNATED AS POINT "A", RETURN TO THE POINT OF BEGINNING AND RUN N.89°52'31"E., 708.81 FEET TO AN IRON PIN LABELED LB7514; THENCE CONTINUE N.89°52'31"E., 30 FEET MORE OR LESS TO A POINT ON THE SOUTHWESTERLY WATERS EDGE OF LAKE HARRIS; THENCE NORTHWESTERLY ALONG AND WITH SAID SOUTHWESTERLY WATERS EDGE OF LAKE HARRIS TO INTERSECT THE AFOREMENTIONED POINT "A".

OVERALL PARCEL TO THE BOUNDARY CLOSURE LINE CONTAINS **9,592,251.16** SQUARE FEET OR **220.21** ACRES MORE OR LESS

PRELIMINARY SUBDIVISION PLAN FOR LAKE HILLS

PARCELS: 23-20-25-0004-000-00200, 22-20-25-0004-000-01000, 15-20-25-0101-001-00000, 22-20-25-0001-000-01400, 23-20-25-0002-000-01100, 23-20-25-0002-000-00600, 23-20-25-0004-000-01000

HOWEY IN THE HILLS, FLORIDA

FOR

READER COMMUNITIES

5850 TG LEE BOULEVARD, SUITE 200
ORLANDO, FL. 32822
(407) 856-4899

MADDEN MOORHEAD & STOKES, LLC
CIVIL ENGINEERS

431 E. HORATIO AVENUE, SUITE 260
MAITLAND, FLORIDA 32751
PHONE (407) 629-8330
FAX (407) 629-8336

PROJECT TEAM MEMBERS:

OWNER:
LAKE HARRIS (ORLANDO) ASLI VII OWNER #1, LLC
LAKE HARRIS (ORLANDO) ASLI VII OWNER #2, LLC
LAKE HARRIS (ORLANDO) ASLI VII OWNER #3, LLC
923 N. PENNSYLVANIA AVE
WINTER PARK, FL 32789

DEVELOPER:
READER COMMUNITIES
5850 TG LEE BOULEVARD, SUITE 200
ORLANDO, FL. 32822
PHONE: (407) 856-4899

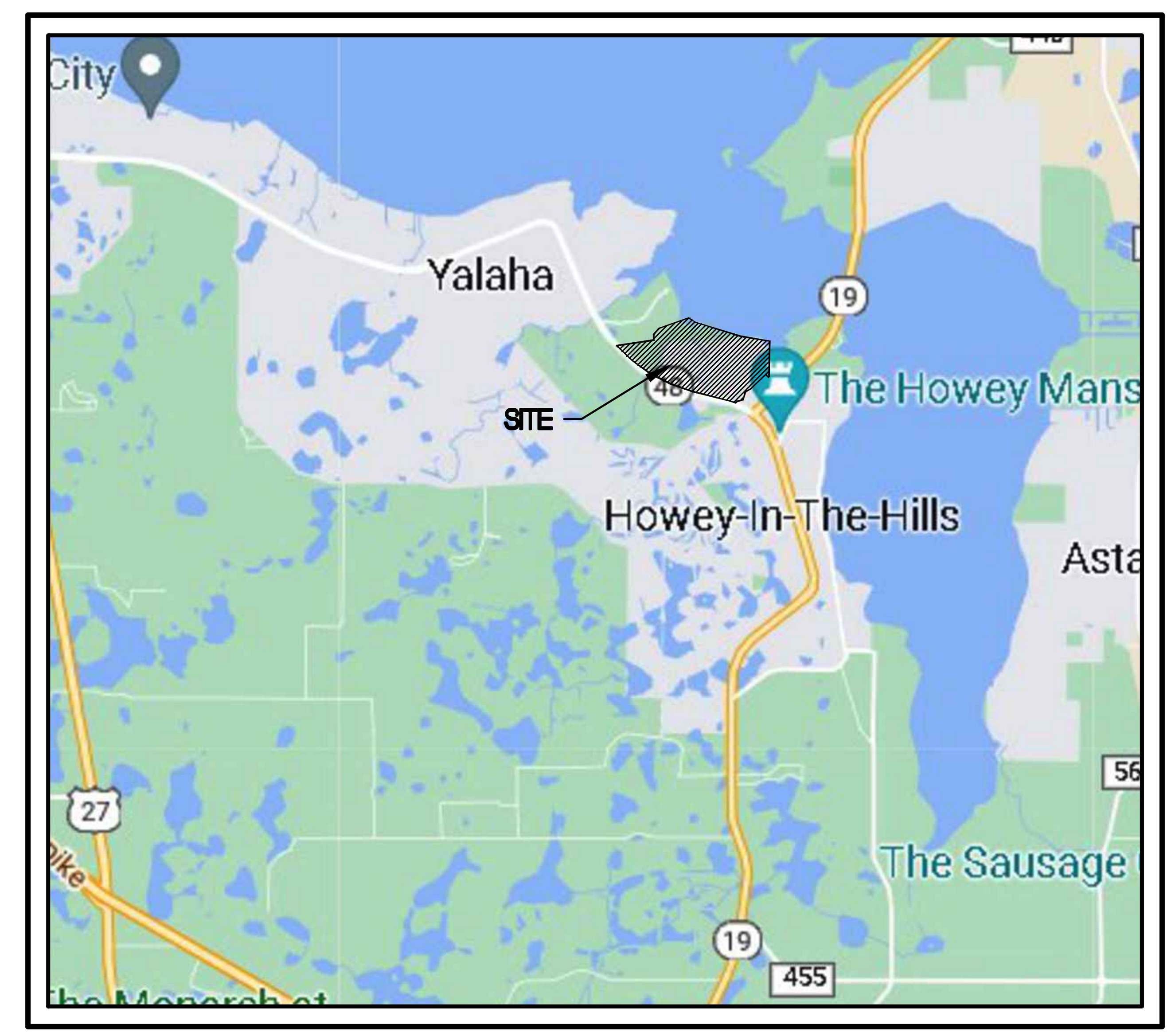
ENGINEER:
MADDEN, MOORHEAD, & STOKES, LLC.
431 E HORATIO AVE, STE 260
MAITLAND, FL 32751
PHONE: (407) 629-8330

SURVEYOR:
HAMILTON ENGINEERING & SURVEYING, LLC.
3409 W. LEMON STREET
TAMPA, FLORIDA 33609
PHONE: (813) 250-3535

SHEET INDEX	
Sheet #	Sheet Title
C0.00	COVER SHEET
C0.01	NOTES AND DETAILS
C1.00	OVERALL PRELIMINARY SUBDIVISION PLAN
C1.01	PRELIMINARY SUBDIVISON PLAN
C1.02	PRELIMINARY SUBDIVISON PLAN
C1.03	PRELIMINARY SUBDIVISON PLAN
C1.04	PRELIMINARY SUBDIVISON PLAN
C2.01	PRELIMINARY TREE REMOVAL TABLE

VICINITY MAP

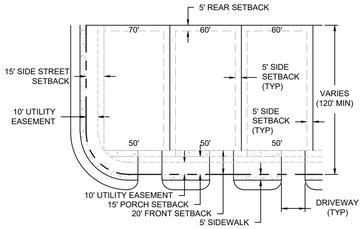
SCALE: 1"=5000'



DAVID A. STOKES, P.E. #66527
CERTIFICATE OF AUTHORIZATION NO. CA-0007723

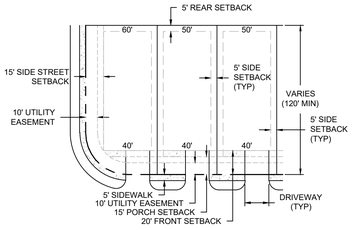
LAKE HILLS AT LAKE HARRIS PSP (JOB NO. 23019)

h:\data\23019-lake hills pd\eng\psp\c0.00 cover sheet.dwg



NOTE:
60'+ COTTAGE LOT - 7,200 SF MIN. LOT SIZE. 75% LOT COVERAGE MAX. FRONT/SIDE GARAGE.

60'+ COTTAGE HOME LOTS

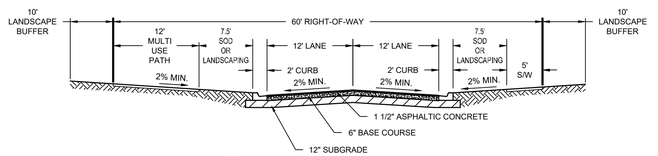


NOTE:
50' COTTAGE LOT - 6,000 SF MIN. LOT SIZE. 75% LOT COVERAGE MAX. FRONT/SIDE GARAGE.

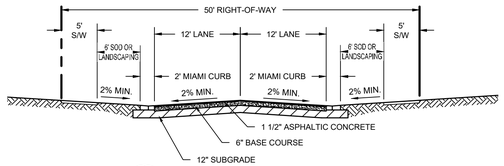
50' COTTAGE HOME LOTS

NOTE:
PAIRED HOME LOT - 4,800 SF MIN. LOT SIZE. 90% LOT COVERAGE MAX. FRONT GARAGE.

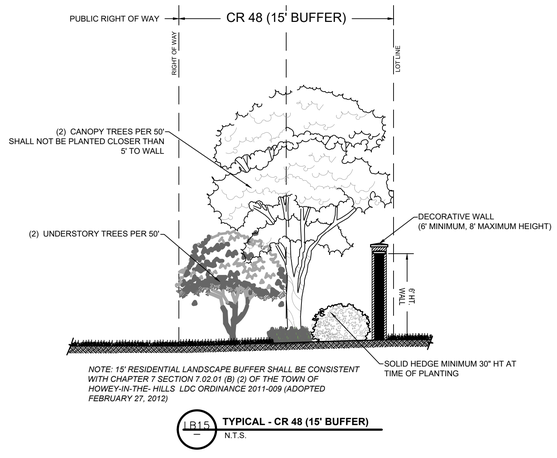
PAIRED HOME LOTS



RW60 — **TYPICAL 60' RIGHT OF WAY SECTION - MAIN BLVD**
N.T.S.

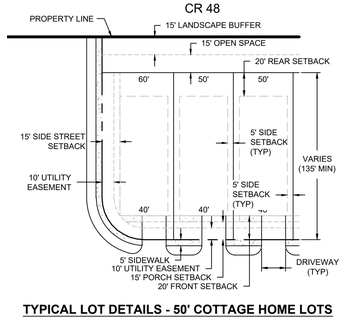


RW50 — **TYPICAL 50' RIGHT OF WAY SECTION**
N.T.S.



NOTE: 15' RESIDENTIAL LANDSCAPE BUFFER SHALL BE CONSISTENT WITH CHAPTER 7 SECTION 7.02.01 (B) (2) OF THE TOWN OF HOWEY-IN-THE- HILLS LDC ORDINANCE 2011-009 (ADOPTED FEBRUARY 27, 2012)

LB15 — **TYPICAL - CR 48 (15' BUFFER)**
N.T.S.



TYPICAL LOT DETAILS - 50' COTTAGE HOME LOTS ALONG C.R. 48

LAND USE RANGES PERMITTED IN PUD					
TOTAL PROJECT AREA			=	264.00	AC
PUD NET DEVELOPABLE LAND AREA			=	195.00	AC
INSTITUTIONAL			=	22.00	AC
CITY WATER TREATMENT PLANT			=	3.23	AC
PUBLIC/CIVIC USE	MIN	5%	=	2.93	AC
**5% OF NON RESIDENTIAL AREA*	PROVIDED		=	25.23	AC
PUBLIC PARK	MIN		=	4.00	AC
	PROVIDED		=	4.21	AC
RESIDENTIAL	MIN	70%	=	136.50	AC
	MAX	85%	=	165.75	AC
	PROVIDED		=	144.58	AC
TOTAL NON-RESIDENTIAL AREAS	MIN	15%	=	29.25	AC
	MAX	30%	=	58.50	AC
	PROVIDED		=	29.44	AC
OPEN SPACE	MIN	25%	=	66.00	AC
	PROVIDED BY RESIDENTIAL		=	55.05	AC
	PROVIDED BY OTHER USES		=	10.95	AC
RECREATIONAL	MIN	10%	=	5.10	AC
MIN 10% OF USEABLE OPEN SPACE	PROVIDED BY RESIDENTIAL		=	10.57	AC
	PROVIDED BY OTHER USES		=	TBD	AC

RESIDENTIAL PROJECT NET DEVELOPABLE AREA CALCULATION				
TOTAL PROJECT AREA		=	220.21	AC
WETLANDS	1	=	9.40	AC
	2	=	1.17	AC
	3	=	4.72	AC
	4	=	9.17	AC
	5	=	5.96	AC
	6	=	0.19	AC
	TOTAL	=	30.61	AC
WETLAND AREA FOR OPEN SPACE (50%)		=	15.31	AC
WETLAND AREA NOT USED AS OPEN SPACE		=	15.31	AC
SURFACE WATER	1	=	0.19	AC
	2	=	0.89	AC
	3	=	0.53	AC
	4	=	1.19	AC
	5	=	0.34	AC
	6	=	0.49	AC
	7	=	1.64	AC
	TOTAL	=	5.27	AC
REQUIRED OPEN SPACE (25%)		=	55.05	AC

NET DEVELOPABLE AREA = TOTAL AREA - WETLANDS NOT USED AS OPEN SPACE - SURFACE WATER - REQUIRED OPEN SPACE

RESIDENTIAL NET DEVELOPABLE AREA	=	144.58	AC

NOTE: ALL AREAS BASED ON PREDEVELOPMENT SURVEY

PUD NET DEVELOPABLE AREA CALCULATION			
TOTAL PROJECT AREA	=	264.00	AC
WETLANDS	=	30.00	AC
SURFACE WATER	=	3.00	AC
REQUIRED OPEN SPACE (25%)	=	66.00	AC

NET DEVELOPABLE AREA = TOTAL AREA - WETLANDS NOT USED AS OPEN SPACE - SURFACE WATER - REQUIRED OPEN SPACE

PUD NET DEVELOPABLE AREA	=	195.00	AC

NOTE: ALL AREAS TAKEN FROM PUD CONCEPTUAL LAND USE PLAN LOCATED IN ATTACHMENT B OF THE DEVELOPMENT AGREEMENT FOR THE LAKE HILLS PUD

NOTE PUD NOTED ALL WETLANDS WERE USED AS OPEN SPACE SINCE THEY MADE UP LESS THAN 50% OF REQUIRED OPEN SPACE

TRACT TABLE

ID	LAND USE	OWNERSHIP	MAINTENANCE	AREA	(AC/%)
A	RIGHT-OF-WAY	H.O.A.	H.O.A.	32.5	14.76%
B1	DRY POND/OPEN SPACE	H.O.A.	H.O.A.	5.3	2.41%
B2	POND/OPEN SPACE	H.O.A.	H.O.A.	2.34	1.06%
B3	POND/OPEN SPACE	H.O.A.	H.O.A.	1.93	0.88%
B4	DRY POND/OPEN SPACE	H.O.A.	H.O.A.	3.12	1.42%
B5	POND/OPEN SPACE	H.O.A.	H.O.A.	0.97	0.44%
B6	POND/OPEN SPACE	H.O.A.	H.O.A.	6.21	2.82%
B7	POND/OPEN SPACE	H.O.A.	H.O.A.	0.67	0.30%
B8	POND/OPEN SPACE	H.O.A.	H.O.A.	4.59	2.08%
B9	POND/OPEN SPACE	H.O.A.	H.O.A.	1.9	0.86%
B10	POND/OPEN SPACE	H.O.A.	H.O.A.	1.49	0.68%
B11	POND/OPEN SPACE	H.O.A.	H.O.A.	1.58	0.72%
B12	POND/OPEN SPACE	H.O.A.	H.O.A.	1.1	0.50%
B13	POND/OPEN SPACE	H.O.A.	H.O.A.	2.69	1.22%
C1	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	5.5	2.50%
C2	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	9.07	4.12%
C3	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	8.44	3.83%
C4	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	0.81	0.37%
C5	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	2.12	0.96%
C6	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	1.17	0.53%
C7	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	4.72	2.14%
D1	UPLAND BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.54	0.25%
D2	UPLAND BUFFER / OPEN SPACE	H.O.A.	H.O.A.	5.19	2.36%
D3	UPLAND BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.69	0.31%
D4	UPLAND BUFFER / OPEN SPACE	H.O.A.	H.O.A.	1.81	0.82%
E1	OPEN SPACE	H.O.A.	H.O.A.	0.15	0.07%
E2	OPEN SPACE	H.O.A.	H.O.A.	0.31	0.14%
E3	OPEN SPACE	H.O.A.	H.O.A.	0.16	0.07%
E4	OPEN SPACE	H.O.A.	H.O.A.	0.38	0.17%
E5	OPEN SPACE	H.O.A.	H.O.A.	0.34	0.15%
E6	OPEN SPACE	H.O.A.	H.O.A.	0.05	0.02%
E7	OPEN SPACE	H.O.A.	H.O.A.	0.29	0.13%
E8	OPEN SPACE	H.O.A.	H.O.A.	0.14	0.06%
E9	OPEN SPACE	H.O.A.	H.O.A.	1.2	0.54%
E10	OPEN SPACE	H.O.A.	H.O.A.	0.25	0.11%
F1	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.3	0.14%
F2	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.74	0.34%
F3	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.14	0.06%
F4	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.02	0.01%
F5	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.13	0.06%
F6	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.11	0.05%
F7	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.15	0.07%
F8	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.1	0.05%
F9	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.14	0.06%
F10	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.14	0.06%
F11	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.25	0.11%
F12	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.13	0.06%
F13	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.12	0.05%
F14	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.11	0.05%
F15	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.19	0.09%
F16	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.19	0.09%
G	RECREATION CENTER	H.O.A.	H.O.A.	6.36	2.89%
H1	PUBLIC PARK / OPEN SPACE/POND	TOWN OF HOWEY-IN-THE-HILLS		4.21	1.91%
H2	OPEN SPACE	SELLER-RETAINED		0.42	0.19%
H3	OPEN SPACE	SELLER-RETAINED		0.62	0.28%
	RESIDENTIAL	PRIVATE	PRIVATE	95.92	43.56%
	TOTAL			220.21	100.00%

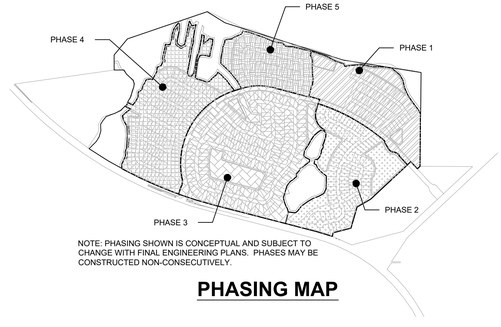
OPEN SPACE TABLE

ID	LAND USE	OWNERSHIP	MAINTENANCE	OPEN SPACE	(AC/%)
A	RIGHT-OF-WAY	H.O.A.	H.O.A.	0	0.00%
B1	DRY POND/OPEN SPACE	H.O.A.	H.O.A.	5.3	2.41%
B2	POND/OPEN SPACE	H.O.A.	H.O.A.	0.28	0.13%
B3	POND/OPEN SPACE	H.O.A.	H.O.A.	0.44	0.20%
B4	DRY POND/OPEN SPACE	H.O.A.	H.O.A.	3.12	1.42%
B5	POND/OPEN SPACE	H.O.A.	H.O.A.	0.29	0.13%
B6	POND/OPEN SPACE	H.O.A.	H.O.A.	0.89	0.40%
B7	POND/OPEN SPACE	H.O.A.	H.O.A.	0.18	0.08%
B8	POND/OPEN SPACE	H.O.A.	H.O.A.	0.29	0.13%
B9	POND/OPEN SPACE	H.O.A.	H.O.A.	0.51	0.23%
B10	POND/OPEN SPACE	H.O.A.	H.O.A.	0.27	0.12%
B11	POND/OPEN SPACE	H.O.A.	H.O.A.	0.31	0.14%
B12	POND/OPEN SPACE	H.O.A.	H.O.A.	0.03	0.01%
B13	POND/OPEN SPACE	H.O.A.	H.O.A.	0.73	0.33%
C1	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	5.5	2.50%
C2	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	9.07	4.12%
C3	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	8.44	3.83%
C4	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	0.81	0.37%
C5	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	2.12	0.96%
C6	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	1.17	0.53%
C7	WETLAND CONSERVATION / OPEN SPACE	H.O.A.	H.O.A.	4.72	2.14%
D1	UPLAND BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.54	0.25%
D2	UPLAND BUFFER / OPEN SPACE	H.O.A.	H.O.A.	5.19	2.36%
D3	UPLAND BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.69	0.31%
D4	UPLAND BUFFER / OPEN SPACE	H.O.A.	H.O.A.	1.81	0.82%
E1	OPEN SPACE	H.O.A.	H.O.A.	0.15	0.07%
E2	OPEN SPACE	H.O.A.	H.O.A.	0.31	0.14%
E3	OPEN SPACE	H.O.A.	H.O.A.	0.16	0.07%
E4	OPEN SPACE	H.O.A.	H.O.A.	0.38	0.17%
E5	OPEN SPACE	H.O.A.	H.O.A.	0.34	0.15%
E6	OPEN SPACE	H.O.A.	H.O.A.	0.05	0.02%
E7	OPEN SPACE	H.O.A.	H.O.A.	0.29	0.13%
E8	OPEN SPACE	H.O.A.	H.O.A.	0.14	0.06%
E9	OPEN SPACE	H.O.A.	H.O.A.	1.2	0.54%
E10	OPEN SPACE	H.O.A.	H.O.A.	0.25	0.11%
F1	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.3	0.14%
F2	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.74	0.34%
F3	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.14	0.06%
F4	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.02	0.01%
F5	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.13	0.06%
F6	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.11	0.05%
F7	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.15	0.07%
F8	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.1	0.05%
F9	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.14	0.06%
F10	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.14	0.06%
F11	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.25	0.11%
F12	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.13	0.06%
F13	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.12	0.05%
F14	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.11	0.05%
F15	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.19	0.09%
F16	LANDSCAPE BUFFER / OPEN SPACE	H.O.A.	H.O.A.	0.19	0.09%
G	RECREATION CENTER	H.O.A.	H.O.A.	6.36	2.89%
H1	PUBLIC PARK / OPEN SPACE/POND	TOWN OF HOWEY-IN-THE-HILLS		3.58	1.63%
H2	OPEN SPACE	SELLER-RETAINED		0.42	0.19%
H3	OPEN SPACE	SELLER-RETAINED		0.62	0.28%
	RESIDENTIAL	PRIVATE	PRIVATE	0	0.00%
	TOTAL			69.91	31.75%

PROPOSED LOT COUNT:

LOT	LOT TYPE	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	TOTAL
40'	PAIRED HOME	0	18	42	38	0	98
50'	SINGLE FAMILY	31	44	149	60	37	321
60'	SINGLE FAMILY	26	32	25	36	33	152
TOTAL		57	94	216	134	70	571

NOTE: PHASING SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE WITH FINAL ENGINEERING PLANS. PHASES MAY BE CONSTRUCTED NON-CONSECUTIVELY.



NOTE: PHASING SHOWN IS CONCEPTUAL AND SUBJECT TO CHANGE WITH FINAL ENGINEERING PLANS. PHASES MAY BE CONSTRUCTED NON-CONSECUTIVELY.

PHASING MAP

MADDEN
MOORHEAD & STOKES, LLC
CIVIL ENGINEERS
431 E. Horatio Avenue
Suite 260
Maitland, Florida 32751
(407) 629-8330

NOTES AND DETAILS
FOR
LAKE HILLS
LAKE COUNTY, FLORIDA
TOWN OF HOWEY-IN-THE-HILLS

LAKE HILLS
READER COMMUNITIES
5850 TG LEE BOULEVARD, SUITE 200
ORLANDO, FL 32822
(407) 856-4899

ENGINEER IN CHARGE:
DAVID A. STOKES, P.E. #66527
DATE: December 22, 2023
CERTIFICATE OF AUTHORIZATION NO. EB-0007723

	DATE	REVISIONS
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JOB # 23019
DATE: 10/27/2023
SCALE: N.T.S.
DESIGNED BY: JV
DRAWN BY: JV
APPROVED BY: DAS

C0.01

SITE DATA:

PARCEL ID:	23-20-25-0004-000-00200, 22-20-25-0004-000-01000, 15-20-25-0101-001-00000, 22-20-25-0001-000-01400, 23-20-25-0002-000-01100, 23-20-25-0002-000-00600, 23-20-25-0004-000-01000
JURISDICTION:	HOWEY-IN-THE-HILLS
ZONED:	PUD (LAKE HILLS 2011-008)
GROSS SITE AREA:	220.21 ACRES ±
TOTAL NUMBER OF LOTS:	571 LOTS
DENSITY:	2.59 DU/AC
OPEN SPACE REQUIRED:	55.33 AC (MIN. 25% OF GROSS AREA)
OPEN SPACE PROVIDED:	79.02 AC (36.0%)

LEGEND:

- WETLAND TO BE PRESERVED
- WETLAND IMPACT (2.74 AC)
- WETLAND BUFFER/OPEN SPACE
- OPEN SPACE/LANDSCAPE BUFFER
- TREE TO REMAIN
- TREE TO BE REMOVED

50' COTTAGE HOME LOT - (40'X85' PAD) TYPICAL	321 UNITS	
60'+ COTTAGE HOME LOT - (50'X85' PAD) TYPICAL	152 UNITS	
PAIRED HOME LOT - (30'X85' PAD -DUPLEX) TYPICAL	98 UNITS	
TOTAL UNITS -	571 UNITS	

DEVELOPED AREA	220.21 AC	100%
RESIDENTIAL LOTS	45.72 AC	20.8%
ASPHALT AREA:	15.19 AC	6.9%
RECREATION AREA:	6.36 AC	2.9%
12' MULTI-USE PATH:	1.20 AC	0.5%
WETLAND BUFFER:	8.24 AC	3.7%
WETLAND:	31.83 AC	14.4%
POND WET:	21.89 AC	9.9%
POND DRY:	6.40 AC	2.9%
PARK:	4.36 AC	2.0%
OPEN SPACE:	79.02 AC	36.0%
TOTAL PERVIOUS:	89.78 AC	40.9%
TOTAL IMPERVIOUS:	108.54 AC	49.2%
TOTAL WET POND:	21.89 AC.	9.9%

25' WETLAND BUFFER (TYP)
WETLAND LINE (TYP)
50' SHORELINE PROTECTION ZONE
WETLAND
25' WETLAND BUFFER (MIN.)
PRIVATE DOCKS (TYP)
LAKE HARRIS
PED TRAIL
COMMUNITY DOCK
POND B8 4.30 AC.
POND B12 1.07 AC.
POND B9 1.39 AC.
POND B11 1.27 AC.
POND B10 1.22 AC.
COMMUNITY RECREATION/PARK 6.36 AC.
POND B13 1.96 AC.
SCHOOL PARCEL 22.00 AC.
POND B7 0.49 AC.
POND B5 0.68 AC.
60' ROW TO ALLOW FOR 12' MULTI USE TRAIL
50' MIN. BLDG. PAD SETBACK TO WETLAND (TYP)
POND P3 1.49 AC.
POND B2 2.06 AC.
POND B14 0.63 AC.
PUBLIC PARK 4.21 AC. (INCLUDES .63 AC. POND & .26 AC. LS BUFFER)
15' LANDSCAPE BUFFER
GATED ENTRANCE
POND B1 4.55 AC.
BIKE/PED TRAIL
ACCESS/MAINTENANCE/CONSTRUCTION & SIGNAGE EASEMENT
POND B6 5.32 AC.
POND B4 1.86 AC.
COMMERCIAL TRACT
ACCESS TYPE SUBJECT TO CHANGE BASED ON FINAL TIA RECOMMENDATIONS AND FINAL SITE PLAN REVIEW
CR 48
15' LANDSCAPE BUFFER ALONG CR 48
R/O
R/I
WPT TRACT
SR 19

GRAPHIC SCALE
200 0 100 200 400
(IN FEET)
1 inch = 200 ft.

MADDEN
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PRELIMINARY SUBDIVISION PLAN
FOR
LAKE HILLS
LAKE COUNTY, FLORIDA
TOWN OF HOWEY-IN-THE-HILLS

LAKE HILLS
READER COMMUNITIES
5850 TG LEE BOULEVARD, SUITE 200
ORLANDO, FL 32822
(407) 856-4899

ENGINEER IN CHARGE:
DAVID A. STOKES, P.E. #65527
DATE: December 22, 2023
CERTIFICATE OF AUTHORIZATION NO. EB-0007123

	DATE	REVISIONS
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JOB #	23019
DATE:	10/27/2023
SCALE:	1"=200
DESIGNED BY:	JV
DRAWN BY:	JV
APPROVED BY:	DAS

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GRAPHIC SCALE

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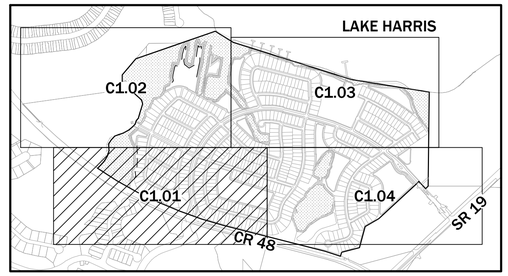
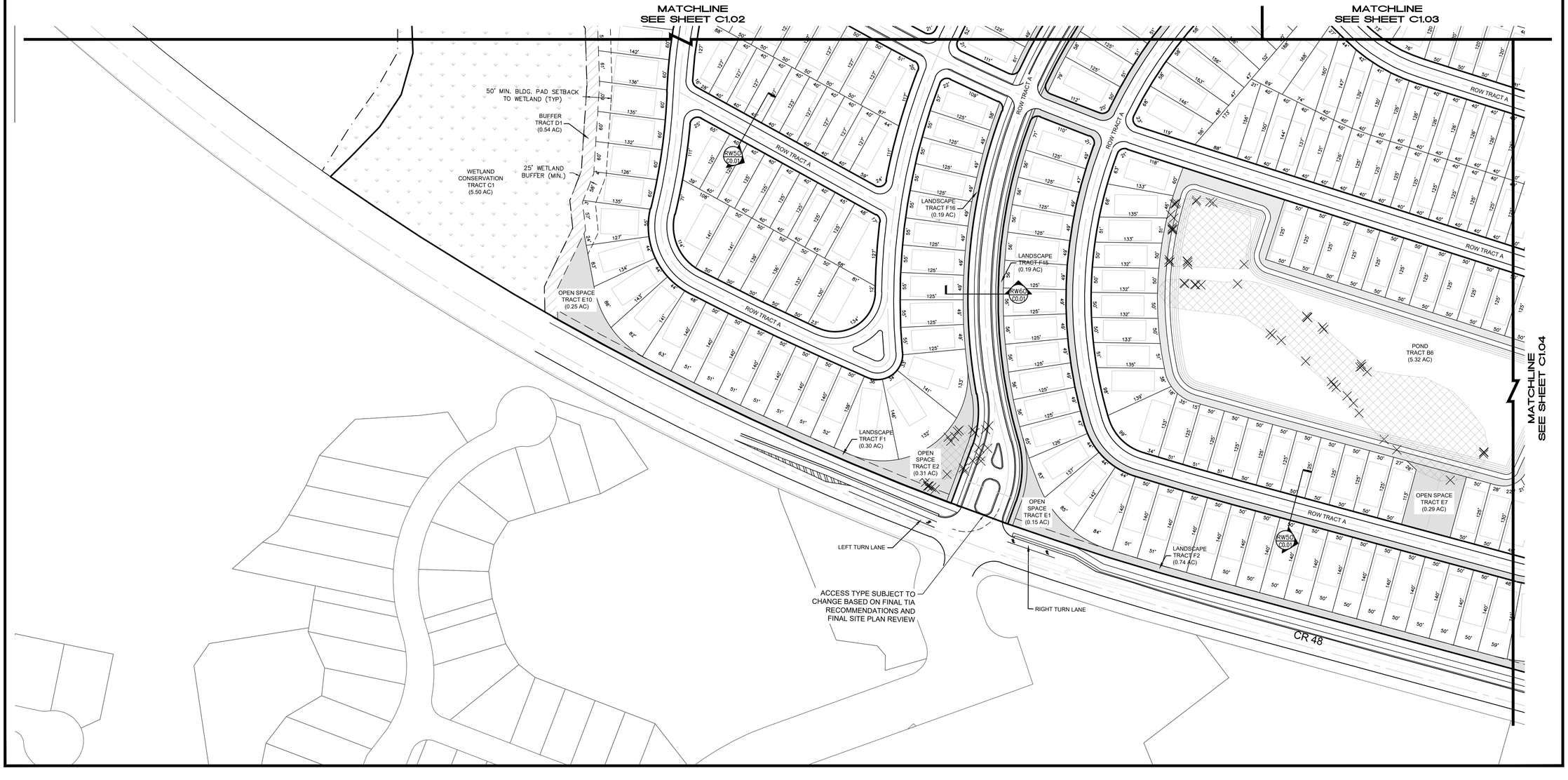
(IN FEET)
1 inch = 100 ft.



KEY MAP
N.T.S.

Tree Legend			
SYMBOL	NAME	SYMBOL	NAME
□	OAK	○	PINE
○	PALM	☼	OTHER
△	DEAD		

NOTE: TREE SIZES IN INCHES



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PRELIMINARY SUBDIVISION PLAN
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LAKE HILLS

LAKE COUNTY, FLORIDA
TOWN OF HOWEY-IN-THE-HILLS

LAKE HILLS
READER COMMUNITIES
5850 TG LEE BOULEVARD, SUITE 200
ORLANDO, FL 32822
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ENGINEER IN CHARGE:

DAVID A. STOKES, P.E. #65527
DATE: December 22, 2023
CERTIFICATE OF AUTHORIZATION NO. EB-0007223

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JOB # 23019
DATE: 10/27/2023
SCALE: 1"=100
DESIGNED BY: JV
DRAWN BY: JV
APPROVED BY: DAS

C1.01

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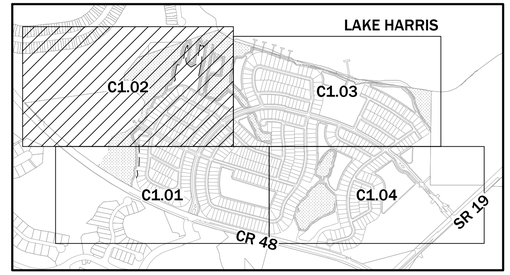
GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch = 100 ft.

Tree Legend			
SYMBOL	NAME	SYMBOL	NAME
□	OAK	◯	PINE
○	PALM	☼	OTHER
△	DEAD		

NOTE: TREE SIZES IN INCHES



KEY MAP
N.T.S.

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PRELIMINARY SUBDIVISION PLAN
FOR
LAKE HILLS

LAKE COUNTY, FLORIDA
TOWN OF HOWEY-IN-THE-HILLS

LAKE HILLS
READER COMMUNITIES
5850 TG LEE BOULEVARD, SUITE 200
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ENGINEER IN CHARGE:
DAVID A. STOKES, P.E. #65527
DATE: December 22, 2023
CERTIFICATE OF AUTHORIZATION NO. EB-0007723

	DATE	REVISIONS
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JOB #	23019
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APPROVED BY:	DAS

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C1.02

GRAPHIC SCALE

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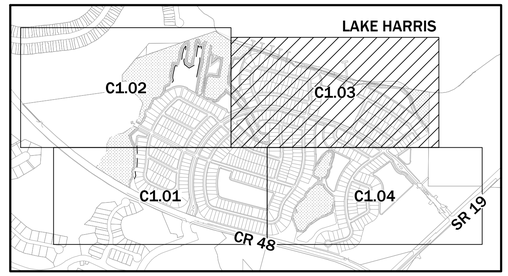
(IN FEET)
1 inch = 100 ft.



KEY MAP
N.T.S.

Tree Legend			
SYMBOL	NAME	SYMBOL	NAME
	OAK		PINE
	PALM		OTHER
	DEAD		

NOTE: TREE SIZES IN INCHES

WETLAND TRACT C3 (8.44 AC)
POND TRACT B9 (1.90 AC)
PED TRAIL
OPEN SPACE TRACT E6 (0.05 AC)
OPEN SPACE TRACT E5 (0.34 AC)
ROW TRACT A
RW50 20.01
POND TRACT B10 (1.49 AC)
BUFFER TRACT D2 (5.48 AC)
50' SHORELINE PROTECTION ZONE
POND TRACT B13 (2.69 AC)
WETLAND TRACT C5 (2.12 AC)
25' WETLAND BUFFER (MIN.)
BUFFER TRACT D2 (5.48 AC)
MATCHLINE SEE SHEET C1.02
POND TRACT B11 (1.58 AC)
LANDSCAPE TRACT F10 (0.14 AC)
LANDSCAPE TRACT F12 (0.13 AC)
LANDSCAPE TRACT F11 (0.25 AC)
RECREATION TRACT G (6.36 AC)
LANDSCAPE TRACT F9 (0.14 AC)
RW60 20.01
POND TRACT B5 (0.97 AC)
OPEN SPACE TRACT E3 (0.16 AC)
TRACT C4 (0.81 AC)
BUFFER TRACT D3 (0.69 AC)
LANDSCAPE TRACT F8 (0.10 AC)
LANDSCAPE TRACT F6 (0.14 AC)
LANDSCAPE TRACT F7 (0.15 AC)
POND TRACT B3 (1.93 AC)
MATCHLINE SEE SHEET C1.01
MATCHLINE SEE SHEET C1.04

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ENGINEER IN CHARGE:
DAVID A. STOKES, P.E. #66527
DATE: December 22, 2023
CERTIFICATE OF AUTHORIZATION NO. EB-0007723

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JOB #	23019
DATE:	10/27/2023
SCALE:	1"=100
DESIGNED BY:	JV
DRAWN BY:	JV
APPROVED BY:	DAS

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C1.03

GRAPHIC SCALE
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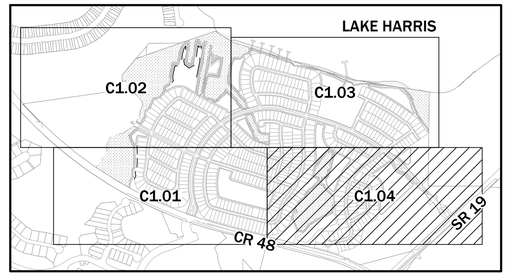
(IN FEET)
1 inch = 100 ft.



KEY MAP
N.T.S.

MATCHLINE SEE SHEET C1.03

MATCHLINE – SEE SHEET C1.01

TRACT B3 (1.93 AC)
ROW TRACT A
25' WETLAND BUFFER (MIN.)
WETLAND TRACT C6 (1.17 AC)
POND TRACT B2 (2.34 AC)
OPEN SPACE TRACT H3 (0.62 AC)
BUFFER TRACT D4 (1.81 AC)
OPEN SPACE TRACT H2 (0.42 AC)
25' WETLAND BUFFER (MIN.)
WETLAND TRACT C7 (4.72 AC)
DRY POND TRACT B4 (3.12 AC)
OPEN SPACE TRACT E9 (1.20 AC)
OPEN SPACE TRACT E4 (0.38 AC)
RW50 (0.01')
RW60 (0.01')
LB15 (0.01')
POND TO BE SHARED WITH PARK & ROADWAY
PUBLIC PARK TRACT H1 (4.21 AC)
LANDSCAPE TRACT F5 (0.13 AC)
BIKE/PED TRAIL
LANDSCAPE TRACT F3 (0.14 AC)
LANDSCAPE TRACT F4 (0.02 AC)
DRY POND TRACT B1 (5.30 AC)
SR 19
ACCESS TYPE SUBJECT TO CHANGE BASED ON FINAL TIA RECOMMENDATIONS AND FINAL SITE PLAN REVIEW

Tree Legend

SYMBOL	NAME	SYMBOL	NAME
□	OAK	◯	PINE
○	PALM	☼	OTHER
△	DEAD		

NOTE: TREE SIZES IN INCHES

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TOWN OF HOWEY-IN-THE-HILLS

LAKE HILLS
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C1.04

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
27264	22	OAK	SAVE
27265	17	OAK	SAVE
27266	10	OAK	SAVE
27267	7	OAK	SAVE
27268	11	OAK	SAVE
27269	7	OAK	SAVE
27270	16	OAK	SAVE
27271	11	OAK	SAVE
27272	16	OAK	SAVE
27273	11	OAK	SAVE
27274	10	OAK	SAVE
27275	8	OAK	SAVE
27276	6	TREE SWEET GUM	SAVE
27277	17	OAK	SAVE
27278	6	TREE SWEET GUM	SAVE
27279	9	OAK	SAVE
27280	9	OAK	SAVE
27281	9	PALM	SAVE
27282	12	OAK	SAVE
27283	11	OAK	SAVE
27284	8	OAK	SAVE
27285	10	OAK	SAVE
27286	18	OAK	REMOVE
27287	32	OAK	SAVE
27288	22	OAK	REMOVE
27289	5	TREE SWEET GUM	REMOVE
27290	10	OAK	REMOVE
27291	9	OAK	REMOVE
27292	9	OAK	REMOVE
27293	25	OAK	REMOVE
27294	11	OAK	REMOVE
27295	10	OAK	REMOVE
27296	10	OAK	REMOVE
27297	9	OAK	REMOVE
27298	10	OAK	REMOVE
27299	8	OAK	REMOVE
27301	13	PALM	SAVE
27302	14	PALM	SAVE
27304	22	OAK	SAVE
27305	6	OAK	SAVE
27306	9	OAK	SAVE
27307	12	PALM	SAVE
27308	10	OAK	SAVE
27309	11	TREE SWEET GUM	SAVE
27310	7	TREE SWEET GUM	SAVE
27312	22	OAK	SAVE
27313	7	OAK	SAVE
27314	24	OAK	REMOVE
27315	14	OAK	SAVE
27317	10	OAK	SAVE
27318	9	OAK	SAVE
27319	10	OAK	SAVE
27320	23	OAK	SAVE
27321	36	OAK	SAVE
27322	26	OAK	REMOVE
27324	14	OAK	REMOVE
27325	24	OAK	REMOVE
27327	17	OAK	REMOVE
27401	8	OAK	SAVE
27403	16	OAK	SAVE
27404	14	OAK	SAVE
27405	7	OAK	SAVE
27406	9	OAK	SAVE
27407	11	OAK	SAVE
27408	7	OAK	SAVE
27410	14	OAK	SAVE
27411	6	OAK	SAVE
27412	17	OAK	SAVE
27413	14	OAK	SAVE
27414	12	OAK	SAVE
27415	11	OAK	SAVE
27417	6	OAK	SAVE
27419	21	OAK	SAVE
27420	16	OAK	SAVE
27421	12	OAK	SAVE
27422	8	OAK	SAVE
27423	10	OAK	SAVE
27424	7	OAK	SAVE
27425	7	OAK	SAVE
27426	7	OAK	SAVE
27427	12	OAK	SAVE
27430	6	PINE	SAVE
27433	36	OAK	SAVE
27434	41	OAK	SAVE
27435	8	OAK	SAVE
27436	8	OAK	SAVE
27437	6	OAK	SAVE
27440	6	PINE	SAVE
27441	8	OAK	SAVE
27442	9	OAK	SAVE
27444	8	OAK	SAVE
27445	8	OAK	SAVE
27446	8	OAK	SAVE
27447	16	OAK	SAVE
27448	13	OAK	SAVE
27451	7	OAK	SAVE
27452	10	OAK	SAVE
27453	8	OAK	SAVE
27454	12	OAK	SAVE
27455	13	OAK	SAVE
27460	12	OAK	SAVE
27463	16	OAK	SAVE
27464	8	OAK	SAVE
27465	16	OAK	SAVE
27466	6	OAK	SAVE
27467	6	OAK	SAVE
27470	11	OAK	SAVE
27471	17	OAK	SAVE
27472	6	OAK	SAVE
27473	8	OAK	SAVE
27474	26	OAK	SAVE
27475	26	OAK	SAVE
27478	33	OAK	SAVE
27484	7	PINE	SAVE
27486	6	PINE	SAVE
27492	6	PINE	SAVE
27496	8	PINE	SAVE
27503	6	PINE	SAVE
27507	6	PINE	SAVE
27523	6	PINE	SAVE
27532	7	PINE	SAVE
27534	8	PINE	SAVE
27535	6	PINE	SAVE
27537	6	PINE	SAVE
27538	7	PINE	SAVE
27539	6	PINE	SAVE
27540	6	PINE	SAVE
27541	6	PINE	SAVE
27542	6	PINE	SAVE
27544	6	PINE	SAVE
27545	6	PINE	SAVE
27546	6	PINE	SAVE
27547	7	PINE	SAVE
27549	7	PINE	SAVE
27551	6	PINE	SAVE
27552	6	PINE	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
27554	6	PINE	SAVE
27555	6	PINE	SAVE
27556	6	PINE	SAVE
27558	6	PINE	SAVE
27559	6	PINE	SAVE
27560	6	PINE	SAVE
27561	7	PINE	SAVE
27562	7	PINE	SAVE
27564	7	PINE	SAVE
27565	7	PINE	SAVE
27568	7	PINE	SAVE
27570	7	PINE	SAVE
27571	6	PINE	SAVE
27575	7	PINE	SAVE
27576	6	PINE	SAVE
27578	6	PINE	SAVE
27580	6	PINE	SAVE
27585	6	PINE	SAVE
27586	7	PINE	SAVE
27589	7	PINE	SAVE
27595	6	PINE	SAVE
27596	6	PINE	SAVE
27597	6	PINE	SAVE
27599	6	PINE	SAVE
27601	6	PINE	SAVE
27604	6	PINE	SAVE
27605	6	PINE	SAVE
27606	7	PINE	SAVE
27608	6	PINE	SAVE
27609	8	PINE	SAVE
27611	6	PINE	SAVE
27613	6	PINE	SAVE
27615	6	PINE	SAVE
27616	7	PINE	SAVE
27701	6	PINE	SAVE
27702	6	PINE	SAVE
27703	12	PALM	SAVE
27704	13	PALM	SAVE
27705	10	OAK	SAVE
27706	14	OAK	SAVE
27707	17	OAK	SAVE
27708	12	OAK	SAVE
27709	8	OAK	SAVE
27710	16	OAK	SAVE
27711	7	OAK	SAVE
27712	11	OAK	SAVE
27713	7	OAK	SAVE
27714	18	OAK	SAVE
27715	24	OAK	SAVE
27716	24	OAK	SAVE
27717	7	OAK	SAVE
27718	6	OAK	SAVE
27719	11	OAK	SAVE
27720	8	OAK	SAVE
27721	9	OAK	SAVE
27722	6	OAK	SAVE
27723	7	OAK	SAVE
27724	7	OAK	SAVE
27725	20	TREE JACA	SAVE
27726	20	OAK	SAVE
27727	24	OAK	SAVE
27728	11	OAK	SAVE
27729	11	OAK	SAVE
27730	7	PALM	SAVE
27731	16	PALM	SAVE
27734	11	OAK	SAVE
27735	17	OAK	SAVE
27736	14	OAK	SAVE
27737	18	OAK	SAVE
27738	10	OAK	SAVE
27739	14	OAK	SAVE
27741	13	PALM	SAVE
27742	31	OAK	SAVE
27748	6	PINE	SAVE
27749	6	PINE	SAVE
27752	6	PINE	SAVE
27753	6	PINE	SAVE
27754	6	PINE	SAVE
27755	6	PINE	SAVE
27756	7	PINE	SAVE
27757	6	PINE	SAVE
27758	6	PINE	SAVE
27760	6	PINE	SAVE
27762	7	PINE	SAVE
27764	6	PINE	SAVE
27775	7	PINE	SAVE
27776	6	PINE	SAVE
27777	6	PINE	SAVE
27780	6	PINE	SAVE
27782	6	PINE	SAVE
27783	6	PINE	SAVE
27785	6	PINE	SAVE
27786	7	PINE	SAVE
27790	6	PINE	SAVE
27791	6	PINE	SAVE
27793	8	PINE	SAVE
27795	7	PINE	SAVE
27796	6	PINE	SAVE
27798	6	PINE	SAVE
27799	7	PINE	SAVE
27801	7	PINE	SAVE
27802	7	PINE	SAVE
27803	6	PINE	SAVE
27805	6	PINE	SAVE
27806	7	PINE	SAVE
27807	6	PINE	SAVE
27809	6	PINE	SAVE
27810	7	PINE	SAVE
27815	6	PINE	SAVE
27818	6	PINE	SAVE
27820	6	PINE	SAVE
27821	7	PINE	SAVE
27822	6	OAK	SAVE
27824	6	PINE	SAVE
27825	6	PINE	SAVE
27827	7	PINE	SAVE
27828	6	PINE	SAVE
27830	7	PINE	SAVE
27833	6	PINE	SAVE
27835	6	PINE	SAVE
27837	6	PINE	SAVE
27839	6	PINE	SAVE
27843	6	PINE	SAVE
27845	6	PINE	SAVE
27847	6	PINE	SAVE
27853	6	PINE	SAVE
27858	6	PINE	SAVE
27861	7	PINE	SAVE
27864	7	PINE	SAVE
27867	6	PINE	SAVE
27868	7	PINE	SAVE
27870	6	PINE	SAVE
27873	6	PINE	SAVE
27875	7	PINE	SAVE
27878	7	PINE	SAVE
27883	6	PINE	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
27884	7	PINE	SAVE
27885	6	PINE	SAVE
27887	8	PINE	SAVE
27889	7	PINE	SAVE
27891	7	PINE	SAVE
27892	7	PINE	SAVE
27895	6	PINE	SAVE
27902	7	PINE	SAVE
27906	8	OAK	SAVE
27907	6	OAK	SAVE
27911	6	PINE	SAVE
27920	10	OAK	REMOVE
27921	8	OAK	REMOVE
27922	9	OAK	REMOVE
27923	13	PALM	REMOVE
27924	13	PALM	REMOVE
27925	11	PALM	REMOVE
27926	13	PALM	REMOVE
27927	12	PALM	REMOVE
27928	9	PINE	REMOVE
27929	7	TREE SWEET GUM	REMOVE
27930	6	TREE SWEET GUM	REMOVE
27931	6	TREE SWEET GUM	REMOVE
27932	13	PALM	REMOVE
27933	12	PALM	REMOVE
27934	13	PALM	REMOVE
27935	6	PINE	REMOVE
27936	11	PALM	REMOVE
27937	19	PINE	REMOVE
27938	11	PINE	REMOVE
27939	9	PINE	REMOVE
27940	8	PINE	REMOVE
27941	14	PINE	REMOVE
27942	10	PALM	REMOVE
27944	10	PALM	REMOVE
27945	7	PALM	REMOVE
28003	6	PINE	SAVE
28004	6	PINE	SAVE
28005	7	PINE	SAVE
28006	7	PINE	SAVE
28007	6	PINE	SAVE
28009	6	PINE	SAVE
28010	6	PINE	SAVE
28011	6	PINE	SAVE
28012	6	PINE	SAVE
28013	6	PINE	SAVE
28014	6	PINE	SAVE
28015	6	PINE	SAVE
28016	7	PINE	SAVE
28017	6	PINE	SAVE
28018	7	PINE	SAVE
28020	7	PINE	SAVE
28021	6	PINE	SAVE
28023	6	PINE	SAVE
28026	6	PINE	SAVE
28027	6	PINE	SAVE
28028	7	PINE	SAVE
28029	6	PINE	SAVE
28033	6	PINE	SAVE
28034	6	PINE	SAVE
28035	7	PINE	SAVE
28037	6	PINE	SAVE
28038	6	PINE	SAVE
28042	7	PINE	SAVE
28044	6	PINE	SAVE
28047	6	PINE	SAVE
28048	6	PINE	SAVE
28050	6	PINE	SAVE
28051	7	PINE	SAVE
28053	6	PINE	SAVE
28055	6	PINE	SAVE
28056	7	PINE	SAVE
28057	6	PINE	SAVE
28058	7	PINE	SAVE
28060	6	PINE	SAVE
28063	6	PINE	SAVE
28064	7	PINE	SAVE
28065	6	PINE	SAVE
28071	6	PINE	SAVE
28072	6	PINE	SAVE
28073	6	PINE	SAVE
28076	6	PINE	SAVE
28077	7	PINE	SAVE
28078	6	PINE	SAVE
28080	6	PINE	SAVE
28082	7	PINE	SAVE
28085	6	PINE	SAVE
28094	6	PINE	SAVE
28095	6	PINE	SAVE
28102	6	PINE	SAVE
28103	6	PINE	SAVE
28105	6	PINE	SAVE
28109	7	PINE	SAVE
28112	6	PINE	SAVE
28114	7	PINE	SAVE
28115	7	PINE	SAVE
28118	6	PINE	SAVE
28120	7	PINE	SAVE
28121	6	PINE	SAVE
28122	6	PINE	SAVE
28123	6	PINE	SAVE
28125	6	PINE	SAVE
28126	6	PINE	SAVE
28127	6	PINE	SAVE
28128	6	PINE	SAVE
28129	6	PINE	SAVE
28131	6	PINE	SAVE
28132	6	PINE	SAVE
28134	7	PINE	SAVE
28136	6	PINE	SAVE
28137	6	PINE	SAVE
28138	7	PINE	SAVE
28139	6	PINE	SAVE
28141	7	PINE	SAVE
28143	6	PINE	SAVE
28144	6	PINE	SAVE
28145	7	PINE	SAVE
28147	6	PINE	SAVE
28149	7	PINE	SAVE
28150	7	PINE	SAVE
28151	7	PINE	SAVE
28153	7	PINE	SAVE
28156	6	PINE	SAVE
28157	6	PINE	SAVE
28158	6	PINE	SAVE
28160	6	PINE	SAVE
28161	7	PINE	SAVE
28162	6	PINE	SAVE
28163	6	PINE	SAVE
28165	7	PINE	SAVE
28166	6	PINE	SAVE
28168	6	PINE	SAVE
28169	6	PINE	SAVE
28171	6	PINE	SAVE
28172	6	PINE	SAVE
28173	6	PINE	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
28175	7	PINE	SAVE
28176	8	PINE	SAVE
28178	6	PINE	SAVE
28179	6	PINE	SAVE
28181	6	PINE	SAVE
28182	6	PINE	SAVE
28183	6	PINE	SAVE
28186	7	PINE	SAVE
28187	6	PINE	SAVE
28189	6	PINE	SAVE
28190	7	PINE	SAVE
28191	6	PINE	SAVE
28192	6	PINE	SAVE
28194	8	PINE	SAVE
28196	6	PINE	SAVE
28197	6	PINE	SAVE
28200	6	OAK	REMOVE
28201	9	OAK	REMOVE
28202	12	OAK	REMOVE
28203	11	OAK	REMOVE
28205	11	OAK	REMOVE
28206	18	OAK	REMOVE
28207	12	OAK	REMOVE
28208	6	OAK	REMOVE
28209	6	OAK	REMOVE
28210	12	OAK	REMOVE
28211	6	OAK	REMOVE
28212	12	OAK	REMOVE
28213	8	OAK	REMOVE
28214	11	OAK	REMOVE
28215	7	OAK	REMOVE
28217	18	OAK	REMOVE
28218	13	OAK	REMOVE
28219	7	OAK	REMOVE
28220	9	OAK	REMOVE
28221	9	OAK	REMOVE
28222	14	OAK	REMOVE
28224	10	OAK	REMOVE
28225	23	OAK	REMOVE
28226	8	OAK	REMOVE
28227	16	OAK	REMOVE
28228	10	OAK	REMOVE
28229	9	OAK	REMOVE
28230	10	OAK	REMOVE
28231	13	OAK	REMOVE
28232	23	OAK	REMOVE
38170	18	PALM	REMOVE
38171	18	PALM	REMOVE
38172	17	PALM	REMOVE
38173	17	PALM	REMOVE
38174	15	PALM	REMOVE
38175	17	PALM	REMOVE
38176	17	PALM	REMOVE
38177	17	PALM	REMOVE
38178	17	PALM	REMOVE
38179	15	PALM	REMOVE
38180	15	PALM	REMOVE
38181	16	PALM	REMOVE
38182	16	PALM	REMOVE
38183	16	PALM	REMOVE
38184	16	PALM	REMOVE
38185	14	PALM	REMOVE
38186	15	PALM	REMOVE
38187	15	PALM	REMOVE
38188	15	PALM	REMOVE
38189	15	PALM	REMOVE
38190	17	PALM	REMOVE
38191	13	PALM	REMOVE
38192	14	PALM	REMOVE
38193	14	PALM	REMOVE
38194	14	PALM	REMOVE
38195	14	PALM	REMOVE
38196	16	PALM	REMOVE
38198	43	OAK	SAVE
38199	27	OAK	SAVE
38202	6	PINE	SAVE
38203	6	PINE	SAVE
38204	6	PINE	SAVE
38205	6	PINE	SAVE
38206	6	PINE	SAVE
38212	6	PINE	SAVE
38215	5	PINE	SAVE
38216	5	PINE	SAVE
38217	6	PINE	SAVE
38219	7	PINE	SAVE
38220	6	PINE	SAVE
38221	5	PINE	SAVE
38223	6	PINE	SAVE
38224	6	PINE	SAVE
38225	7	PINE	SAVE
38226	6	PINE	SAVE
38227	6	PINE	SAVE
38228	5	PINE	SAVE
38229	6	PINE	SAVE
38230	5	PINE	SAVE
38231	6	PINE	SAVE
38232	6	PINE	SAVE
38233	6	PINE	SAVE
38234	6	PINE	SAVE
38235	6	PINE	SAVE
38236	5	PINE	SAVE
38237	6	PINE	SAVE
38238	5	PINE	SAVE
38239	7	PINE	SAVE
38242	7	PINE	SAVE
38243	5	PINE	SAVE
38244	6	PINE	SAVE
38245	6	PINE	SAVE
38246	5	PINE	SAVE
38247	6	PINE	SAVE
38248	6	PINE	SAVE
38249	5	PINE	SAVE
38250	6	PINE	SAVE
38251	6	PINE	SAVE
38252	5	PINE	SAVE
38253	6	PINE	SAVE
38254	5	PINE	SAVE
38255	6	PINE	SAVE
38256	6	PINE	SAVE
38257	5	PINE	SAVE
38258	6	PINE	SAVE
38259	5	PINE	SAVE
38260	6	PINE	SAVE
38261	5	PINE	SAVE
38262	5	PINE	SAVE
38263	5	PINE	SAVE
38264	5	PINE	SAVE
38265	6	PINE	SAVE
38266	5	PINE	SAVE
38267	5	PINE	SAVE
38268	6	PINE	SAVE
38269	5	PINE	SAVE
38270	5	PINE	SAVE
38271	5	PINE	SAVE
38272	7	PINE	SAVE
38273	7	PINE	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
38274	6	PINE	SAVE
38275	5	PINE	SAVE
38276	5	PINE	SAVE
38277	6	PINE	SAVE
38278	6	PINE	SAVE
38279	6	PINE	SAVE
38280	7	PINE	SAVE
38281	6	PINE	SAVE
38282	6	PINE	SAVE
38283	5	PINE	SAVE
38285	5	PINE	SAVE
38286	5	PINE	SAVE
38287	6	PINE	SAVE
38288	5	PINE	SAVE
38289	5	PINE	SAVE
38290	5	PINE	SAVE
38291	6	PINE	SAVE
38292	5	PINE	SAVE
38293	6	PINE	SAVE
38294	6	PINE	SAVE
38295	6	PINE	SAVE
38296	5	PINE	SAVE
38297	6	PINE	SAVE
38298	6	PINE	SAVE
38300	6	PINE	SAVE
38301	5	PINE	SAVE
38302	6	PINE	SAVE
38303	6	PINE	SAVE
38304	5	PINE	SAVE
38305	6	PINE	SAVE
38306	5	PINE	SAVE
38307	6	PINE	SAVE
38308	6	PINE	SAVE
38309	6	PINE	SAVE
38310	5	PINE	SAVE
38311	5	PINE	SAVE
38312	6	PINE	SAVE
38313	5	PINE	SAVE
38314	8	PINE	SAVE
38315	5	PINE	SAVE
38316	5	PINE	SAVE
38317	8	PINE	SAVE
38318	5	PINE	SAVE
38319	6	PINE	SAVE
38320	6	PINE	SAVE
38321	5	PINE	SAVE
38322	5	PINE	SAVE
38323	6	PINE	SAVE
38324	6	PINE	SAVE
38325	5	PINE	SAVE
38326	5	PINE	SAVE
38327	6	PINE	SAVE
38328	6	PINE	SAVE
38329	6	PINE	SAVE
38330	5	PINE	SAVE
38331	7	PINE	SAVE
38332	5	PINE	SAVE
38333	7	PINE	SAVE
38334	5	PINE	SAVE
38335	6	PINE	SAVE
38336	5	PINE	SAVE
38337	6	PINE	SAVE
38338	5	PINE	SAVE
38339	5	PINE	SAVE
38340	6	PINE	SAVE
38341	5	PINE	SAVE
38342	5	PINE	SAVE
38343	6	PINE	SAVE
38344	5	PINE	SAVE
38345	5	PINE	SAVE
38346	5	PINE	SAVE
38347	6	PINE	SAVE
38348	6	PINE	SAVE
38349	6	PINE	SAVE
38351	7	PINE	SAVE
38352	6	PINE	SAVE
38353	6	PINE	SAVE
38354	5	PINE	SAVE
38355	5	PINE	SAVE
38356	5	PINE	SAVE
38357	5	PINE	SAVE
38358	6	PINE	SAVE
38359	5	PINE	SAVE
38360	6	PINE	SAVE
38361	6	PINE	SAVE
38362	6	PINE	SAVE
38363	7	PINE	SAVE
38364	6	PINE	SAVE
38365	6	PINE	SAVE
38366	5	PINE	SAVE
38367	6	PINE	SAVE
38368	6	PINE	SAVE
38369	6	PINE	SAVE
38370	5	PINE	SAVE
38371	6	PINE	SAVE
38372	7	PINE	SAVE
38373	8	PINE	SAVE
38374	6	PINE	SAVE
38375	5	PINE	SAVE
38376	8	PINE	SAVE
38377	7	PINE	SAVE
38378	5	PINE	SAVE
38379	6	PINE	SAVE
38380	7	PINE	SAVE
38381	5	PINE	SAVE
38382	5	PINE	SAVE
38383	5	PINE	SAVE
38384	6	PINE	SAVE
38385	7	PINE	SAVE
38386	5	PINE	SAVE
38387	5	PINE	SAVE
38388	5	PINE	SAVE
38389	6	PINE	SAVE
38390	6	PINE	SAVE
38391	7	PINE	SAVE
38392	6	PINE	SAVE
38393	5	PINE	SAVE
38394	6	PINE	SAVE
38420	6	PINE	SAVE
38601	6	PINE	SAVE
38603	5	PINE	SAVE
38604	5	PINE	SAVE
38605	6	PINE	SAVE
38606	7	PINE	SAVE
38607	6	PINE	SAVE
38608	6	PINE	SAVE
38610	6	PINE	SAVE
38611	6	PINE	SAVE
38612	6	PINE	SAVE
38613	6	PINE	SAVE
38614	6	PINE	SAVE
38615	5	PINE	SAVE
38616	6	PINE	SAVE
38617	6	PINE	SAVE
38618	5	PINE	FIND
38619	6	PINE	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
38620	5	PINE	SAVE
38621	6	PINE	SAVE
38622	6	PINE	SAVE
38623	5	PINE	SAVE
38624	5	PINE	SAVE
38625	7	PINE	SAVE
38627	5	PINE	SAVE
38628	6	PINE	SAVE
38629	5	PINE	SAVE
38630	5	PINE	SAVE
38631	5	PINE	SAVE
38632	6	PINE	SAVE
38633	6	PINE	SAVE
38634	5	PINE	SAVE
38635	6	PINE	SAVE
38636	6	PINE	SAVE
38637	6	PINE	SAVE
38638	7	PINE	SAVE
38639	5	PINE	SAVE
38640	6	PINE	SAVE
38641	6	PINE	SAVE
38642	6	PINE	SAVE
38644	6	PINE	SAVE
38645	6	PINE	SAVE
38646	6	PINE	SAVE
38647	6	PINE	SAVE
38648	6	PINE	SAVE
38649	6	PINE	SAVE
38650	5	PINE	SAVE
38651	6	PINE	SAVE
38652	7	PINE	SAVE
38653	6	PINE	SAVE
38654	6	PINE	SAVE
38655	6	PINE	SAVE
38656	6	PINE	SAVE
38657	7	PINE	SAVE
38658	5	PINE	SAVE
38659	5	PINE	SAVE
38660	5	PINE	SAVE
38661	7	PINE	SAVE
38662	5	PINE	SAVE
38663	5	PINE	SAVE
38664	6	PINE	SAVE
38665	7	PINE	SAVE
38666	7	PINE	SAVE
38667	5	PINE	SAVE
38668	5	PINE	SAVE
38669	5	PINE	SAVE
38670	5	PINE	SAVE
38671	6	PINE	SAVE
38672	6	PINE	SAVE
38673	6	PINE	SAVE
38674	7	PINE	SAVE
38675	6	PINE	SAVE
38676	7	PINE	SAVE
38678	5	PINE	SAVE
38679	6	PINE	SAVE
38680	6	PINE	SAVE
38681	6	PINE	SAVE
38682	7	PINE	SAVE
38683	6	PINE	SAVE
38684	6	PINE	SAVE
38685	5	PINE	SAVE
38686	6	PINE	SAVE
38687	6	PINE	SAVE
38688	6	PINE	SAVE
38689	6	PINE	SAVE
38690	6	PINE	SAVE
38691	6	PINE	SAVE
38692	6	PINE	SAVE
38693	6	PINE	SAVE
38694	7	PINE	SAVE
38695	5	PINE	SAVE
38696	7	PINE	SAVE
38697	5	PINE	SAVE
38698	6	PINE	SAVE
38699	6	PINE	SAVE
38700	6	PINE	SAVE
38701	6	PINE	SAVE
38702	6	PINE	SAVE
38703	5	PINE	SAVE
38704	6	PINE	SAVE
38705	7	PINE	SAVE
38706	6	PINE	SAVE
38707	6	PINE	SAVE
38708	6	PINE	SAVE
38709	6	PINE	SAVE
38710	7	PINE	SAVE
38711	6	PINE	SAVE
38712	5	PINE	SAVE
38713	5	PINE	SAVE
38714	5	PINE	SAVE
38715	6	PINE	SAVE
38716	5	PINE	SAVE
38717	5	PINE	SAVE
38718	5	PINE	SAVE
38719	6	PINE	SAVE
38720	6	PINE	SAVE
38721	6	PINE	SAVE
38722	6	PINE	SAVE
38723	6	PINE	SAVE
38724	5	PINE	SAVE
38725	5	PINE	SAVE
38726	6	PINE	SAVE
38727	6	PINE	SAVE
38728	5	PINE	SAVE
38729	6	PINE	SAVE
38730	5	PINE	SAVE
38731	7	PINE	SAVE
38732	6	PINE	SAVE
38733	6	PINE	SAVE
38734	6	PINE	SAVE
38735	7	PINE	SAVE
38736	5	PINE	SAVE
38737	5	PINE	SAVE
38738	6	PINE	SAVE
38739	7	PINE	SAVE
38740	6	PINE	SAVE
38741	6	PINE	SAVE
38742	6	PINE	SAVE
38743	5	PINE	SAVE
38744	6	PINE	SAVE
38745	5	PINE	SAVE
38746	7	PINE	SAVE
38747	6	PINE	SAVE
38748	5	PINE	SAVE
38749	6	PINE	SAVE
38750	6	PINE	SAVE
38751	6	PINE	SAVE
38752	6	PINE	SAVE
38753	6	PINE	SAVE
38754	6	PINE	SAVE
38755	6	PINE	SAVE
38756	6	PINE	SAVE
38757	7	PINE	SAVE
38758	6	PINE	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
38759	6	PINE	SAVE
38760	6	PINE	SAVE
38761	7	PINE	SAVE
38762	6	PINE	SAVE
38763	6	PINE	SAVE
38764	6	PINE	SAVE
38765	5	PINE	SAVE
38766	6	PINE	SAVE
38767	6	PINE	SAVE
38768	6	PINE	SAVE
38769	5	PINE	SAVE
38770	6	PINE	SAVE
38771	7	PINE	SAVE
38772	6	PINE	SAVE
38773	7	PINE	SAVE
38774	6	PINE	SAVE
38775	6	PINE	SAVE
38776	6	PINE	SAVE
38777	6	PINE	SAVE
38779	6	PINE	SAVE
38780	6	PINE	SAVE
38781	6	PINE	SAVE
38782	6	PINE	SAVE
38783	6	PINE	SAVE
38784	7	PINE	SAVE
38785	6	PINE	SAVE
38786	8	PINE	SAVE
38787	7	PINE	SAVE
38788	6	PINE	SAVE
38789	6	PINE	SAVE
38790	6	PINE	SAVE
38791	6	PINE	SAVE
38792	6	PINE	SAVE
38793	6	PINE	SAVE
38794	6	PINE	SAVE
38795	5	PINE	SAVE
38796	6	PINE	SAVE
38797	6	PINE	SAVE
38798	6	PINE	SAVE
38799	6	PINE	SAVE
38800	7	PINE	SAVE
38801	5	PINE	SAVE
38802	5	PINE	SAVE
38803	6	PINE	SAVE
38804	7	PINE	SAVE
38805	5	PINE	SAVE
38806	6	PINE	SAVE
38807	6	PINE	SAVE
38808	6	PINE	SAVE
38809	5	PINE	SAVE
38810	6	PINE	SAVE
38811	5	PINE	SAVE
38812	6	PINE	SAVE
38813	5	PINE	SAVE
38814	6	PINE	SAVE
38815	5	PINE	SAVE
38816	5	PINE	SAVE
38817	6	PINE	SAVE
38818	6	PINE	SAVE
38819	5	PINE	SAVE
38820	6	PINE	SAVE
38821	5	PINE	SAVE
38822	6	PINE	SAVE
38823	6	PINE	SAVE
38825	6	PINE	SAVE
38826	5	PINE	SAVE
38827	6	PINE	SAVE
38828	6	PINE	SAVE
38829	7	PINE	SAVE
38830	5	PINE	SAVE
38831	5	PINE	SAVE
38832	5	PINE	SAVE
38833	6	PINE	SAVE
38834	6	PINE	SAVE
38835	6	PINE	SAVE
38836	7	PINE	SAVE
38837	7	PINE	SAVE
38838	5	PINE	SAVE
38839	6	PINE	SAVE
38840	7	PINE	SAVE
38841	5	PINE	SAVE
38842	5	PINE	SAVE
38843	6	PINE	SAVE
38844	6	PINE	SAVE
38845	5	PINE	SAVE
38846	5	PINE	SAVE
38847	6	PINE	SAVE
38848	7	PINE	SAVE
38849	7	PINE	SAVE
38850	6	PINE	SAVE
38851	5	PINE	SAVE
38852	6	PINE	SAVE
38853	7	PINE	SAVE
38854	5	PINE	SAVE
38855	5	PINE	SAVE
38856	6	PINE	SAVE
38857	5	PINE	SAVE
38858	7	PINE	SAVE
38859	6	PINE	SAVE
38860	5	PINE	SAVE
38861	6	PINE	SAVE
38862	6	PINE	SAVE
38863	6	PINE	SAVE
38864	7	PINE	SAVE
38865	7	PINE	SAVE
38866	6	PINE	SAVE
39000	10	OAK	REMOVE
39001	7	OAK	REMOVE
39002	8	OAK	REMOVE
39003	9	OAK	REMOVE
39004	13	OAK	REMOVE
39005	22	OAK	REMOVE
39006	33	OAK	REMOVE
39007	8	OAK	REMOVE
39008	18	OAK	REMOVE
39009	14	OAK	REMOVE
39010	11	PALM	REMOVE
39011	12	PALM	REMOVE
39012	22	OAK	REMOVE
39013	32	OAK	REMOVE
39014	30	OAK	REMOVE
39015	11	TREE A	REMOVE
39017	36	OAK	REMOVE
39018	30	OAK	REMOVE
39020	14	OAK	REMOVE
39021	14	OAK	REMOVE
39022	10	OAK	REMOVE
39023	18	OAK	REMOVE
39024	10	OAK	REMOVE
39025	8	OAK	REMOVE
39026	8	OAK	SAVE
39027	11	TREE GUM	SAVE
39028	9	OAK	SAVE
39030	10	TREE GUM	SAVE
39031	14	TREE GUM	SAVE
39032	14	OAK	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
39033	15	OAK	SAVE
39034	13	OAK	SAVE
39035	14	OAK	SAVE
39036	7	OAK	SAVE
39037	11	OAK	SAVE
39038	6	OAK	SAVE
39039	7	OAK	SAVE
39040	7	OAK	SAVE
39041	10	OAK	SAVE
39042	14	OAK	SAVE
39043	14	OAK	SAVE
39046	22	OAK	SAVE
39047	26	OAK	SAVE
39048	18	OAK	SAVE
39049	12	OAK	SAVE
39050	10	TREE GUM	SAVE
39051	18	PALM	SAVE
39052	10	OAK	SAVE
39053	13	OAK	SAVE
39054	20	OAK	SAVE
39055	11	OAK	SAVE
39056	11	OAK	SAVE
39057	9	OAK	SAVE
39058	24	OAK	SAVE
39059	15	OAK	SAVE
39060	14	OAK	SAVE
39061	15	OAK	SAVE
39062	17	OAK	SAVE
39063	11	OAK	SAVE
39064	13	OAK	SAVE
39065	12	OAK	SAVE
39066	10	OAK	SAVE
39067	10	OAK	SAVE
39068	16	OAK	SAVE
39069	8	OAK	SAVE
39070	8	OAK	SAVE
39071	7	OAK	SAVE
39072	14	OAK	SAVE
39073	10	OAK	SAVE
39074	13	OAK	SAVE
39075	13	OAK	SAVE
39076	14	OAK	SAVE
39077	11	OAK	SAVE
39078	13	OAK	SAVE
39079	11	OAK	SAVE
39080	13	OAK	SAVE
39081	10	OAK	SAVE
39082	12	OAK	SAVE
39083	15	OAK	SAVE
39084	10	OAK	SAVE
39085	11	OAK	SAVE
39086	15	PALM	SAVE
39087	16	PALM	SAVE
39088	9	TREE CHERRY	SAVE
39089	13	PALM	SAVE
39090	15	PALM	SAVE
39091	16	PALM	SAVE
39092	42	OAK	SAVE
39093	10	OAK	SAVE
39094	10	OAK	SAVE
39095	6	OAK	SAVE
39096	8	OAK	SAVE
39097	14	PALM	SAVE
39098	8	OAK	SAVE
39099	32	OAK	SAVE
39100	32	OAK	SAVE
39106	12	TREE CBERRY	SAVE
39107	12	TREE CBERRY	SAVE
39110	14	TREE CBERRY	SAVE
39117	16	OAK	SAVE
39118	6	TREE CBERRY	SAVE
39119	10	OAK	SAVE
39120	8	OAK	SAVE
39122	32	OAK	SAVE
39123	13	TREE CAMP	SAVE
39124	6	TREE CAMP	SAVE
39125	7	TREE CAMP	SAVE
39126	6	TREE CAMP	SAVE
39129	14	OAK	SAVE
39130	18	OAK	SAVE
39132	11	OAK	SAVE
39133	9	OAK	SAVE
39136	6	TREE CHERRY	SAVE
39137	6	TREE CHERRY	SAVE
39139	7	TREE CHERRY	SAVE
39140	9	TREE CHERRY	SAVE
39141	9	TREE CHERRY	SAVE
39142	10	OAK	SAVE
39143	9	TREE CHERRY	SAVE
39144	6	TREE CHERRY	SAVE
39145	6	TREE CHERRY	SAVE
39147	10	OAK	SAVE
39148	27	OAK	SAVE
39149	6	OAK	SAVE
39150	6	OAK	SAVE
39151	8	OAK	SAVE
39153	15	OAK	SAVE
39154	7	OAK	SAVE
39155	12	OAK	SAVE
39156	7	OAK	SAVE
39158	10	TREE CHERRY	SAVE
39159	7	TREE CHERRY	SAVE
39160	9	PINE	SAVE
39162	12	OAK	SAVE
39163	19	OAK	SAVE
39165	7	TREE CHERRY	SAVE
39166	14	PINE	SAVE
39169	6	OAK	SAVE
39170	8	OAK	SAVE
39171	6	OAK	SAVE
39172	6	OAK	SAVE
39174	8	OAK	SAVE
39176	8	OAK	SAVE
39177	16	OAK	SAVE
39178	16	OAK	SAVE
39180	16	OAK	SAVE
39182	13	OAK	SAVE
39184	6	OAK	SAVE
39185	6	TREE CHERRY	SAVE
39186	10	PINE	SAVE
39187	9	PINE	SAVE
39188	9	PINE	SAVE
39189	11	PINE	SAVE
39190	6	TREE CHERRY	SAVE
39191	10	PINE	SAVE
39192	8	OAK	SAVE
39193	6	TREE CHERRY	SAVE
39194	6	TREE CHERRY	SAVE
39195	10	TREE CHERRY	SAVE
39197	7	OAK	SAVE
39198	7	OAK	SAVE
39200	12	PINE	SAVE
39201	7	OAK	SAVE
39203	6	TREE CHERRY	SAVE
39204	6	OAK	SAVE
39205	11	PINE	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
39207	10	OAK	SAVE
39208	8	PINE	SAVE
39209	6	OAK	SAVE
39210	17	OAK	SAVE
39211	12	PINE	SAVE
39212	8	OAK	SAVE
39215	7	PINE	SAVE
39216	7	PINE	SAVE
39217	7	OAK	SAVE
39218	12	PINE	SAVE
39219	9	OAK	SAVE
39220	8	OAK	SAVE
39222	10	OAK	SAVE
39223	6	PINE	SAVE
39224	9	PINE	SAVE
39226	6	OAK	SAVE
39227	9	PINE	SAVE
39228	6	PINE	SAVE
39231	6	PINE	SAVE
39232	10	OAK	SAVE
39233	10	PINE	SAVE
39234	7	PINE	SAVE
39235	8	OAK	SAVE
39236	8	OAK	SAVE
39237	8	OAK	SAVE
39238	11	PINE	SAVE
39241	8	OAK	SAVE
39242	13	OAK	SAVE
39243	19	OAK	SAVE
39244	13	OAK	SAVE
39246	8	PINE	SAVE
39247	8	PINE	SAVE
39249	8	OAK	SAVE
39251	8	PINE	SAVE
39254	11	PINE	SAVE
39255	6	OAK	SAVE
39256	8	PINE	SAVE
39257	16	OAK	SAVE
39259	10	OAK	SAVE
39261	6	OAK	SAVE
39262	10	OAK	SAVE
39263	8	PINE	SAVE
39264	10	OAK	SAVE
39265	10	OAK	SAVE
39266	7	OAK	SAVE
39267	14	OAK	SAVE
39270	9	OAK	SAVE
39271	9	OAK	SAVE
39272	7	TREE CHERRY	SAVE
39273	7	TREE CHERRY	SAVE
39274	10	OAK	SAVE
39276	10	OAK	SAVE
39277	7	OAK	SAVE
39278	13	OAK	SAVE
39279	7	OAK	SAVE
39280	7	OAK	SAVE
39300	9	TREE CBERRY	SAVE
39307	6	OAK	SAVE
39308	6	OAK	SAVE
39318	6	OAK	SAVE
39322	14	PALM	SAVE
39323	12	OAK	SAVE
39328	6	OAK	SAVE
39332	6	TREE A	SAVE
39335	12	TREE CBERRY	SAVE
39336	12	TREE CBERRY	SAVE
39338	8	OAK	SAVE
39339	13	PINE	SAVE
39348	6	OAK	SAVE
39349	6	OAK	SAVE
39406	10	OAK	REMOVE
39408	10	OAK	REMOVE
39409	12	OAK	REMOVE
39410	10	OAK	REMOVE
39413	18	OAK	REMOVE
39415	11	OAK	REMOVE
39416	13	OAK	REMOVE
39419	17	OAK	REMOVE
39420	13	OAK	REMOVE
39423	12	OAK	REMOVE
39424	10	OAK	REMOVE
39425	8	OAK	REMOVE
39426	10	OAK	REMOVE
39428	16	OAK	REMOVE
39430	11	PINE	REMOVE
39431	14	OAK	REMOVE
39432	16	OAK	REMOVE
39434	7	OAK	REMOVE
39437	16	OAK	SAVE
39438	25	OAK	REMOVE
39439	7	OAK	REMOVE
39443	24	OAK	SAVE
39445	10	OAK	REMOVE
39446	7	OAK	REMOVE
39447	6	OAK	REMOVE
39448	17	OAK	REMOVE
39449	7	OAK	REMOVE
39450	7	OAK	REMOVE
39451	8	OAK	REMOVE
39452	8	OAK	REMOVE
39454	7	OAK	REMOVE
39455	10	OAK	REMOVE
39456	8	OAK	REMOVE
39457	8	OAK	REMOVE
39458	14	OAK	REMOVE
39459	14	OAK	REMOVE
39460	12	TREE CHERRY	REMOVE
39461	7	TREE CHERRY	REMOVE
39462	10	OAK	REMOVE
39463	8	OAK	REMOVE
39464	8	OAK	REMOVE
39465	11	OAK	REMOVE
39467	6	OAK	REMOVE
39468	6	TREE CAMP	REMOVE
39470	20	OAK	REMOVE
39471	10	OAK	REMOVE
39474	14	OAK	REMOVE
39475	19	TREE GUM	REMOVE
39476	8	OAK	REMOVE
39477	8	OAK	REMOVE
39478	16	TREE GUM	REMOVE
39479	10	TREE GUM	REMOVE
39480	10	OAK	REMOVE
39481	15	OAK	REMOVE
39482	9	OAK	REMOVE
39483	7	OAK	REMOVE
39484	8	TREE GUM	REMOVE
39486	6	OAK	REMOVE
39487	9	OAK	REMOVE
39488	8	OAK	REMOVE
39489	8	OAK	SAVE
39490	25	OAK	SAVE
39491	7	TREE GUM	REMOVE
39492	25	TREE GUM	REMOVE
39501	7	TREE A	SAVE
39502	9	TREE GUM	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
39503	6	TREE CBERRY	SAVE
39505	32	OAK	SAVE
39517	10	OAK	REMOVE
39518	10	OAK	SAVE
39535	30	OAK	REMOVE
39540	25	OAK	SAVE
39667	14	OAK	SAVE
39668	15	OAK	SAVE
39669	18	TREE GUM	SAVE
39671	26	OAK	SAVE
39672	15	PALM	SAVE
39678	20	OAK	SAVE
39679	33	OAK	SAVE
39683	34	OAK	SAVE
39687	29	OAK	SAVE
39690	9	OAK	SAVE
39693	19	OAK	SAVE
39694	10	OAK	REMOVE
39695	10	OAK	REMOVE
39701	29	OAK	SAVE
39702	20	OAK	REMOVE
39703	14	OAK	REMOVE
39706	14	OAK	REMOVE
39707	21	OAK	REMOVE
39709	8	OAK	SAVE
39754	13	OAK	SAVE
39755	6	OAK	SAVE
39756	27	OAK	REMOVE
39757	10	TREE GUM	SAVE
39758	10	TREE GUM	SAVE
39759	8	TREE GUM	SAVE
39760	13	OAK	SAVE
39761	18	OAK	SAVE
39762	13	OAK	SAVE
39763	13	OAK	SAVE
39764	13	OAK	SAVE
39765	7	OAK	SAVE
39766	8	OAK	SAVE
39767	13	OAK	SAVE
39768	12	TREE CAMP	SAVE
39772	17	OAK	SAVE
39775	22	OAK	SAVE
39776	13	OAK	SAVE
39779	8	TREE GUM	SAVE
39782	24	OAK	SAVE
39787	22	OAK	REMOVE
39788	17	OAK	REMOVE
39789	9	OAK	REMOVE
39791	10	OAK	REMOVE
39794	10	TREE CHERRY	SAVE
39795	19	OAK	REMOVE
39796	11	OAK	REMOVE
39797	14	OAK	REMOVE
39806	10	TREE GUM	REMOVE
39808	24	OAK	REMOVE
39809	18	OAK	REMOVE
39813	17	OAK	REMOVE
39818	20	OAK	REMOVE
39819	14	PALM	REMOVE
39859	26	OAK	SAVE
39864	25	TREE GUM	SAVE
39866	14	OAK	REMOVE
39867	22	OAK	REMOVE
39869	26	OAK	REMOVE
39873	23	OAK	REMOVE
39875	8	OAK	REMOVE
39876	20	OAK	REMOVE
39877	29	OAK	REMOVE
39879	18	OAK	REMOVE
39880	10	OAK	REMOVE
39881	9	OAK	REMOVE
39883	14	OAK	REMOVE
39885	10	OAK	REMOVE
39886	24	OAK	REMOVE
39890	14	OAK	REMOVE
39893	28	OAK	REMOVE
39894	12	PALM	SAVE
39895	14	PALM	SAVE
39896	14	PALM	SAVE
39898	10	TREE GUM	SAVE
39899	16	TREE GUM	SAVE
39900	15	PALM	SAVE
39901	10	OAK	SAVE
39902	25	TREE GUM	SAVE
39906	18	OAK	REMOVE
39907	15	OAK	REMOVE
39908	11	OAK	REMOVE
39909	11	OAK	REMOVE
39912	9	TREE CHERRY	REMOVE
39913	21	OAK	REMOVE
39914	32	OAK	REMOVE
39918	9	TREE CHERRY	REMOVE
39919	9	TREE GUM	REMOVE
39920	9	TREE GUM	REMOVE
39921	15	TREE GUM	REMOVE
39924	10	TREE GUM	REMOVE
40001	22	OAK	REMOVE
40002	11	OAK	REMOVE
40003	16	OAK	REMOVE
40004	20	OAK	REMOVE
40006	16	OAK	REMOVE
40007	15	OAK	REMOVE
40008	11	OAK	REMOVE
40009	14	TREE CAMP	REMOVE
40010	22	TREE CAMP	REMOVE
40012	11	OAK	REMOVE
40013	10	OAK	REMOVE
40015	29	OAK	REMOVE
40016	16	OAK	REMOVE
40017	19	OAK	REMOVE
40018	15	TREE CAMP	REMOVE
40019	9	TREE CAMP	REMOVE
40020	10	TREE CAMP	REMOVE
40022	10	OAK	SAVE
40023	20	OAK	SAVE
40024	19	OAK	SAVE
40027	24	OAK	REMOVE
40028	17	TREE CAMP	SAVE
40029	20	TREE CAMP	SAVE
40032	9	OAK	REMOVE
40033	15	OAK	REMOVE
40034	13	OAK	REMOVE
40035	6	TREE CAMP	REMOVE
40036	6	TREE CAMP	REMOVE
40037	18	OAK	REMOVE
40039	11	OAK	REMOVE
40040	14	OAK	REMOVE
40041	15	OAK	REMOVE
40042	7	TREE CAMP	REMOVE
40044	6	TREE CAMP	REMOVE
40046	6	TREE CAMP	SAVE
40047	8	TREE CAMP	SAVE
40049	12	OAK	REMOVE
40050	18	OAK	REMOVE
40051	15	OAK	REMOVE
40052	14	TREE CHERRY	REMOVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
40053	15	TREE CAMP	REMOVE
40054	12	OAK	REMOVE
40055	27	OAK	REMOVE
40058	15	OAK	REMOVE
40062	22	OAK	REMOVE
40063	29	OAK	SAVE
40065	21	OAK	SAVE
40067	6	TREE CAMP	SAVE
40068	10	TREE CAMP	SAVE
40070	10	OAK	SAVE
40072	12	PALM	SAVE
40073	7	TREE GUM	SAVE
40078	18	OAK	SAVE
40080	29	OAK	REMOVE
40087	40	OAK	SAVE
40088	33	OAK	SAVE
40092	26	OAK	REMOVE
40095	38	OAK	REMOVE
40097	28	OAK	REMOVE
40099	27	OAK	SAVE
40102	18	OAK	REMOVE
40103	20	OAK	REMOVE
40106	30	OAK	REMOVE
40107	10	OAK	REMOVE
40108	9	OAK	REMOVE
40109	10	OAK	REMOVE
40110	16	OAK	REMOVE
40111	8	OAK	REMOVE
40112	11	OAK	REMOVE
40115	40	OAK	REMOVE
40116	21	OAK	SAVE
40117	24	OAK	SAVE
40118	7	OAK	SAVE
40119	8	TREE GUM	SAVE
40120	12	TREE GUM	SAVE
40121	12	TREE CAMP	SAVE
40122	14	TREE CAMP	SAVE
40124	9	OAK	REMOVE
40125	8	OAK	REMOVE
40127	11	OAK	REMOVE
40128	7	TREE CHERRY	REMOVE
40129	10	OAK	REMOVE
40130	7	OAK	REMOVE
40131	17	OAK	REMOVE
40132	7	OAK	REMOVE
40134	20	OAK	REMOVE
40135	26	OAK	REMOVE
40136	16	PINE	REMOVE
40137	9	OAK	REMOVE
40138	10	OAK	REMOVE
40139	7	OAK	REMOVE
40140	22	OAK	REMOVE
40141	11	OAK	REMOVE
40142	10	OAK	REMOVE
40143	10	OAK	REMOVE
40144	7	OAK	REMOVE
40145	15	OAK	REMOVE
40263	6	PINE	SAVE
40264	7	PINE	SAVE
40266	6	PINE	SAVE
40267	6	PINE	SAVE
40268	6	PINE	SAVE
40270	7	PINE	SAVE
40271	6	PINE	SAVE
40272	6	PINE	SAVE
40274	6	PINE	SAVE
40276	6	PINE	SAVE
40277	6	PINE	SAVE
40278	6	PINE	SAVE
40279	7	PINE	SAVE
40281	6	PINE	SAVE
40282	6	PINE	SAVE
40283	6	PINE	SAVE
40284	6	PINE	SAVE
40285	6	PINE	SAVE
40287	7	PINE	SAVE
40288	6	PINE	SAVE
40289	6	PINE	SAVE
40290	7	OAK	SAVE
40291	6	OAK	SAVE
40293	6	PINE	SAVE
40294	6	PINE	SAVE
40295	7	PINE	SAVE
40296	6	PINE	SAVE
40297	6	PINE	SAVE
40299	6	PINE	SAVE
40300	6	PINE	SAVE
40302	6	PINE	SAVE
40304	6	PINE	SAVE
40307	6	PINE	SAVE
40308	6	PINE	SAVE
40309	6	PINE	SAVE
40310	7	PINE	SAVE
40312	7	PINE	SAVE
40313	6	PINE	SAVE
40315	7	PINE	SAVE
40316	6	PINE	SAVE
40318	6	PINE	SAVE
40319	6	PINE	SAVE
40321	6	PINE	SAVE
40322	6	PINE	SAVE
40324	6	PINE	SAVE
40325	7	PINE	SAVE
40326	6	PINE	SAVE
40327	6	PINE	SAVE
40328	7	PINE	SAVE
40332	6	PINE	SAVE
40333	6	PINE	SAVE
40335	6	PINE	SAVE
40336	6	PINE	SAVE
40339	6	PINE	SAVE
40340	6	PINE	SAVE
40341	6	PINE	SAVE
40342	6	PINE	SAVE
40343	6	PINE	SAVE
40345	6	PINE	SAVE
40346	6	PINE	SAVE
40347	6	PINE	SAVE
40348	6	PINE	SAVE
40349	7	PINE	SAVE
40350	6	PINE	SAVE
40352	6	PINE	SAVE
40353	6	PINE	SAVE
40354	7	PINE	SAVE
40356	6	PINE	SAVE
40357	6	PINE	SAVE
40358	7	PINE	SAVE
40360	6	PINE	SAVE
40362	6	PINE	SAVE
40367	6	PINE	SAVE
40368	6	PINE	SAVE
40369	6	PINE	SAVE
40372	6	PINE	SAVE
40373	6	PINE	SAVE
40374	6	PINE	SAVE
40375	7	PINE	SAVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
40376	6	PINE	SAVE
40377	6	PINE	SAVE
40378	6	PINE	SAVE
40380	6	PINE	SAVE
40381	6	PINE	SAVE
40383	6	PINE	SAVE
40384	6	PINE	SAVE
40386	6	PINE	SAVE
40387	6	PINE	SAVE
40388	6	PINE	SAVE
40389	6	PINE	SAVE
40391	6	PINE	SAVE
40392	6	PINE	SAVE
40393	8	PINE	SAVE
40395	6	PINE	SAVE
40396	6	PINE	SAVE
40397	6	PINE	SAVE
40398	6	PINE	SAVE
40399	6	PINE	SAVE
40401	6	PINE	SAVE
40403	6	PINE	SAVE
40405	8	OAK	SAVE
40407	17	OAK	REMOVE
40408	15	OAK	REMOVE
40411	8	OAK	REMOVE
40412	6	OAK	REMOVE
40413	7	OAK	REMOVE
40414	12	OAK	REMOVE
40415	12	OAK	REMOVE
40417	9	OAK	REMOVE
40419	7	OAK	REMOVE
40420	19	OAK	REMOVE
40421	7	OAK	REMOVE
40422	10	OAK	REMOVE
40423	10	OAK	REMOVE
40424	8	OAK	REMOVE
40426	15	OAK	REMOVE
40427	11	OAK	REMOVE
40429	16	OAK	REMOVE
40431	13	OAK	REMOVE
40432	11	OAK	SAVE
40434	16	OAK	SAVE
40435	8	OAK	SAVE
40436	10	OAK	SAVE
40437	9	OAK	SAVE
40438	11	OAK	SAVE
40439	9	OAK	SAVE
40443	12	TREE CAMP	SAVE
40444	7	TREE CAMP	SAVE
40445	18	OAK	SAVE
40446	11	OAK	SAVE
40448	9	TREE CHERRY	SAVE
40449	8	TREE CAMP	SAVE
40450	8	TREE CAMP	SAVE
40452	9	TREE CAMP	SAVE
40453	24	OAK	SAVE
40455	13	OAK	SAVE
40457	6	TREE CAMP	SAVE
40458	6	OAK	SAVE
40460	13	PINE	SAVE
40462	8	TREE CAMP	SAVE
40464	6	OAK	SAVE
40465	7	OAK	SAVE
40468	8	TREE CAMP	SAVE
40470	15	OAK	SAVE
40471	11	PINE	SAVE
40473	6	TREE CAMP	SAVE
40474	9	OAK	SAVE
40476	14	PINE	SAVE
40477	6	OAK	SAVE
40478	8	TREE CAMP	SAVE
40479	7	PINE	SAVE
40480	9	PINE	SAVE
40480	9	PINE	SAVE
40481	6	OAK	SAVE
40481	6	OAK	SAVE
40484	6	TREE CAMP	SAVE
40485	15	PINE	SAVE
40485	15	PINE	SAVE
40486	6	OAK	SAVE
40487	8	OAK	SAVE
40488	6	OAK	SAVE
40489	6	OAK	SAVE
40490	8	TREE CAMP	SAVE
40492	6	OAK	SAVE
40494	6	OAK	SAVE
40495	15	OAK	SAVE
40496	7	OAK	SAVE
40497	6	OAK	SAVE
40498	12	PALM	SAVE
40499	14	PALM	SAVE
40502	8	OAK	SAVE
40504	8	TREE CAMP	SAVE
40505	8	TREE CHERRY	SAVE
40506	12	TREE CHERRY	SAVE
40508	6	TREE CAMP	SAVE
40509	8	TREE CAMP	SAVE
40510	8	OAK	SAVE
40511	6	OAK	SAVE
40512	10	TREE CAMP	SAVE
40516	7	OAK	SAVE
40517	9	OAK	SAVE
40518	16	OAK	SAVE
40537	16	OAK	SAVE
40538	13	PALM	SAVE
40539	12	PALM	SAVE
40540	6	OAK	SAVE
40543	18	OAK	SAVE
40544	6	TREE CAMP	SAVE
40545	7	TREE CAMP	SAVE
40546	8	TREE CAMP	SAVE
40547	9	TREE CAMP	SAVE
40549	12	PALM	SAVE
40550	8	TREE CAMP	SAVE
40551	8	TREE CAMP	SAVE
40552	7	OAK	SAVE
40554	24	OAK	SAVE
40555	6	TREE CAMP	SAVE
40556	13	PALM	SAVE
40557	11	PALM	SAVE
40558	10	TREE CAMP	SAVE
40560	17	OAK	SAVE
40561	13	PALM	SAVE
40562	10	TREE GUM	SAVE
40563	6	TREE GUM	SAVE
40564	10	TREE GUM	SAVE
40565	14	PALM	SAVE
40566	8	OAK	SAVE
40567	13	PALM	SAVE
40568	7	OAK	SAVE
40569	8	OAK	SAVE
40570	16	OAK	REMOVE
40571	8	TREE CBERRY	REMOVE
40572	7	TREE CBERRY	REMOVE
40573	6	OAK	REMOVE
40574	6	OAK	REMOVE

TREE POINT #	TREE ϕ (IN)	TREE TYPE	TREE TO BE REMOVED OR SAVED
40575	10	OAK	REMOVE
40576	9	OAK	REMOVE
40577	24	OAK	REMOVE
40579	31	TREE CAMP	REMOVE
40580	16	TREE CAMP	REMOVE
40588	12	OAK	REMOVE
40589	16	OAK	REMOVE
40590	15	PALM	REMOVE
40591	13	PALM	REMOVE
40592	10	OAK	REMOVE
40593	8	OAK	REMOVE
40594	18	OAK	REMOVE
40595	18	OAK	REMOVE
40596	18	OAK	REMOVE
40597	13	OAK	REMOVE
40598	22	OAK	REMOVE
40599	17	OAK	REMOVE
40600	16	OAK	REMOVE
40601	16	OAK	REMOVE
40602	15	OAK	REMOVE
40801	10	OAK	SAVE
40802	24	OAK	SAVE
40806	8	TREE CHERRY	SAVE
40807	6	TREE CHERRY	SAVE
40809	8	OAK	SAVE
40814	22	OAK	SAVE
40817	11	PINE	SAVE
40818	24	OAK	SAVE
40824	10	PINE	SAVE
40825	12	OAK	SAVE
40826	14	OAK	SAVE
40827	14	OAK	SAVE
40828	12	PALM	SAVE
40832	20	OAK	SAVE
40833	15	OAK	SAVE
40837	17	OAK	SAVE
40838	12	OAK	SAVE
40840	17	OAK	SAVE
40841	15	OAK	SAVE
40844	17	OAK	SAVE
40846	20	OAK	SAVE
40847	14	OAK	SAVE
40851	10	OAK	SAVE
40852	17	OAK	SAVE
41583	13	PALM	SAVE
41586	15	OAK	SAVE
41587	13	PALM	SAVE
41588	13	PALM	SAVE
41590	28	OAK	SAVE
41592	14	TREE GUM	SAVE
41593	7	OAK	SAVE
41594	18	TREE CAMP	SAVE
41595	27	OAK	SAVE
41598	12	PALM	SAVE
41600	7	OAK	SAVE
41601	8	OAK	SAVE
41602	7	TREE CAMP	SAVE
41603	8	OAK	SAVE
41604	12	OAK	SAVE
41605	7	OAK	SAVE
41606	6	OAK	SAVE
41608	7	OAK	SAVE
41611	9	OAK	SAVE
41613	7	OAK	SAVE
41614	7	OAK	SAVE
41615	6	OAK	SAVE
41616	11	OAK	SAVE
41617	12	OAK	SAVE
41618	10	OAK	SAVE
41619	16	OAK	SAVE
41620	13	OAK	SAVE
41622	12	TREE CAMP	SAVE
41624	10	TREE CAMP	SAVE
41627	12	TREE CAMP	SAVE
41628	7	TREE CAMP	SAVE
41630	11	TREE CAMP	SAVE
41631	10	TREE CAMP	SAVE
41632	7	OAK	SAVE
41634	12	OAK	SAVE
41635	7	TREE CAMP	SAVE

COUNT OF TREES TO BE REMOVED: 348
INCHES OF TREES TO BE REMOVED: 4794
COUNT OF TREES TO BE SAVED: 1363

MADDEN
MOORHEAD & STOKES, LLC
CIVIL ENGINEERS
431 E. Horatio Avenue
Suite 260
Maitland, Florida 32751
(407) 629-8330

PRELIMINARY TREE REMOVAL TABLE

FOR

LAKE HILLS

TOWN OF HOWEY-IN-THE-HILLS LAKE COUNTY, FLORIDA

LAKE HILLS
READER COMMUNITIES
5850 TG LEE BOULEVARD, SUITE 200
ORLANDO, FL 32822
(407) 856-4899

ENGINEER IN CHARGE:
DAVID A. STOKES, P.E. #66527
DATE: December 22, 2023
CERTIFICATE OF AUTHORIZATION NO. EB-0007723

	DATE	REVISIONS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

JOB #: 23019
DATE: 09-18-2023
SCALE: N.T.S.
DESIGNED BY: JV
DRAWN BY: JV
APPROVED BY: DAS

C2.01

H:\Data\23019-Lake Hills PD\Eng\PSP\C2.01 Prel Tree Removal.dwg December 22, 2023 9:44 AM

LAKE HILLS PD
Project № 23103
December 2023

TRAFFIC IMPACT ANALYSIS
HOWEY-IN-THE-HILLS
FLORIDA

Prepared by:

Traffic & Mobility Consultants
3101 Maguire Boulevard, Suite 265
Orlando, Florida 32803
www.trafficmobility.com
(407) 531-5332

Prepared for:
Reader and Partners LLC
5850 T G Lee Boulevard, Suite 200
Orlando, Florida 32822

and

WindCrest Development Group, Inc.
605 E. Robinson Street, Suite 340
Orlando, Florida 32801

EXECUTIVE SUMMARY

Project Information

Name: Lake Hills PD

Location: North of CR 48 and west of SR 19

Jurisdiction: Town of Howey-In-The-Hills, Lake County, Florida

Description: 475 Senior Adult Housing Single-Family (SF) Dwelling Units (DUs)
125 Senior Adult Housing Multifamily
92,300 Square-Foot shopping plaza
5,000 Square-Foot convenience store
5,000 Square-Foot fast food restaurant with drive through window

Findings

Trip Generation: 8,782 Daily Trips / 521 AM Peak Hour Trips / 697 PM Peak Hour Trips

Access Plan: One (1) full access driveway on CR 48, one (1) full access driveway on SR 19, one (1) directional access driveway on CR 48, two (2) right-in/right-out access driveways on SR 19

Planned Improvements: SR 19 from CR 48 to CR 561 will be widened to four (4) lanes by FDOT, including a roundabout at SR 19 and CR 48.

Roadway Capacity: SR 19 from CR 561 to Central Avenue and from CR 455 to US 27/SR 25 are projected to operate over their capacities due to background traffic.

Intersection Capacity: SR 19 and CR 455 is projected to operate with delay for the westbound left movement.
SR 19 and CR 48 is projected to operate above the adopted LOS at background and projected traffic conditions. The intersection is projected to operate at acceptable LOS with a roundabout.
SR 19 and Central Avenue is projected to experience delays on the eastbound approach at background and buildout conditions. The project does not assign trips to the minor approaches.
SR 19 and East Entrance Driveway is projected to operate above the LOS at buildout condition with two-way stop control sign.

Recommendations

Intersection Improvements:	The developer will install traffic signal at SR 19 and East Entrance Driveway when warranted.
Turn Lanes:	Construct a 490-foot southbound right turn lane and a 490-foot northbound left turn lane at SR 19 and East Entrance Driveway. Construct a 375-foot northbound right turn lane and a 375-foot southbound left turn lane at CR 48 and West Entrance Driveway. Construct a 375-foot northbound right turn lane and a 375-foot southbound left turn lane at CR 48 and Commercial Entrance Driveway. Construct a 490-foot southbound right turn lane at SR 19 and North Right-in/Right-out Driveway. Construct a 490-foot southbound right turn lane at SR 19 and South Right-in/Right-out Driveway.

PROFESSIONAL ENGINEERING CERTIFICATION

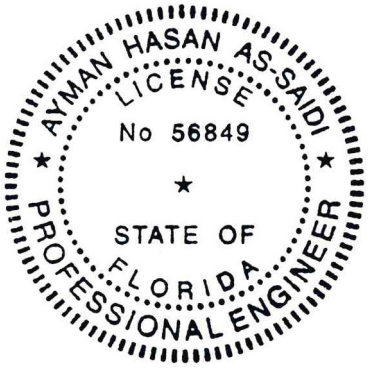
I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, CA-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Lake Hills PD

LOCATION: Town of Howey-In-The-Hills, Florida

CLIENT: Reader and Partners LLC and WindCrest Development Group, Inc.

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

AYMAN H AS-SAIDI

Digitally signed by AYMAN H AS-SAIDI
Date: 2023.12.22 14:44:31 -05'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BOULEVARD, SUITE 265
ORLANDO, FLORIDA 32803
CERTIFICATE OF AUTHORIZATION CA-30024
AYMAN H. AS-SAIDI, P.E. NO 56849

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1.0 INTRODUCTION

This Traffic Impact Analysis (TIA) was conducted to assess the impact of the proposed Lake Hills PD development in the Town of Howey-In-The-Hills, Lake County, Florida. The project will include 475 Senior Adult Housing Single Family (SF) Detached Dwelling Units (DUs), 125 Senior Adult Housing SF Attached DUs, a 92,300 square foot shopping plaza, 5,000 square foot convenience store, and 5,000 square foot fast food restaurant with drive thru. The site is located north of CR 48 and west of SR 19 in the Town of Howey-In-The-Hills, Florida. **Figure 1** depicts the site location and the surrounding transportation network. A preliminary development site plan is provided in **Appendix A**.

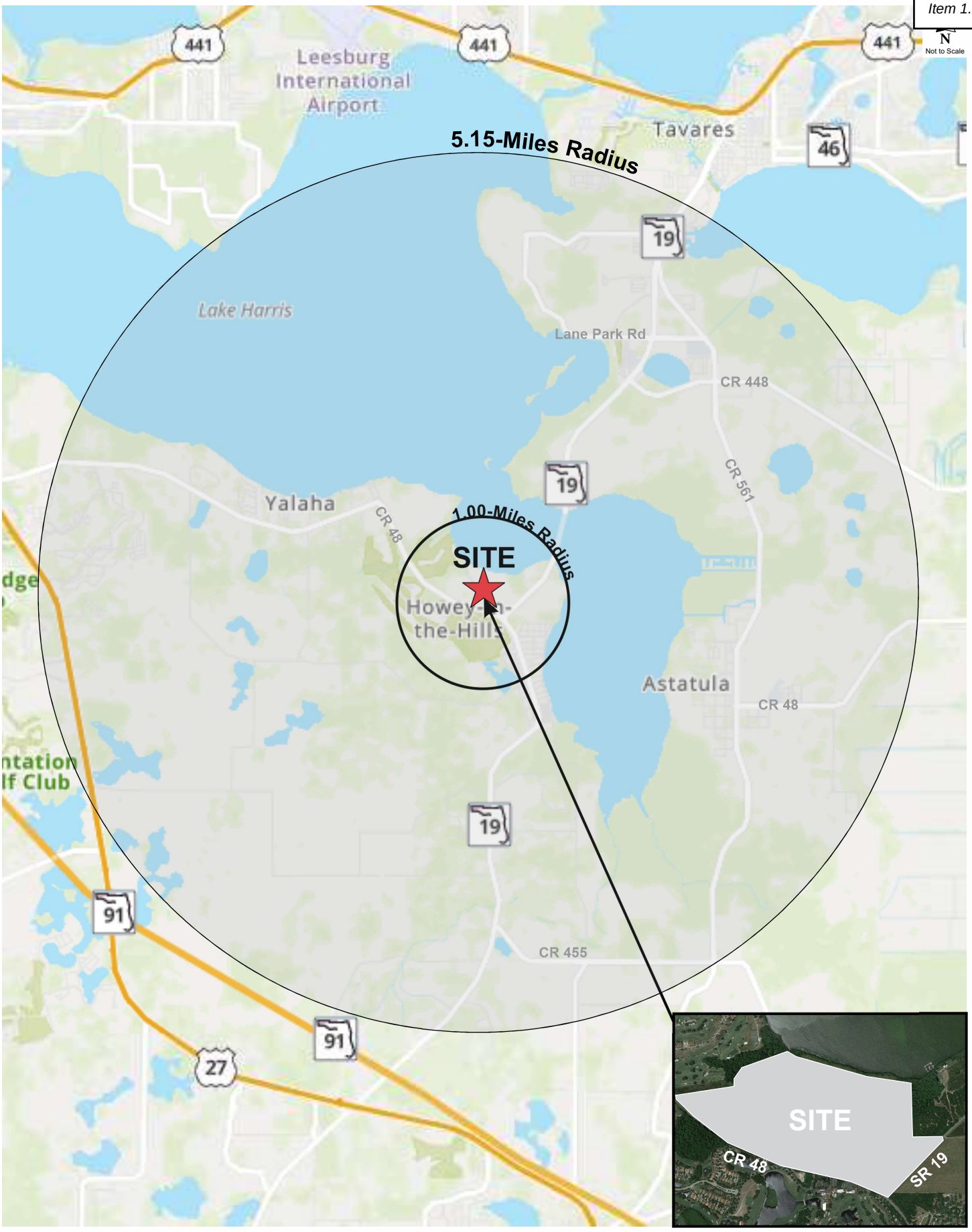
Access to the site is proposed via one (1) full access driveway on CR 48, serving the residential portion, one (1) full access driveway on SR 19, serving both residential and commercial parcels; one (1) directional driveway on CR 48, serving the commercial parcels; and two (2) right-in/right-out access driveways on SR 19, serving the commercial parcels. The development is projected to be completed by the year 2028.

The analysis was prepared in accordance with the methodology submitted to the Town of Howey-In-The-Hills and reviewed by the Town. A copy of the revised methodology (incorporating the Town's comments) is included with the response to comments letter in **Appendix B**.

Data used in the analysis consisted of site plan/development information provided by the project engineers, AM and PM peak hour intersection traffic counts obtained by Traffic & Mobility Consultants LLC (TMC), and roadway capacities obtained from the *2022 Lake County CMP Database*.

1.1 Study Area

The project study area was established based on the standard requirements of the Lake Sumter Metropolitan Planning Organization (LSMPO) methodology and the Town of Howey-In-The-Hills Land Development Code. In accordance with the requirements of Tier 2 TIA methodology, the impact area includes roadway segments and intersections within 5.15-mile radius, (½ the trip length for active adult residential land use), in addition to roadways where development is expected to consume 5% or more of their adopted Level of Service (LOS) capacities. The project study area determination is provided in **Table 1**, as determined in the approved methodology.



TMC Traffic & Mobility Consultants

Site Location Map
Lake Hills PD
23103

Figure 1

Table 1
Study Area

Seg ID	Road Name	From	To	# of Lns	LOS Std	Dir Cap	Trip Distr	Project Trips	Signif-icance	Within 1 Mile	>5% Sig	Included in Study?	Included in Study?
590	CR 448	SR 19	CR 561	2	D	840	20%	71	**8.45%**	N	**Y**	TRUE	**YES**
600	CR 448	CR 561	LAKE INDUSTRIAL BOULEVARD	2	D	840	10%	36	4.29%	N	N	FALSE	NO
610	CR 448	LAKE INDUSTRIAL BOULEVARD	ORANGE COUNTY LINE	2	C	740	10%	36	4.86%	N	N	FALSE	NO
950	CR 455	SR 19	CR 561	2	C	740	5%	18	2.43%	N	N	FALSE	NO
1240	CR 48	US 27	LIME AVENUE	2	D	1,080	25%	89	**8.24%**	**Y**	**Y**	TRUE	**YES**
1250	CR 48	LIME AVENUE	SR 19	2	D	1,080	25%	89	**8.24%**	**Y**	**Y**	TRUE	**YES**
1400	CR 561	SR 19	CR 448	2	D	840	5%	18	2.14%	N	N	FALSE	NO
1410	CR 561	CR 448	CR 48	2	D	1,080	5%	18	1.67%	N	N	FALSE	NO
1420	CR 561	CR 48	SOUTH ASTATULA CITY LIMIT	2	D	620	5%	18	2.90%	N	N	FALSE	NO
1430	CR 561	SOUTH ASTATULA CITY LIMIT	CR 455	2	D	1,080	0%	0	0.00%	N	N	FALSE	NO
3030	SR 19	CR 561	LANE PARK ROAD	2	D	920	30%	107	**11.63%**	N	**Y**	TRUE	**YES**
3040	SR 19	LANE PARK ROAD	CR 48	2	D	920	50%	178	**19.35%**	N	**Y**	TRUE	**YES**
3050	SR 19	CR 48	CENTRAL AVENUE	2	D	700	25%	89	**12.71%**	N	**Y**	TRUE	**YES**
3060	SR 19	CENTRAL AVENUE	CR 455	2	D	1,200	25%	89	**7.42%**	N	**Y**	TRUE	**YES**
3070	SR 19	CR 455	US 27 / SR 25	2	C	450	20%	71	**15.78%**	N	**Y**	TRUE	**YES**

2022 Lake County Congestion Management Process (CMP)

Based on the information presented in the analysis, the study roadway segments are as follows:

- CR 448
  - SR 19 to CR 561
- CR 48
  - US 27 to Lime Avenue
  - Lime Avenue to SR 19
- SR 19
  - CR 561 to Lane Park Road
  - Lane Park Road to CR 48
  - CR 48 to Central Avenue
  - Central Avenue to CR 455
  - CR 455 to US 27/SR 25

The study intersections are as follows*:*

- SR 19 and CR 455 (Unsignalized)
- SR 19 and CR 48 (Signalized)
- SR 19 and CR 448 (Signalized)
- SR 19 and Central Avenue (Unsignalized)
- SR 19 and East Entrance Driveway (Proposed)
- CR 48 and West Entrance Driveway (Proposed)
- CR 48 and Commercial Entrance Driveway (Proposed)
- SR 19 and North RI/RO Driveway (Proposed)
- SR 19 and South RI/RO Driveway (Proposed)

2.0 EXISTING CONDITIONS ANALYSIS

Existing conditions were analyzed to establish a baseline for the traffic conditions prevailing in the vicinity of the proposed development. The analysis included a review of existing roadway segment capacity and analysis of the intersection operations at the study intersections.

2.1 Roadway Segment Capacity

Existing roadway conditions were analyzed by comparing the existing traffic volumes within the study area and the adopted level of service (LOS) standards for the roadway segments. Existing peak hour directional traffic volumes were obtained from the *2022 Lake County CMP Database,* for County roads, and the *2023 Florida Traffic Online (FTO) website*, for SR 19.

Annual growth rates (AGRs) were calculated from the SR 19 historical Annual Average Daily Traffic (AADT), from the *2023 FTO website,* to calculate the projected background traffic volume in this study. The service volumes and capacities were obtained from the *2022 Lake County CMP Database.* Excerpts from the *2022 Lake County CMP Database, 2023 FTO website, 2023 FDOT Multimodal Quality/Level of Service Handbook*, and SR 19 AGRs calculations are included in **Appendix C**. **Table 2** summarizes the roadway segment capacity analysis.

Table 2
Existing Roadway Segment Capacity Analysis

Road Name	From	To	# of Lns	LOS Std	Pk Dir Cap	Existing Volume			
						Dir	Volume	LOS	V/C
CR 448	SR 19	CR 561	2	D	**840**	NB/EB	277	C	0.33
						SB/WB	224	C	0.27
CR 48	US 27	LIME AVENUE	2	D	**1,080**	NB/EB	420	B	0.39
						SB/WB	380	B	0.35
CR 48	LIME AVENUE	SR 19	2	D	**1,080**	NB/EB	429	B	0.40
						SB/WB	404	B	0.37
SR 19	CR 561	LANE PARK ROAD	2	D	**920**	NB/EB	775	C	0.84
						SB/WB	647	C	0.70
SR 19	LANE PARK ROAD	CR 48	2	D	**920**	NB/EB	775	C	0.84
						SB/WB	647	C	0.70
SR 19	CR 48	CENTRAL AVENUE	2	D	**700**	NB/EB	515	C	0.74
						SB/WB	439	C	0.63
SR 19	CENTRAL AVENUE	CR 455	2	D	**1,200**	NB/EB	515	B	0.43
						SB/WB	439	B	0.37
SR 19	CR 455	US 27 / SR 25	2	C	**450**	NB/EB	637	D	1.42
						SB/WB	532	D	1.18

Source: 2022 Lake County Congestion Management Process (CMP)

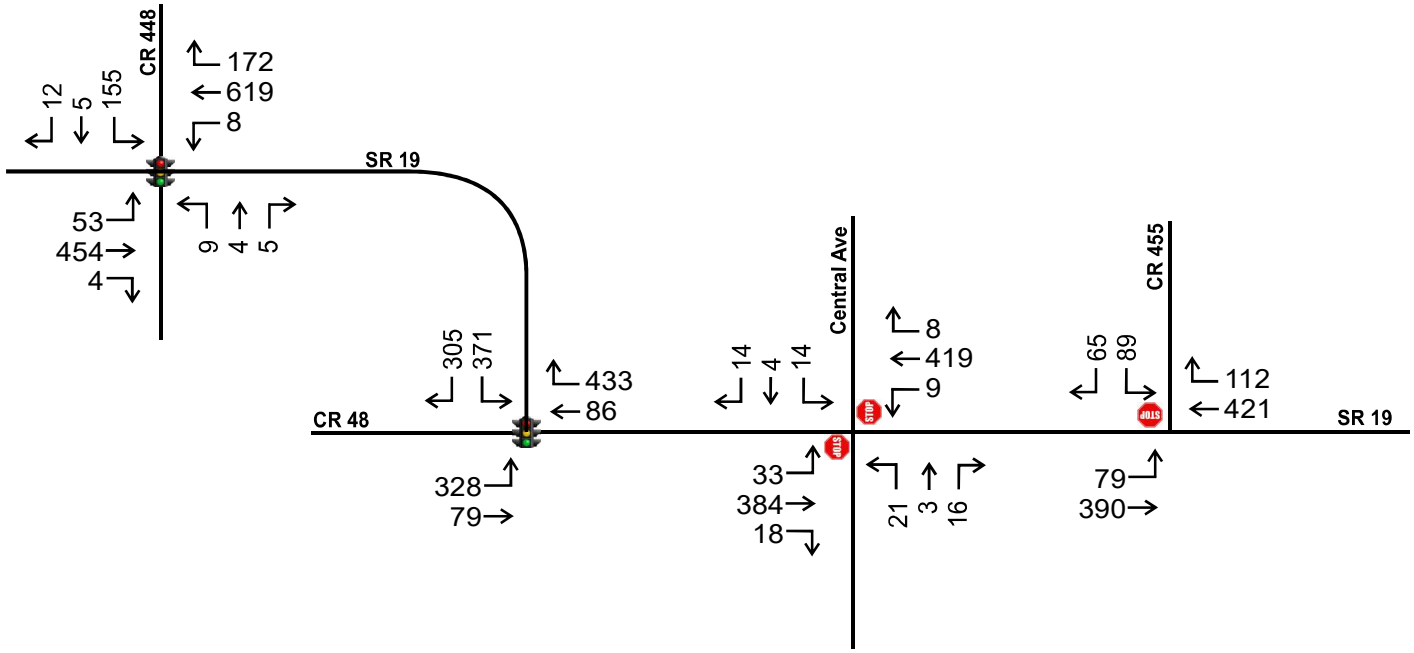
The analysis indicates that all study roadway segments currently operate adequately within their capacities, except the segment of SR 19 from CR 455 to US 27/SR 25 which currently operates over capacity. This segment at SR 19 is currently classified as rural area, but this area is developing rapidly which could result in a potential change in context classification.

2.2 Intersection Capacity

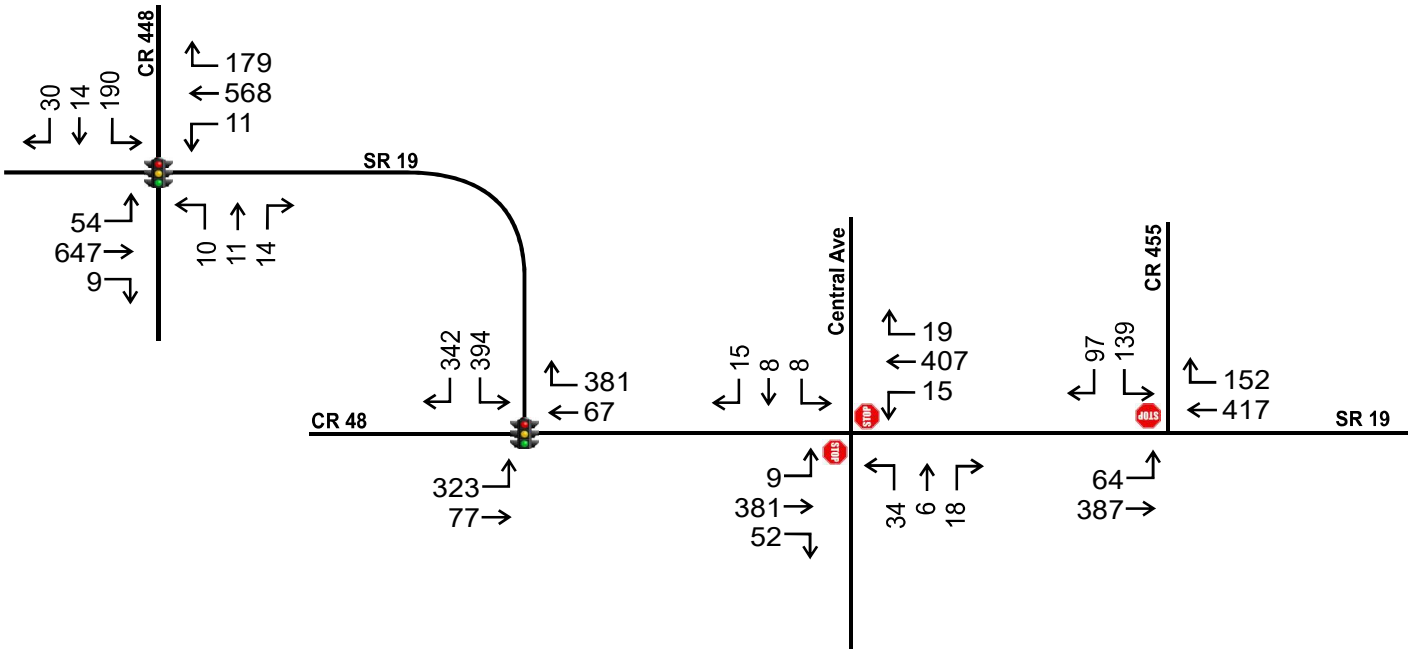
The intersection capacity analysis was performed for the AM and PM peak hour periods at the study intersections. The capacity analysis was performed using *Synchro* and the methods of the *Highway Capacity Manual (HCM)*. Turning movement counts were collected at the study intersections on October 11, 2023 and October 12, 2023. Existing turning movement counts were collected during the peak season; therefore, a seasonal adjustment factor was not applied. The AM and PM peak hour counts are presented in **Figure 2**. The turning movement counts, the *2022 Peak Season Factor Category Report*, and signal timing record for signalized intersections are included in **Appendix D**.

Not to Scale

AM Peak



PM Peak



Existing Peak Intersection Volumes
Lake Hills PD
23103

Figure 2

The results of the intersection capacity analysis, summarized in **Table 3**, reveal that the intersection of SR 19 and CR 48 is experiencing delays on the westbound and southbound approaches. All the other study intersections are currently operating at adequate LOS. Detailed *HCM* analysis worksheets are included in **Appendix E**.

Table 3
Existing Intersection Capacity Analysis

Intersection	Traffic Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 19 & CR 455	TWSC	AM	--	--	16.4	C	--	--	9.0	A	--	--
		PM	--	--	16.8	C	--	--	8.9	A	--	--
SR 19 & CR 48	Signal	AM	--	--	87.3	F	20.3	C	120.8	F	94.1	F
		PM	--	--	79.6	E	19.9	B	92.9	F	80.9	F
SR 19 & CR 448	Signal	AM	20.5	C	24.3	C	15.9	B	13.8	B	16.2	B
		PM	18.6	B	22.0	C	16.3	B	17.7	B	17.7	B
SR 19 & Central Ave	TWSC	AM	21.8	C	19.5	C	8.6	A	8.6	A	--	--
		PM	21.9	C	16.7	C	8.3	A	8.2	A	--	--

Average delay is in seconds

3.0 PROJECT TRAFFIC

3.1 Trip Generation

The traffic generation of the proposed development was calculated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*. The trip generation for the project is summarized in **Table 4** and the ITE charts, and internal capture calculations are provided in **Appendix F**.

Table 4
Trip Generation Calculations

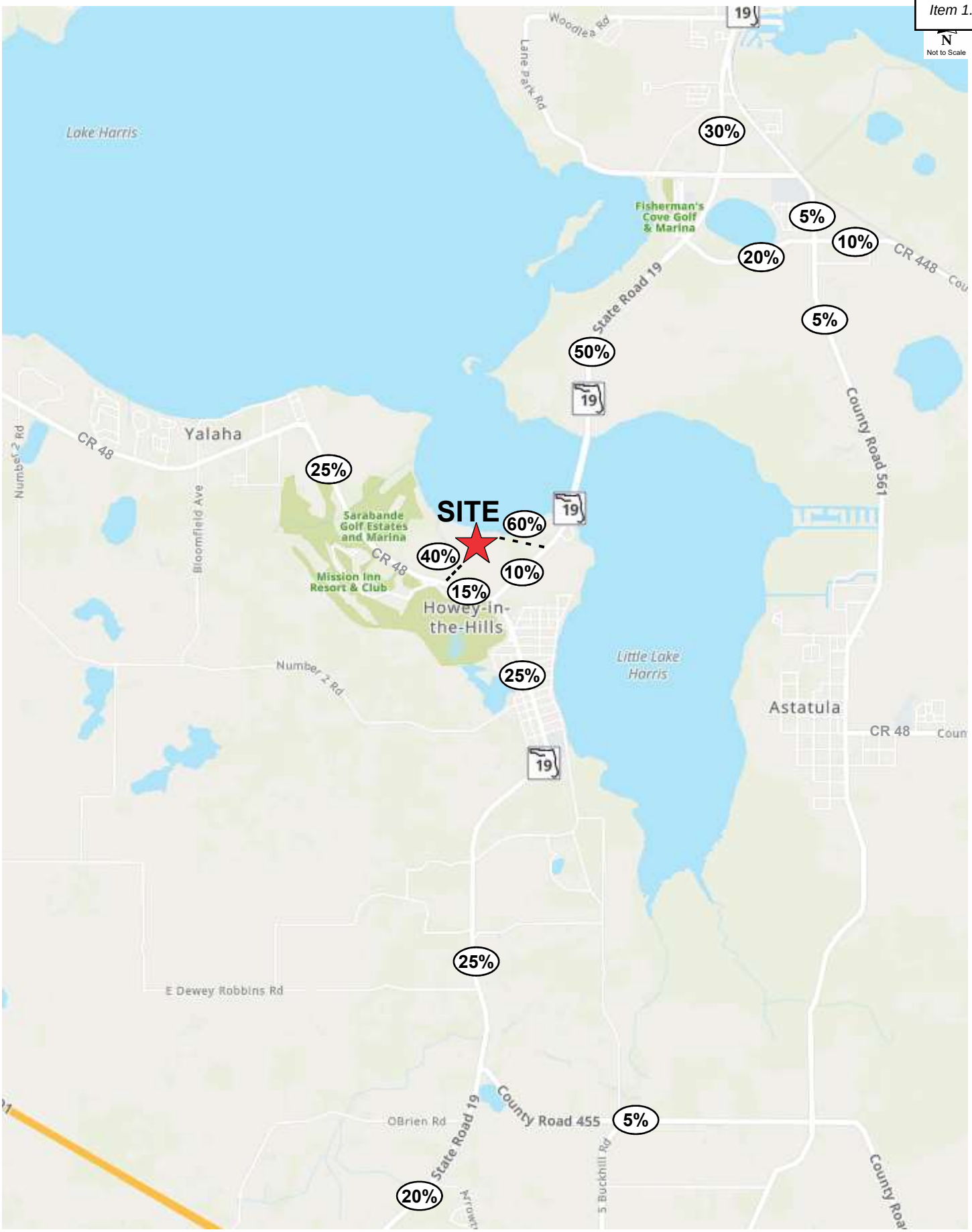
ITE			Daily		AM Peak Hour				PM Peak Hour			
Code	Land Use	Size	Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
251	Senior Housing Single Family	475 DU	4.31	2,047	0.27	127	42	85	0.31	150	91	59
252	Senior Housing Multifamily	125 DU	3.24	405	0.20	25	9	16	0.25	31	18	13
821	Shopping Plaza (40-150k)	92.300 KSF	94.49	8,721	3.53	326	202	124	9.03	833	400	433
851	Convenience Store	5.000 KSF	762.28	3,811	62.54	313	156	157	49.11	246	125	121
934	Fast Food Restaurant with Drive-Through Window	5.000 KSF	467.48	2,337	44.61	223	114	109	33.03	165	86	79
	Total Gross Trip Generation			17,322		1,014	523	491		1,425	720	705
	Internal Capture (Daily - 18.26%, AM -15.2%, PM -21.4%)			*3,163*		*154*	*79*	*75*		*304*	*154*	*150*
	External Trips			14,159		860	444	416		1,121	566	555
	Retail Pass-by (40%)			2,852		111	69	42		262	126	136
	Convenience Pass-by (51%)			1,589		135	68	67		98	50	48
	Fast-Food Pass-by (49%)			936		93	47	46		64	33	31
	Total Pass-by			5377		339	184	155		424	209	215
	Total Net New External Trip Generation			**8,782**		**521**	**260**	**261**		**697**	**357**	**340**

Source: ITE Trip Generation Manual, 11th Edition
ITE equations were used as R^2 were greater than 0.75 and with more than 20 studies

The proposed development at project buildout is projected to generate 8,782 new external daily trips; of which 521 external trips occur during the AM peak hour, and 697 external trips occur during the PM peak hour.

3.2 Trip Distribution/Assignment

The trip distribution pattern was developed using the *Central Florida Regional Planning Model (CFRPM v7)*. The model distribution was manually adjusted based on local knowledge, professional engineering judgement, and the location of the development with respect to the study area attractions and activity centers to better reflect prevailing travel and traffic flow patterns in the study area. The raw model plots are provided in **Appendix G**, and the adjusted project trip distribution is shown in **Figure 3.**



Project Trip Distribution
Lake Hills PD
23103

Figure 3

4.0 PLANNED AND PROGRAMMED IMPROVEMENTS

The *Lake-Sumter Metropolitan Planning Organization (LSMPO) 2023-2027 Transportation Improvement Program (TIP),* as well as *LSMPO 2022 List of Priority Projects (LOPP)* were reviewed to identify any planned or programmed improvements to the transportation facilities in the study area. The improvements are listed in **Table 5**. SR 19 is being widened to 4-lanes from CR 48 to CR 561 and will include a roundabout at the intersection of SR 19 and CR 48. Construction is not planned to be completed within the next three (3) years for either improvement. However, the intersection of SR 19 and CR 48 was evaluated as both a signal and a roundabout in this study. Excerpts from the *LSMPO TIP, LSMPO LOPP*, and the preliminary engineering plans for the roundabout are provided in **Appendix H**.

Table 5
Planned and Programmed Improvements

FM #	Project Name	From	To	Proposed Phase	Proposed Phase FY	Description of Improvement
2383191	SR 19 *	CR 48	CR 561	PDE-PE-ENV	2023	Add Lanes & Reconstruct
238319-1	SR 19 **	Howey Bridge	CR 561	-	-	Road Widening

** LSMPO TIP Fiscal Year 2023-2027*
*** LSMPO 2022 LOPP Tier 2 project*

5.0 PROJECTED CONDITIONS ANALYSIS

An analysis of projected conditions was conducted to determine the impact of the proposed development on the roadway segments' capacity, as well as the proposed access connections to the site. The project buildout year is 2028.

5.1 Background Traffic Projection

Projected traffic includes background traffic volumes, the project trips, and committed trips. Projected background traffic is based on traffic growth or vested trips, whichever was found to be higher. Traffic growth at the project buildout was estimated based on annual growth rates available on *2022 Lake County CMP Database* for county roads. For state roads the growth rates were calculated using the historical data between 2017 and 2022 obtained from *FTO website.* A minimum of 2% annual growth rate was applied to roadway segments for which minimal or no growth was detected. The committed trips for the following approved developments within the study area were included in the analysis:

- Whispering Hills – Buildout year 2023
- Talichet Phase 1 and Phase 2 – Buildout year 2023
- Garden Center commercial project (project information was obtained from the Town, but was determined to be insignificant with under 50 daily trips and therefore, trips were not included in this TIA)
- Drake Point (copy of site plan was obtained, trip generation was calculated, and trip assignment was assumed) – Buildout year 2025
- The Reserve at Howey-In-The-Hills (traffic study was obtained) – Buildout year 2028
- Watermark (Simpson) (traffic study was obtained) – Buildout year 2027

Excerpts from of these developments traffic studies are included in **Appendix I**.

5.2 Roadway Segment Capacity

The project trips were assigned to study roadway segments based on the project's trip generation and trip distribution pattern. Projected roadway conditions were analyzed by comparing the projected traffic volumes on the study roadway segments to their capacities and service volumes, which were obtained from *2022 Lake County CMP Database*. **Table 6** summarizes the projected roadway segment capacity analysis, which reveals the following:

- SR 19 from CR 561 to Central Avenue and from CR 455 to US 27/SR 25 are projected to operate over their capacities due to background traffic.
- All remaining roadway segments are projected to continue to operate adequately at project buildout.

Table 6
Projected Roadway Segment Capacity Analysis

Road Name	From	To	# of Lns	LOS Std	Dir Cap	Dir	Growth Rate	Existing Volume	Vested Trips	2028 Background Volume	2028 Background LOS	Trip Distr	2028 Buildout Project Trips	2028 Buildout Volume	2028 Buildout LOS	2028 Buildout V/C
CR 448	SR 19	CR 561	2	D	**840**	NB/EB	2%	277	37	314	C	20%	68	382	C	0.46
						SB/WB		224	63	287	C	20%	71	358	C	0.43
CR 48	US 27	LIME AVENUE	2	D	**1,080**	NB/EB	4%	420	219	639	C	25%	89	729	C	0.67
						SB/WB		380	285	665	C	25%	85	750	C	0.69
CR 48	LIME AVENUE	SR 19	2	D	**1,080**	NB/EB	2%	429	219	648	C	25%	85	733	C	0.68
						SB/WB		404	285	689	C	25%	89	778	C	0.72
SR 19	CR 561	LANE PARK ROAD	2	D	**920**	NB/EB	2%	775	155	930	F	30%	102	1,032	F	1.12
						SB/WB		647	292	939	F	30%	107	1,046	F	1.14
SR 19	LANE PARK ROAD	CR 48	2	D	**920**	NB/EB	2%	775	155	930	F	50%	170	1,100	F	1.20
						SB/WB		647	292	939	F	50%	178	1,117	F	1.21
SR 19	CR 48	CENTRAL AVENUE	2	D	**700**	NB/EB	2%	515	269	784	F	25%	89	873	F	1.25
						SB/WB		439	352	791	F	25%	85	876	F	1.25
SR 19	CENTRAL AVENUE	CR 455	2	D	**1,200**	NB/EB	2%	515	434	949	D	25%	89	1,038	D	0.87
						SB/WB		439	257	696	C	25%	85	781	C	0.65
SR 19	CR 455	US 27 / SR 25	2	C	**450**	NB/EB	2%	637	328	965	E	20%	71	1,036	E	2.30
						SB/WB		532	207	739	E	20%	68	807	E	1.79

Source: 2022 Lake County Congestion Management Process (CMP)

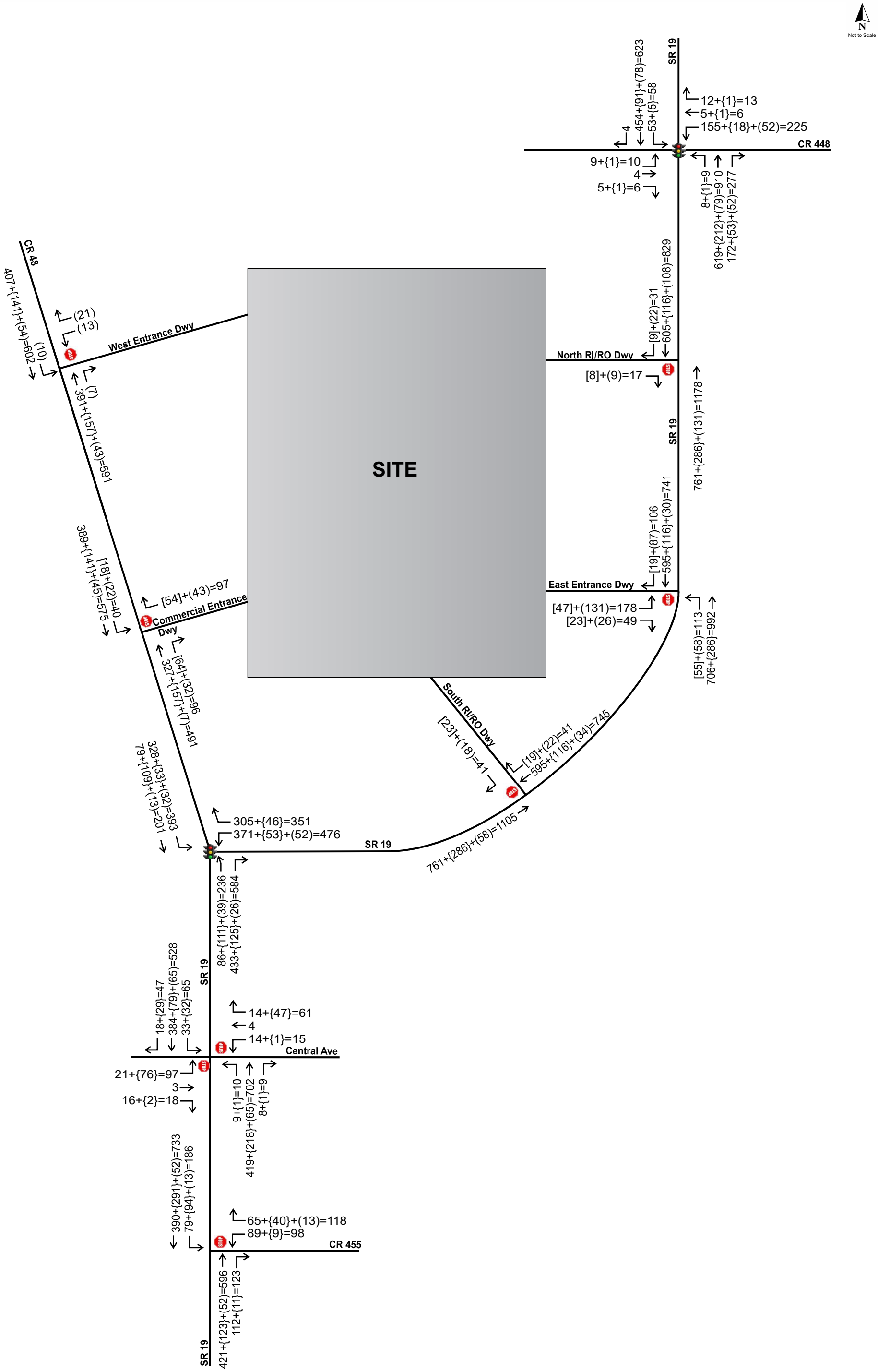
Background traffic volume is based on traffic growth or vested trips from committed developments, whichever was found to be higher.

It should be noted that SR 19 from CR 48 to CR 561 is programmed in the *TIP* to be widened to four (4) lanes, which will improve the LOS. The segment of SR 19 from CR 48 to Central would potentially require to be widened to four (4) lanes to achieve acceptable LOS conditions. If context classification of the segment SR 19 from CR 455 to US 27/SR 25 changes to urbanized area, the adopted LOS capacity would increase, which would result in an acceptable LOS.

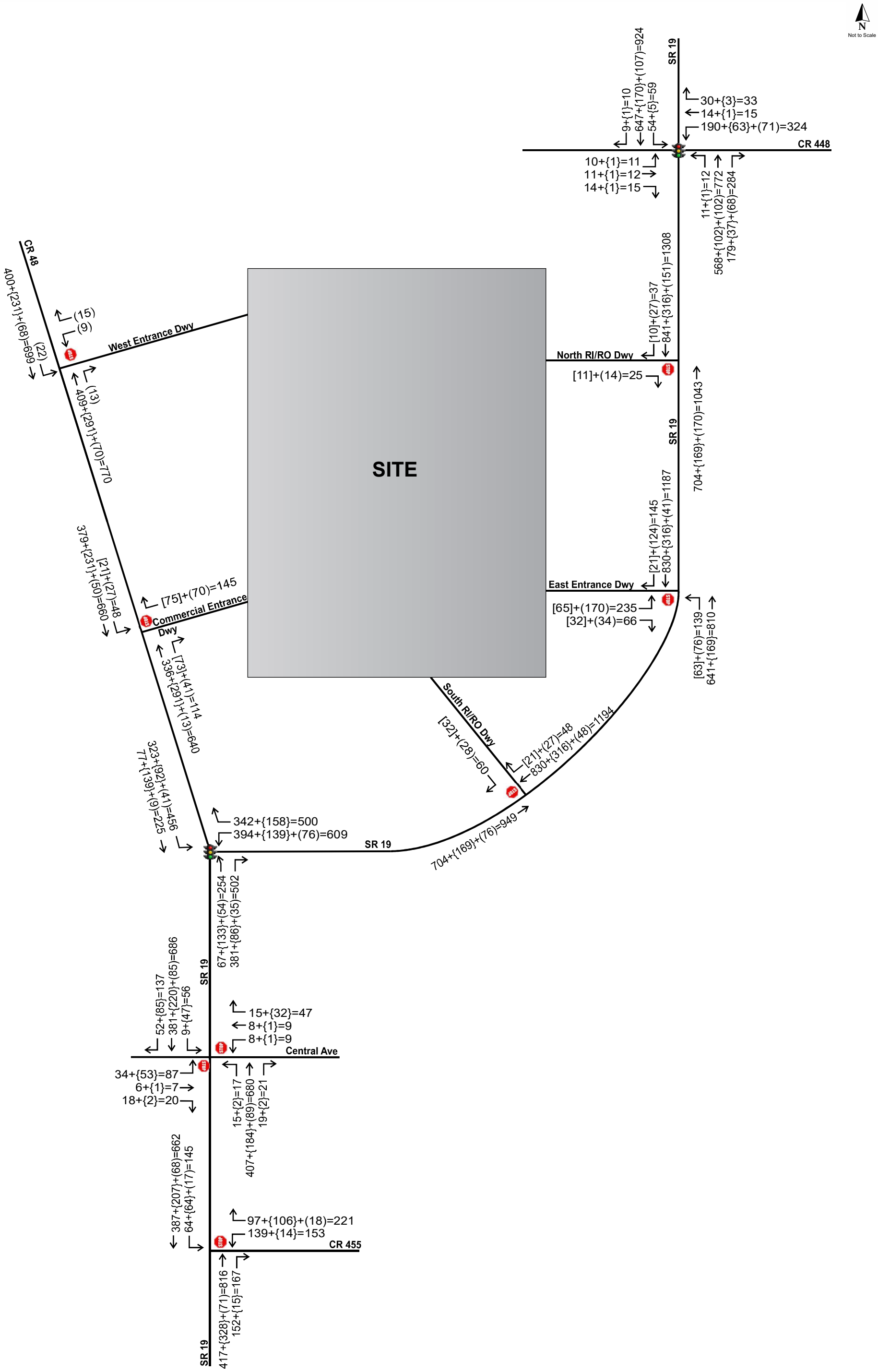
5.3 Intersection Capacity Analysis

The projected volumes for the intersection capacity and operations analysis were calculated by assigning the project trips to the project driveways and adding those volumes to the background volumes at the study intersections. Projected background traffic was estimated using the annual growth rate discussed in section 5.1.

The projected AM and PM peak hour volumes are illustrated in **Figure 4** and **Figure 5**, respectively. The results of the analysis for background and buildout traffic conditions are summarized in **Table 7.** The intersection volume projection sheets are included in **Appendix J**, and *HCM* analysis worksheets are included in **Appendix K**.



Legend:
Existing + {Vested} + [Pass-by]+ (Project) = Total



Legend:
Existing + {Vested} + [Pass-by]+ (Project) = Total

Projected PM Intersection Volumes
Lake Hills PD
23103

Figure
5

Table 7
Buildout Intersection Capacity Analysis

No	Intersection	Traffic Control	Time Period	Scenario	EB		WB		NB		SB		Overall	
					Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	SR 19 & CR 455	TWSC	AM	Background	--	--	33.7	D	--	--	10.3	B	--	--
				Buildout	--	--	41.2	E	--	--	10.8	B	--	--
			PM	Background	--	--	42.5	E	--	--	11.1	B	--	--
				Buildout	--	--	61.1	F	--	--	11.8	B	--	--
2	SR 19 & CR 48	Signal	AM	Background	--	--	134.3	F	22.6	C	130.2	F	118.3	F
				Buildout	--	--	167.5	F	23.5	C	163.1	F	145.4	F
		Roundabout		Buildout	--	--	8.6	A	13.9	B	11.2	B	11.2	B
		Signal	PM	Background	--	--	186.1	F	22.3	C	155.9	F	155.6	F
				Buildout	--	--	248.3	F	23.5	C	197.7	F	199.7	F
		Roundabout		Buildout	--	--	19.2	C	24.3	C	33.7	D	24.6	C
3	SR 19 & CR 448	Signal	AM	Background	26.9	C	32.6	C	28.8	C	15.7	B	24.9	C
				Buildout	26.5	C	34.2	C	56.8	E	19.9	B	42.2	D
			PM	Background	23.5	C	29.7	C	20.2	C	31.7	C	26.4	C
				Buildout	24.2	C	35.9	D	34.1	C	69.5	E	48.4	D
4	SR 19 & Central Ave	TWSC	AM	Background	>300	F	29.5	D	9.0	A	9.7	A	--	--
				Buildout	>300	F	39.3	E	9.3	A	10.1	B	--	--
			PM	Background	>300	F	30.3	D	9.4	A	9.1	A	--	--
				Buildout	>300	F	43.2	E	9.7	A	9.4	A	--	--
5	SR 19 & East Entrance Dwy	TWSC	AM	Buildout	250.7	F	--	--	10.8	B	--	--	--	--
			PM	Buildout	>300	F	--	--	16.3	C	--	--	--	--
6	SR 19 & West Entrance Dwy	TWSC	AM	Buildout	8.9	A	--	--	--	--	19.6	C	--	--
			PM	Buildout	9.7	A	--	--	--	--	26.8	D	--	--
7	SR 19 & Commercial Entrance Dwy	TWSC	AM	Buildout	--	--	13.2	B	--	--	9.0	A	--	--
			PM	Buildout	--	--	17.6	C	--	--	9.8	A	--	--
8	SR 19 & North RI/RO Dwy	TWSC	AM	Buildout	16.3	C	--	--	--	--	--	--	--	--
			PM	Buildout	30.7	D	--	--	--	--	--	--	--	--
9	SR 19 & South RI/RO Dwy	TWSC	AM	Buildout	15.7	C	--	--	--	--	--	--	--	--
			PM	Buildout	31.9	D	--	--	--	--	--	--	--	--

The analysis reveals the following:

- The intersection of SR 19 and CR 455 is projected to operate with delay for the westbound left movement. Project trips contribute no traffic to that movement.
- The signalized intersection of SR 19 and CR 48 is projected to operate overall above the adopted LOS at background and projected traffic conditions with delays on the westbound and southbound approaches; however, the intersection is projected to operate at acceptable LOS with a roundabout.
- The intersection of SR 19 and Central Avenue is operating with a flashing signal (beacon), and it is projected to experience delays on the eastbound approach at background and buildout conditions, due to heavy projected background traffic on SR 19. The project does not assign trips to the minor approaches.

- The intersection of SR 19 and East Entrance is projected to operate above the LOS standard at buildout condition with a two-way stop control sign. The developer will install a traffic signal at this entrance when warranted.

The remaining study intersections are projected to operate adequately at the project buildout.

6.0 ACCESS REVIEW

The development will be accessed via one (1) full access driveway on CR 48, serving the residential portion, one (1) full access driveway on SR 19, serving both residential and commercial parcels; one (1) directional driveway on CR 48, serving the commercial parcels; and two (2) right-in/right-out access driveways on SR 19, serving the commercial parcels. SR 19 is a 2-lane undivided roadway with a posted speed of 55 mph adjacent to the site. CR 48 is a 2-lane undivided roadway with a posted speed of 40 mph adjacent to the site.

6.1 Turn Lane Review

A review of the need for turn lanes at the project entrance intersections was conducted based on the Lake County *Land Development Code (LDC)* guidelines, which are provided in **Appendix L**. In accordance with the *LDC* guidelines, right and left turn lanes are warranted at the intersections on SR 19 and CR 48. The calculations are provided as follows:

SR 19 and East Entrance Driveway

Southbound Right Turn Lane Length = Taper Length + Storage Length
Taper Length at 60 mph (design speed) = 270 feet
Storage Length at 60 mph (design speed) = 220 feet
Southbound Right Turn Lane = 270 feet + 220 feet = 490 feet

Northbound Left Turn Lane Length = Taper Length + Storage Length
Taper Length at 60 mph (design speed) = 270 feet
Storage Length at 60 mph (design speed) = 220 feet
Northbound Left Turn Lane = 270 feet + 220 feet = 490 feet

CR 48 and West Entrance Driveway

Northbound Right Turn Lane Length = Taper Length + Storage Length
Taper Length at 45 mph (design speed) = 210 feet
Storage Length at 45 mph (design speed) = 165 feet
Northbound Right Turn Lane = 210 feet + 165 feet = 375 feet

Southbound Left Turn Lane Length = Taper Length + Storage Length
Taper Length at 45 mph (design speed) = 210 feet
Storage Length at 45 mph (design speed) = 165 feet
Southbound Left Turn Lane = 210 feet + 165 feet = 375 feet

CR 48 and Commercial Entrance Driveway

Northbound Right Turn Lane Length = Taper Length + Storage Length
Taper Length at 45 mph (design speed) = 210 feet
Storage Length at 45 mph (design speed) = 165 feet
Northbound Right Turn Lane = 210 feet + 165 feet = 375 feet

Southbound Left Turn Lane Length = Taper Length + Storage Length
Taper Length at 45 mph (design speed) = 210 feet
Storage Length at 45 mph (design speed) = 165 feet
Southbound Left Turn Lane = 210 feet + 165 feet = 375 feet

SR 19 and North Right-in/Right-out Driveway

Southbound Right Turn Lane Length = Taper Length + Storage Length
Taper Length at 60 mph (design speed) = 270 feet
Storage Length at 60 mph (design speed) = 220 feet
Southbound Right Turn Lane = 270 feet + 220 feet = 490 feet

SR 19 and South Right-in/Right-out Driveway

Southbound Right Turn Lane Length = Taper Length + Storage Length
Taper Length at 60 mph (design speed) = 270 feet
Storage Length at 60 mph (design speed) = 220 feet
Southbound Right Turn Lane = 270 feet + 220 feet = 490 feet

7.0 STUDY CONCLUSIONS

This traffic analysis was conducted to assess the impact of the proposed development of Lake Hills PD in the Town of Howey-In-The-Hills, Lake County, Florida. The project will include 475 Senior Adult Housing Single Family (SF) Detached Dwelling Units (DUs), 125 Senior Adult Housing SF Attached DUs, a 92,300 square foot shopping plaza, 5,000 square foot convenience store, and 5,000 square foot fast food restaurant with drive thru. Project is projected to be completed by year 2028. The analysis included a determination of project trip generation, a review of existing and projected roadway and intersection capacity, and an access review.

The results of the traffic analysis are summarized as follows:

- The proposed development is projected to generate 8,782 new external daily trips, of which 521 external trips occur during the AM peak hour, and 697 external trips occur during the PM peak hour at project buildout.

- The roadway segments of SR 19 from CR 561 to Central Avenue and from CR 455 to US 27/SR 25 are projected to operate over their capacities due to background traffic.

- SR 19 from CR 48 to CR 561 is programmed in the *TIP* to be widened to four (4) lanes, which is projected to improve the LOS.

- The segment of SR 19 from CR 48 to Central would potentially require widening to four (4) lanes to achieve acceptable LOS conditions.

- All remaining study roadway segments are projected to continue to operate adequately at project buildout.

- The intersection of SR 19 and CR 455 is projected to operate with delay for the westbound left movement. Project trips contribute no traffic to the movement.

- The signalized intersection of SR 19 and CR 48 is projected to operate overall above the adopted LOS at background and projected traffic conditions with delays on the westbound and southbound approaches; however, the intersection is projected to operate at acceptable LOS with a roundabout.

- The intersection of SR 19 and Central Avenue is projected to experience delays on the eastbound approach at background and buildout conditions due to heavy projected background traffic on SR 19. The project does not assign trips to the minor approaches.

- The intersection of SR 19 and East Entrance is projected to operate above the LOS standard at buildout condition with a two-way stop control sign. The developer will install a traffic signal at this entrance when warranted.

- Construct a 490-foot southbound right turn lane and a 490-foot northbound left turn lane at SR 19 and East Entrance Driveway.

- Construct a 375-foot northbound right turn lane and a 375-foot southbound left turn lane at CR 48 and West Entrance Driveway.

- Construct a 375-foot northbound right turn lane and a 375-foot southbound left turn lane at CR 48 and Commercial Entrance Driveway.

- Construct a 490-foot southbound right turn lane at SR 19 and North Right-in/Right-out Driveway.

- Construct a 490-foot southbound right turn lane at SR 19 and South Right-in/Right-out Driveway.

APPENDICES

Appendix A
Preliminary Development Plan

SITE DATA:

PARCEL ID:	23-20-25-0004-000-00200, 22-20-25-0004-000-01000, 15-20-25-0101-001-00000, 22-20-25-0001-000-01400, 23-20-25-0002-000-01100, 23-20-25-0002-000-00600, 23-20-25-0004-000-01000
JURISDICTION:	HOWEY-IN-THE-HILLS
ZONED:	PUD (LAKE HILLS 2011-008)
GROSS SITE AREA:	220.21 ACRES ±
TOTAL NUMBER OF LOTS:	571 LOTS
DENSITY:	2.59 DU/AC
OPEN SPACE REQUIRED:	55.33 AC (MIN. 25% OF GROSS AREA)
OPEN SPACE PROVIDED:	79.02 AC (36.0%)

LEGEND:

- WETLAND TO BE PRESERVED
- WETLAND IMPACT (2.74 AC)
- WETLAND BUFFER/OPEN SPACE
- OPEN SPACE/LANDSCAPE BUFFER
- TREE TO REMAIN
- TREE TO BE REMOVED

50' COTTAGE HOME LOT - (40'X85' PAD) TYPICAL	321	UNITS
60'+ COTTAGE HOME LOT - (50'X85' PAD) TYPICAL	152	UNITS
PAIRED HOME LOT - (30'X85' PAD -DUPLEX) TYPICAL	98	UNITS
TOTAL UNITS -	571	UNITS

DEVELOPED AREA	220.21 AC	100%
RESIDENTIAL LOTS	45.72 AC	20.8%
ASPHALT AREA:	15.19 AC	6.9%
RECREATION AREA:	6.36 AC	2.9%
12' MULTI-USE PATH:	1.20 AC	0.5%
WETLAND BUFFER:	8.24 AC	3.7%
WETLAND:	31.83 AC	14.4%
POND WET:	21.89 AC	9.9%
POND DRY:	6.40 AC	2.9%
PARK:	4.36 AC	2.0%
OPEN SPACE:	79.02 AC	36.0%
TOTAL PERVIOUS:	89.78 AC	40.9%
TOTAL IMPERVIOUS:	108.54 AC	49.2%
TOTAL WET POND:	21.89 AC.	9.9%

25' WETLAND BUFFER (TYP)
WETLAND LINE (TYP)
50' SHORELINE PROTECTION ZONE
WETLAND
25' WETLAND BUFFER (MIN.)
PRIVATE DOCKS (TYP)
LAKE HARRIS
PED TRAIL
COMMUNITY DOCK
POND B8 4.30 AC.
POND B12 1.07 AC.
POND B9 1.39 AC.
POND B11 1.27 AC.
POND B10 1.22 AC.
COMMUNITY RECREATION/PARK 6.36 AC.
POND B13 1.96 AC.
SCHOOL PARCEL 22.00 AC.
POND B7 0.49 AC.
POND B5 0.68 AC.
60' ROW TO ALLOW FOR 12' MULTI USE TRAIL
50' MIN. BLDG. PAD SETBACK TO WETLAND (TYP)
POND P3 1.49 AC.
POND B2 2.06 AC.
POND B14 0.63 AC.
15' LANDSCAPE BUFFER
PUBLIC PARK 4.21 AC. (INCLUDES .63 AC. POND & .26 AC. LS BUFFER)
GATED ENTRANCE
POND B1 4.55 AC.
BIKE/PED TRAIL
ACCESS/MAINTENANCE/CONSTRUCTION & SIGNAGE EASEMENT
POND B6 5.32 AC.
ACCESS TYPE SUBJECT TO CHANGE BASED ON FINAL TIA RECOMMENDATIONS AND FINAL SITE PLAN REVIEW
GATED ENTRANCE
CR 48
15' LANDSCAPE BUFFER ALONG CR 48
POND B4 1.86 AC.
COMMERCIAL TRACT
WPT TRACT
R/O
R/I
SR 19
ACCESS TYPE SUBJECT TO CHANGE BASED ON FINAL TIA RECOMMENDATIONS AND FINAL SITE PLAN REVIEW

GRAPHIC SCALE
200 0 100 200 400
(IN FEET)
1 inch = 200 ft.

MADDEN
MOORHEAD & STOKES, LLC
CIVIL ENGINEERS
431 E. Horatio Avenue
Suite 260
Maitland, Florida 32751
(407) 629-8330

PRELIMINARY SUBDIVISION PLAN
FOR
LAKE HILLS
LAKE COUNTY, FLORIDA
TOWN OF HOWEY-IN-THE-HILLS

LAKE HILLS
READER COMMUNITIES
5850 TG LEE BOULEVARD, SUITE 200
ORLANDO, FL 32822
(407) 856-4899

ENGINEER IN CHARGE:
DAVID A. STOKES, P.E. #65527
DATE: December 22, 2023
CERTIFICATE OF AUTHORIZATION NO. EB-0007923

	DATE	REVISIONS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

JOB #	23019
DATE:	10/27/2023
SCALE:	1"=200
DESIGNED BY:	JV
DRAWN BY:	JV
APPROVED BY:	DAS

H:\Data\23019-Lake Hills PD\Eng\PSP\C1.00 Prel Subd Plan.dwg December 22, 2023 9:43 AM

C1.00

LAND USE TABLE:

SITE AREA	OWNERSHIP	MAINTENANCE	AREA (AC)	AREA (%)
GROCERY RETAIL	PRIVATE	PRIVATE	9.13	47.59%
OUTPARCEL A	PRIVATE	PRIVATE	3.58	18.63%
OUTPARCEL B	PRIVATE	PRIVATE	0.97	5.07%
OUTPARCEL C	PRIVATE	PRIVATE	1.09	5.69%
OUTPARCEL D	PRIVATE	PRIVATE	2.33	12.13%
SHARED ENTRANCE ROAD	PRIVATE	PRIVATE	0.96	4.99%
PUBLIC RIGHT-OF-WAY	PUBLIC	PUBLIC	1.13	5.90%
TOTAL			19.19	100.00%

SITE DATA:

PARCEL ID: 23-20-25-0002-000-01100
JURISDICTION: HOWEY-IN-THE-HILLS
ZONING: PUD
GROSS SITE AREA: 19.19 ACRES ±

TOTAL BUILDING S.F.: 61,300 SF

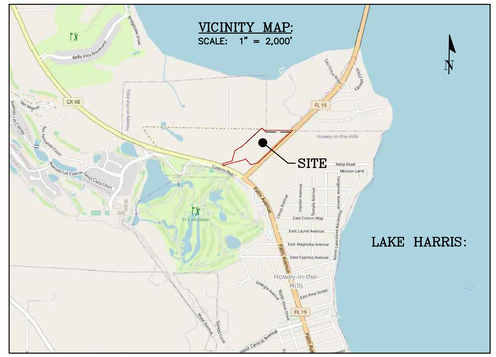
FLOOR AREA RATIO:
- MAXIMUM: 0.23 (PER OVERALL PD)
- PROPOSED: TO BE DETERMINED WITH FINAL SITE PLAN

MAX BUILDING HEIGHT: 35 FT (45 FT FOR PARAPETS, TOWERS, ETC.)

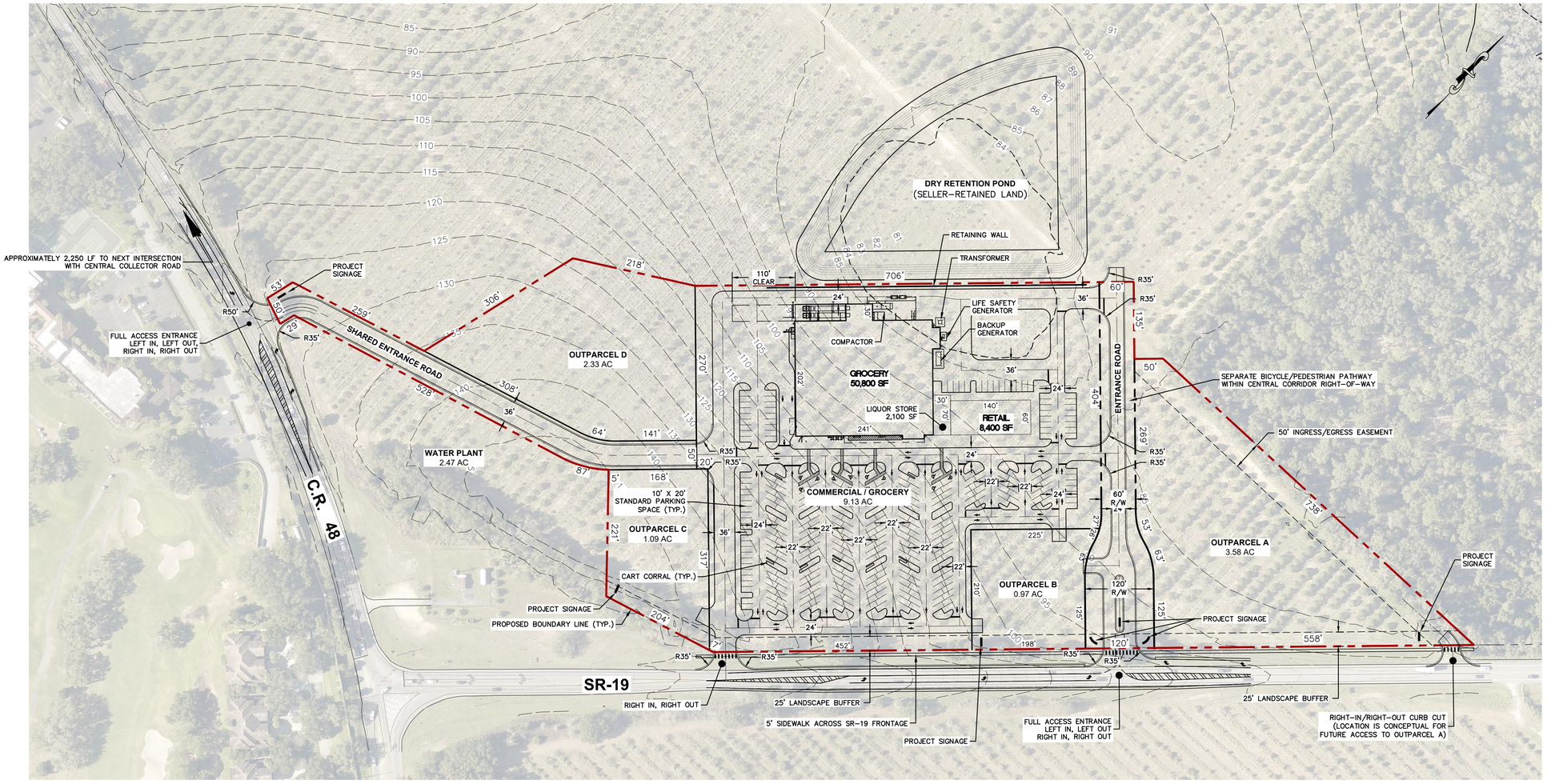
PARKING:
- REQUIRED: 306 SPACES
  5 SPACES PER 1,000SF OF BUILDING. AREA
  (61,300 SF / 1,000 SF) * 5 = 306 SPACES MIN.
- PROVIDED: 326 SPACES PROVIDED

OPEN SPACE:
- REQUIRED: 40 ACRES ON OVERALL PD
- PROVIDED: 0 (ZERO) ACRES. THIS PROJECT IS NOT CONTRIBUTING TO THE OVERALL OPEN SPACE COMMITMENT AS DEFINED UNDER SECTION 5.D OF THE PUD.

DEDICATIONS & RESERVATIONS: 1.13 AC TO BE DEDICATED AS PUBLIC RIGHT-OF-WAY



GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.



MADDEN
MOORHEAD & STOKES, LLC
CIVIL ENGINEERS
431 E. Horatio Avenue
Suite 260
Maitland, Florida 32751
(407) 629-8330

PRELIMINARY SITE PLAN
FOR
LAKE HILLS SHOPPING CENTER
FLORIDA
TOWN OF HOWEY IN THE HILLS

WINDCREST DEVELOPMENT GROUP, INC.
605 E. ROBINSON ST, SUITE 340
ORLANDO, FL 32801
407-219-3540

ENGINEER: BENJAMIN S. BECKHAM
LICENSE NUMBER 79452
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DATE: 11/10/2023
CERTIFICATE OF AUTHORIZATION NO. CA-0007723

	DATE	REVISIONS
1	11/10/23	REVISED PER HOWEY TRC COMMENTS
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

JOB # 22041
DATE: 09/29/23
SCALE: 1" = 100'
DESIGNED BY: JAS
DRAWN BY: JAS
APPROVED BY: BSB

C100

Appendix B
Study Methodology

Traffic & Mobility Consultants

MEMORANDUM

December 15, 2023

Re: Lake Hills PD
Tier 2 Traffic Impact Analysis (TIA) Methodology v1.2
Town of Howey-In-The-Hills, Florida
Project № 23103

This methodology outlines the proposed Traffic Impact Analysis (TIA) for the above referenced project. The methodology is consistent with the requirements of the Town of Howey-In-The-Hills and the Lake~Sumter Metropolitan Planning Organization (LSMPO) for a Tier 2 TIA. This methodology has been revised in accordance with the comments provided by the Town of Howey-in-the-Hills. The comments and response to comments letter are included in the **Attachments**.

Project Description

The ±264-acre site is proposed to be residential and commercial development consisting of parcels: 23-20-25-0004-000-00200, 23-20-25-0004-000-01000,23-20-25-0002-000-00600, and 22-20-25-0004-000-02600. The project will include 450 Senior Adult Housing Single Family (SF) Detached Dwelling Units (DUs), 150 Senior Adult Housing SF Attached DUs, and a total of 92,300 Square Feet shopping plaza, 5,000 Square Feet convenience store, and 5,000 Square Feet fast food restaurant with drive-thru. The development is projected to be completed by the year 2028. A preliminary site plan is included in the **Attachments**.

Project Location

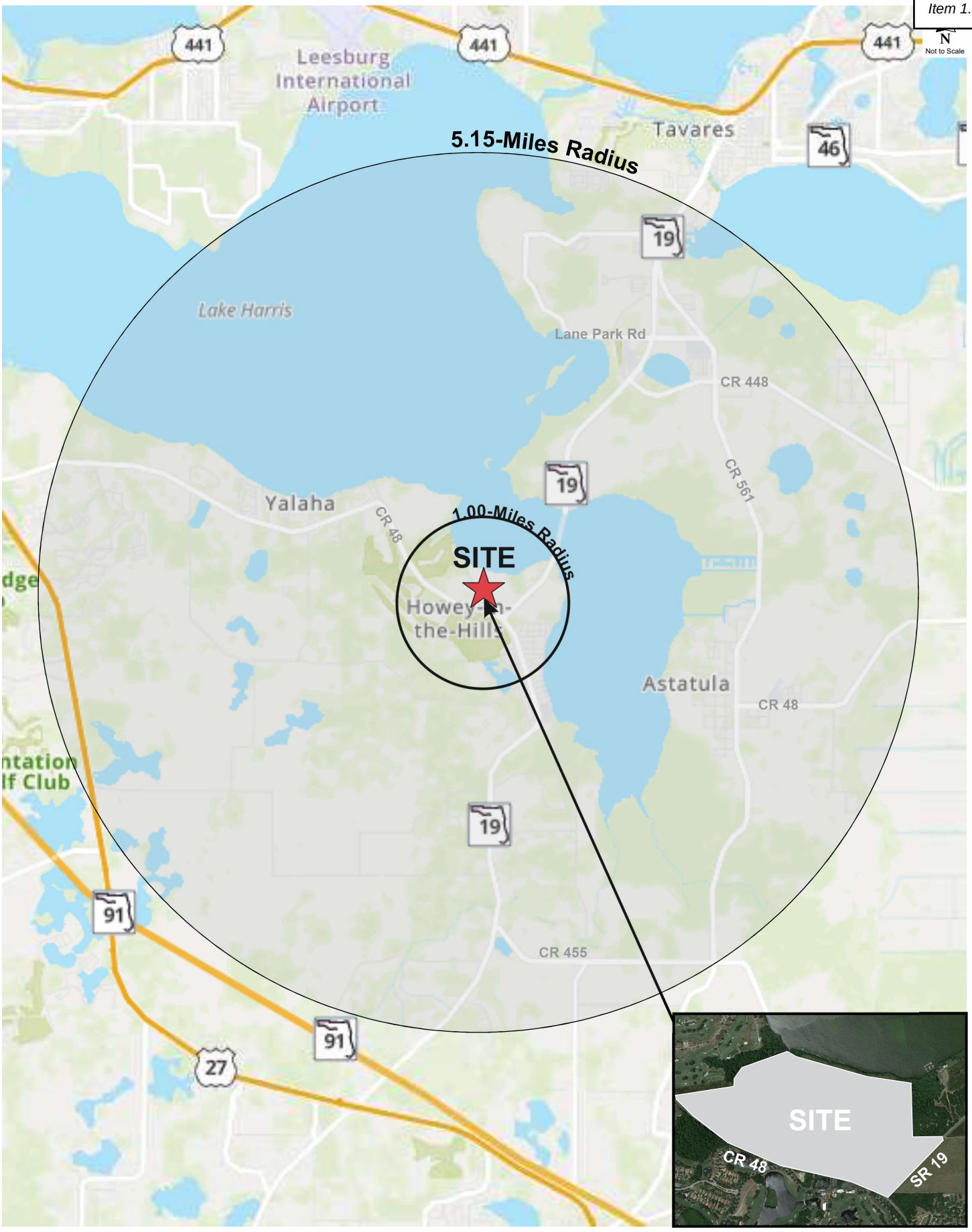
The site is located north of CR 48 and west of SR 19, in the Town of Howey-In-The-Hills, Florida, as shown in **Figure 1**.

Project Access

The project proposes two (2) full access driveways: one (1) on CR 48, serving the residential portion, and one (1) on SR 19, serving both residential and commercial parcels; one (1) directional driveway on CR 48, serving the commercial parcels; and two (2) right-in/right-out access driveways on SR 19, serving commercial parcels. The access configuration is depicted in the preliminary site plan included in the **Attachments**.

Trip Generation

A trip generation analysis was performed for the development using the trip generation information from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition.* The ITE information sheets are included in the **Attachments**. The trip generation of proposed development is summarized in **Table 1**.



TMC Traffic & Mobility Consultants

Site Location Map
Lake Hills PD
23103

Figure 1

Table 1
Trip Generation Calculations

ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
251	Senior Housing Single Family	475 DU	4.31	2,047	0.27	127	42	85	0.31	150	91	59
252	Senior Housing Multifamily	125 DU	3.24	405	0.20	25	9	16	0.25	31	18	13
821	Shopping Plaza (40-150k)	92.300 KSF	94.49	8,721	3.53	326	202	124	9.03	833	400	433
851	Convenience Store	5.000 KSF	762.28	3,811	62.54	313	156	157	49.11	246	125	121
934	Fast Food Restaurant with Drive-Through Window	5.000 KSF	467.48	2,337	44.61	223	114	109	33.03	165	86	79
	Total Gross Trip Generation			17,322		1,014	523	491		1,425	720	705
	Internal Capture (Daily - 18.26%, AM -15.2%, PM -21.4%)			*3,163*		*154*	*79*	*75*		*304*	*154*	*150*
	External Trips			14,159		860	444	416		1,121	566	555
	Retail Pass-by (40%)			2,852		111	69	42		262	126	136
	Convenience Pass-by (51%)			1,589		135	68	67		98	50	48
	Fast-Food Pass-by (49%)			936		93	47	46		64	33	31
	Total Net New External Trip Generation			**8,782**		**521**	**260**	**261**		**697**	**357**	**340**

Source: ITE Trip Generation Manual, 11th Edition
ITE equations were used as R^2 were greater than 0.75 and with more than 20 studies

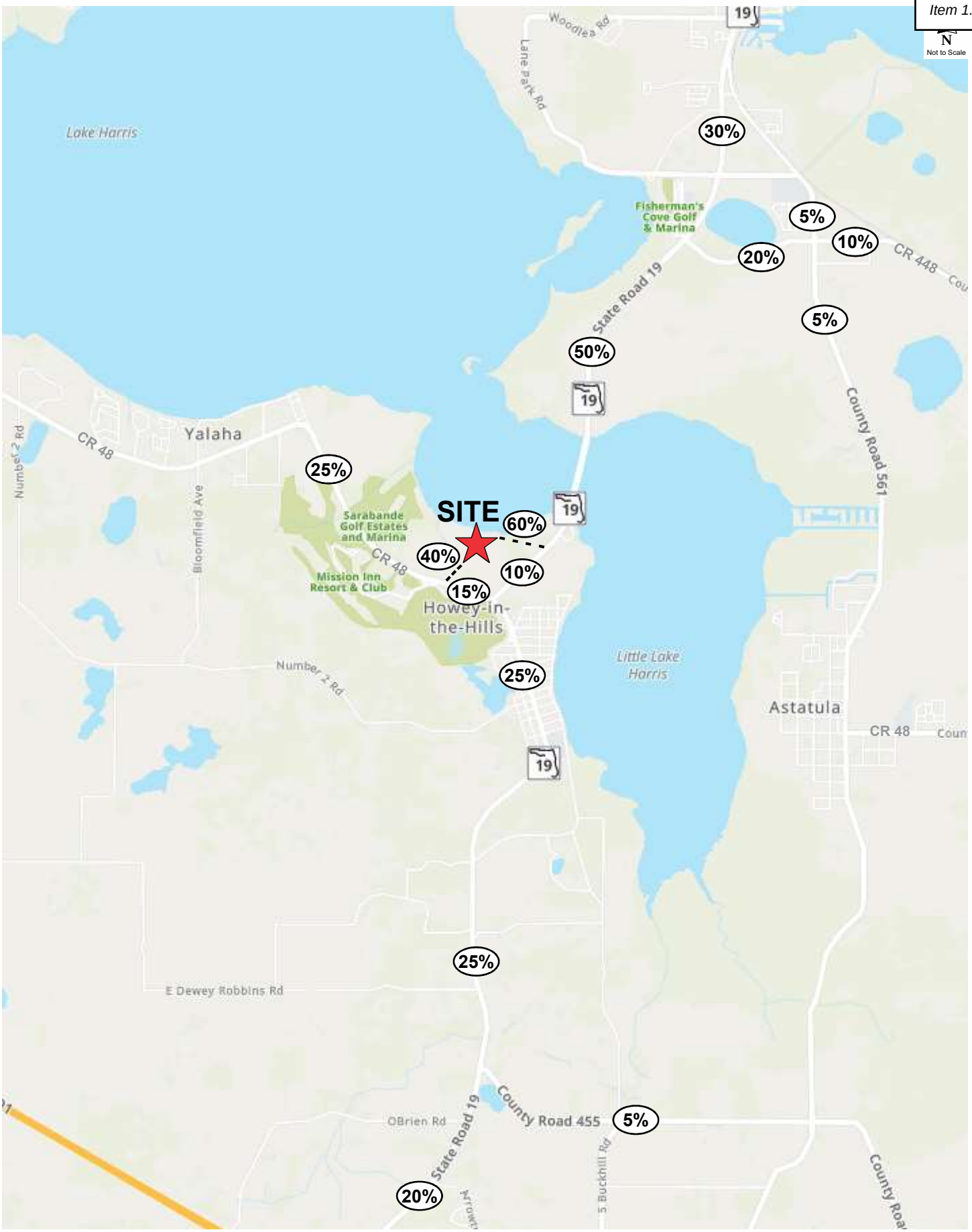
The proposed development at project buildout is projected to generate 8,760 new external daily trips; of which 521 external trips occur during the AM peak hour, and 697 external trips occur during the PM peak hour.

Trip Distribution

A trip distribution pattern was estimated using the *Central Florida Regional Planning Model, version 7 (CFRPM V7)*. The model distribution was adjusted based on local knowledge, professional engineering judgement, and the location of the development with respect to the study area attractions and activity centers to reflect prevailing travel patterns in the vicinity of the site and the surrounding transportation network. The raw model plots are provided in the **Attachments**, and the adjusted trip distribution is shown in **Figure 2.**

Study Area

In accordance with the LSMPO requirements for a Tier 2 TIA methodology and the Town of Howey-In-The-Hills *Land Development Code*, the study area will encompass roadway segments and intersections within a 1-mile radius at a minimum. The study will also include segments and intersections within a 5.15-mile radius, (½ the trip length for residential land use), where the project's peak hour trips consume five percent (5%) or more of a roadway's two-way peak hour generalized service volume, based on the adopted level of service (LOS), and committed number of lanes. The total trip length was obtained from the *Lake County Transportation Impact Fee Schedule Table 9-1* (dated 12/21/2001), included in the **Attachments**. The roadway segments identified by the significance test will be analyzed in the Tier 2 TIA. Excerpts from the *2022 Lake County Congestion Management Plan (CMP) Database* are included in the **Attachments**. The study area significance analysis is summarized in **Table 2**.



Project Trip Distribution
Lake Hills PD
23103

Figure
2

Table 2
Study Area Significance Analysis

Road Name	From	To	# LNS	A T	LOS Std	LOS Cap	Project Trips % Dist	Project Trips NB/EB	Project Trips SB/WB	Within 5.15 miles?	Within 1.0 miles?	% Cap	In Study?
CR 448	SR 19	CR 561	2	U	D	840	20%	68	71	YES	NO	8.5%	**YES**
CR 448	CR 561	Lake Industrial Blvd	2	U	D	840	10%	34	36	YES	NO	4.3%	**NO**
CR 455	SR 19	CR 561	2	R	C	740	5%	18	17	YES	NO	2.4%	**NO**
CR 48	US 27	Lime Ave	2	U	D	1,080	25%	89	85	YES	NO	8.2%	**YES**
CR 48	Lime Ave	SR 19	2	U	D	1,080	25%	85	89	YES	YES	8.2%	**YES**
CR 561	SR 19	CR 448	2	U	D	840	5%	18	17	YES	NO	2.1%	**NO**
CR 561	CR 448	CR 48	2	U	D	1,080	5%	17	18	YES	NO	1.7%	**NO**
CR 561	CR 48	S Astatula City Limits	2	U	D	620	5%	17	18	YES	NO	2.9%	**NO**
CR 561	S Astatula City Limits	CR 455	2	U	D	1,080	0%	0	0	YES	NO	0.0%	**NO**
SR 19	CR 561	Lane Park Rd	2	U	D	920	30%	102	107	YES	NO	11.6%	**YES**
SR 19	Lane Park Rd	CR 48	2	U	D	920	50%	178	171	YES	YES	19.3%	**YES**
SR 19	CR 48	Central Ave	2	U	D	700	25%	89	85	YES	YES	12.7%	**YES**
SR 19	Central Ave	CR 455	2	U	D	1,200	25%	89	85	YES	NO	7.4%	**YES**
SR 19	CR 455	US 27	2	R	C	450	20%	71	68	YES	NO	15.8%	**YES**

Source: 2022 Lake County CMP Database

Based on the study area analysis, the following roadway segments will be analyzed for the PM peak hour:

- CR 448
  - SR 19 to CR 561
  - CR 561 to Lake Industrial Boulevard
- CR 48
  - US 27 to Lime Avenue
  - Lime Avenue to SR 19
- SR 19
  - CR 561 to Lane Park Road
  - Lane Park Road to CR 48
  - CR 48 to Central Avenue
  - Central Avenue to CR 455
  - CR 455 to US 27/SR 25

The following intersections will be analyzed for the AM and PM peak hours:

- SR 19 and CR 455 (Unsignalized)
- SR 19 and CR 48 (Signalized)
- SR 19 and CR 448 (Signalized)
- SR 19 and Central Avenue (Unsignalized)
- SR 19 and East Entrance Driveway (Proposed)
- CR 48 and West Entrance Driveway (Proposed)
- CR 48 and Commercial Entrance Driveway (Proposed)
- SR 19 and North RI/RO Driveway (Proposed)
- SR 19 and South RI/RO Driveway (Proposed)

Projected Traffic

Projected traffic includes background traffic volumes, the project trips, and committed trips. Projected background traffic for the buildout year (2028) will be calculated using the 5-year annual average growth rates provided in the *Lake County Counts 2021_Master Table (6-15-2021)* for county roads. For state roads, the growth rates will be calculated using the last 5-year (2018-2022) historical data obtained from the *Florida Traffic Online (FTO)* website. A 2%, minimum growth rate will be applied if the calculated growth rates are lower than 2%.

The committed trips for the following approved developments within the study area will be included in the analysis as vested trips:

a. Whispering Hills (traffic study obtained)
b. Talichet Phase 1 and Phase 2 (traffic study obtained)
c. Garden Center commercial project (traffic generation obtained)
d. Drake Point (copy of site plan obtained)
e. The Reserve (153 townhomes and 628 single family residential units)
f. Watermark- Simpson Parcel (269 single family residential units)

Planned and Programmed Improvements

The FDOT *Work Program*, the *LSMPO Transportation Improvement Program (TIP),* the *Town of Howey-In-The-Hills* and the *Lake County Capital Improvement Programs (CIP)* were reviewed, if any roadway improvements are funded for construction within the study area. As shown in **Table 3**, construction is not planned to be completed within the next three (3) years for either improvement. Excerpts from the *LSMPO TIP* and *LSMPO LOPP* are provided in the **Attachments**. The project of SR 19 widening to 4-lane from CR 48 to CR 561 will include a roundabout at the intersection of SR 19 and CR 48. The future condition of the intersection will be evaluated for a roundabout, as well as a signal.

Table 3
Planned and Programmed Improvements

FM #	Project Name	From	To	Proposed Phase	Proposed Phase FY	Description of Improvement
2383191	SR 19 *	CR 48	CR 561	PDE-PE-ENV	2023	Add Lanes & Reconstruct
238319-1	SR 19 **	Howey Bridge	CR 561	-	-	Road Widening

** LSMPO TIP Fiscal Year 2023-2027*
*** LSMPO 2022 LOPP Tier 2 project*

Capacity Analysis

The traffic study will include existing and 2028 buildout conditions for the roadway segment and intersection capacity analyses. A capacity analysis of the study roadway segments will be conducted for the PM peak hour under existing and projected conditions. The capacity analysis will be based on service volumes, capacities, and existing volumes, as documented in *2022 Lake County CMP Database* and the *Generalized Table 7* from the *2023 FDOT Quality/Level of Service (Q/LOS) Handbook,* included in the **Attachments**.

The study intersections will be analyzed for the AM and PM peak conditions using the methods of the *Highway Capacity Manual (HCM), 6th Edition*. The analysis will be performed for the existing year and project buildout year (2028). The intersection turning movement counts will be seasonally adjusted, if needed, using the *2022 FDOT Peak Season Factor Category Report* obtained from the *Florida Traffic Online (FTO)* website.

The project access driveways on SR 19 and CR 48 will be analyzed for the AM and PM peak conditions, including the evaluation for the need of deceleration turn lanes at the project driveways in accordance with *National Cooperative Highway Research Program (NCHRP) Report 457*, and *Lake County Land Development Code (LDC)*.

In cases where a projected conditions analysis requires mitigation as a result of the proposed development, an analysis including the recommended mitigation will be conducted.

Alternative Mode Analysis

A review of transit, pedestrian and bicycle facilities will be conducted in accordance with the LSMPO requirements.

Report

A TIA report detailing the methods and findings of the study, including all associated graphics, tables, calculations, and supporting information will be prepared for submittal to the Town of Howey-In-The-Hills.

ATTACHMENTS

GRIFFEY ENGINEERING, INC.

October 24, 2023
Lake Hills PUD TIA Methodology
Engineering Review Comments
Page 1

1. Trip generation needs to be based on all of the land uses in the PUD (residential, commercial & institutional). Trips from the commercial portion need to be based on the most recent site plan (currently under review by the town). Provide realistic, reasonable estimates of the uses and building areas for the outparcels. Take the same approach for the institutional use.

2. Provide worksheets justifying the internal capture.

3. Since the character of trips for senior adult housing, commercial and institutional uses are very different, provide a separate distribution and trip assignment for each use to better estimate the true effects of the project.

4. There are planned improvements in this area. Refer to your traffic study for Mission Rise and incorporate that information into this one.

5. Projected traffic should include the Watermark project.

6. The commercial access on CR 48 should be limited to prohibit outbound left turns.

7. The future condition for the intersection of SR 19 & CR 48 should be evaluated for a roundabout as well as a signal.

8. The intersection of SR 19 and Central Avenue is currently not signalized, it is stop controlled on the side streets with a flashing beacon.

Traffic & Mobility Consultants

December 21, 2023

Mr. Don Griffey
Griffey Engineering Inc
36202 East Eldorado Lake Drive
Eustis, FL 32736
dag@griffeyengineering.com

Re: Lake Hills PD
Response to Methodology Comments
TMC Project № 23103
Town of Howey in the Hills, Florida

Dear Mr. Griffey,

Please find below our responses to the review comments prepared by Griffey Engineering Inc on behalf of The Town of Howey in the Hills dated December 11, 2023, regarding the above referenced Methodology dated October 24, 2023. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Methodology is provided under cover reflecting the changes resulting from these comments.

1. **Trip generation needs to be based on all of the land uses in the PUD (residential, commercial & institutional). Trips from the commercial portion need to be based on the most recent site plan (currently under review by the town). Provide realistic, reasonable estimates of the uses and building areas for the outparcels. Take the same approach for the institutional use.**

   TMC Response: As per the meeting held with the Lake County School Board, there are no plans for improvements in the district's current 5-year plan regarding the site on CR 48 owned by the school board. Please find the most recent site plan as well as correspondence with the School Board in the Attachments of the revised Methodology (v1.2) attached.

2. **Provide worksheets justifying the internal capture.**

   TMC Response: Internal capture calculations are included in the revised Methodology (v1.2) attached.

3. **Since the character of trips for senior adult housing, commercial and institutional uses are very different, provide a separate distribution and trip assignment for each use to better estimate the true effects of the project.**

   TMC Response: The trip distribution pattern was initially developed using the Central Florida Regional Planning Model (CFRPM v7), which took into account the different land use mix of the project. The model distribution was manually adjusted based on local knowledge, professional engineering judgement, and the location of the development with respect to the study area attractions and activity centers to better reflect prevailing travel and traffic flow patterns in the study area.

4. **There are planned improvements in this area. Refer to your traffic study for Mission Rise and incorporate that information into this one.**

   TMC Response: The planned and programmed improvements are included in revised TIA Methodology (v1.2) attached.

5. **Projected traffic should include the Watermark project.**

   TMC Response: The vested trips from the Watermark project will be included in the traffic study as indicated in the revised Methodology (v1.2) attached.

6. **The commercial access on CR 48 should be limited to prohibit outbound left turns.**

   TMC Response: Noted. The commercial access on CR 48 will be limited to prohibit outbound left turns and will be analyzed accordingly in the traffic study as indicated in the revised Methodology (v1.2) attached.

7. **The future condition for the intersection of SR 19 & CR 48 should be evaluated for a roundabout as well as a signal.**

   TMC Response: Noted. The future condition for the intersection of SR 19 & CR 48 will be evaluated for a roundabout as well as a signal in the traffic study, as indicated in the revised Methodology (v1.2) attached.

8. **The intersection of SR 19 and Central Avenue is currently not signalized, it is stop controlled on the side streets with a flashing beacon.**

   TMC Response: Noted. SR 19 at Central Avenue intersection is listed as an unsignalized intersection in the revised Methodology (v1.2) attached.

END OF COMMENTS

We trust these responses and the revised Methodology adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC

Ayman H. As-Saidi, PE
Director of Engineering

Batuhan Anlitan

From: Mark Watts <Mark.Watts@cobbcole.com>
Sent: Thursday, November 30, 2023 2:17 PM
To: Ayman As-Saidi; Dean Barberree; Tom Harowski; dag@griffeyengineering.com; Batuhan Anlitan; lavalleyh@lake.k12.fl.us
Cc: Regina Epple
Subject: Lake Hills PUD TIA

All,

As luck would have it, I was able to speak with Helen Lavalley after our call and have copied her here. With regard to the CR 48 site owned by the Lake County School Board, there are no plans for improvement in the district's current 5-year plan. Helen confirmed that any use of the property was likely in the 5–10-year horizon. There is no specific use planned, but the two most likely alternatives are administrative offices or an elementary school site. Their standard elementary site is designed to serve 940 students.

Helen,

Thanks for being available. Please jump in and correct me if I missed something. Thanks.

COBB COLE Attorneys at Law Since 1925

Mark Watts
Florida Bar No. 157521
Cobb Cole
231 North Woodland Boulevard
DeLand, FL 32720
(D) 386-736-7700 | (F) 386-785-1549
Website | Bio

Appendix C

2022 Lake County CMP & 2023 Florida Traffic Online (FTO) & FDOT Q/LOS Generalized Table

Lake County CMP Database

SEGMENT ID	COUNTY STATION	FDOT STATION	DATA SOURCE	SPEED LIMIT	SEGMENT LENGTH (MI)	ROAD NAME	FROM	TO	LANES (2022)	LANES (2027)	URBAN / RURAL	DIVIDED / UNDIVIDED	MAINTAINING AGENCY	JURISDICTION	ADOPTED LOS STANDARD	DAILY SERVICE VOLUME	2022 AADT	2022 DAILY V/C	2022 DAILY LOS	PEAK HOUR DIRECTIONAL SERVICE VOLUME	2022 PEAK HOUR NB/EB VOLUME	2022 PEAK HOUR SB/WB VOLUME	2022 PEAK HOUR V/C	2022 PEAK HOUR LOS	GROWTH RATE	DAILY SERVICE VOLUME (2027)	2027 AADT	2027 DAILY V/C	2027 DAILY LOS	PEAK HOUR DIRECTIONAL SERVICE VOLUME (2027)	2027 PEAK HOUR NB/EB VOLUME	2027 PEAK HOUR SB/WB VOLUME	2027 PEAK HOUR V/C	2027 PEAK HOUR LOS
10	486	117030	County	30	1.37	ABRAMS ROAD	SR 44	WAYCROSS AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	14,060	5,355	0.38	C	710	265	280	0.39	C	1.00%	14,060	5,628	0.40	C	710	279	294	0.41	C
20	27		County	30	0.67	ANDERSON HILL ROAD	LAKE SHORE DRIVE	US 27	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	10,360	1,635	0.16	C	530	61	106	0.20	C	1.00%	10,360	1,719	0.17	C	530	64	111	0.21	C
30	464		County	30	0.38	ARDICE AVENUE	KURT STREET	SR 19	2	2	URBAN	DIVIDED	CITY OF EUSTIS	CITY OF EUSTIS	D	13,990	5,162	0.37	C	710	239	286	0.40	C	1.00%	13,990	5,425	0.39	C	710	252	301	0.42	C
40	518		County	25	0.63	ARLINGTON AVENUE	W LADY LAKE BOULEVARD	SOUTH TERMINI	2	2	URBAN	UNDIVIDED	COUNTY	TOWN OF LADY LAKE	D	10,360	1,841	0.18	C	530	61	94	0.18	C	1.00%	10,360	1,935	0.19	C	530	64	99	0.19	C
50	246		County	40	1.89	AUSTIN MERRITT ROAD	YOUTH CAMP ROAD	CR 33	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	9,030	1,590	0.18	C	470	110	43	0.23	C	3.00%	9,030	1,843	0.20	C	470	127	50	0.27	C
60	489	117004	County	25	1.74	BATES AVENUE	N CENTER STREET	CR 44 / DELAND ROAD	2	2	URBAN	UNDIVIDED	CITY OF EUSTIS	CITY OF EUSTIS	D	10,360	1,320	0.13	C	530	56	70	0.13	C	1.00%	10,360	1,387	0.13	C	530	59	74	0.14	C
70	624		County	40	0.88	BATES AVENUE	CR 44 / DELAND ROAD	ESTES ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	1,659	0.10	C	840	103	185	0.22	C	1.00%	16,820	1,744	0.10	C	840	108	194	0.23	C
80	416		County	35	0.82	BAY ROAD	BAY ROAD / CR 19A	OLD US 441/ CR 500A	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	10,360	2,812	0.27	C	530	101	114	0.22	C	1.00%	10,360	2,956	0.29	C	530	107	120	0.23	C
90	411	117006	County	35	0.55	BAY ROAD	OLD US 441/ CR 500A	CR 452/ LAKESHORE DRIVE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	10,360	1,334	0.13	C	530	47	68	0.13	C	1.00%	10,360	1,402	0.14	C	530	49	72	0.14	C
100	212		County	35	1.64	BLACKSTILL LAKE ROAD	FOSGATE ROAD	CR 50	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF CLERMONT	D	14,060	6,485	0.46	C	710	258	316	0.44	C	8.00%	14,060	9,528	0.68	D	710	379	464	0.65	D
110	247		County	40	2.64	BRIDGES ROAD	SR 33	US 27	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	1,766	0.23	B	410	113	52	0.27	B	7.75%	7,740	2,566	0.33	B	410	164	75	0.40	B
120	620	117016	County	45	1.16	BRITT ROAD	SR 44	HORSE RANCH ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	12,390	4,927	0.40	C	620	261	141	0.42	C	7.75%	12,390	7,156	0.58	C	620	379	204	0.61	C
130	620		ADJACENT	45	1.47	BRITT ROAD	HORSE RANCH ROAD	WOLF BRANCH ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	12,390	4,927	0.40	C	620	261	141	0.42	C	7.75%	12,390	7,156	0.58	C	620	379	204	0.61	C
140	412		County	35	0.14	C.R. 19A (DORA AVENUE)	LAKE DORA DRIVE	C.R. 500A/ OLD 441	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	10,360	1,678	0.16	C	530	74	86	0.16	C	1.00%	10,360	1,764	0.17	C	530	78	90	0.17	C
150	437		County	35	1.35	C.R. 19A (DORA AVENUE)	C.R. 500A/ OLD 441	DAVID WALKER ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	14,060	5,088	0.36	C	710	262	223	0.37	C	1.00%	14,060	5,347	0.38	C	710	275	234	0.39	C
160	445		County	20	1.00	C.R. 19A (DORA AVENUE)	DAVID WALKER ROAD	US 441	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	14,060	3,544	0.25	C	710	152	170	0.24	C	1.00%	14,060	3,724	0.26	C	710	160	179	0.25	C
170	0		NO COUNT	35	0.48	C.R. 19A	CR 452	CR 44	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	14,060	-	-	-	710	-	-	-	-	N/A	14,060	-	-	-	710	-	-	-	-
180	507		County	45	0.68	C.R. 19A	CR 44	SR 19	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	3,355	0.27	C	620	194	171	0.31	C	2.00%	12,390	3,704	0.30	C	620	215	189	0.35	C
190	439		County	40	0.53	C.R. 19A	US 441	BAY ROAD	2	2	URBAN	UNDIVIDED	COUNTY	EUSTIS/MOUNT DORA	D	16,820	14,594	0.87	C	840	655	569	0.78	C	1.00%	16,820	15,338	0.91	C	840	688	598	0.82	C
200	424		County	45	0.93	C.R. 19A	BAY ROAD / CR 19A	CR 44C/ CR 500A	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	16,820	8,695	0.52	C	840	417	352	0.50	C	1.00%	16,820	9,138	0.54	C	840	438	370	0.52	C
210	540		County	35	1.53	C.R. 25	MARION COUNTY LINE	GRIFFIN AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	14,060	10,259	0.73	D	710	650	295	0.92	D	1.00%	14,060	10,782	0.77	D	710	683	310	0.96	D
220	534	117023	County	35	1.27	C.R. 25	GRIFFIN AVENUE	US 27 / US 441	2	2	URBAN	UNDIVIDED	COUNTY	TOWN OF LADY LAKE	D	14,060	7,945	0.57	D	710	277	486	0.68	D	1.00%	14,060	8,350	0.59	D	710	291	511	0.72	D
230	495		County	30	0.43	C.R. 25A	US 27/US 441	CR 466A	2	2	URBAN	UNDIVIDED	COUNTY	FRUITLAND PARK	D	10,360	7,951	0.77	D	530	354	370	0.70	D	1.00%	10,360	8,357	0.81	D	530	372	388	0.73	D
240	482		County	30	1.50	C.R. 25A	CR 466A	US 27/US 441	2	2	URBAN	UNDIVIDED	COUNTY	FRUITLAND PARK	D	10,360	5,064	0.49	C	530	269	273	0.51	D	1.00%	10,360	5,323	0.51	D	530	282	286	0.54	D
250	403	117037	County	45	1.65	C.R. 25A	US 27 (NORTH)	US 27 (SOUTH)	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF LEESBURG	D	12,390	384	0.03	C	620	-	-	-	-	1.00%	12,390	404	0.03	C	620	-	-	-	-
260	268		County	50	1.49	SR 33 / C.R. 33	US 27	CR 48 /CR 470	2	2	URBAN	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	18,590	10,168	0.55	C	920	404	392	0.44	C	2.25%	18,590	11,365	0.61	C	920	451	438	0.49	C
270	260		County	45	0.52	SR 33 / SR 48 / C.R. 33 / CR 48	CR 48 /CR 470	CR 48	2	2	URBAN	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	17,700	9,779	0.55	C	880	336	462	0.53	C	3.00%	17,700	11,337	0.64	C	880	390	536	0.61	C
280	249		County	55	4.27	C.R. 33	CR 48	BRIDGES ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	5,126	0.24	B	1,080	152	235	0.22	B	2.50%	21,780	5,799	0.27	B	1,080	172	266	0.25	B
290	218		ADJACENT	35	5.61	C.R. 33	BRIDGES ROAD	PEBBLE ROCK ROAD	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	7,606	0.98	C	410	297	303	0.74	C	4.00%	7,740	9,253	1.20	D	410	361	368	0.90	C
300	218		County	35	1.65	SR 33 / C.R. 33	PEBBLE ROCK ROAD	SR 50	2	2	URBAN	UNDIVIDED	STATE	CITY OF MASCOTTE	D	15,540	7,606	0.49	C	790	297	303	0.38	C	4.00%	15,540	9,253	0.60	D	790	361	368	0.47	C
310	542		County	45	0.64	C.R. 42	MARION COUNTY LINE	SR 19	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	15,930	5,139	0.32	C	790	253	244	0.32	C	4.25%	15,930	6,328	0.40	C	790	312	301	0.39	C
320	638		County	45	1.41	C.R. 42	SR 19	CR 450	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	9,030	5,010	0.55	C	470	56	75	0.16	C	6.00%	9,030	6,704	0.74	C	470	76	100	0.21	C
330	637		County	55	2.05	C.R. 42	CR 450	CR 439	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	6,070	0.78	C	410	291	282	0.71	C	3.75%	7,740	7,297	0.94	C	410	349	340	0.85	C
340	801		ADJACENT	40	3.58	C.R. 42	CR 439	CENTRAL AVENUE	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	3,824	0.49	B	410	158	170	0.41	B	1.00%	7,740	4,019	0.52	B	410	166	178	0.43	B
350	801		County	40	4.93	C.R. 42	CENTRAL AVENUE	PALMETTO STREET	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	14,130	3,824	0.27	B	740	158	170	0.23	B	1.00%	14,130	4,019	0.28	B	740	166	178	0.24	B
360	803		ADJACENT	55	3.60	C.R. 42	PALMETTO STREET	LAKE MACK DRIVE	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	14,130	5,702	0.40	B	740	170	350	0.47	B	3.75%	14,130	6,854	0.49	B	740	204	420	0.57	B
370	803		County	55	3.06	C.R. 42	LAKE MACK DRIVE	SR 44	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	14,130	5,702	0.40	B	740	170	350	0.47	B	3.75%	14,130	6,854	0.49	B	740	204	420	0.57	B
380	607		County	40	0.86	C.R. 435	SR 46	DUBSDREAD DRIVE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	15,930	7,844	0.49	C	790	363	360	0.46	C	1.00%	15,930	8,244	0.52	C	790	381	378	0.48	C
390	601		County	40	0.81	C.R. 435	DUBSDREAD DRIVE	ORANGE COUNTY LINE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	6,034	0.36	C	840	215	363	0.43	C	1.00%	16,820	6,341	0.38	C	840	226	381	0.45	C
400	627		County	55	1.74	C.R. 437	CR 44A	SR 44	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	12,260	6,199	0.51	C	640	224	375	0.59	C	1.00%	12,260	6,516	0.53	C	640	235	394	0.62	C
410	619		County	45	2.52	C.R. 437	SR 44	WOLF BRANCH ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	9,257	0.43	B	1,080	515	363	0.48	B	1.00%	21,780	9,729	0.45	B	1,080	541	381	0.50	C
420	609		County	45	0.49	C.R. 437	WOLF BRANCH ROAD	SR 46	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	15,930	12,313	0.77	C	790	441	607	0.77	C	1.00%	15,930	12,941	0.81	C	790	464	638	0.81	C
430	606		County	45	1.50	C.R. 437	SR 46	ORANGE COUNTY LINE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	15,930	8,083	0.51	C	790	290	424	0.54	C	1.00%	15,930	8,496	0.53	C	790	305	446	0.56	C
440	636		County	55	6.25	C.R. 439	CR 42	CR 44A	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	14,130	4,028	0.29	B	740	117	256	0.35	B	4.50%	14,130	5,019	0.36	B	740	145	319	0.43	B
450	625		County	45	1.53	C.R. 439	CR 44A	SR 44	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	9,030	4,596	0.51	C	470	135	269	0.57	C	1.25%	9,030	4,891	0.54	C	470	144	286	0.61	C
460	458		County	55	1.46	C.R. 44	US 441	SILVER LAKE ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	12,271	0.73	C	840	706	387	0.84	C	3.50%	16,820	14,574	0.87	C	840	839	459	1.00	D
470	483		County	55	2.79	C.R. 44	SILVER LAKE ROAD	CR 473	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	11,052	0.51	C	1,080	703	330	0.65	C	1.00%	21,780	11,616	0.53	C	1,080	739	347	0.68	C
480	500		County	40	3.17	C.R. 44	CR 473	APIARY ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	18,255	1.09	F	840	1,087	577	1.29	F	1.00%	16,820	19,186	1.14	F	840	1,142	607	1.36	F
490	506		County	45	2.75	C.R. 44	APIARY ROAD	CR 452	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	21,780	14,351	0.66	C	1,080	601	588	0.56	C	3.00%	21,780	16,637	0.76	D	1,080	696	682	0.64	C
500	502		County	30	0.68	C.R. 44	CR 452	SR 19	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	14,060	16,501	1.17	F	710	616	757	1.07	E	3.00%	14,060	19,130	1.36	F	710	714	878	1.24	F
510	503		County	45	1.01	C.R. 44	SR 19	HICKS DITCH ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	16,820	13,181	0.78	C	840	592	580	0.71	C	1.00%	16,820	13,853	0.82	C	840	622	609	0.74	C
520	498		County	45	1.21	C.R. 44	HICKS DITCH ROAD	CR 44A	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	16,820	10,910	0.65	C	840	473	479	0.57	C	1.00%	16,820	11,467	0.68	C	840	497	503	0.60	C
530	626		County	55	1.12	C.R. 44	CR 44A	ORANGE AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	9,431	0.56	C	840	499	362	0.59	C	1.00%	16,820	9,912	0.59	C	840	524	381	0.62	C
540	467		County	45	0.42	C.R. 44 LEG A	CR 44	US 441	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	15,930	986	0.06	C	790	66	14	0.08	C	1.00%	15,930	1,036	0.07	C	790	69	14	0.09	C
550	804		County	55	6.13	C.R. 445	SR 19	NF 552	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	630	0.08	B	410	231	247	0.60	C	1.00%	7,740	662	0.09	B	410	243	260	0.63	C
560	804		ADJACENT	55	4.74	C.R. 445	NF 552	CR 445A	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	630	0.08	B	410	231	247	0.60	C	1.00%	7,740	662	0.09	B	410	243	260	0.63	C
570	805		County	55	3.55	C.R. 445A	SR 19	CR 445	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	2,274	0.29	B	410	103	90	0.25	B	1.75%	7,740	2,480	0.32	B	410	112	98	0.27	B
580	806		County	45	0.55	C.R. 445A	CR 445	SR 40	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	11,610	2,697	0.23	C	600	115	104	0.19	C	1.00%	11,610	2,834	0.24	C	600	121	109	0.20	C
590	269		County	55	1.08	C.R. 448	SR 19	CR 561	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	5,376	0.32	C	840	277	224	0.33	C	2.00%	16,820	5,935	0.35	C	840	306	247	0.36	C
600	270		County	55	0.65	C.R. 448	CR 561	LAKE INDUSTRIAL BOULEVARD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	16,820	12,074	0.72	C	840	514	540	0.64	C	4.25%	16,820	14,867	0.88	C	840	632	665	0.79	C
610	261		County	45	4.69	C.R. 448	LAKE INDUSTRIAL BOULEVARD	ORANGE COUNTY LINE	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	14,130	8,705	0.62	B	740	437	408	0.59	B	1.75%	14,130	9,494	0.67	C	740	477	445	0.64	B
620	256		County	45	1.42	C.R. 448A	CR 448	CR 48	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	11,610	5,974	0.51	C	600	265	315	0.52	C	1.00%	11,610	6,279	0.54	C	600	279	331	0.55	C
630	254		County	55	1.38	C.R. 448A	CR 48	SOUTH TERMINI	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	9,030	290	0.03	C	470	-	-	-	-	1.00%	9,030	305	0.03	C	470	-	-	-	-
640	468		ADJACENT	45	1.80	C.R. 449 (SILVER LAKE)	CR 44	MORNINGSIDE DRIVE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	1,957	0.16	C	620	152	46	0.24	C	1.00%	12,390	2,057	0.17	C	620	160	48	0.26	C
650	468		County	45	1.25	C.R. 449 (SILVER LAKE)	MORNINGSIDE DRIVE	US 441	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF LEESBURG	D	12,390	1,957	0.16	C	620	152	46	0.24	C	1.00%	12,390	2,057	0.17	C	620	160	48	0.26	C
660	528		County	25	1.34	C.R. 44A (LAKESIDE AVENUE/ ROSE STREE	SR 19	SKYLINE DRIVE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF UMATILLA	D	10,360	1,197	0.12	C	530	68	60	0.13	C	3.50%	10,360	1,422	0.14	C	530	80	72	0.15	C
670	634		County	45	2.04	C.R. 44A	SKYLINE DRIVE	CR 450A/ CR44A	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	2,149	0.28	B	410	149	76	0.36	B	3.25%	7,740	2,522	0.33	B	410	175	89	0.43	B
680	629		County	45	2.83	C.R. 44A	CR 450A	CR 44A	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	2,398	0.31	B	410	125	98	0.30	B	2.75%	7,740	2,747	0.35	B	410	143	112	0.35	B
690	460		County	35	1.01	C.R. 44A (GRIFFIN ROAD)	THOMAS ROAD	US 27/US 441	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF LEESBURG	D	13,320	9,747	0.73	D	680	340	530	0.78	D	1.00%	13,320	10,244	0.77	D	680	357	557	0.82	D
700	628		County	55	0.88	C.R. 44A	CR 44 / DELAND ROAD	ESTES ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	15,930	5,819	0.37	C	790	238	294	0.37	C	3.50%	15,930	6,911	0.43	C	790	283	349	0.44	C
710	630		County	55	2.29	C.R. 44A	ESTES ROAD	CR 439	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	4,604	0.59	C	410	199	206	0.50	B	1.00%	7,740	4,839	0.63	C	410	210	217	0.53	B
720	631		County	45	3.18	C.R. 44A	CR 439	CR 437	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	14,130	4,201	0.30	B	740	198	181	0.27	B	1.00%	14,130	4,415	0.31	B	740	208	190	0.28	B
730	632		County	55	4.03	C.R. 44A	CR 437	SR 44	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	14,130	2,028	0.14	B	740	117	67	0.16	B	4.50%	14,130	2,527	0.18	B	740	146	83	0.20	B
760	440		County	25	0.91	C.R. 44C (EUDORA ROAD)	US 441	CR 500A	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	13,320	10,378	0.78	D	680	395	487	0.72	D	1.00%	13,320	10,907	0.82	D	680	415	512	0.75	D
770	461		County	35	0.75	C.R. 44C (GRIFFIN ROAD)	CR 468	THOMAS ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF LEESBURG	D	13,320	6,158	0.46	C	680	243	289	0.42	C	1.00%	13,320	6,472	0.49	C	680	256	304	0.45	C
780	541		County	55	4.55	C.R. 450	MARION COUNTY LINE	BABB ROAD	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	1,781	0.23	B	410	90	100	0.24	B	1.00%	7,740	1,872	0.24	B	410	95	105	0.26	B
790	531		County	35	0.96	C.R. 450	BABB ROAD	SR 19	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF UMATILLA	D	10,360	2,863	0.28	C	530	163	121	0.31	C	1.00%	10,360	3,009	0.29	C	530	172	127	0.32	C
800	533		County	35	2.06	C.R. 450	SR 19	E UMATILLA BOULEVARD/ W 7TH STREET	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF UMATILLA	D	21,780	5,016	0.23	B	1,080	202	270	0.25	B	1.75%	21,780	5,470	0.25	B	1,080	220	295	0.27	B
810	533		ADJACENT	35	1.36	C.R. 450	E UMATILLA BOULEVARD/ W 7TH STREET	CR 42	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	9,030	5,016	0.56	C	470	202	270	0.58	C	1.75%	9,030	5,470	0.61	C	470	220	295	0.63	C
820	633		County	55	2.72	C.R. 450A	SR 19	CR 44A NORTH	2	2	RURAL	UNDIVIDED	COUNTY	CITY OF UMATILLA	C	7,740	2,023	0.26	B	410	97	77	0.24	B	1.75%	7,740	2,207	0.29	B	410	106	84	0.26	B
830	532		County	55	3.93	C.R. 452	MARION COUNTY LINE	FELKINS ROAD	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	8,836	1.14	D	410	389	371	0.95	C	1.50%	7,740	9,519	1.23	D	410	419	399	1.02	D
840	532		ADJACENT	55	1.72	C.R. 452	FELKINS ROAD	SANDY LANE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	8,836	0.53	C	840	389	371	0.46	C	1.50%	16,820	9,519	0.57	C	840	419	399	0.50	C
850	504		ADJACENT	45	2.55	C.R. 452	SANDY LANE	LAKE LANDING BOULEVARD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	11,408	0.52	C	1,080	583	465	0.54	C	2.00%	21,780	12,596	0.58	C	1,080	643	513	0.60	C
860	504		County	45	1.06	C.R. 452	LAKE LANDING BOULEVARD	CR 44	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	16,820	11,408	0.68	C	840	583	465	0.69	C	2.00%	16,820	12,596	0.75	C	840	643	513	0.77	C
870	496	117026	County	40	0.99	C.R. 452 (EUSTIS)	CR 44 / CR 452	SR 19	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	12,390	15,205	1.23	F	620	665	541	1.07	F	1.25%	12,390	16,179	1.31	F	620	708	575	1.14	F
880	418		County	30	0.84	ST CLAIR ABRAMS AVENUE	US 441	CR 500A	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	10,360	2,540	0.25	C	530	-	-	-	-	1.00%	10,360	2,670	0.26	C	530	-	-	-	-
890	418		ADJACENT	30	0.13	ST CLAIR ABRAMS AVENUE	CR 500A	CR 452 / EAST MAIN STREET	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	10,360	2,540	0.25	C	530	-	-	-	-	1.00%	10,360	2,670	0.26	C	530	-	-	-	-
900	409		County	35	0.40	C.R. 452 (E MAIN STREET)	ST CLAIR ABRAMS AVENUE	DORA AVENUE	2	2	URBAN	DIVIDED	COUNTY	CITY OF TAVARES	D	13,990	2,654	0.19	C	710	148	142	0.21	C	1.00%	13,990	2,789	0.20	C	710	155	149	0.22	C
910	407		County	35	1.58	C.R. 452 (LAKE DORA DRIVE)	DORA AVENUE	LAKE AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	10,360	1,489	0.14	C	530	65	82	0.15	C	1.00%	10,360	1,565	0.15	C	530	69	86	0.16	C
920	404		ADJACENT	35	0.53	C.R. 452 (LAKESHORE DRIVE)	LAKE AVENUE	BAY ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	10,360	1,522	0.15	C	530	60	83	0.16	C	1.00%	10,360	1,599	0.15	C	530	63	87	0.16	C
930	404		County	35	2.19	C.R. 452 (LAKESHORE DRIVE)	BAY ROAD	OLD US 441 / CR 500A	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	1,522	0.07	B	1,080	60	83	0.08	B	1.00%	21,780	1,599	0.07	B	1,080	63	87	0.08	B
940	419		County	25	0.15	C.R. 452 (LAKESHORE DRIVE)	OLD US 441 / CR 500A	11TH AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	10,360	744	0.07	C	530	38	33	0.07	C	3.00%	10,360	863	0.08	C	530	44	38	0.08	C
950	245		County	45	2.73	C.R. 455	SR 19	CR 561	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	14,130	3,906	0.28	B	740	194	154	0.26	B	1.50%	14,130	4,208	0.30	B	740	209	166	0.28	B
960	243		County	25	4.49	C.R. 455	CR 561	CR 561A	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	2,017	0.26	B	410	109	115	0.28	B	4.25%	7,740	2,483	0.32	B	410	134	142	0.35	B
970	227		County	45	3.46	C.R. 455	C.R. 561A	RIDGEWOOD AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	TOWN OF MONTVERDE	D	12,390	3,193	0.26	C	620	172	137	0.28	C	5.00%	12,390	4,075	0.33	C	620	220	175	0.35	C
980	204		County	35	2.61	C.R. 455	RIDGEWOOD AVENUE	CR 455/ CR 50	2	2	URBAN	UNDIVIDED	COUNTY	TOWN OF MONTVERDE	D	21,780	7,675	0.35	B	1,080	301	391	0.36	B	1.00%	21,780	8,066	0.37	B	1,080	316	411	0.38	B
990	43		County	45	0.95	C.R. 455	CR 455 / CR 50	SR 50	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	8,557	0.51	C	840	368	339	0.44	C	1.50%	16,820	9,219	0.55	C	840	396	365	0.47	C
1000	603	110416	County	35	0.68	C.R. 46 (SANFORD ROAD)	HIGHLAND STREET	US 441	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	10,360	7,452	0.72	D	530	373	377	0.71	D	1.00%	10,360	7,832	0.76	D	530	392	396	0.75	D
1010	475		County	35	0.44	C.R. 460 (MARTIN LUTHER KING BOULEVARI	THOMAS ROAD	US 27	2	2	URBAN	DIVIDED	COUNTY	CITY OF LEESBURG	D	13,990	6,904	0.49	D	710	284	382	0.54	D	1.00%	13,990	7,257	0.52	D	710	299	402	0.57	D
1020	522	117033	County	45	1.02	C.R. 466	SUMTER COUNTY LINE ROAD	ROLLING ACRES ROAD	4	4	URBAN	DIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	35,820	22,053	0.62	C	1,800	1,046	886	0.58	C	1.00%	35,820	23,178	0.65	C	1,800	1,099	931	0.61	C
1030	523	117034	County	45	0.88	C.R. 466	ROLLING ACRES ROAD	US 27	4	4	URBAN	DIVIDED	COUNTY	TOWN OF LADY LAKE	D	35,820	15,567	0.43	C	1,800	739	581	0.41	C	1.00%	35,820	16,361	0.46	C	1,800	776	610	0.43	C
1040	527		County	25	2.45	C.R. 466 / LAKE GRIFFIN ROAD	US 27/ US 441	GRAYS AIRPORT ROAD	2	2	URBAN	UNDIVIDED	COUNTY	TOWN OF LADY LAKE	D	21,780	3,149	0.14	B	1,080	109	182	0.17	B	3.00%	21,780	3,651	0.17	B	1,080	126	211	0.20	B
1050	527		ADJACENT	25	1.67	C.R. 466 / LAKE GRIFFIN ROAD	GRAYS AIRPORT ROAD	MARION COUNTY ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	13,320	3,149	0.24	C	680	109	182	0.27	C	3.00%	13,320	3,651	0.27	C	680	126	211	0.31	C

Lake County CMP Database

Item 1.

SEGMENT ID	COUNTY STATION	FDOT STATION	DATA SOURCE	SPEED LIMIT	SEGMENT LENGTH (MI)	ROAD NAME	FROM	TO	LANES (2022)	LANES (2027)	URBAN / RURAL	DIVIDED / UNDIVIDED	MAINTAINING AGENCY	JURISDICTION	ADOPTED LOS STANDARD	DAILY SERVICE VOLUME	2022 AADT	2022 DAILY V/C	2022 DAILY LOS	PEAK HOUR DIRECTIONAL SERVICE VOLUME	2022 PEAK HOUR NB/EB VOLUME	2022 PEAK HOUR SB/WB VOLUME	2022 PEAK HOUR V/C	2022 PEAK HOUR LOS	GROWTH RATE	DAILY SERVICE VOLUME (2027)	2027 AADT	2027 DAILY V/C	2027 DAILY LOS	PEAK HOUR DIRECTIONAL SERVICE VOLUME (2027)	2027 PEAK HOUR NB/EB VOLUME	2027 PEAK HOUR SB/WB VOLUME	2027 PEAK HOUR V/C	2027 PEAK HOUR LOS
1060	492	117031	County	45	1.01	C.R. 466A	SUMTER COUNTY LINE	TIMBERTOP LN	4	4	URBAN	DIVIDED	COUNTY	FRUITLAND PARK	D	29,850	19,606	0.66	C	1,500	707	945	0.63	C	1.00%	29,850	20,606	0.69	C	1,500	743	993	0.66	C
1065	492	117031	ADJACENT	45	1.38	C.R. 466A	TIMBERTOP LN	CR 468 / ROSE AVENUE	2	4	URBAN	UNDIVIDED	COUNTY	FRUITLAND PARK	D	12,390	19,606	1.58	F	620	707	945	1.52	F	1.00%	27,860	20,606	0.74	C	1,400	743	993	0.71	C
1070	491		County	35	0.64	C.R. 466A	CR 468 / ROSE AVENUE	US 27	4	4	URBAN	DIVIDED	COUNTY	FRUITLAND PARK	D	29,160	7,671	0.26	C	1,470	307	314	0.21	C	3.75%	29,160	9,221	0.32	C	1,470	368	378	0.26	C
1080	474		County	40	1.94	C.R. 466A (PICCIOLA ROAD)	US 27	CR 466B	2	2	URBAN	UNDIVIDED	COUNTY	FRUITLAND PARK	D	16,820	7,180	0.43	C	840	344	260	0.41	C	1.00%	16,820	7,546	0.45	C	840	362	273	0.43	C
1090	474		ADJACENT	40	1.35	C.R. 466A (PICCIOLA ROAD)	CR 466B	COUNTY ROAD TERMINI	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	7,180	0.58	C	620	344	260	0.56	C	1.00%	12,390	7,546	0.61	C	620	362	273	0.58	C
1100	497		County	35	1.75	C.R. 466B	EAGLE NEST ROAD	CR 466A	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	10,360	5,060	0.49	C	530	193	233	0.44	C	1.25%	10,360	5,385	0.52	D	530	205	248	0.47	C
1110	490		County	35	0.55	C.R. 468	CR 466A	PINE RIDGE DAIRY ROAD	2	2	URBAN	UNDIVIDED	COUNTY	FRUITLAND PARK	D	10,360	4,719	0.46	C	530	190	213	0.40	C	1.25%	10,360	5,021	0.48	C	530	202	227	0.43	C
1120	480		County	35	1.80	C.R. 468	PINE RIDGE DAIRY ROAD	GRIFFIN ROAD	2	2	URBAN	UNDIVIDED	COUNTY	FRUITLAND PARK	D	13,320	7,736	0.58	D	680	343	384	0.56	D	3.00%	13,320	8,968	0.67	D	680	398	445	0.65	D
1130	436		County	45	1.13	C.R. 468	GRIFFIN ROAD	SR 44	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	9,173	0.74	C	620	440	404	0.71	C	1.75%	12,390	10,005	0.81	C	620	480	440	0.77	C
1145	612		County	55	3.65	C.R. 46A REALIGNMENT	SR 44	SR 46	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	16,576	2.14	E	410	663	857	2.09	E	3.50%	7,740	19,687	2.54	E	410	788	1,018	2.48	E
1150	267		County	55	0.94	C.R. 470	SUMTER COUNTY LINE	FLORIDA TURNPIKE	2	4	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	13,300	11,303	0.85	D	690	530	376	0.77	D	8.50%	28,880	16,996	0.59	C	1,500	797	566	0.53	C
1155	266		County	55	2.39	C.R. 470	FLORIDA TURNPIKE	BAY AVENUE	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,600	8,826	0.70	D	660	436	278	0.66	D	1.00%	12,600	9,276	0.74	D	660	458	292	0.69	D
1160	266		ADJACENT	55	0.54	C.R. 470	BAY AVENUE	CR 33	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	8,826	0.71	C	620	436	278	0.70	C	1.00%	12,390	9,276	0.75	C	620	458	292	0.74	C
1170	499		County	35	2.99	C.R. 473	CR 44	FOUNTAIN LAKE BOULEVARD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	14,060	6,957	0.49	D	710	322	242	0.45	C	1.00%	14,060	7,312	0.52	D	710	338	255	0.48	C
1180	443		County	40	1.03	C.R. 473	FOUNTAIN LAKE BOULEVARD	US 441	4	4	URBAN	DIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	35,820	14,713	0.41	C	1,800	811	461	0.45	C	1.00%	35,820	15,464	0.43	C	1,800	852	485	0.47	C
1190	4		County	55	5.21	C.R. 474	SR 33	GREEN SWAMP ROAD	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	5,962	0.77	C	410	151	240	0.59	C	2.50%	7,740	6,745	0.87	C	410	171	272	0.66	C
1200	3		County	55	3.35	C.R. 474	GREEN SWAMP ROAD	US 27	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	5,436	0.70	C	410	173	202	0.49	B	1.00%	7,740	5,713	0.74	C	410	182	212	0.52	B
1210	222		County	45	5.99	C.R. 478	SR 19	JAMARLY ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF GROVELAND	D	21,780	2,244	0.10	B	1,080	112	93	0.10	B	7.75%	21,780	3,259	0.15	B	1,080	162	135	0.15	B
1220	259		County	55	3.17	C.R. 48	SUMTER COUNTY LINE	CLEARWATER LAKE RD	2	2	RURAL	UNDIVIDED	COUNTY	CITY OF LEESBURG	C	7,740	3,504	0.45	B	410	112	180	0.44	B	4.25%	7,740	4,315	0.56	C	410	138	222	0.54	C
1225	248		County	55	2.41	C.R. 48	CLEARWATER LAKE RD	CR 33	2	2	RURAL	UNDIVIDED	COUNTY	CITY OF LEESBURG	C	7,740	3,327	0.43	B	410	123	206	0.50	B	1.75%	7,740	3,629	0.47	B	410	134	224	0.55	C
1230	263		County	45	0.46	C.R. 48	CR 33	HAYWOOD WORM FARM RD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	15,930	8,836	0.55	C	790	370	297	0.47	C	2.75%	15,930	10,120	0.64	C	790	424	340	0.54	C
1235	262		County	45	0.68	C.R. 48	HAYWOOD WORM FARM RD	US 27	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	9,073	0.54	C	840	401	375	0.48	C	1.00%	16,820	9,536	0.57	C	840	421	394	0.50	C
1240	264		County	40	4.89	C.R. 48	US 27	LIME AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	9,821	0.45	B	1,080	420	380	0.39	B	4.00%	21,780	11,949	0.55	C	1,080	511	462	0.47	B
1250	255		County	40	2.04	C.R. 48	LIME AVENUE	SR 19	2	2	URBAN	UNDIVIDED	COUNTY	HOWEY-IN-THE-HILLS	D	21,780	9,982	0.46	B	1,080	429	404	0.40	B	1.50%	21,780	10,754	0.49	C	1,080	462	435	0.43	B
1260	253		County	40	1.14	C.R. 48	CR 561	RANCH ROAD	2	2	URBAN	UNDIVIDED	COUNTY	TOWN OF ASTATULA	D	16,820	6,515	0.39	C	840	310	292	0.37	C	1.00%	16,820	6,847	0.41	C	840	326	307	0.39	C
1270	253		ADJACENT	40	3.17	C.R. 48	RANCH ROAD	CR 448A	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	6,515	0.84	C	410	310	292	0.76	C	1.00%	7,740	6,847	0.88	C	410	326	307	0.80	C
1280	217		County	30	0.71	C.R. 50 (SUNSET AVENUE)	CR 33	SR 50	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MASCOTTE	D	10,360	1,592	0.15	C	530	66	95	0.18	C	1.75%	10,360	1,736	0.17	C	530	72	104	0.20	C
1290	210		County	45	1.74	C.R. 50	US 27	N HANCOCK ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MINNEOLA	D	16,820	6,981	0.42	C	840	285	346	0.41	C	1.00%	16,820	7,337	0.44	C	840	299	363	0.43	C
1300	202		County	45	2.47	C.R. 50	N HANCOCK ROAD	CR 455	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	6,877	0.32	B	1,080	228	491	0.45	B	2.00%	21,780	7,593	0.35	B	1,080	251	542	0.50	C
1310	42		County	45	1.92	C.R. 50	CR 455	ORANGE COUNTY LINE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	6,828	0.41	C	840	195	557	0.66	C	1.00%	16,820	7,176	0.43	C	840	205	585	0.70	C
1320	417		County	35	1.08	C.R. 500A/ OLD 441	SR 19	DORA AVENUE	2	2	URBAN	DIVIDED	COUNTY	CITY OF TAVARES	D	8,390	9,907	1.18	F	870	367	450	0.52	D	1.00%	8,390	10,412	1.24	F	870	386	473	0.54	D
1325	417		County	35	1.08	C.R. 500A/ OLD 441	DORA AVENUE	SR 19	2	2	URBAN	DIVIDED	COUNTY	CITY OF TAVARES	D	8,390	9,907	1.18	F	870	367	450	0.52	D	1.00%	8,390	10,412	1.24	F	870	386	473	0.54	D
1330	413	115084	County	45	1.94	C.R. 500A/OLD 441/ALFRED ST	DORA AVENUE	BAY ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	16,820	9,558	0.57	C	840	489	424	0.58	C	1.00%	16,820	10,045	0.60	C	840	514	446	0.61	C
1340	420		County	35	0.79	C.R. 500A/OLD 441	BAY ROAD	CR 44C / EUDORA AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	10,360	9,917	0.96	D	530	465	458	0.88	D	2.50%	10,360	11,220	1.08	F	530	526	518	0.99	D
1350	421		County	35	1.06	C.R. 500A/OLD 441	CR 44C / EUDORA DRIVE	LAKESHORE DRIVE	2	2	URBAN	DIVIDED	COUNTY	CITY OF MOUNT DORA	D	14,760	16,591	1.12	F	750	725	761	1.01	E	4.25%	14,760	20,430	1.38	F	750	893	937	1.25	F
1360	415		County	35	0.79	C.R. 500A/OLD 441	LAKESHORE DRIVE	5TH AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	10,360	11,207	1.08	F	530	469	505	0.95	D	4.25%	10,360	13,800	1.33	F	530	577	621	1.17	F
1370	415		ADJACENT	25	0.63	C.R. 500A/ 5TH AVENUE	OLD 441	N HIGHLAND STREET	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	10,360	11,207	1.08	F	530	469	505	0.95	D	4.25%	10,360	13,800	1.33	F	530	577	621	1.17	F
1380	605		ADJACENT	30	0.26	C.R. 500A (HIGHLAND STREET)	5TH AVENUE	SR 46	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	13,320	2,792	0.21	C	680	179	127	0.26	C	3.50%	13,320	3,316	0.25	C	680	213	150	0.31	C
1390	602	115004	County	35	0.75	C.R. 500A/ OLD 441	SR 46	ORANGE COUNTY LINE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MOUNT DORA	D	10,360	5,849	0.56	D	530	325	244	0.61	D	5.25%	10,360	7,555	0.73	D	530	419	316	0.79	D
1400	401		County	45	1.62	C.R. 561	SR 19	CR 448	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	16,820	16,583	0.99	D	840	622	825	0.98	D	4.75%	16,820	20,914	1.24	F	840	784	1,041	1.24	F
1410	257		County	50	3.93	C.R. 561	CR 448	CR 48	2	2	URBAN	UNDIVIDED	COUNTY	ASTATULA/TAVARES	D	21,780	10,160	0.47	B	1,080	507	590	0.55	C	1.00%	21,780	10,678	0.49	C	1,080	533	620	0.57	C
1420	252		County	40	0.63	C.R. 561	CR 48	SOUTH ASTATULA CITY LIMIT	2	2	URBAN	UNDIVIDED	COUNTY	TOWN OF ASTATULA	D	12,390	11,947	0.96	D	620	570	558	0.92	C	1.00%	12,390	12,556	1.01	F	620	599	586	0.97	D
1430	252		ADJACENT	40	2.49	C.R. 561	SOUTH ASTATULA CITY LIMIT	CR 455	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	11,947	0.55	C	1,080	570	558	0.53	C	1.00%	21,780	12,556	0.58	C	1,080	599	586	0.55	C
1440	242		County	35	1.74	C.R. 561	CR 455	HOWEY CROSS ROAD	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	9,030	7,697	0.85	C	470	369	364	0.78	C	1.00%	9,030	8,090	0.90	C	470	387	382	0.82	C
1450	238		County	40	1.77	C.R. 561	HOWEY CROSS ROAD	TURNPIKE ROAD / CR 561A	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	12,260	8,115	0.66	C	640	328	385	0.60	C	1.00%	12,260	8,529	0.70	C	640	345	405	0.63	C
1460	235		County	45	0.46	C.R. 561 / C.R. 561A	TURNPIKE ROAD / CR 561A	US 27	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	9,075	0.73	C	620	403	385	0.65	C	1.00%	12,390	9,538	0.77	C	620	423	405	0.68	C
1470	214		County	30	1.78	EAST AVE/LAKE MINNEOLA DR/MAIN AVE	US 27	EAST AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	CLERMONT/MINNEOLA	D	14,060	2,151	0.15	C	710	108	124	0.17	C	3.50%	14,060	2,555	0.18	C	710	128	147	0.21	C
1480	214		ADJACENT	30	1.05	8TH ST/OSCEOLA ST/4TH ST/CARROL ST/3R	EAST AVENUE	W MINNEOLA AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF CLERMONT	D	10,360	2,151	0.21	C	530	108	124	0.23	C	3.50%	10,360	2,555	0.25	C	530	128	147	0.28	C
1490	115065	115065	State	-	0.42	C.R. 561 (W MINNEOLA AVENUE)	8TH STREET	C.R. 561A	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF CLERMONT	D	12,390	1,085	0.09	C	620	179	186	0.30	C	1.00%	12,390	1,140	0.09	C	620	188	195	0.31	C
1500	203		ADJACENT	35	0.23	C.R. 561	C.R. 561A	SR 50	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF CLERMONT	D	14,060	5,175	0.37	C	710	278	212	0.39	C	6.50%	14,060	7,090	0.50	D	710	381	290	0.54	D
1510	45		County	25	4.31	C.R. 561	SR 50	LOG HOUSE ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF CLERMONT	D	14,060	6,597	0.47	C	710	326	276	0.46	C	1.00%	14,060	6,934	0.49	C	710	342	290	0.48	C
1520	10		County	55	1.56	C.R. 561	LOG HOUSE ROAD	FLORIDA BOYS RANCH ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	3,767	0.22	C	840	159	156	0.19	C	2.00%	16,820	4,159	0.25	C	840	175	172	0.21	C
1530	6		County	55	5.87	C.R. 561	FLORIDA BOYS RANCH ROAD	SR 33	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	2,228	0.29	B	410	106	100	0.26	B	2.25%	7,740	2,491	0.32	B	410	118	112	0.29	B
1540	237		County	55	1.16	C.R. 561A	TURNPIKE ROAD / CR 561	SCRUB JAY LN	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	5,274	0.43	C	620	199	308	0.50	C	1.25%	12,390	5,612	0.45	C	620	212	327	0.53	C
1545	234		County	55	0.69	C.R. 561A	SCRUB JAY LN	N HANCOCK ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	5,529	0.25	B	1,080	201	307	0.28	B	1.00%	21,780	5,811	0.27	B	1,080	211	322	0.30	B
1546	234		ADJACENT	55	1.37	C.R. 561A	N HANCOCK ROAD	CR 455	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	21,780	5,529	0.25	B	1,080	201	307	0.28	B	1.00%	21,780	5,811	0.27	B	1,080	211	322	0.30	B
1550	203		County	35	1.69	C.R. 561	W MINNEOLA AVE	C.R. 565A	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	13,320	5,175	0.39	C	680	278	212	0.41	C	6.50%	13,320	7,090	0.53	D	680	381	290	0.56	D
1560	213		County	40	1.67	C.R. 561A	CR 565A	JALARMY ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	6,485	0.39	C	840	316	258	0.38	C	4.50%	16,820	8,081	0.48	C	840	393	322	0.47	C
1570	223		County	40	1.11	C.R. 561 (LAKE MINNEOLA SHORES)	JALARMY ROAD	US 27	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MINNEOLA	D	16,820	11,066	0.66	C	840	397	491	0.58	C	3.00%	16,820	12,829	0.76	C	840	460	569	0.68	C
1580	241		County	55	7.01	C.R. 565	US 27	KJELLSTROM LANE	2	2	RURAL	UNDIVIDED	COUNTY	GROVELAND/MASCOTTE	C	14,130	2,347	0.17	B	740	167	70	0.23	B	5.25%	14,130	3,032	0.21	B	740	215	90	0.29	B
1590	208		County	40	0.63	C.R. 565 (VILLA CITY ROAD)	KJELLSTROM LANE	SR 50	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF GROVELAND	D	16,820	5,367	0.32	C	840	247	249	0.30	C	4.25%	16,820	6,608	0.39	C	840	305	307	0.37	C
1600	118063	118063	ADJACENT	45	1.96	C.R. 565	SR 50	SLOANS RIDGE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MASCOTTE	D	16,820	865	0.05	C	840	44	42	0.05	C	2.00%	16,820	955	0.06	C	840	49	46	0.06	C
1610	118063	118063	State	45	5.44	C.R. 565	SLOANS RIDGE	LAKE ERIE ROAD	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	865	0.11	B	410	44	42	0.11	B	2.00%	7,740	955	0.12	B	410	49	46	0.12	B
1620	201		County	40	2.78	C.R. 565A	SR 50	CR 561A	2	2	URBAN	UNDIVIDED	COUNTY	CLERMONT/GROVELAND	D	16,820	9,917	0.59	C	840	407	348	0.48	C	2.25%	16,820	11,084	0.66	C	840	454	389	0.54	C
1630	47		County	55	4.60	C.R. 565A	SR 50	CR 565B	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF GROVELAND	D	21,780	2,549	0.12	B	1,080	82	133	0.12	B	3.25%	21,780	2,991	0.14	B	1,080	96	156	0.14	B
1640	18		County	45	3.66	C.R. 565B	SR 33	CR 561	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	2,796	0.36	B	410	135	152	0.37	B	4.00%	7,740	3,401	0.44	B	410	164	185	0.45	B
1650	434		County	25	0.30	CANAL STREET	US 441	MAIN STREET	2	2	URBAN	DIVIDED	CITY OF LEESBURG	CITY OF LEESBURG	D	13,990	3,765	0.27	C	710	201	137	0.28	C	1.00%	13,990	3,957	0.28	C	710	211	144	0.30	C
1660	426		County	25	0.31	CANAL STREET	MAIN STREET	SR 44	2	2	URBAN	UNDIVIDED	CITY OF LEESBURG	CITY OF LEESBURG	D	13,320	3,169	0.24	C	680	144	127	0.21	C	1.00%	13,320	3,331	0.25	C	680	151	134	0.22	C
1670	205		County	35	1.80	CITRUS TOWER BOULEVARD	US 27	OAKLEY SEAVER DRIVE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF CLERMONT	D	14,060	12,296	0.87	D	710	651	446	0.92	D	1.00%	14,060	12,923	0.92	D	710	684	469	0.96	D
1680	44		County	30	0.47	CITRUS TOWER BOULEVARD	OAKLEY SEAVER DRIVE	SR 50	4	4	URBAN	DIVIDED	COUNTY	CITY OF CLERMONT	D	29,160	16,240	0.56	D	1,470	561	715	0.49	D	1.00%	29,160	17,068	0.59	D	1,470	590	752	0.51	D
1690	28		County	40	0.28	CITRUS TOWER BOULEVARD	SR 50	HOOKS STREET	4	4	URBAN	DIVIDED	COUNTY	CITY OF CLERMONT	D	35,820	21,470	0.60	C	1,800	798	1,065	0.59	C	1.25%	35,820	22,846	0.64	C	1,800	849	1,134	0.63	C
1692	36		County	30	1.16	CITRUS TOWER BOULEVARD	HOOKS STREET	JOHNS LAKE ROAD	4	4	URBAN	DIVIDED	COUNTY	CITY OF CLERMONT	D	30,780	20,251	0.66	D	1,550	740	901	0.58	D	1.00%	30,780	21,284	0.69	D	1,550	778	947	0.61	D
1695	24		County	40	0.60	CITRUS TOWER BOULEVARD	JOHNS LAKE ROAD	US 27	4	4	URBAN	DIVIDED	COUNTY	CITY OF CLERMONT	D	37,810	17,725	0.47	C	1,900	738	629	0.39	C	1.50%	37,810	19,095	0.51	C	1,900	795	678	0.42	C
1700	442		ADJACENT	35	0.95	DAVID WALKER DRIVE	OLD US 441 / CR 500A	CR 19A	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	14,060	8,553	0.61	D	710	388	367	0.55	D	1.00%	14,060	8,989	0.64	D	710	408	386	0.57	D
1710	442		County	35	0.44	DAVID WALKER DRIVE	CR 19A	US 441	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	14,060	8,553	0.61	D	710	388	367	0.55	D	1.00%	14,060	8,989	0.64	D	710	408	386	0.57	D
1720	449		County	35	0.53	DAVID WALKER DRIVE	US 441	MOUNT HOMER ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	14,060	5,694	0.40	C	710	214	265	0.37	C	1.00%	14,060	5,984	0.43	C	710	225	279	0.39	C
1730	471		County	20	0.74	DAVID WALKER DRIVE	MOUNT HOMER ROAD	FLINKS AVE/KURT AVE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	10,360	6,537	0.63	D	530	334	277	0.63	D	3.50%	10,360	7,763	0.75	D	530	397	329	0.75	D
1740	406	117014	County	35	2.29	DEAD RIVER ROAD	WEST TERMINI	SR 19	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF TAVARES	D	21,780	6,785	0.31	B	1,080	276	355	0.33	B	1.00%	21,780	7,131	0.33	B	1,080	291	373	0.35	B
1750	617		County	35	1.25	DONNELLY STREET	US 441	11TH AVENUE	2	2	URBAN	DIVIDED	CITY OF MT. DORA	CITY OF MOUNT DORA	D	14,760	11,220	0.76	D	750	535	474	0.71	D	1.00%	14,760	11,792	0.80	D	750	563	498	0.75	D
1760	617		ADJACENT	35	0.38	DONNELLY STREET	11TH AVENUE	5TH AVENUE	2	2	URBAN	UNDIVIDED	CITY OF MT. DORA	CITY OF MOUNT DORA	D	10,360	11,220	1.08	F	530	535	474	1.01	E	1.00%	10,360	11,792	1.14	F	530	563	498	1.06	F
1770	258		County	55	0.64	DUDA ROAD	CR 448A	ORANGE COUNTY LINE	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	9,030	7,250	0.80	C	470	293	323	0.69	C	1.50%	9,030	7,810	0.86	C	470	316	348	0.74	C
1780	510		County	40	1.43	EAGLES NEST ROAD	US 27	CR 466B	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	4,271	0.34	C	620	198	133	0.32	C	3.75%	12,390	5,134	0.41	C	620	238	160	0.38	C
1790	46		County	30	0.73	EAST AVENUE	CR 561	SR 50	2	2	URBAN	UNDIVIDED	CITY OF CLERMONT	CITY OF CLERMONT	D	10,360	5,841	0.56	D	530	-	-	-	-	1.00%	10,360	6,139	0.59	D	530	-	-	-	-
1800	454		ADJACENT	25	0.85	EAST CROOKED LAKE ROAD	LAKEVIEW DRIVE	BROADVIEW AVENUE	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	10,360	5,153	0.50	D	530	273	167	0.52	D	1.00%	10,360	5,416	0.52	D	530	287	176	0.54	D
1810	454		County	25	0.78	EAST CROOKED LAKE ROAD	BROADVIEW AVENUE	US 441	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF EUSTIS	D	10,360	5,153	0.50	D	530	273	167	0.52	D	1.00%	10,360	5,416	0.52	D	530	287	176	0.54	D
1820	501		County	35	0.77	EMERALDA AVENUE	EMERALDA ISLAND ROAD	CR 44	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	13,320	4,265	0.32	C	680	266	149	0.39	C	2.50%	13,320	4,826	0.36	C	680	301	168	0.44	C
1830	41		County	40	4.26	EMPIRE CHURCH ROAD	CR 565	ANDERSON ROAD	2	2	RURAL	UNDIVIDED	COUNTY	CITY OF GROVELAND	C	7,740	1,442	0.19	B	410	-	-	-	-	1.00%	7,740	1,516	0.20	B	410	-	-	-	-
1840	622		ADJACENT	40	0.76	ESTES ROAD	CR 44A	LAKE LINCOLN LANE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	15,930	4,384	0.28	C	790	146	262	0.33	C	2.75%	15,930	5,021	0.32	C	790	168	300	0.38	C
1850	622		County	40	0.49	ESTES ROAD	LAKE LINCOLN LANE	SR 44	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	16,820	4,384	0.26	C	840	146	262	0.31	C	2.75%	16,820	5,021	0.30	C	840	168	300	0.36	C
1860	452		County	35	0.52	EUDORA ROAD	OLD MT DORA ROAD	US 441	2	2	URBAN	UNDIVIDED	CITY OF EUSTIS	CITY OF EUSTIS	D	10,360	2,998	0.29	C	530	-	-	-	-	1.00%	10,360	3,151	0.30	C	530	-	-	-	-
1865	30		County	35	0.73	EXCALLIBUR ROAD	HOOKS STREET	CITRUS TOWER BOULEVARD	2	2	URBAN	DIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	14,760	5,301	0.36	C	750	346	219	0.46	C	1.00%	14,760	5,572	0.38	C	750	364	230	0.49	C
1870	508		County	35	0.63	FISH CAMP ROAD	CR 452	CR 44	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	10,360	1,521	0.15	C	530	83	72	0.16	C	2.50%	10,360	1,721	0.17	C	530	94	82	0.18	C
1875	221		County	40	1.69	GRASSY LAKE ROAD/FOSGATE ROAD	CR 50 (WASHINGTON STREET)	HANCOCK ROAD	2	2	URBAN	UNDIVIDED	CITY OF CLERMONT	UNINCORPORATED LAKE COUNTY	D	16,820	5,995	0.36	C	840	288	350	0.42	C	7.50%	16,820	8,606	0.51	C	840	414	503	0.60	C
1880	470		County	30	0.39	GOLFLINKS AVENUE	KURT STREET	SR 19 / BAY STREET	2	2	URBAN	UNDIVIDED	CITY OF EUSTIS	CITY OF EUSTIS	D	10,360	940	0.09	C	530	45	49	0.09	C	1.00%	10,360	988	0.10	C	530	47	52	0.10	C
1890	0		NO COUNT	-	0.38	GOLFLINKS AVENUE	SR 19 / BAY STREET	MARY STREET	2	2	URBAN	UNDIVIDED	CITY OF EUSTIS	CITY OF EUSTIS	D	12,390	-	-	-	620	-	-	-	-	N/A	12,390	-	-	-	620	-	-	-	-
1900	514		County	45	1.86	GOOSE PRAIRIE ROAD	EMERALDA AVENUE	CR 452	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	3,168	0.26	C	620	196	111	0.32	C	3.25%	12,390	3,718	0.30	C	620	230	130	0.37	C
1910	40		County	35	1.23	GRAND HIGHWAY	CITRUS TOWER BOULEVARD	SR 50	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF CLERMONT	D	14,060	6,479	0.46	C	710	268	273	0.39	C	1.00%	14,060	6,809	0.48	C	710	282	287	0.40	C
1915	37		County	25	0.26	S. GRAND HIGHWAY	SR 50	HOOKS STREET	4	4	URBAN	DIVIDED	COUNTY	CITY OF CLERMONT	D	29,160	5,203	0.18	C	1,470	261	203	0.18	C	1.00%	29,160	5,469	0.19	C	1,470	275	213	0.19	C
1920	226		County	40	1.66	CITRUS GROVE ROAD	US 27	GRASSY LAKE ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MINNEOLA	D	12,390	5,319	0.43	C	620	270	173	0.44	C	12.00%	12,390	9,373	0.76	C	620	476	305	0.77	C
1930	517	117007	ADJACENT	45	1.76	GRAYS AIRPORT ROAD	MARION COUNTY ROAD	CR 466	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	2,911	0.23	C	620	173	118	0.28	C	3.25%	12,390	3,416	0.28	C	620	203	138	0.33	C
1940	517	117007	County	45	1.25	GRAYS AIRPORT ROAD	CR 466	GRIFFIN VIEW DRIVE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	2,911	0.23	C	620	173	118	0.28	C	3.25%	12,390	3,416	0.28	C	620	203	138	0.33	C
1950	512	117007	County	45	1.75	S GRAYS AIRPORT ROAD	GRIFFIN VIEW DRIVE	EAGLES NEST ROAD	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	12,390	2,966	0.24	C	620	115	174	0.28	C	5.50%	12,390	3,877	0.31	C	620	150	228	0.37	C
1960	505		County	45	1.43	S GRAYS AIRPORT ROAD	EAGLES NEST ROAD	US 27 / US 412	2	2	URBAN	UNDIVIDED	COUNTY	FRUITLAND PARK	D	12,390	786	0.06	C	620	55	28	0.09	C	1.00%	12,390	826	0.07	C	620	58	30	0.09	C

Lake County CMP Database

Item 1.

SEGMENT ID	COUNTY STATION	FDOT STATION	DATA SOURCE	SPEED LIMIT	SEGMENT LENGTH (MI)	ROAD NAME	FROM	TO	LANES (2022)	LANES (2027)	URBAN / RURAL	DIVIDED / UNDIVIDED	MAINTAINING AGENCY	JURISDICTION	ADOPTED LOS STANDARD	DAILY SERVICE VOLUME	2022 AADT	2022 DAILY V/C	2022 DAILY LOS	PEAK HOUR DIRECTIONAL SERVICE VOLUME	2022 PEAK HOUR NB/EB VOLUME	2022 PEAK HOUR SB/WB VOLUME	2022 PEAK HOUR V/C	2022 PEAK HOUR LOS	GROWTH RATE	DAILY SERVICE VOLUME (2027)	2027 AADT	2027 DAILY V/C	2027 DAILY LOS	PEAK HOUR DIRECTIONAL SERVICE VOLUME (2027)	2027 PEAK HOUR NB/EB VOLUME	2027 PEAK HOUR SB/WB VOLUME	2027 PEAK HOUR V/C	2027 PEAK HOUR LOS
2870	115036	115036	ADJACENT	40	0.90	SR 19	CR 42	BAKER ROAD	2	2	URBAN	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	18,590	12,600	0.68	C	920	610	524	0.66	C	1.00%	18,590	13,243	0.71	C	920	641	551	0.70	C
2880	115036	115036	ADJACENT	55	1.19	SR 19	BAKER ROAD	CR 450 (UMATILLA BOULEVARD)	2	2	URBAN	UNDIVIDED	STATE	CITY OF UMATILLA	D	18,590	12,600	0.68	C	920	610	524	0.66	C	1.00%	18,590	13,243	0.71	C	920	641	551	0.70	C
2890	115036	115036	State	35	0.51	SR 19	CR 450 (UMATILLA BOULEVARD)	CR 450 (OCALA STREET)	2	2	URBAN	DIVIDED	STATE	CITY OF UMATILLA	D	16,320	12,600	0.77	D	830	610	524	0.73	D	1.00%	16,320	13,243	0.81	D	830	641	551	0.77	D
2900	115035	115035	State	40	1.38	SR 19	CR 450 (OCALA STREET)	CR 450A	4	4	URBAN	DIVIDED	STATE	CITY OF UMATILLA	D	39,800	16,880	0.42	C	2,000	826	678	0.41	C	1.00%	39,800	17,741	0.45	C	2,000	868	713	0.43	C
2910	110008	110008	State	55	2.22	SR 19	CR 450A	CR 19A	4	4	URBAN	DIVIDED	STATE	EUSTIS/UMATILLA	D	66,200	17,910	0.27	B	3,280	867	745	0.26	B	1.00%	66,200	18,824	0.28	B	3,280	911	783	0.28	B
2920	110008	110008	ADJACENT	55	0.58	SR 19	CR 19A	CR 44	4	4	URBAN	DIVIDED	STATE	CITY OF EUSTIS	D	41,790	17,910	0.43	C	2,100	867	745	0.41	C	1.00%	41,790	18,824	0.45	C	2,100	911	783	0.43	C
2930	111017	111017	State	45	0.75	SR 19	CR 44	CR 452	4	4	URBAN	DIVIDED	STATE	CITY OF EUSTIS	D	41,790	20,311	0.49	C	2,100	983	845	0.47	C	1.00%	41,790	21,348	0.51	C	2,100	1,033	888	0.49	C
2941	115176	115176	State	35	0.87	SR 19 (N)	ORANGE AVENUE	CR 452	4	4	URBAN	DIVIDED	STATE	CITY OF EUSTIS	D	19,440	11,450	0.59	D	1,960	1,029	0	0.53	D	1.00%	19,440	12,034	0.62	D	1,960	1,081	0	0.55	D
2951	110208	110208	ADJACENT	40	0.82	SR 19 (S)	CR 452	ORANGE AVENUE	4	4	URBAN	DIVIDED	STATE	CITY OF EUSTIS	D	23,880	7,430	0.31	C	2,400	0	668	0.28	C	1.00%	23,880	7,809	0.33	C	2,400	0	702	0.29	C
2960	115176	115176	ADJACENT	35	0.68	SR 19 (N)	STEVENS AVE	ORANGE AVENUE	4	4	URBAN	DIVIDED	STATE	CITY OF EUSTIS	D	19,440	11,450	0.59	D	1,960	1,029	0	0.53	D	1.00%	19,440	12,034	0.62	D	1,960	1,081	0	0.55	D
2970	110208	110208	State	35	0.62	SR 19 (S)	ORANGE AVENUE	STEVENS AVE	4	4	URBAN	DIVIDED	STATE	CITY OF EUSTIS	D	19,440	7,430	0.38	C	1,960	0	668	0.34	C	1.00%	19,440	7,809	0.40	C	1,960	0	702	0.36	C
2980	115013	115013	State	35	0.50	SR 19	STEVENS AVE	GOLF LINKS AVENUE	4	4	URBAN	DIVIDED	STATE	CITY OF EUSTIS	D	34,020	30,500	0.90	D	1,710	1,338	1,113	0.78	D	1.00%	34,020	32,056	0.94	D	1,710	1,406	1,170	0.82	D
2990	110421	110421	State	40	0.92	SR 19	GOLF LINKS AVENUE	US 441	4	4	URBAN	DIVIDED	STATE	CITY OF EUSTIS	D	41,790	17,760	0.42	C	2,100	860	738	0.41	C	1.00%	41,790	18,666	0.45	C	2,100	904	776	0.43	C
3000	115125	115125	State	35	0.24	SR 19 (DUNCAN DRIVE)	US 441	CR 500A/ LAKE SHORE BOULEVARD	4	4	URBAN	DIVIDED	STATE	CITY OF TAVARES	D	32,400	19,810	0.61	D	1,630	959	824	0.59	D	1.50%	32,400	21,341	0.66	D	1,630	1,033	888	0.63	D
3010	115125	115125	ADJACENT	35	0.37	SR 19	CR 500A/ LAKE SHORE BOULEVARD	CR 452 (MAIN STREET)	4	4	URBAN	DIVIDED	STATE	CITY OF TAVARES	D	32,400	19,810	0.61	D	1,630	959	824	0.59	D	1.50%	32,400	21,341	0.66	D	1,630	1,033	888	0.63	D
3020	110049	110049	State	45	1.38	SR 19	CR 452 (MAIN STREET)	CR 561	4	4	URBAN	DIVIDED	STATE	CITY OF TAVARES	D	41,790	45,500	1.09	F	2,100	2,203	1,892	1.05	F	4.50%	41,790	56,701	1.36	F	2,100	2,745	2,358	1.31	F
3030	110049	110049	ADJACENT	45	0.90	SR 19	CR 561	LANE PARK ROAD	2	2	URBAN	UNDIVIDED	STATE	CITY OF TAVARES	D	18,590	45,500	2.45	F	920	2,203	1,892	2.39	F	4.50%	18,590	56,701	3.05	F	920	2,745	2,358	2.98	F
3040	110494	110494	State	55	3.87	SR 19	LANE PARK ROAD	CR 48	2	2	URBAN	UNDIVIDED	STATE	HOWEY-IN-THE-HILLS/TAVARES	D	18,590	15,980	0.86	C	920	610	656	0.71	C	1.00%	18,590	16,795	0.90	C	920	641	689	0.75	C
3050	110495	110495	State	40	0.84	SR 19	CR 48	CENTRAL AVENUE	2	2	URBAN	UNDIVIDED	STATE	HOWEY-IN-THE-HILLS	D	14,160	8,950	0.63	C	700	433	372	0.62	C	1.00%	14,160	9,407	0.66	C	700	455	391	0.65	C
3060	110495	110495	ADJACENT	35	3.09	SR 19	CENTRAL AVENUE	CR 455	2	2	URBAN	UNDIVIDED	STATE	HOWEY-IN-THE-HILLS	D	24,200	8,950	0.37	B	1,200	433	372	0.36	B	1.00%	24,200	9,407	0.39	B	1,200	455	391	0.38	B
3070	110255	110255	State	55	2.72	SR 19	CR 455	US 27 / SR 25	2	2	RURAL	UNDIVIDED	STATE	CITY OF GROVELAND	C	8,600	9,910	1.15	D	450	507	435	1.13	D	1.00%	8,600	10,416	1.21	D	450	533	457	1.18	D
3080	110376	110376	State	55	4.73	SR 19	US 27 / SR 25	CR 478	2	2	RURAL	UNDIVIDED	STATE	CITY OF GROVELAND	C	8,600	9,350	1.09	D	450	466	519	1.15	D	1.00%	8,600	9,827	1.14	D	450	490	545	1.21	D
3090	110376	110376	ADJACENT	55	1.22	SR 19	CR 478	LAKE CATHERINE ROAD	2	2	URBAN	UNDIVIDED	STATE	CITY OF GROVELAND	D	17,700	9,350	0.53	C	880	466	519	0.59	C	1.00%	17,700	9,827	0.56	C	880	490	545	0.62	C
3100	110097	110097	State	45	0.70	SR 19	LAKE CATHERINE ROAD	SR 50/ SR 33	2	2	URBAN	UNDIVIDED	STATE	CITY OF GROVELAND	D	17,700	12,950	0.73	C	880	449	533	0.61	C	1.50%	17,700	13,951	0.79	C	880	484	574	0.65	C
3110	115072	115072	State	40	0.52	SR 33	SR 50/ SR 33	ANDERSON ROAD	2	2	URBAN	UNDIVIDED	STATE	CITY OF GROVELAND	D	18,590	14,760	0.79	C	920	470	667	0.73	C	4.25%	18,590	18,175	0.98	D	920	579	821	0.89	C
3120	110497	110497	State	60	3.16	SR 33	ANDERSON ROAD	CR 565B	2	2	RURAL	UNDIVIDED	STATE	CITY OF GROVELAND	C	8,600	10,428	1.21	D	450	533	458	1.18	D	3.75%	8,600	12,535	1.46	D	450	641	551	1.42	D
3130	111002	111002	State	60	6.76	SR 33	CR 565B	CR 561	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	8,600	8,242	0.96	C	450	421	362	0.94	C	1.75%	8,600	8,988	1.05	D	450	459	395	1.02	D
3140	5		County	60	2.33	SR 33	CR 561	CR 474	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	8,600	13,084	1.52	D	450	452	415	1.00	D	1.25%	8,600	13,923	1.62	D	450	480	441	1.07	D
3150	2		County	60	1.04	SR 33	CR 474	POLK COUNTY LINE	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	10,320	10,821	1.05	D	540	352	544	1.01	D	4.50%	10,320	13,485	1.31	F	540	438	678	1.26	F
3160	808		County	45	4.71	SR 40	MARION COUNTY LINE	CR 445A	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	8,600	5,068	0.59	C	450	169	217	0.48	B	2.75%	8,600	5,805	0.68	C	450	193	248	0.55	C
3170	110503	110503	State	55	1.61	SR 40	CR 445A	RIVER ROAD	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	10,320	5,370	0.52	C	540	274	236	0.51	C	1.00%	10,320	5,644	0.55	C	540	288	248	0.53	C
3180	110050	110050	State	45	1.43	SR 40	RIVER ROAD	VOLUSIA COUNTY LINE	2	2	RURAL	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	14,220	10,180	0.72	C	740	401	406	0.55	C	4.75%	14,220	12,839	0.90	C	740	506	512	0.69	C
3190	110496	110496	State	55	2.38	SR 44	SUMTER COUNTY LINE	CR 468	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	39,800	21,800	0.55	C	2,000	1,071	964	0.54	C	1.00%	39,800	22,912	0.58	C	2,000	1,126	1,013	0.56	C
3200	110487	110487	State	45	1.54	SR 44	CR 468	S LONE OAK DRIVE	4	4	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	39,800	16,540	0.42	C	2,000	610	720	0.36	C	1.00%	39,800	17,384	0.44	C	2,000	641	757	0.38	C
3210	115147	115147	State	35	0.76	SR 44	S LONE OAK DRIVE	US 27	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	32,400	19,480	0.60	D	1,630	835	769	0.51	D	1.00%	32,400	20,474	0.63	D	1,630	878	808	0.54	D
3220	115179	115179	State	35	0.57	SR 44 (DIXIE AVENUE)	US 27	S 9TH STREET	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	32,400	27,300	0.84	D	1,630	1,322	1,135	0.81	D	1.25%	32,400	29,049	0.90	D	1,630	1,407	1,208	0.86	D
3230	115143	115143	ADJACENT	35	0.34	SR 44 (DIXIE AVENUE)	S 9TH STREET	CANAL STREET	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	32,400	23,200	0.72	D	1,630	922	928	0.57	D	1.00%	32,400	24,383	0.75	D	1,630	969	975	0.60	D
3240	115143	115143	State	40	0.41	SR 44 (DIXIE AVENUE)	CANAL STREET	S LAKE STREET	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	39,800	23,200	0.58	C	2,000	922	928	0.46	C	1.00%	39,800	24,383	0.61	C	2,000	969	975	0.49	C
3250	115142	115142	State	40	0.79	SR 44 (DIXIE AVENUE)	S LAKE STREET	E MAIN STREET	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	39,800	18,760	0.47	C	2,000	908	780	0.45	C	1.00%	39,800	19,717	0.50	C	2,000	954	820	0.48	C
3260	115183	115183	State	40	0.11	SR 44 (DIXIE AVENUE)	E MAIN STREET	US 441	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	41,790	18,760	0.45	C	2,100	908	780	0.43	C	1.00%	41,790	19,717	0.47	C	2,100	954	820	0.45	C
3262	110005	110005	State	45	0.45	SR 44 (OLD C.R. 44B)	US 441	WAYCROSS AVENUE	2	2	URBAN	DIVIDED	STATE	CITY OF MOUNT DORA	D	19,510	25,500	1.31	F	970	1,235	1,060	1.27	F	1.00%	19,510	26,801	1.37	F	970	1,298	1,114	1.34	F
3268	110006	110006	State	45	1.65	SR 44 (OLD C.R. 44B)	WAYCROSS AVENUE	ORANGE AVENUE	2	2	URBAN	UNDIVIDED	STATE	EUSTIS/MOUNT DORA	D	18,590	17,880	0.96	D	920	907	637	0.99	D	1.00%	18,590	18,792	1.01	F	920	953	669	1.04	F
3270	110500	110500	ADJACENT	55	2.27	SR 44	ABRAMS ROAD	THRILL HILL ROAD	2	2	URBAN	UNDIVIDED	STATE	CITY OF EUSTIS	D	18,590	13,810	0.74	C	920	706	606	0.77	C	1.00%	18,590	14,514	0.78	C	920	742	637	0.81	C
3280	110500	110500	ADJACENT	55	1.14	SR 44	THRILL HILL ROAD	CR 439	2	2	URBAN	UNDIVIDED	STATE	CITY OF MOUNT DORA	D	17,700	13,810	0.78	C	880	706	606	0.80	C	1.00%	17,700	14,514	0.82	C	880	742	637	0.84	C
3290	110500	110500	State	55	3.03	SR 44	CR 439	CR 437	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	15,700	13,810	0.88	C	820	706	606	0.86	C	1.00%	15,700	14,514	0.92	C	820	742	637	0.90	C
3300	110500	110500	ADJACENT	55	1.15	SR 44	CR 437	CR 46A	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	13,550	13,810	1.02	D	700	706	606	1.01	D	1.00%	13,550	14,514	1.07	D	700	742	637	1.06	D
3310	110010	110010	ADJACENT	55	3.43	SR 44	CR 46A	CR 44A	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	8,600	9,383	1.09	D	450	480	412	1.07	D	1.00%	8,600	9,861	1.15	D	450	504	433	1.12	D
3320	110010	110010	ADJACENT	55	5.34	SR 44	CR 44A	OVERLOOK DRIVE	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	8,600	9,383	1.09	D	450	480	412	1.07	D	1.00%	8,600	9,861	1.15	D	450	504	433	1.12	D
3330	110010	110010	State	55	5.64	SR 44	OVERLOOK DRIVE	CR 42	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	15,700	9,383	0.60	B	820	480	412	0.59	B	1.00%	15,700	9,861	0.63	B	820	504	433	0.61	B
3340	110010	110010	ADJACENT	55	0.26	SR 44	CR 42	VOLUSIA COUNTY LINE	2	2	RURAL	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	C	13,550	9,383	0.69	C	700	480	412	0.69	C	1.00%	13,550	9,861	0.73	C	700	504	433	0.72	C
3344	110200	110200	State	-	1.80	SR 429 (WEKIVA PKWY)	ORANGE C/L	CR 46A (REALIGNED)	4	4	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	66,200	6,200	0.09	B	3,280	422	322	0.13	B	4.25%	66,200	7,634	0.12	B	3,280	519	396	0.16	B
3345	610		County	-	5.54	SR 46	CR 46A (REALIGNED)	SEMINOLE C/L	4	4	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	66,200	17,646	0.27	B	3,280	657	874	0.27	B	1.00%	66,200	18,547	0.28	B	3,280	691	919	0.28	B
3350	110501	110501	ADJACENT	45	1.08	SR 46	US 441	VISTA VIEW	6	6	URBAN	DIVIDED	STATE	CITY OF MOUNT DORA	D	62,900	13,420	0.21	C	3,170	650	558	0.21	C	3.25%	62,900	15,747	0.25	C	3,170	763	655	0.24	C
3360	110501	110501	State	55	0.94	SR 46	VISTA VIEW	ROUND LAKE ROAD	6	6	URBAN	DIVIDED	STATE	CITY OF MOUNT DORA	D	62,900	13,420	0.21	C	3,170	650	558	0.21	C	3.25%	62,900	15,747	0.25	C	3,170	763	655	0.24	C
3370	110001	110001	ADJACENT	55	2.11	SR 46	ROUND LAKE ROAD	CR 437 SOUTH	2	2	URBAN	UNDIVIDED	STATE	CITY OF MOUNT DORA	D	24,200	14,950	0.62	C	1,200	600	600	0.50	C	1.50%	24,200	16,105	0.67	C	1,200	646	646	0.54	C
3380	110001	110001	State	45	0.51	SR 46	CR 437 SOUTH	CR 437 NORTH	2	2	URBAN	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	17,700	14,950	0.84	C	880	600	600	0.68	C	1.50%	17,700	16,105	0.91	C	880	646	646	0.73	C
3390	111019	111019	State	45	1.11	SR 46	CR 437 NORTH	CR 435	2	2	URBAN	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	17,700	13,230	0.75	C	880	641	550	0.73	C	1.00%	17,700	13,905	0.79	C	880	674	578	0.77	C
3395	611	118115	County	45	0.87	SR 46	CR 435	CR 46A (REALIGNED)	2	2	URBAN	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	17,700	10,963	0.62	C	880	467	480	0.54	C	1.00%	17,700	11,522	0.65	C	880	490	504	0.57	C
3420	110319	110319	State	55	3.64	SR 50	SUMTER COUNTY LINE	CR 565 / BAY LAKE ROAD	2	2	URBAN	UNDIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	24,200	14,320	0.59	C	1,200	591	649	0.54	C	1.50%	24,200	15,427	0.64	C	1,200	637	699	0.58	C
3430	110319	110319	ADJACENT	35	0.77	SR 50	CR 565 / BAY LAKE ROAD	CR 33	2	2	URBAN	UNDIVIDED	STATE	CITY OF MASCOTTE	D	14,800	14,320	0.97	D	750	591	649	0.87	D	1.50%	14,800	15,427	1.04	E	750	637	699	0.93	D
3440	110241	110241	State	45	0.96	SR 50	CR 33	GROVELAND FARMS ROAD	4	4	URBAN	DIVIDED	STATE	CITY OF MASCOTTE	D	39,800	26,000	0.65	C	2,000	942	1,013	0.51	C	1.00%	39,800	27,326	0.69	C	2,000	990	1,065	0.53	C
3450	110241	110241	ADJACENT	45	0.63	SR 50	GROVELAND FARMS ROAD	SR 50 ONE WAY PAIRS	4	4	URBAN	DIVIDED	STATE	CITY OF GROVELAND	D	41,790	26,000	0.62	C	2,100	942	1,013	0.48	C	1.00%	41,790	27,326	0.65	C	2,100	990	1,065	0.51	C
3460	115182	115182	State	35	0.44	SR 50 (E)	SR 50 ONE WAY PAIRS	SR 19	4	4	URBAN	DIVIDED	STATE	CITY OF GROVELAND	D	19,440	12,350	0.64	D	1,960	1,110	0	0.57	D	1.00%	19,440	12,980	0.67	D	1,960	1,167	0	0.60	D
3470	115077	115077	State	35	0.44	SR 50 (W)	SR 19	SR 50 ONE WAY PAIRS	4	4	URBAN	DIVIDED	STATE	CITY OF GROVELAND	D	19,440	16,800	0.86	D	1,960	0	1,510	0.77	D	1.75%	19,440	18,322	0.94	D	1,960	0	1,647	0.84	D
3481	115181	115181	State	35	0.33	SR 50 (E)	SR 19	SR 33 SOUTH	4	4	URBAN	DIVIDED	STATE	CITY OF GROVELAND	D	19,440	12,750	0.66	D	1,960	1,146	0	0.58	D	1.00%	19,440	13,400	0.69	D	1,960	1,204	0	0.61	D
3491	115076	115076	State	35	0.34	SR 50 (W)	SR 33 SOUTH	SR 19	4	4	URBAN	DIVIDED	STATE	CITY OF GROVELAND	D	19,440	14,700	0.76	D	1,960	0	1,322	0.67	D	1.00%	19,440	15,450	0.79	D	1,960	0	1,389	0.71	D
3500	115134	115134	State	55	1.53	SR 50	SR 33 SOUTH	CR 565A NORTH	4	4	URBAN	DIVIDED	STATE	CITY OF GROVELAND	D	41,790	30,314	0.73	C	2,100	1,468	1,260	0.70	C	1.00%	41,790	31,861	0.76	C	2,100	1,543	1,324	0.73	C
3510	110396	110396	State	55	3.15	SR 50	CR 565A NORTH	CR 561	4	4	URBAN	DIVIDED	STATE	CITY OF GROVELAND	D	41,790	29,500	0.71	C	2,100	1,059	2,242	1.07	F	1.00%	41,790	31,005	0.74	C	2,100	1,113	2,356	1.12	F
3520	115057	115057	State	40	1.19	SR 50	CR 561	EAST AVENUE	4	4	URBAN	DIVIDED	STATE	CITY OF CLERMONT	D	39,800	35,600	0.89	C	2,000	1,724	1,480	0.86	C	1.50%	39,800	38,351	0.96	D	2,000	1,857	1,594	0.93	C
3530	115050	115050	State	40	0.92	SR 50	EAST AVENUE	US 27	4	4	URBAN	DIVIDED	STATE	CITY OF CLERMONT	D	41,790	32,650	0.78	C	2,100	1,581	1,358	0.75	C	1.00%	41,790	34,315	0.82	C	2,100	1,662	1,427	0.79	C
3540	110390	110390	State	55	2.14	SR 50	US 27	HANCOCK ROAD	6	6	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	62,900	54,629	0.87	C	3,170	2,645	2,271	0.83	C	1.00%	62,900	57,415	0.91	C	3,170	2,780	2,387	0.88	C
3550	110390	110390	ADJACENT	55	1.49	SR 50	HANCOCK ROAD	CR 455	6	6	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	62,900	54,629	0.87	C	3,170	2,645	2,271	0.83	C	1.00%	62,900	57,415	0.91	C	3,170	2,780	2,387	0.88	C
3560	750572	750572	State	50	1.53	SR 50	CR 455	ORANGE COUNTY LINE	6	6	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	62,900	53,750	0.85	C	3,170	2,574	2,264	0.81	C	1.00%	62,900	56,492	0.90	C	3,170	2,705	2,379	0.85	C
3562	972200	972200	State	70	1.38	SR 91 (FLORIDA TURNPIKE)	SUMTER COUNTY LINE	CR 470	4	4	URBAN	FREEWAY	STATE	UNINCORPORATED LAKE COUNTY	B	47,600	46,882	0.98	B	2,230	2,648	2,274	1.19	C	1.00%	47,600	49,273	1.04	C	2,230	2,783	2,390	1.25	C
3564	972160	972160	State	70	7.50	SR 91 (FLORIDA TURNPIKE)	CR 470	US 27/SR 25	4	4	URBAN	FREEWAY	STATE	UNINCORPORATED LAKE COUNTY	B	47,600	49,600	1.04	C	2,230	2,661	1,803	1.19	C	1.00%	47,600	52,130	1.10	C	2,230	2,797	1,895	1.25	C
3566	972006	972006	State	70	3.72	SR 91 (FLORIDA TURNPIKE)	US 27/SR 25	US 27/SR 25/SR 19 INTERCHANGE	4	8	URBAN	FREEWAY	STATE	UNINCORPORATED LAKE COUNTY	B	47,600	43,670	0.92	B	2,230	2,733	1,852	1.23	C	1.00%	92,200	45,898	0.50	B	4,310	2,872	1,946	0.67	B
3568	972005	972005	State	70	10.82	SR 91 (FLORIDA TURNPIKE)	US 27/SR 25/SR 19 INTERCHANGE	ORANGE COUNTY LINE	4	8	URBAN	FREEWAY	STATE	UNINCORPORATED LAKE COUNTY	C	66,400	66,200	1.00	C	3,100	3,551	2,407	1.15	D	1.00%	128,900	69,577	0.54	B	6,030	3,732	2,530	0.62	B
3569	29		County	30	0.84	STEVES ROAD	US 27	CITRUS TOWER BOULEVARD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF CLERMONT	D	14,060	7,625	0.54	D	710	335	441	0.62	D	2.00%	14,060	8,418	0.60	D	710	370	487	0.69	D
3570	429		County	20	1.46	SUNNYSIDE DRIVE	MAIN STREET/DR NICHOLS DRIVE	SLEEPY HOLLOW ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF LEESBURG	D	14,060	4,411	0.31	C	710	163	254	0.36	C	2.50%	14,060	4,990	0.35	C	710	184	288	0.41	C
3580	423	117012	County	35	3.31	SUNNYSIDE DRIVE	SLEEPY HOLLOW ROAD	BRIDGEWATER COURT	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF LEESBURG	D	21,780	2,640	0.12	B	1,080	182	98	0.17	B	2.00%	21,780	2,915	0.13	B	1,080	201	108	0.19	B
3590	414	117013	County	35	1.14	SUNNYSIDE DRIVE	BRIDGEWATER COURT	SUNNYSIDE DRIVE	2	2	URBAN	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	D	10,360	1,523	0.15	C	530	53	70	0.13	C	1.00%	10,360	1,601	0.15	C	530	56	74	0.14	C
3600	466		County	35	0.79	THOMAS AVENUE	CR 460	CR 44A	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF LEESBURG	D	10,360	9,755	0.94	D	530	405	529	1.00	D	1.00%	10,360	10,253	0.99	D	530	426	556	1.05	E
3610	457		County	35	1.07	THOMAS AVENUE	GRIFFIN ROAD (CR 44A)	MAIN STREET	2	2	URBAN	UNDIVIDED	CITY OF LEESBURG	CITY OF LEESBURG	D	10,360	7,696	0.74	D	530	393	340	0.74	D	1.00%	10,360	8,089	0.78	D	530	413	358	0.78	D
3620	211		County	30	0.32	TURKEY FARM ROAD	OLD HWY 50	BRIMMING LAKE ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MINNEOLA	D	10,360	209	0.02	C	530	11	13	0.02	C	1.00%	10,360	220	0.02	C	530	11	13	0.02	C
3630	0		NO COUNT	35	4.19	TUSCANOOGA ROAD	SUMTER COUNTY LINE	EGG ROAD	2	2	RURAL	UNDIVIDED	COUNTY	UNINCORPORATED LAKE COUNTY	C	7,740	-	-	-	410	-	-	-	-	N/A	7,740	-	-	-	410	-	-	-	-
3640	216		County	40	0.54	TUSCANOOGA ROAD	EGG ROAD	SR 50	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MASCOTTE	C	15,960	2,543	0.16	C	790	157	101	0.20	C	2.00%	15,960	2,807	0.18	C	790	174	111	0.22	C
3650	219		County	40	0.31	UNDERPASS ROAD	CR 33	AMERICAN LEGION ROAD	2	2	URBAN	UNDIVIDED	COUNTY	CITY OF MASCOTTE	D	16,820	1,080	0.06	C	840	61	60	0.07	C	2.00%	16,820	1,193	0.07	C	840	68	67	0.08	C
3660	110470	110470	State	55	1.01	US 192	US 27	ORANGE COUNTY LINE	6	6	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	62,900	47,750	0.76	C	3,170	2,312	1,985	0.73	C	1.00%	62,900	50,186	0.80	C	3,170	2,430	2,086	0.77	C
3670	538		County	45	1.11	US 27/US441	SUMTER COUNTY LINE	GRIFFIN AVENUE	6	6	URBAN	DIVIDED	STATE	TOWN OF LADY LAKE	D	59,900	35,295	0.59	C	3,020	1,446	1,484	0.49	C	1.00%	59,900	37,095	0.62	C	3,020	1,519	1,560	0.52	C
3680	111012	111012	State	45	1.12	US 27/US441	GRIFFIN AVENUE	ALT US 441 / ALT US 27	4	8	URBAN	DIVIDED	STATE	TOWN OF LADY LAKE	D	41,790	30,300	0.73	C	2,100	1,467	1,260	0.70	C	1.50%	84,110	32,642	0.39	C	4,240	1,580	1,357	0.37	C
3690	111012	111012	ADJACENT	40	0.79	US 27/US441	ALT US 441 / ALT US 27	CR 466	4	6	URBAN	DIVIDED	STATE	TOWN OF LADY LAKE	D	41,790	30,300	0.73	C	2,100	1,467	1,260	0.70	C	1.50%	62,900	32,642	0.52	C	3,170	1,580	1,357	0.50	C
3700	111021	111021	State	55	2.27	US 27/US441	CR 466	LAKE ELLA ROAD	4	6	URBAN	DIVIDED	STATE	TOWN OF LADY LAKE	D	41,790	29,800	0.71	C	2,100	1,400	1,200	0.67	C	1.00%	62,900	31,320	0.50	C	3,170	1,471	1,261	0.46	C
3710	110430	110430	State	55	1.89	US 27/US441	LAKE ELLA ROAD	CR 466A / MILLER BOULEVARD	6	6	URBAN	DIVIDED	STATE	FRUITLAND PARK	D	59,900	29,350	0.49	C	3,020	1,421	1,220	0.47	C	1.00%	59,900	30,847	0.51	C	3,020	1,493	1,282	0.49	C
3720	110431	110431	State	45	1.35	US 27/US441	CR 466A / MILLER BOULEVARD	CR 460 (MARTIN LUTHER KING BLVD)	6	6	URBAN	DIVIDED	STATE	FRUITLAND PARK	D	59,900	37,800	0.63	C	3,020	1,830	1,572	0.61	C	1.00%	59,900	39,728	0.66	C	3,020	1,923	1,652	0.64	C
3730	110109	110109	ADJACENT	45	0.51	US 27/US441	CR 460 (MARTIN LUTHER KING BLVD)	CR 466A (LEE ROAD)	6	6	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	59,900	41,600	0.69	C	3,020	2,014	1,730	0.67	C	1.00%	59,900	43,722	0.73	C	3,020	2,117	1,818	0.70	C
3740	110109	110109	State	45	0.67	US 27/US441	CR 466A (LEE ROAD)	CR 44A/ GRIFFIN ROAD	6	6	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	59,900	41,600	0.69	C	3,020	2,014	1,730	0.67	C	1.00%	59,900	43,722	0.73	C	3,020	2,117	1,818	0.70	C
3750	110109	110109	ADJACENT	35	0.15	US 27/US441	CR 44A/ GRIFFIN ROAD	US 27/US441 SPLIT	6	6	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	50,000	41,600	0.83	D	2,520	2,014	1,730	0.80	D	1.00%	50,000	43,722	0.87	D	2,520	2,117	1,818	0.84	D
3760	115120	115120	State	35	1.04	US 27/SR 25	US 27/US441 SPLIT	MAIN STREET	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	32,400	28,300	0.87	D	1,630	1,370	1,177	0.84	D	1.00%	32,400	29,744	0.92	D	1,630	1,440	1,237	0.88	D
3770	115119	115119	State	35	0.57	US 27/SR 25	MAIN STREET	SR 44	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	32,400	29,100	0.90	D	1,630	1,409	1,210	0.86	D	2.00%	32,400	32,129	0.99	D	1,630	1,556	1,336	0.95	D
3780	115116	115116	State	35	0.63	US 27/SR 25	SR 44	CR 25A (NORTH)	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	32,400	44,350	1.37	F	1,630	2,147	1,844	1.32	F	1.50%	32,400	47,778	1.47	F	1,630	2,313	1,987	1.42	F
3785	110014	110014	State	55	2.16	US 27/SR 25	CR 25A (NORTH)	CR 33	4	4	URBAN	DIVIDED	STATE	CITY OF LEESBURG	D	41,790	35,700	0.85	C	2,100	1,729	1,484	0.82	C	1.00%	41,790	37,521	0.90	C	2,100	1,817	1,560	0.87	C
3790	110014	110014	ADJACENT	55	1.12	US 27/SR 25	CR 33	CR 48	4	4	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	41,790	35,700	0.85	C	2,100	1,729	1,484	0.82	C	1.00%	41,790	37,521	0.90	C	2,100	1,817	1,560	0.87	C
3800	110362	110362	State	55	2.54	US 27/SR 25	CR 48	PLANTATION BOULEVARD	4	4	URBAN	DIVIDED	STATE	UNINCORPORATED LAKE COUNTY	D	66,200	29,750	0.45	B	3,280	1,222	1,260	0.38	B	1.75%	66,200	32,446	0.49	B	3,280	1,333	1,374	0.42	B

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 11 - LAKE

SITE: 0255 - ON SR-19, 0.021 MI. S OF CR-455 (RVL) CAB NW

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	12300 C	N 6100	S 6200	9.50	54.50	11.80
2021	10500 S	N 5200	S 5300	9.50	53.80	19.50
2020	10500 F	N 5200	S 5300	9.50	54.10	9.00
2019	10900 C	N 5400	S 5500	9.50	54.30	14.20
2018	12000 F	N 5900	S 6100	9.50	54.20	23.20
2017	11800 C	N 5800	S 6000	9.50	54.20	16.50
2016	9200 C	N 4600	S 4600	9.00	53.90	19.70
2015	8800 C	N 4400	S 4400	9.00	54.60	13.90
2014	8000 C	N 4000	S 4000	9.00	54.50	15.80
2013	8400 C	N 4100	S 4300	9.00	54.70	16.70
2012	8000 C	N 4000	S 4000	9.00	55.10	14.80
2011	7600 C	N 3800	S 3800	9.00	54.20	15.10
2010	7700 C	N 3900	S 3800	9.86	54.75	13.50
2009	7700 C	N 3900	S 3800	9.96	54.94	9.90
2008	8100 C	N 4100	S 4000	10.42	55.39	16.40
2007	8800 C	N 4400	S 4400	10.24	59.56	18.60

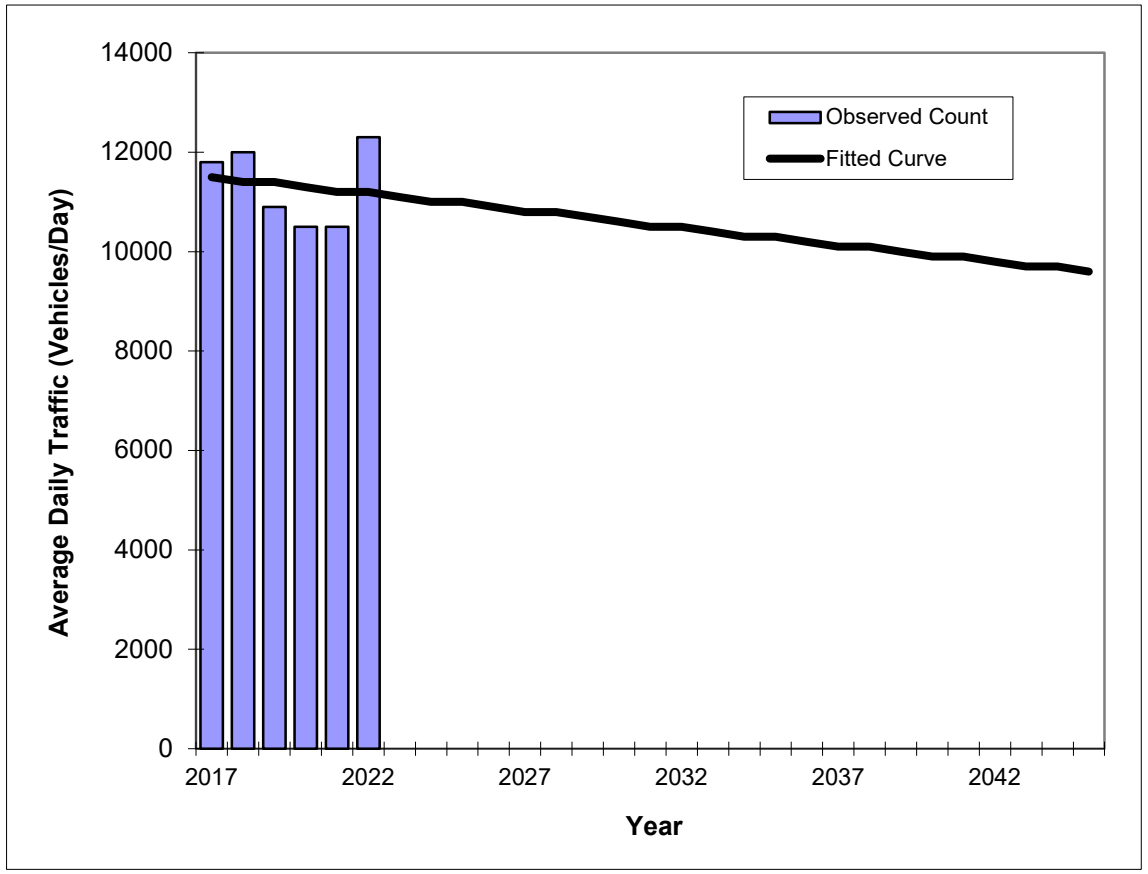
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V2.0

SR 19 Central Ave to US 27 --

PIN#	0
Location	1

County:	Lake (11)
Station #:	110255
Highway:	SR 19 Central Ave to US 27



Year	Traffic (ADT/AADT) Count*	Trend**
2017	11800	11500
2018	12000	11400
2019	10900	11400
2020	10500	11300
2021	10500	11200
2022	12300	11200
2028 Opening Year Trend		
2028	N/A	10800
2035 Mid-Year Trend		
2035	N/A	10300
2045 Design Year Trend		
2045	N/A	9600
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	-69
Trend R-squared:	2.59%
Trend Annual Historic Growth Rate:	-0.52%
Trend Growth Rate (2022 to Design Year):	-0.62%
Printed:	19-Oct-23
Straight Line Growth Option	

***Axle-Adjusted**

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 11 - LAKE

SITE: 0494 - ON SR-19, 0.3 MI. N OF CR-48 (RCLP) CAB NW

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	15800 F	N 7800	S 8000	9.00	54.50	16.10
2021	15400 C	N 7600	S 7800	9.00	53.80	16.10
2020	15500 F	N 7700	S 7800	9.00	54.10	7.20
2019	16000 C	N 7900	S 8100	9.00	54.30	7.20
2018	14900 F	N 7600	S 7300	9.00	54.20	11.50
2017	14500 C	N 7400	S 7100	9.00	54.20	11.50
2016	13900 C	N 7000	S 6900	9.00	53.90	11.20
2015	12900 C	N 6400	S 6500	9.00	54.60	11.00
2014	12200 C	N 6100	S 6100	9.00	54.50	15.10
2013	12900 C	N 6500	S 6400	9.00	54.70	24.50
2012	11800 C	N 5900	S 5900	9.00	55.10	11.10
2011	10400 C	N 4600	S 5800	9.00	54.20	10.10
2010	11000 C	N 4900	S 6100	9.86	54.75	7.60
2009	12400 C	N 6200	S 6200	9.96	54.94	12.60
2008	12300 C	N 6300	S 6000	10.42	55.39	12.60
2007	14000 C	N 7000	S 7000	10.24	59.56	11.20

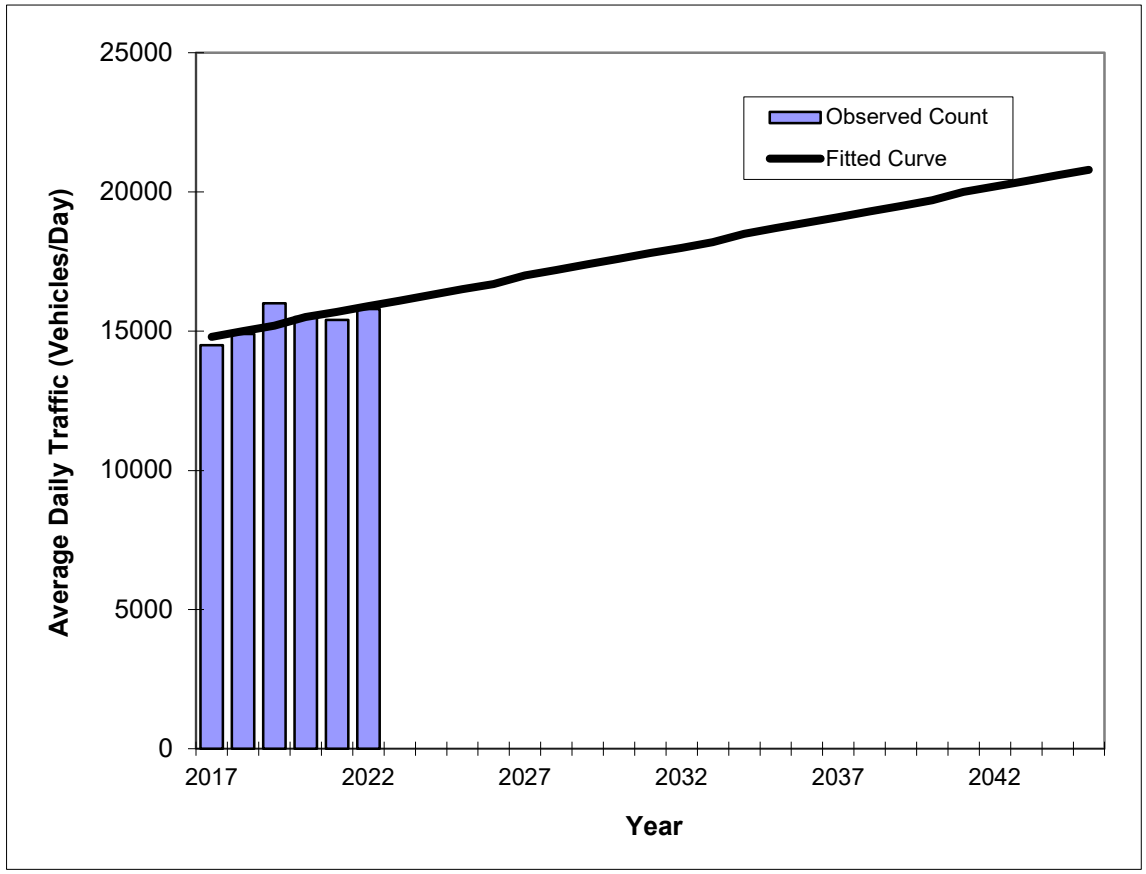
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V2.0

SR 19 N of CR 48 --

PIN#	0
Location	1

County:	Lake (11)
Station #:	110494
Highway:	SR 19 N of CR 48



Year	Traffic (ADT/AADT) Count*	Trend**
2017	14500	14800
2018	14900	15000
2019	16000	15200
2020	15500	15500
2021	15400	15700
2022	15800	15900
2028 Opening Year Trend		
2028	N/A	17200
2035 Mid-Year Trend		
2035	N/A	18700
2045 Design Year Trend		
2045	N/A	20800
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	214
Trend R-squared:	51.02%
Trend Annual Historic Growth Rate:	1.49%
Trend Growth Rate (2022 to Design Year):	1.34%
Printed:	19-Oct-23
Straight Line Growth Option	

***Axle-Adjusted**

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2022 HISTORICAL AADT REPORT

COUNTY: 11 - LAKE

SITE: 0495 - ON SR-19, 0.326 MI. S OF CR-48 (RVL)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2022	10600 C	N 5200	S 5400	9.00	54.50	11.80
2021	9000 S	N 4500	S 4500	9.00	53.80	19.50
2020	9000 F	N 4500	S 4500	9.00	54.10	9.00
2019	9200 C	N 4600	S 4600	9.00	54.30	14.20
2018	9100 C	N 4600	S 4500	9.00	54.20	23.20
2017	9200 C	N 4600	S 4600	9.00	54.20	16.50
2016	9100 C	N 4600	S 4500	9.00	53.90	19.70
2015	8700 C	N 4400	S 4300	9.00	54.60	13.90
2014	8200 C	N 4100	S 4100	9.00	54.50	15.80
2013	8700 C	N 4400	S 4300	9.00	54.70	16.70
2012	8200 C	N 4100	S 4100	9.00	55.10	14.80
2011	7900 C	N 4000	S 3900	9.00	54.20	15.10
2010	8200 C	N 4000	S 4200	9.86	54.75	13.50
2009	9000 C	N 4700	S 4300	9.96	54.94	9.90
2008	8200 C	N 4100	S 4100	10.42	55.39	16.40
2007	8800 C	N 4400	S 4400	10.24	59.56	18.60

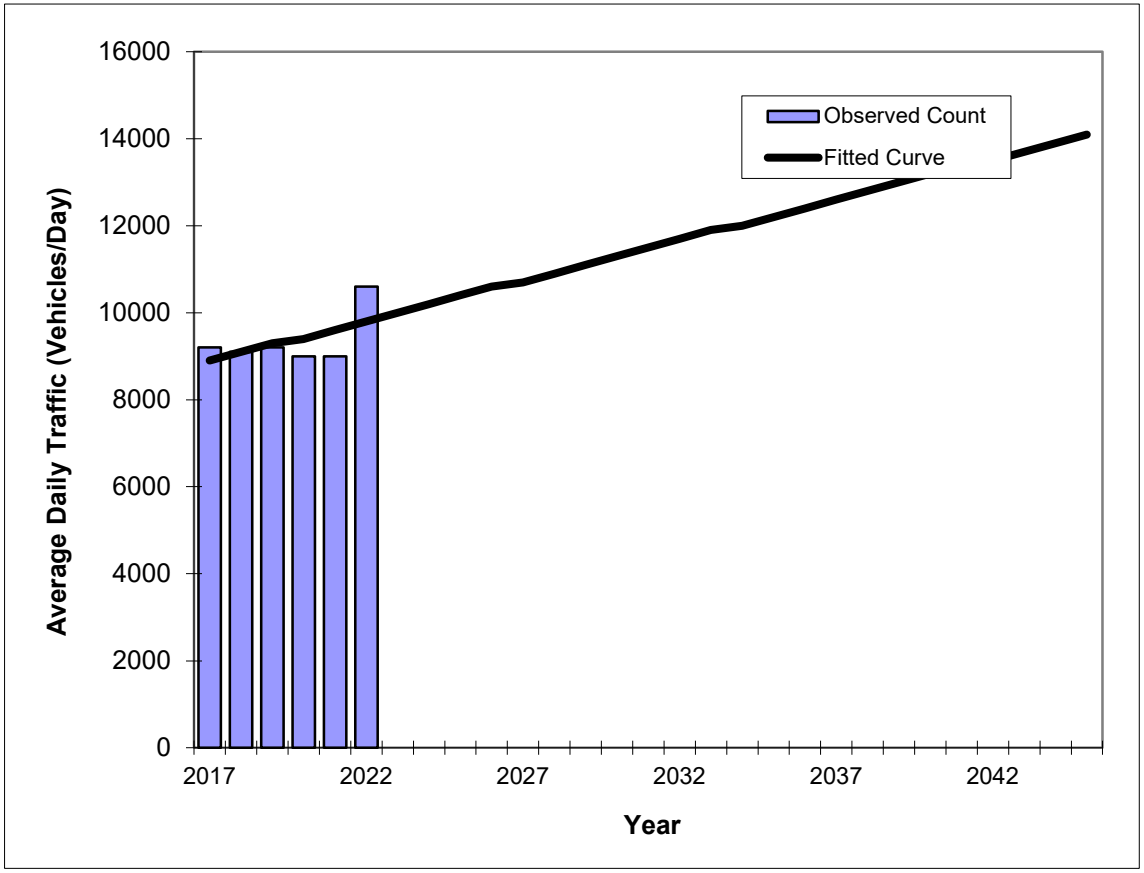
AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Traffic Trends - V2.0

SR 19 CR 48 to Central Ave --

PIN#	0
Location	1

County:	Lake (11)
Station #:	110495
Highway:	SR 19 CR 48 to Central Ave



Year	Traffic (ADT/AADT) Count*	Trend**
2017	9200	8900
2018	9100	9100
2019	9200	9300
2020	9000	9400
2021	9000	9600
2022	10600	9800
2028 Opening Year Trend		
2028	N/A	10900
2035 Mid-Year Trend		
2035	N/A	12200
2045 Design Year Trend		
2045	N/A	14100
TRANPLAN Forecasts/Trends		

**** Annual Trend Increase:**	186
Trend R-squared:	31.52%
Trend Annual Historic Growth Rate:	2.02%
Trend Growth Rate (2022 to Design Year):	1.91%
Printed:	19-Oct-23
Straight Line Growth Option	

***Axle-Adjusted**

Appendix D
Turning Movement Counts & Seasonal Factor Data & Signal Timing

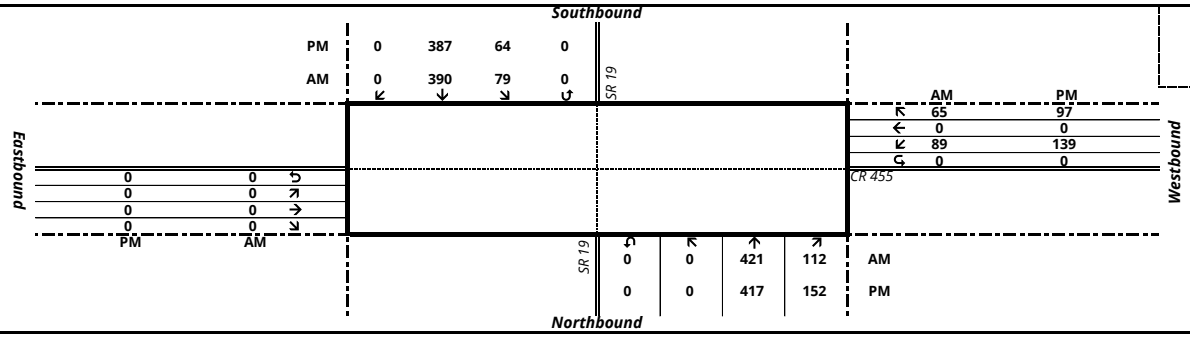
15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: October 11, 2023 (Wednesday) **CITY:** Howie in the Hills **LATITUDE:** 0

LOCATION: SR 19 & CR 455 **COUNTY:** Lake County **LONGITUDE:** 0

	SR 19					SR 19											CR 455						
TIME	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					WESTBOUND					E/W	GRAND
BEGIN	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	TOTAL
07:00 AM	0	92	26	0	**118**	26	90	0	0	**116**	**234**	0	0	0	0	**0**	21	0	8	0	**29**	**29**	**263**
07:15 AM	0	91	24	0	**115**	21	102	0	0	**123**	**238**	0	0	0	0	**0**	15	0	17	0	**32**	**32**	**270**
07:30 AM	0	119	31	0	**150**	17	110	0	0	**127**	**277**	0	0	0	0	**0**	26	0	11	0	**37**	**37**	**314**
07:45 AM	0	116	25	0	**141**	21	98	0	0	**119**	**260**	0	0	0	0	**0**	19	0	17	0	**36**	**36**	**296**
TOTAL	0	418	106	0	**524**	85	400	0	0	**485**	**1,009**	0	0	0	0	**0**	81	0	53	0	**134**	**134**	**1,143**
08:00 AM	0	95	32	0	**127**	20	80	0	0	**100**	**227**	0	0	0	0	**0**	29	0	20	0	**49**	**49**	**276**
08:15 AM	0	94	24	0	**118**	11	86	0	0	**97**	**215**	0	0	0	0	**0**	23	0	21	0	**44**	**44**	**259**
08:30 AM	0	83	19	0	**102**	9	69	0	0	**78**	**180**	0	0	0	0	**0**	23	0	15	0	**38**	**38**	**218**
08:45 AM	0	78	19	0	**97**	12	76	0	0	**88**	**185**	0	0	0	0	**0**	13	0	9	0	**22**	**22**	**207**
TOTAL	0	350	94	0	**444**	52	311	0	0	**363**	**807**	0	0	0	0	**0**	88	0	65	0	**153**	**153**	**960**
04:00 PM	0	95	28	0	**123**	14	96	0	0	**110**	**233**	0	0	0	0	**0**	27	0	20	0	**47**	**47**	**280**
04:15 PM	0	95	39	0	**134**	14	81	0	0	**95**	**229**	0	0	0	0	**0**	28	0	23	0	**51**	**51**	**280**
04:30 PM	0	106	44	0	**150**	25	92	0	0	**117**	**267**	0	0	0	0	**0**	38	0	27	0	**65**	**65**	**332**
04:45 PM	0	111	46	0	**157**	13	86	0	0	**99**	**256**	0	0	0	0	**0**	31	0	28	0	**59**	**59**	**315**
TOTAL	0	407	157	0	**564**	66	355	0	0	**421**	**985**	0	0	0	0	**0**	124	0	98	0	**222**	**222**	**1,207**
05:00 PM	0	99	35	0	**134**	16	95	0	0	**111**	**245**	0	0	0	0	**0**	33	0	23	0	**56**	**56**	**301**
05:15 PM	0	101	27	0	**128**	10	114	0	0	**124**	**252**	0	0	0	0	**0**	37	0	19	0	**56**	**56**	**308**
05:30 PM	0	65	35	0	**100**	8	92	0	0	**100**	**200**	0	0	0	0	**0**	22	0	18	0	**40**	**40**	**240**
05:45 PM	0	82	27	0	**109**	15	95	0	0	**110**	**219**	0	0	0	0	**0**	28	0	24	0	**52**	**52**	**271**
TOTAL	0	347	124	0	**471**	49	396	0	0	**445**	**916**	0	0	0	0	**0**	120	0	84	0	**204**	**204**	**1,120**
AM Peak																							**Peak Hour Factor: 0.920**
07:15 AM to 08:15 AM	**0**	**421**	**112**	**0**	**533**	**79**	**390**	**0**	**0**	**469**	**1,002**	**0**	**0**	**0**	**0**	**0**	**89**	**0**	**65**	**0**	**154**	**154**	**1,156**
PM Peak																							**Peak Hour Factor: 0.946**
04:30 PM to 05:30 PM	**0**	**417**	**152**	**0**	**569**	**64**	**387**	**0**	**0**	**451**	**1,020**	**0**	**0**	**0**	**0**	**0**	**139**	**0**	**97**	**0**	**236**	**236**	**1,256**



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: October 11, 2023 (Wednesday) **CITY:** Howie in the Hills **LATITUDE:** 0

LOCATION: SR 19 & CR 455 **COUNTY:** Lake County **LONGITUDE:** 0

	SR 19					SR 19											CR 455						
TIME	**NORTHBOUND**					**SOUTHBOUND**					**N/S**	**EASTBOUND**					**WESTBOUND**					**E/W**	**GRAND**
BEGIN	**L**	**T**	**R**	***U-turn***	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**TOTAL**	**TOTAL**
07:00 AM	0	7	4	0	**11**	0	4	0	0	**4**	**15**	0	0	0	0	**0**	1	0	0	0	**1**	**1**	**16**
07:15 AM	0	5	5	0	**10**	1	1	0	0	**2**	**12**	0	0	0	0	**0**	2	0	1	0	**3**	**3**	**15**
07:30 AM	0	3	5	0	**8**	1	5	0	0	**6**	**14**	0	0	0	0	**0**	4	0	0	0	**4**	**4**	**18**
07:45 AM	0	6	0	0	**6**	1	4	0	0	**5**	**11**	0	0	0	0	**0**	4	0	0	0	**4**	**4**	**15**
TOTAL	0	21	14	0	**35**	3	14	0	0	**17**	**52**	0	0	0	0	**0**	11	0	1	0	**12**	**12**	**64**
08:00 AM	0	7	3	0	**10**	0	7	0	0	**7**	**17**	0	0	0	0	**0**	5	0	2	0	**7**	**7**	**24**
08:15 AM	0	11	5	0	**16**	0	5	0	0	**5**	**21**	0	0	0	0	**0**	3	0	0	0	**3**	**3**	**24**
08:30 AM	0	12	3	0	**15**	1	9	0	0	**10**	**25**	0	0	0	0	**0**	4	0	0	0	**4**	**4**	**29**
08:45 AM	0	5	1	0	**6**	1	5	0	0	**6**	**12**	0	0	0	0	**0**	2	0	1	0	**3**	**3**	**15**
TOTAL	0	35	12	0	**47**	2	26	0	0	**28**	**75**	0	0	0	0	**0**	14	0	3	0	**17**	**17**	**92**
04:00 PM	0	2	0	0	**2**	0	5	0	0	**5**	**7**	0	0	0	0	**0**	3	0	0	0	**3**	**3**	**10**
04:15 PM	0	1	8	0	**9**	0	1	0	0	**1**	**10**	0	0	0	0	**0**	4	0	0	0	**4**	**4**	**14**
04:30 PM	0	2	4	0	**6**	0	5	0	0	**5**	**11**	0	0	0	0	**0**	2	0	1	0	**3**	**3**	**14**
04:45 PM	0	1	0	0	**1**	0	2	0	0	**2**	**3**	0	0	0	0	**0**	0	0	0	0	**0**	**0**	**3**
TOTAL	0	6	12	0	**18**	0	13	0	0	**13**	**31**	0	0	0	0	**0**	9	0	1	0	**10**	**10**	**41**
05:00 PM	0	1	1	0	**2**	0	2	0	0	**2**	**4**	0	0	0	0	**0**	5	0	0	0	**5**	**5**	**9**
05:15 PM	0	1	1	0	**2**	0	0	0	0	**0**	**2**	0	0	0	0	**0**	3	0	0	0	**3**	**3**	**5**
05:30 PM	0	1	1	0	**2**	0	1	0	0	**1**	**3**	0	0	0	0	**0**	0	0	0	0	**0**	**0**	**3**
05:45 PM	0	0	1	0	**1**	0	5	0	0	**5**	**6**	0	0	0	0	**0**	1	0	0	0	**1**	**1**	**7**
TOTAL	0	3	4	0	**7**	0	8	0	0	**8**	**15**	0	0	0	0	**0**	9	0	0	0	**9**	**9**	**24**
AM Peak																							
07:15 AM to 08:15 AM	**0**	**21**	**13**	**0**	**34**	**3**	**17**	**0**	**0**	**20**	**54**	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**3**	**0**	**18**	**18**	**72**
PM Peak																							
04:30 PM to 05:30 PM	**0**	**5**	**6**	**0**	**11**	**0**	**9**	**0**	**0**	**9**	**20**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**1**	**0**	**11**	**11**	**31**

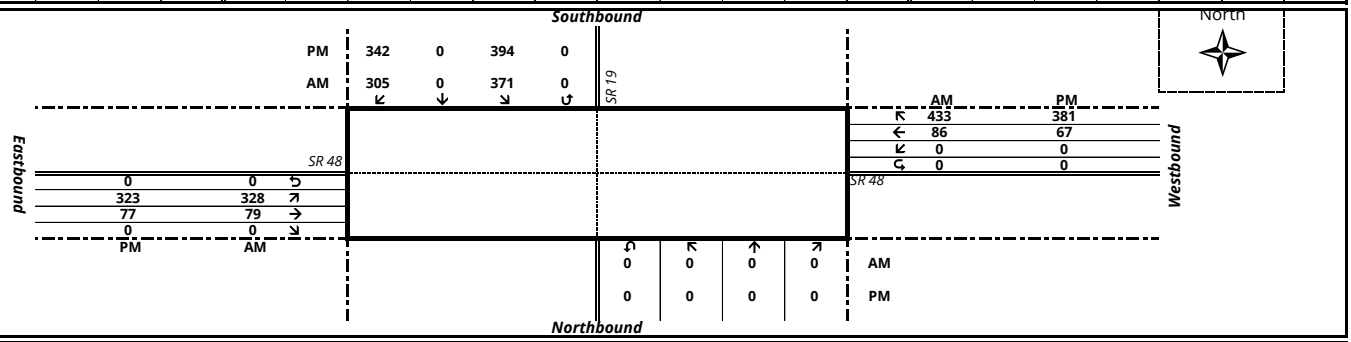
15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: October 11, 2023 (Wednesday) **CITY:** Howie in the Hills **LATITUDE:** 0

LOCATION: SR 19 & SR 48 **COUNTY:** Lake County **LONGITUDE:** 0

						SR 19						SR 48					SR 48						
TIME	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					WESTBOUND					E/W	GRAND
BEGIN	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	TOTAL
07:00 AM	0	0	0	0	**0**	60	0	69	0	**129**	**129**	65	24	0	0	**89**	0	10	97	0	**107**	**196**	**325**
07:15 AM	0	0	0	0	**0**	101	0	52	0	**153**	**153**	62	18	0	0	**80**	0	20	99	0	**119**	**199**	**352**
07:30 AM	0	0	0	0	**0**	101	0	77	0	**178**	**178**	79	27	0	0	**106**	0	23	125	0	**148**	**254**	**432**
07:45 AM	0	0	0	0	**0**	113	0	76	0	**189**	**189**	73	21	0	0	**94**	0	16	115	0	**131**	**225**	**414**
TOTAL	0	0	0	0	**0**	375	0	274	0	**649**	**649**	279	90	0	0	**369**	0	69	436	0	**505**	**874**	**1,523**
08:00 AM	0	0	0	0	**0**	86	0	79	0	**165**	**165**	89	16	0	0	**105**	0	19	101	0	**120**	**225**	**390**
08:15 AM	0	0	0	0	**0**	71	0	73	0	**144**	**144**	87	15	0	0	**102**	0	28	92	0	**120**	**222**	**366**
08:30 AM	0	0	0	0	**0**	59	0	69	0	**128**	**128**	83	13	0	0	**96**	0	13	105	0	**118**	**214**	**342**
08:45 AM	0	0	0	0	**0**	56	0	63	0	**119**	**119**	73	9	0	0	**82**	0	28	92	0	**120**	**202**	**321**
TOTAL	0	0	0	0	**0**	272	0	284	0	**556**	**556**	332	53	0	0	**385**	0	88	390	0	**478**	**863**	**1,419**
04:00 PM	0	0	0	0	**0**	85	0	99	0	**184**	**184**	57	8	0	0	**65**	0	21	93	0	**114**	**179**	**363**
04:15 PM	0	0	0	0	**0**	89	0	90	0	**179**	**179**	54	20	0	0	**74**	0	21	91	0	**112**	**186**	**365**
04:30 PM	0	0	0	0	**0**	83	0	87	0	**170**	**170**	80	20	0	0	**100**	0	19	98	0	**117**	**217**	**387**
04:45 PM	0	0	0	0	**0**	104	0	75	0	**179**	**179**	74	16	0	0	**90**	0	17	77	0	**94**	**184**	**363**
TOTAL	0	0	0	0	**0**	361	0	351	0	**712**	**712**	265	64	0	0	**329**	0	78	359	0	**437**	**766**	**1,478**
05:00 PM	0	0	0	0	**0**	107	0	78	0	**185**	**185**	77	19	0	0	**96**	0	17	112	0	**129**	**225**	**410**
05:15 PM	0	0	0	0	**0**	100	0	102	0	**202**	**202**	92	22	0	0	**114**	0	14	94	0	**108**	**222**	**424**
05:30 PM	0	0	0	0	**0**	90	0	76	0	**166**	**166**	84	17	0	0	**101**	0	15	94	0	**109**	**210**	**376**
05:45 PM	0	0	0	0	**0**	88	0	66	0	**154**	**154**	66	21	0	0	**87**	0	16	81	0	**97**	**184**	**338**
TOTAL	0	0	0	0	**0**	385	0	322	0	**707**	**707**	319	79	0	0	**398**	0	62	381	0	**443**	**841**	**1,548**
AM Peak																						**Peak Hour Factor:**	**0.927**
07:30 AM to 08:30 AM	**0**	**0**	**0**	**0**	**0**	**371**	**0**	**305**	**0**	**676**	**676**	**328**	**79**	**0**	**0**	**407**	**0**	**86**	**433**	**0**	**519**	**926**	**1,602**
PM Peak																						**Peak Hour Factor:**	**0.934**
04:30 PM to 05:30 PM	**0**	**0**	**0**	**0**	**0**	**394**	**0**	**342**	**0**	**736**	**736**	**323**	**77**	**0**	**0**	**400**	**0**	**67**	**381**	**0**	**448**	**848**	**1,584**



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: October 11, 2023 (Wednesday) **CITY:** Howie in the Hills **LATITUDE:** 0

LOCATION: SR 19 & SR 48 **COUNTY:** Lake County **LONGITUDE:** 0

						SR 19						SR 48					SR 48						
TIME	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					WESTBOUND					E/W	GRAND
BEGIN	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	TOTAL
07:00 AM	0	0	0	0	**0**	6	0	10	0	**16**	**16**	13	2	0	0	**15**	0	1	4	0	**5**	**20**	**36**
07:15 AM	0	0	0	0	**0**	4	0	2	0	**6**	**6**	5	1	0	0	**6**	0	0	3	0	**3**	**9**	**15**
07:30 AM	0	0	0	0	**0**	2	0	11	0	**13**	**13**	10	1	0	0	**11**	0	1	3	0	**4**	**15**	**28**
07:45 AM	0	0	0	0	**0**	5	0	10	0	**15**	**15**	10	3	0	0	**13**	0	1	3	0	**4**	**17**	**32**
TOTAL	0	0	0	0	**0**	17	0	33	0	**50**	**50**	38	7	0	0	**45**	0	3	13	0	**16**	**61**	**111**
08:00 AM	0	0	0	0	**0**	7	0	8	0	**15**	**15**	13	2	0	0	**15**	0	2	5	0	**7**	**22**	**37**
08:15 AM	0	0	0	0	**0**	8	0	9	0	**17**	**17**	9	1	0	0	**10**	0	3	4	0	**7**	**17**	**34**
08:30 AM	0	0	0	0	**0**	2	0	14	0	**16**	**16**	9	0	0	0	**9**	0	2	5	0	**7**	**16**	**32**
08:45 AM	0	0	0	0	**0**	7	0	9	0	**16**	**16**	16	0	0	0	**16**	0	3	8	0	**11**	**27**	**43**
TOTAL	0	0	0	0	**0**	24	0	40	0	**64**	**64**	47	3	0	0	**50**	0	10	22	0	**32**	**82**	**146**
04:00 PM	0	0	0	0	**0**	1	0	5	0	**6**	**6**	2	0	0	0	**2**	0	0	5	0	**5**	**7**	**13**
04:15 PM	0	0	0	0	**0**	3	0	1	0	**4**	**4**	2	0	0	0	**2**	0	2	3	0	**5**	**7**	**11**
04:30 PM	0	0	0	0	**0**	3	0	10	0	**13**	**13**	4	1	0	0	**5**	0	0	2	0	**2**	**7**	**20**
04:45 PM	0	0	0	0	**0**	5	0	3	0	**8**	**8**	7	0	0	0	**7**	0	1	2	0	**3**	**10**	**18**
TOTAL	0	0	0	0	**0**	12	0	19	0	**31**	**31**	15	1	0	0	**16**	0	3	12	0	**15**	**31**	**62**
05:00 PM	0	0	0	0	**0**	2	0	0	0	**2**	**2**	3	0	0	0	**3**	0	0	8	0	**8**	**11**	**13**
05:15 PM	0	0	0	0	**0**	3	0	2	0	**5**	**5**	2	1	0	0	**3**	0	0	2	0	**2**	**5**	**10**
05:30 PM	0	0	0	0	**0**	2	0	1	0	**3**	**3**	3	0	0	0	**3**	0	0	3	0	**3**	**6**	**9**
05:45 PM	0	0	0	0	**0**	5	0	2	0	**7**	**7**	2	0	0	0	**2**	0	0	2	0	**2**	**4**	**11**
TOTAL	0	0	0	0	**0**	12	0	5	0	**17**	**17**	10	1	0	0	**11**	0	0	15	0	**15**	**26**	**43**
AM Peak																							
07:30 AM to 08:30 AM	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**38**	**0**	**60**	**60**	**42**	**7**	**0**	**0**	**49**	**0**	**7**	**15**	**0**	**22**	**71**	

PM Peak																							
04:30 PM to 05:30 PM	0	0	0	0	0	13	0	15	0	28	28	16	2	0	0	18	0	1	14	0	15		

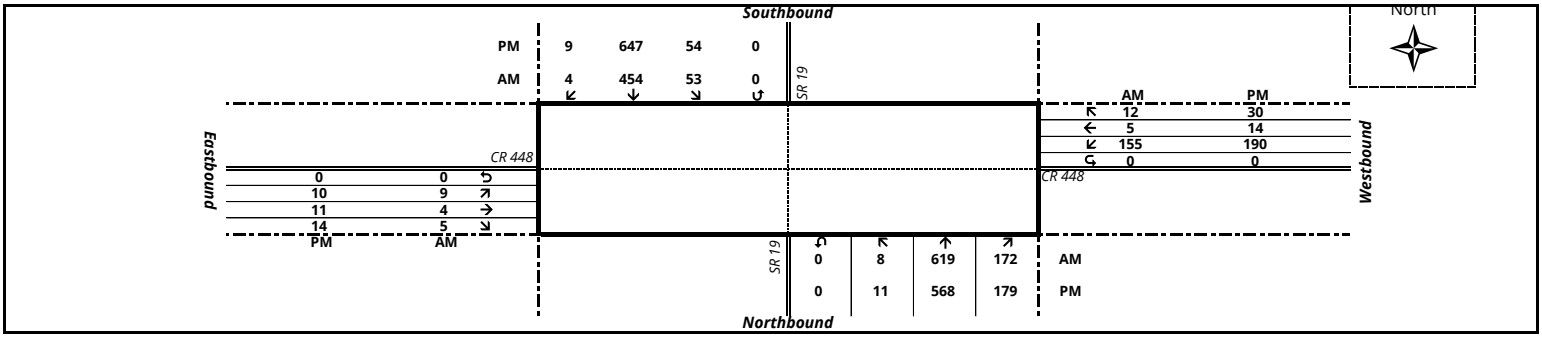
15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: October 12, 2023 (Thursday) **CITY:** Tavares **LATITUDE:** 0

LOCATION: SR 19 & CR 448 **COUNTY:** Lake County **LONGITUDE:** 0

	SR 19					SR 19						CR 448						CR 448						
TIME	**NORTHBOUND**					**SOUTHBOUND**					**N/S**	**EASTBOUND**					**WESTBOUND**					**E/W**	**GRAND**
BEGIN	**L**	**T**	**R**	***U-turn***	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**TOTAL**	**TOTAL**
07:00 AM	3	142	32	0	**177**	6	89	0	0	**95**	**272**	1	0	3	0	**4**	21	1	3	0	**25**	**29**	**301**
07:15 AM	2	124	31	0	**157**	17	127	0	0	**144**	**301**	2	1	1	0	**4**	39	3	2	0	**44**	**48**	**349**
07:30 AM	2	170	42	0	**214**	14	110	1	0	**125**	**339**	5	2	2	0	**9**	37	0	1	0	**38**	**47**	**386**
07:45 AM	3	166	55	0	**224**	15	114	1	0	**130**	**354**	1	0	1	0	**2**	42	1	3	0	**46**	**48**	**402**
TOTAL	10	602	160	0	**772**	52	440	2	0	**494**	**1,266**	9	3	7	0	**19**	139	5	9	0	**153**	**172**	**1,438**
08:00 AM	1	159	44	0	**204**	7	103	2	0	**112**	**316**	1	1	1	0	**3**	37	1	6	0	**44**	**47**	**363**
08:15 AM	5	116	49	0	**170**	7	75	0	0	**82**	**252**	1	1	0	0	**2**	45	5	3	0	**53**	**55**	**307**
08:30 AM	2	148	47	0	**197**	13	99	2	0	**114**	**311**	0	4	4	0	**8**	38	7	6	0	**51**	**59**	**370**
08:45 AM	2	141	45	0	**188**	2	78	4	0	**84**	**272**	5	5	2	0	**12**	41	3	6	0	**50**	**62**	**334**
TOTAL	10	564	185	0	**759**	29	355	8	0	**392**	**1,151**	7	11	7	0	**25**	161	16	21	0	**198**	**223**	**1,374**
04:00 PM	0	143	33	0	**176**	11	132	0	0	**143**	**319**	0	0	2	0	**2**	57	3	16	0	**76**	**78**	**397**
04:15 PM	1	150	41	0	**192**	13	164	1	0	**178**	**370**	1	4	3	0	**8**	31	1	6	0	**38**	**46**	**416**
04:30 PM	3	150	36	0	**189**	12	166	5	0	**183**	**372**	2	2	4	0	**8**	51	3	9	0	**63**	**71**	**443**
04:45 PM	2	147	36	0	**185**	16	164	0	0	**180**	**365**	2	4	5	0	**11**	33	3	5	0	**41**	**52**	**417**
TOTAL	6	590	146	0	**742**	52	626	6	0	**684**	**1,426**	5	10	14	0	**29**	172	10	36	0	**218**	**247**	**1,673**
05:00 PM	3	124	53	0	**180**	11	151	3	0	**165**	**345**	5	4	1	0	**10**	57	4	5	0	**66**	**76**	**421**
05:15 PM	3	147	54	0	**204**	15	166	1	0	**182**	**386**	1	1	4	0	**6**	49	4	11	0	**64**	**70**	**456**
05:30 PM	1	140	50	0	**191**	19	131	2	0	**152**	**343**	2	0	0	0	**2**	41	1	11	0	**53**	**55**	**398**
05:45 PM	0	103	40	0	**143**	20	154	1	0	**175**	**318**	2	0	2	0	**4**	55	0	4	0	**59**	**63**	**381**
TOTAL	7	514	197	0	**718**	65	602	7	0	**674**	**1,392**	10	5	7	0	**22**	202	9	31	0	**242**	**264**	**1,656**
AM Peak																						**Peak Hour Factor:**	**0.933**
07:15 AM to 08:15 AM	**8**	**619**	**172**	**0**	**799**	**53**	**454**	**4**	**0**	**511**	**1,310**	**9**	**4**	**5**	**0**	**18**	**155**	**5**	**12**	**0**	**172**	**190**	**1,500**
PM Peak																						**Peak Hour Factor:**	**0.952**
04:30 PM to 05:30 PM	**11**	**568**	**179**	**0**	**758**	**54**	**647**	**9**	**0**	**710**	**1,468**	**10**	**11**	**14**	**0**	**35**	**190**	**14**	**30**	**0**	**234**	**269**	**1,737**



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: October 12, 2023 (Thursday) **CITY:** Tavares **LATITUDE:** 0

LOCATION: SR 19 & CR 448 **COUNTY:** Lake County **LONGITUDE:** 0

	SR 19					SR 19						CR 448						CR 448						
TIME	**NORTHBOUND**					**SOUTHBOUND**					**N/S**	**EASTBOUND**					**WESTBOUND**					**E/W**	**GRAND**
BEGIN	**L**	**T**	**R**	***U-turn***	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**L**	**T**	**R**	***U-turn***	**TOTAL**	**TOTAL**	**TOTAL**
07:00 AM	0	6	2	0	**8**	0	5	0	0	**5**	**13**	0	0	0	0	**0**	1	0	0	0	**1**	**1**	**14**
07:15 AM	0	6	4	0	**10**	0	6	0	0	**6**	**16**	0	0	0	0	**0**	2	0	0	0	**2**	**2**	**18**
07:30 AM	0	7	9	0	**16**	0	4	0	0	**4**	**20**	0	0	0	0	**0**	4	0	0	0	**4**	**4**	**24**
07:45 AM	0	4	7	0	**11**	0	5	0	0	**5**	**16**	0	0	0	0	**0**	10	0	1	0	**11**	**11**	**27**
TOTAL	0	23	22	0	**45**	0	20	0	0	**20**	**65**	0	0	0	0	**0**	17	0	1	0	**18**	**18**	**83**
08:00 AM	0	5	7	0	**12**	0	6	0	0	**6**	**18**	0	0	0	0	**0**	5	0	1	0	**6**	**6**	**24**
08:15 AM	0	12	12	0	**24**	0	9	0	0	**9**	**33**	0	0	0	0	**0**	14	0	0	0	**14**	**14**	**47**
08:30 AM	0	12	13	0	**25**	1	3	0	0	**4**	**29**	0	0	0	0	**0**	8	0	0	0	**8**	**8**	**37**
08:45 AM	0	10	5	0	**15**	0	4	0	0	**4**	**19**	0	0	0	0	**0**	9	0	0	0	**9**	**9**	**28**
TOTAL	0	39	37	0	**76**	1	22	0	0	**23**	**99**	0	0	0	0	**0**	36	0	1	0	**37**	**37**	**136**
04:00 PM	0	9	3	0	**12**	1	6	0	0	**7**	**19**	0	0	0	0	**0**	6	0	0	0	**6**	**6**	**25**
04:15 PM	0	2	2	0	**4**	0	8	0	0	**8**	**12**	0	0	0	0	**0**	3	0	0	0	**3**	**3**	**15**
04:30 PM	0	2	0	0	**2**	0	2	0	0	**2**	**4**	0	0	0	0	**0**	1	0	0	0	**1**	**1**	**5**
04:45 PM	0	2	2	0	**4**	0	4	0	0	**4**	**8**	0	0	0	0	**0**	0	0	0	0	**0**	**0**	**8**
TOTAL	0	15	7	0	**22**	1	20	0	0	**21**	**43**	0	0	0	0	**0**	10	0	0	0	**10**	**10**	**53**
05:00 PM	0	1	9	0	**10**	0	1	0	0	**1**	**11**	0	0	0	0	**0**	1	0	0	0	**1**	**1**	**12**
05:15 PM	0	2	1	0	**3**	0	2	0	0	**2**	**5**	0	0	0	0	**0**	0	0	0	0	**0**	**0**	**5**
05:30 PM	0	2	1	0	**3**	0	2	0	0	**2**	**5**	0	0	0	0	**0**	2	0	0	0	**2**	**2**	**7**
05:45 PM	0	2	0	0	**2**	1	8	0	0	**9**	**11**	0	0	0	0	**0**	1	0	0	0	**1**	**1**	**12**
TOTAL	0	7	11	0	**18**	1	13	0	0	**14**	**32**	0	0	0	0	**0**	4	0	0	0	**4**	**4**	**36**
AM Peak																							
07:15 AM to 08:15 AM	**0**	**22**	**27**	**0**	**49**	**0**	**21**	**0**	**0**	**21**	**70**	**0**	**0**	**0**	**0**	**0**	**21**	**0**	**2**	**0**	**23**	**23**	**93**
PM Peak																							
04:30 PM to 05:30 PM	**0**	**7**	**12**	**0**	**19**	**0**	**9**	**0**	**0**	**9**	**28**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**2**	**30**

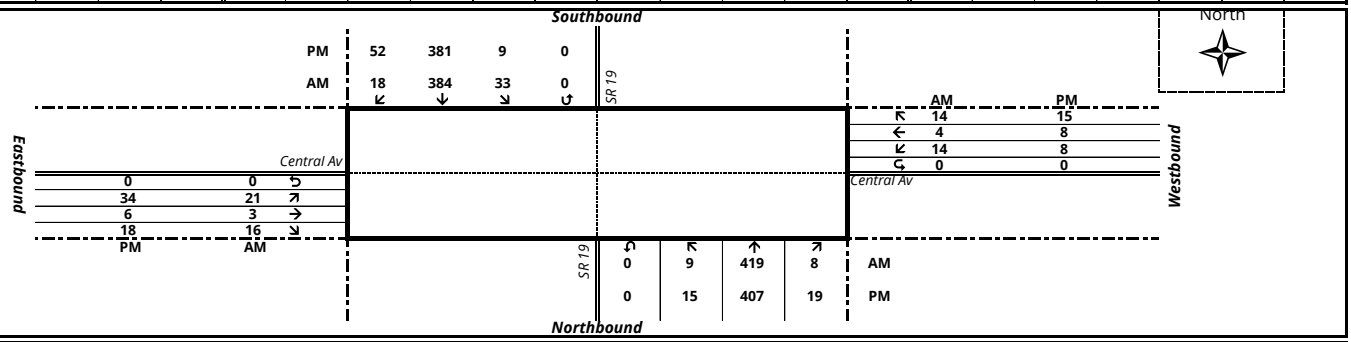
15 MINUTE TURNING MOVEMENT COUNTS

(Cars and Trucks)

DATE: October 12, 2023 (Thursday) **CITY:** Howie in the Hills **LATITUDE:** 0

LOCATION: SR 19 & Central Av **COUNTY:** Lake County **LONGITUDE:** 0

	SR 19					SR 19						Central Av						Central Av						
TIME	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					WESTBOUND					E/W	GRAND
BEGIN	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	TOTAL
07:00 AM	4	79	2	0	**85**	0	75	2	0	**77**	**162**	7	4	6	0	**17**	1	1	1	0	**3**	**20**	**182**
07:15 AM	2	93	2	0	**97**	4	92	3	0	**99**	**196**	8	1	3	0	**12**	6	0	1	0	**7**	**19**	**215**
07:30 AM	2	113	3	0	**118**	14	108	6	0	**128**	**246**	4	1	4	0	**9**	4	1	5	0	**10**	**19**	**265**
07:45 AM	2	102	1	0	**105**	10	100	6	0	**116**	**221**	4	0	7	0	**11**	2	0	4	0	**6**	**17**	**238**
TOTAL	10	387	8	0	**405**	28	375	17	0	**420**	**825**	23	6	20	0	**49**	13	2	11	0	**26**	**75**	**900**
08:00 AM	3	111	2	0	**116**	5	84	3	0	**92**	**208**	5	1	2	0	**8**	2	3	4	0	**9**	**17**	**225**
08:15 AM	5	87	0	0	**92**	5	73	7	0	**85**	**177**	6	0	5	0	**11**	1	0	5	0	**6**	**17**	**194**
08:30 AM	3	81	1	0	**85**	6	70	4	0	**80**	**165**	5	0	5	0	**10**	0	0	5	0	**5**	**15**	**180**
08:45 AM	4	80	3	0	**87**	2	61	8	0	**71**	**158**	7	4	2	0	**13**	2	0	3	0	**5**	**18**	**176**
TOTAL	15	359	6	0	**380**	18	288	22	0	**328**	**708**	23	5	14	0	**42**	5	3	17	0	**25**	**67**	**775**
04:00 PM	3	104	3	0	**110**	2	99	14	0	**115**	**225**	9	3	9	0	**21**	1	3	8	0	**12**	**33**	**258**
04:15 PM	4	105	4	0	**113**	1	92	11	0	**104**	**217**	9	2	3	0	**14**	1	0	3	0	**4**	**18**	**235**
04:30 PM	4	99	7	0	**110**	5	89	11	0	**105**	**215**	5	0	4	0	**9**	3	4	2	0	**9**	**18**	**233**
04:45 PM	4	99	5	0	**108**	1	101	16	0	**118**	**226**	11	1	2	0	**14**	3	1	2	0	**6**	**20**	**246**
TOTAL	15	407	19	0	**441**	9	381	52	0	**442**	**883**	34	6	18	0	**58**	8	8	15	0	**31**	**89**	**972**
05:00 PM	6	106	2	0	**114**	1	92	9	0	**102**	**216**	14	1	2	0	**17**	2	1	3	0	**6**	**23**	**239**
05:15 PM	1	97	3	0	**101**	4	122	9	0	**135**	**236**	7	0	0	0	**7**	3	0	3	0	**6**	**13**	**249**
05:30 PM	1	70	2	0	**73**	4	105	8	0	**117**	**190**	4	2	2	0	**8**	2	1	2	0	**5**	**13**	**203**
05:45 PM	1	74	1	0	**76**	8	89	9	0	**106**	**182**	2	2	5	0	**9**	1	0	6	0	**7**	**16**	**198**
TOTAL	9	347	8	0	**364**	17	408	35	0	**460**	**824**	27	5	9	0	**41**	8	2	14	0	**24**	**65**	**889**
AM Peak																						**Peak Hour Factor:**	**0.890**
07:15 AM to 08:15 AM	**9**	**419**	**8**	**0**	**436**	**33**	**384**	**18**	**0**	**435**	**871**	**21**	**3**	**16**	**0**	**40**	**14**	**4**	**14**	**0**	**32**	**72**	**943**
PM Peak																						**Peak Hour Factor:**	**0.942**
04:00 PM to 05:00 PM	**15**	**407**	**19**	**0**	**441**	**9**	**381**	**52**	**0**	**442**	**883**	**34**	**6**	**18**	**0**	**58**	**8**	**8**	**15**	**0**	**31**	**89**	**972**



15 MINUTE TURNING MOVEMENT COUNTS

(Trucks Only)

DATE: October 12, 2023 (Thursday) **CITY:** Howie in the Hills **LATITUDE:** 0

LOCATION: SR 19 & Central Av **COUNTY:** Lake County **LONGITUDE:** 0

	SR 19					SR 19						Central Av						Central Av						
TIME	NORTHBOUND					SOUTHBOUND					N/S	EASTBOUND					WESTBOUND					E/W	GRAND
BEGIN	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	L	T	R	*U-turn*	TOTAL	L	T	R	*U-turn*	TOTAL	TOTAL	TOTAL
07:00 AM	4	6	0	0	**10**	0	1	1	0	**2**	**12**	0	0	1	0	**1**	0	0	0	0	**0**	**1**	**13**
07:15 AM	1	5	0	0	**6**	0	3	1	0	**4**	**10**	0	0	0	0	**0**	0	0	0	0	**0**	**0**	**10**
07:30 AM	0	1	0	0	**1**	0	7	0	0	**7**	**8**	0	0	1	0	**1**	0	0	0	0	**0**	**1**	**9**
07:45 AM	0	5	0	0	**5**	2	3	1	0	**6**	**11**	1	0	2	0	**3**	0	0	0	0	**0**	**3**	**14**
TOTAL	5	17	0	0	**22**	2	14	3	0	**19**	**41**	1	0	4	0	**5**	0	0	0	0	**0**	**5**	**46**
08:00 AM	1	5	0	0	**6**	2	6	0	0	**8**	**14**	2	0	1	0	**3**	0	0	0	0	**0**	**3**	**17**
08:15 AM	2	10	0	0	**12**	3	5	1	0	**9**	**21**	0	0	2	0	**2**	0	0	3	0	**3**	**5**	**26**
08:30 AM	1	5	0	0	**6**	1	4	1	0	**6**	**12**	0	0	2	0	**2**	0	0	4	0	**4**	**6**	**18**
08:45 AM	3	7	0	0	**10**	1	2	1	0	**4**	**14**	4	0	1	0	**5**	0	0	0	0	**0**	**5**	**19**
TOTAL	7	27	0	0	**34**	7	17	3	0	**27**	**61**	6	0	6	0	**12**	0	0	7	0	**7**	**19**	**80**
04:00 PM	0	6	0	0	**6**	0	5	0	0	**5**	**11**	1	0	1	0	**2**	0	0	0	0	**0**	**2**	**13**
04:15 PM	0	1	0	0	**1**	0	3	1	0	**4**	**5**	1	0	0	0	**1**	0	0	0	0	**0**	**1**	**6**
04:30 PM	0	2	0	0	**2**	0	4	0	0	**4**	**6**	0	0	0	0	**0**	0	0	0	0	**0**	**0**	**6**
04:45 PM	0	1	0	0	**1**	0	4	1	0	**5**	**6**	3	0	0	0	**3**	0	0	0	0	**0**	**3**	**9**
TOTAL	0	10	0	0	**10**	0	16	2	0	**18**	**28**	5	0	1	0	**6**	0	0	0	0	**0**	**6**	**34**
05:00 PM	0	3	0	0	**3**	0	1	2	0	**3**	**6**	1	0	0	0	**1**	0	0	0	0	**0**	**1**	**7**
05:15 PM	0	1	0	0	**1**	0	0	0	0	**0**	**1**	0	0	0	0	**0**	0	0	0	0	**0**	**0**	**1**
05:30 PM	0	0	0	0	**0**	0	2	1	0	**3**	**3**	0	0	0	0	**0**	0	0	0	0	**0**	**0**	**3**
05:45 PM	0	1	0	0	**1**	0	4	0	0	**4**	**5**	1	0	1	0	**2**	0	0	0	0	**0**	**2**	**7**
TOTAL	0	5	0	0	**5**	0	7	3	0	**10**	**15**	2	0	1	0	**3**	0	0	0	0	**0**	**3**	**18**
AM Peak																							
07:15 AM to 08:15 AM	**2**	**16**	**0**	**0**	**18**	**4**	**19**	**2**	**0**	**25**	**43**	**3**	**0**	**4**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**7**	

PM Peak																							
04:00 PM to 05:00 PM	0	10	0	0	10	0	16	2	0	18	28	5	0	1	0	6	0	0	0	0	0		

2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1100 LAKE COUNTYWIDE

MOCF: 0.95

WEEK	DATES	SF	PSCF
1	01/01/2022 - 01/01/2022	0.99	1.04
2	01/02/2022 - 01/08/2022	1.01	1.06
3	01/09/2022 - 01/15/2022	1.03	1.08
4	01/16/2022 - 01/22/2022	1.02	1.07
5	01/23/2022 - 01/29/2022	1.00	1.05
* 6	01/30/2022 - 02/05/2022	0.98	1.03
* 7	02/06/2022 - 02/12/2022	0.97	1.02
* 8	02/13/2022 - 02/19/2022	0.95	1.00
* 9	02/20/2022 - 02/26/2022	0.95	1.00
*10	02/27/2022 - 03/05/2022	0.94	0.99
*11	03/06/2022 - 03/12/2022	0.94	0.99
*12	03/13/2022 - 03/19/2022	0.93	0.98
*13	03/20/2022 - 03/26/2022	0.94	0.99
*14	03/27/2022 - 04/02/2022	0.95	1.00
*15	04/03/2022 - 04/09/2022	0.95	1.00
*16	04/10/2022 - 04/16/2022	0.96	1.01
*17	04/17/2022 - 04/23/2022	0.97	1.02
*18	04/24/2022 - 04/30/2022	0.98	1.03
19	05/01/2022 - 05/07/2022	0.99	1.04
20	05/08/2022 - 05/14/2022	0.99	1.04
21	05/15/2022 - 05/21/2022	1.00	1.05
22	05/22/2022 - 05/28/2022	1.01	1.06
23	05/29/2022 - 06/04/2022	1.02	1.07
24	06/05/2022 - 06/11/2022	1.03	1.08
25	06/12/2022 - 06/18/2022	1.04	1.09
26	06/19/2022 - 06/25/2022	1.05	1.11
27	06/26/2022 - 07/02/2022	1.05	1.11
28	07/03/2022 - 07/09/2022	1.06	1.12
29	07/10/2022 - 07/16/2022	1.06	1.12
30	07/17/2022 - 07/23/2022	1.06	1.12
31	07/24/2022 - 07/30/2022	1.05	1.11
32	07/31/2022 - 08/06/2022	1.05	1.11
33	08/07/2022 - 08/13/2022	1.04	1.09
34	08/14/2022 - 08/20/2022	1.04	1.09
35	08/21/2022 - 08/27/2022	1.05	1.11
36	08/28/2022 - 09/03/2022	1.06	1.12
37	09/04/2022 - 09/10/2022	1.07	1.13
38	09/11/2022 - 09/17/2022	1.08	1.14
39	09/18/2022 - 09/24/2022	1.05	1.11
40	09/25/2022 - 10/01/2022	1.02	1.07
41	10/02/2022 - 10/08/2022	1.00	1.05
42	10/09/2022 - 10/15/2022	0.97	1.02
43	10/16/2022 - 10/22/2022	0.98	1.03
44	10/23/2022 - 10/29/2022	0.99	1.04
45	10/30/2022 - 11/05/2022	0.99	1.04
46	11/06/2022 - 11/12/2022	1.00	1.05
47	11/13/2022 - 11/19/2022	1.01	1.06
48	11/20/2022 - 11/26/2022	1.00	1.05
49	11/27/2022 - 12/03/2022	1.00	1.05
50	12/04/2022 - 12/10/2022	0.99	1.04
51	12/11/2022 - 12/17/2022	0.99	1.04
52	12/18/2022 - 12/24/2022	1.01	1.06
53	12/25/2022 - 12/31/2022	1.03	1.08

* PEAK SEASON

23-FEB-2023 09:11:22 830UPD 5_1100_PKSEASON.TXT

CARTEGRAPH ID: LC-S-043 **DATE: 05/15/2015**

INTERSECTION NAME AND ID#: SR 19 & CR 48 076

PHASE	1	2	3	4	5	6	7	8
	EBL	WB		SB		EB		
INITIAL	8	15		8		15		
PASSAGE	3	3		3		3		
YELLOW	4.4	4.4		4.8		4.4		
RED CLEAR	2.1	2.0		2.5		2.0		
MAX 1	25	45		30		45		
MAX 2								
WALK								
DON'T WALK								
RECALL				SOFT				
DET. FUNC.	L	L		L		L		

SYSTEM TIMING

PATTERN	CYCLE Sec.	OFFSET Sec.	COORDINATED Phase	COORDINATED Sequence	BASE DAY 1 Mon.- Fri.		BASE DAY 2 Sat.- Sun.	

SPLIT ALLOCATION - Sec.

PHASE	1	2	3	4	5	6	7	8

NOTES: Naztec 980

CARTEGRAPH ID: LC-S-281 **DATE: 8/21/2019**

INTERSECTION NAME AND ID#: SR 19 & CR 448 034

PHASE	1	2	3	4	5	6	7	8
	NBL	SB		WB	SBL	NB		EB
INITIAL	5	15		8	5	15		8
PASSAGE	3	3		3	3	3		3
YELLOW	3.4	5.5		4.8	3.4	5.5		4.8
RED CLEAR	2.1	2.0		2.0	2.2	2.0		2.3
MAX 1	20	50		35	20	50		35
MAX 2								
WALK								
DON'T WALK								
RECALL		Min				Min		
DET. FUNC.		L				L		

PREEMPTION TIMING

	COORD.+ PREEMPT.	DELAY (Sec.)	MIN. DURATION (Sec.)	MAX PRESENCE (Sec.)	MIN. GREEN (Sec.)	TRACK GREEN (Sec.)	MIN. DWELL (Sec.)	
	OFF		10	60	10		10	

SYSTEM TIMING

	CYCLE	OFFSET	COORDINATED		BASE DAY 1		BASE DAY 2	
PATTERN	Sec.	Sec.	Phase	Sequence	Mon.- Fri.		Sat.- Sun.	
1	120	30	2	1	0:00	FREE	0:00	FREE
2	90	9	2	1	6:00	C1O1S1	7:00	C4O4S4
3	80	67	2	1	10:00	C2O2S2	19:00	FREE
					14:00	C3O3S3		
					16:00	C4O4S4		
					18:00	FREE		

SPLIT ALLOCATION - Sec.

PHASE	1	2	3	4	5	6	7	8
1	18	69		33	18	69		33
2	18	54		18	18	54		18
3	18	43		19	18	43		19

NOTES: Naztec 980

Appendix E
HCM Analysis Worksheets - Existing Conditions

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	89	65	421	112	79	390
Future Vol, veh/h	89	65	421	112	79	390
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	440	450	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	5	5	12	4	4
Mvmt Flow	97	71	458	122	86	424

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1054	458	0	0	580	0
Stage 1	458	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Critical Hdwy	6.57	6.25	-	-	4.14	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.345	-	-	2.236	-
Pot Cap-1 Maneuver	234	597	-	-	984	-
Stage 1	607	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	214	597	-	-	984	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	477	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.4	0	1.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	339	597	984	-
HCM Lane V/C Ratio	-	-	0.285	0.118	0.087	-
HCM Control Delay (s)	-	-	19.8	11.8	9	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.2	0.4	0.3	-

Intersection	
Int Delay, s/veh	3.6

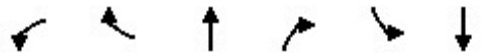
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	139	97	417	152	64	387
Future Vol, veh/h	139	97	417	152	64	387
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	440	450	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	1	1	4	0	2
Mvmt Flow	146	102	439	160	67	407

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	980	439	0	0	599	0
Stage 1	439	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Critical Hdwy	6.47	6.21	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.309	-	-	2.2	-
Pot Cap-1 Maneuver	271	620	-	-	988	-
Stage 1	639	-	-	-	-	-
Stage 2	574	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	253	620	-	-	988	-
Mov Cap-2 Maneuver	380	-	-	-	-	-
Stage 1	639	-	-	-	-	-
Stage 2	535	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.8	0	1.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	380	620	988	-
HCM Lane V/C Ratio	-	-	0.385	0.165	0.068	-
HCM Control Delay (s)	-	-	20.3	11.9	8.9	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.8	0.6	0.2	-

HCM 6th Signalized Intersection Summary
2: SR 19 & CR 48



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	371	305	86	433	328	79
Future Volume (veh/h)	371	305	86	433	328	79
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1722	1781	1856	1707	1767
Adj Flow Rate, veh/h	399	328	92	0	353	85
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	12	8	3	13	9
Cap, veh/h	392	331	688		301	1124
Arrive On Green	0.23	0.23	0.39	0.00	0.19	0.64
Sat Flow, veh/h	1725	1459	1781	1572	1626	1767
Grp Volume(v), veh/h	399	328	92	0	353	85
Grp Sat Flow(s),veh/h/ln	1725	1459	1781	1572	1626	1767
Q Serve(g_s), s	22.7	22.4	3.3	0.0	18.5	1.8
Cycle Q Clear(g_c), s	22.7	22.4	3.3	0.0	18.5	1.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	392	331	688		301	1124
V/C Ratio(X)	1.02	0.99	0.13		1.17	0.08
Avail Cap(c_a), veh/h	392	331	688		301	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	38.5	19.9	0.0	40.7	7.0
Incr Delay (d2), s/veh	50.4	46.6	0.4	0.0	107.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	21.0	17.5	2.5	0.0	24.4	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	89.1	85.2	20.3	0.0	148.2	7.1
LnGrp LOS	F	F	C		F	A
Approach Vol, veh/h	727		92	A		438
Approach Delay, s/veh	87.3		20.3			120.8
Approach LOS	F		C			F

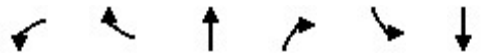
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.0	45.0		30.0		70.0
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	20.5	5.3		24.7		3.8
Green Ext Time (p_c), s	0.0	0.4		0.0		0.4

Intersection Summary	
HCM 6th Ctrl Delay	94.1
HCM 6th LOS	F

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
2: SR 19 & CR 48



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	394	342	67	381	323	77
Future Volume (veh/h)	394	342	67	381	323	77
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1841	1885	1841	1826	1856
Adj Flow Rate, veh/h	424	192	72	0	347	83
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	4	1	4	5	3
Cap, veh/h	401	354	728		322	1180
Arrive On Green	0.23	0.23	0.39	0.00	0.19	0.64
Sat Flow, veh/h	1767	1560	1885	1560	1739	1856
Grp Volume(v), veh/h	424	192	72	0	347	83
Grp Sat Flow(s),veh/h/ln	1767	1560	1885	1560	1739	1856
Q Serve(g_s), s	22.7	10.8	2.4	0.0	18.5	1.7
Cycle Q Clear(g_c), s	22.7	10.8	2.4	0.0	18.5	1.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	401	354	728		322	1180
V/C Ratio(X)	1.06	0.54	0.10		1.08	0.07
Avail Cap(c_a), veh/h	401	354	728		322	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	34.1	19.6	0.0	40.8	6.9
Incr Delay (d2), s/veh	60.8	1.7	0.3	0.0	72.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	23.3	7.4	1.9	0.0	20.9	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	99.4	35.8	19.9	0.0	113.5	7.1
LnGrp LOS	F	D	B		F	A
Approach Vol, veh/h	616		72	A		430
Approach Delay, s/veh	79.6		19.9			92.9
Approach LOS	E		B			F

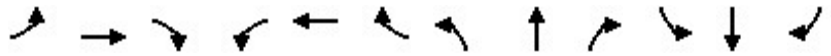
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.0	45.0		30.0		70.0
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	20.5	4.4		24.7		3.7
Green Ext Time (p_c), s	0.0	0.3		0.0		0.4

Intersection Summary			
HCM 6th Ctrl Delay		80.9	
HCM 6th LOS		F	

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
3: SR 19 & CR 448



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	4	5	155	5	12	8	619	172	53	454	4
Future Volume (veh/h)	9	4	5	155	5	12	8	619	172	53	454	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1693	1900	1648	1900	1841	1663	1900	1826	1900
Adj Flow Rate, veh/h	10	4	4	167	5	9	9	666	185	57	488	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	14	0	17	0	4	16	0	5	0
Cap, veh/h	351	145	145	331	101	182	21	798	611	94	864	4
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.01	0.43	0.43	0.05	0.48	0.48
Sat Flow, veh/h	1422	872	872	1274	608	1095	1810	1841	1409	1810	1817	7
Grp Volume(v), veh/h	10	0	8	167	0	14	9	666	185	57	0	490
Grp Sat Flow(s),veh/h/ln	1422	0	1743	1274	0	1703	1810	1841	1409	1810	0	1825
Q Serve(g_s), s	0.3	0.0	0.2	7.3	0.0	0.4	0.3	18.6	5.0	1.8	0.0	11.2
Cycle Q Clear(g_c), s	0.7	0.0	0.2	7.6	0.0	0.4	0.3	18.6	5.0	1.8	0.0	11.2
Prop In Lane	1.00		0.50	1.00		0.64	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	351	0	290	331	0	284	21	798	611	94	0	867
V/C Ratio(X)	0.03	0.00	0.03	0.50	0.00	0.05	0.43	0.83	0.30	0.61	0.00	0.57
Avail Cap(c_a), veh/h	798	0	839	738	0	828	452	1349	1033	449	0	1337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	20.2	23.4	0.0	20.3	28.5	14.6	10.7	26.9	0.0	10.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.2	0.0	0.1	13.1	2.4	0.3	6.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	0.0	0.2	3.6	0.0	0.3	0.3	9.9	2.0	1.5	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	0.0	20.3	24.6	0.0	20.4	41.6	17.0	11.0	33.1	0.0	11.5
LnGrp LOS	C	A	C	C	A	C	D	B	B	C	A	B
Approach Vol, veh/h		18			181			860			547	
Approach Delay, s/veh		20.5			24.3			15.9			13.8	
Approach LOS		C			C			B			B	

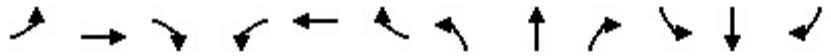
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.2	35.1		16.8	8.6	32.6		16.8
Change Period (Y+Rc), s	5.5	7.5		* 7.1	* 5.6	7.5		* 7.1
Max Green Setting (Gmax), s	14.5	42.5		* 28	* 14	42.5		* 28
Max Q Clear Time (g_c+I1), s	2.3	13.2		9.6	3.8	20.6		2.7
Green Ext Time (p_c), s	0.0	2.7		0.5	0.1	4.5		0.0

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR 19 & CR 448



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	11	14	190	14	30	11	568	179	54	647	9
Future Volume (veh/h)	10	11	14	190	14	30	11	568	179	54	647	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1900	1900	1885	1796	1900	1885	1900
Adj Flow Rate, veh/h	10	11	15	198	15	31	11	592	186	56	674	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	0	0	0	1	7	0	1	0
Cap, veh/h	366	141	192	383	107	221	25	735	593	94	803	6
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.01	0.39	0.39	0.05	0.43	0.43
Sat Flow, veh/h	1381	728	993	1396	553	1142	1810	1885	1522	1810	1869	14
Grp Volume(v), veh/h	10	0	26	198	0	46	11	592	186	56	0	679
Grp Sat Flow(s),veh/h/ln	1381	0	1721	1396	0	1694	1810	1885	1522	1810	0	1883
Q Serve(g_s), s	0.3	0.0	0.7	7.5	0.0	1.2	0.3	15.5	4.7	1.7	0.0	17.8
Cycle Q Clear(g_c), s	1.6	0.0	0.7	8.2	0.0	1.2	0.3	15.5	4.7	1.7	0.0	17.8
Prop In Lane	1.00		0.58	1.00		0.67	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	366	0	333	383	0	328	25	735	593	94	0	809
V/C Ratio(X)	0.03	0.00	0.08	0.52	0.00	0.14	0.43	0.81	0.31	0.59	0.00	0.84
Avail Cap(c_a), veh/h	794	0	867	823	0	862	473	1446	1167	470	0	1444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	18.3	21.7	0.0	18.5	27.1	15.0	11.8	25.7	0.0	14.1
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.1	0.0	0.2	11.2	2.1	0.3	5.8	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	0.0	0.5	3.9	0.0	0.8	0.4	8.8	2.1	1.4	0.0	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	0.0	18.4	22.7	0.0	18.7	38.3	17.2	12.1	31.5	0.0	16.5
LnGrp LOS	B	A	B	C	A	B	D	B	B	C	A	B
Approach Vol, veh/h		36			244			789			735	
Approach Delay, s/veh		18.6			22.0			16.3			17.7	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	31.3		17.8	8.5	29.1		17.8
Change Period (Y+Rc), s	5.5	7.5		* 7.1	* 5.6	7.5		* 7.1
Max Green Setting (Gmax), s	14.5	42.5		* 28	* 14	42.5		* 28
Max Q Clear Time (g_c+I1), s	2.3	19.8		10.2	3.7	17.5		3.6
Green Ext Time (p_c), s	0.0	4.0		0.7	0.1	4.0		0.1

Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	3	16	14	4	14	9	419	8	33	384	18
Future Vol, veh/h	21	3	16	14	4	14	9	419	8	33	384	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	14	0	25	0	0	0	22	4	0	12	5	11
Mvmt Flow	24	3	18	16	4	16	10	471	9	37	431	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1021	1015	441	1022	1021	476	451	0	0	480	0	0
Stage 1	515	515	-	496	496	-	-	-	-	-	-	-
Stage 2	506	500	-	526	525	-	-	-	-	-	-	-
Critical Hdwy	7.24	6.5	6.45	7.1	6.5	6.2	4.32	-	-	4.22	-	-
Critical Hdwy Stg 1	6.24	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.24	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.626	4	3.525	3.5	4	3.3	2.398	-	-	2.308	-	-
Pot Cap-1 Maneuver	204	240	571	216	238	593	1012	-	-	1032	-	-
Stage 1	521	538	-	559	549	-	-	-	-	-	-	-
Stage 2	527	546	-	539	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	186	226	571	197	224	593	1012	-	-	1032	-	-
Mov Cap-2 Maneuver	186	226	-	197	224	-	-	-	-	-	-	-
Stage 1	514	512	-	552	542	-	-	-	-	-	-	-
Stage 2	502	539	-	494	507	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.8	19.5	0.2	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1012	-	-	259	284	1032	-	-
HCM Lane V/C Ratio	0.01	-	-	0.174	0.127	0.036	-	-
HCM Control Delay (s)	8.6	0	-	21.8	19.5	8.6	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	34	6	18	8	8	15	15	407	19	9	381	52
Future Vol, veh/h	34	6	18	8	8	15	15	407	19	9	381	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	15	0	6	0	0	0	0	2	0	0	4	4
Mvmt Flow	36	6	19	9	9	16	16	433	20	10	405	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	941	938	433	940	955	443	460	0	0	453	0	0
Stage 1	453	453	-	475	475	-	-	-	-	-	-	-
Stage 2	488	485	-	465	480	-	-	-	-	-	-	-
Critical Hdwy	7.25	6.5	6.26	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.25	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.25	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.635	4	3.354	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	231	266	614	246	260	619	1112	-	-	1118	-	-
Stage 1	562	573	-	574	561	-	-	-	-	-	-	-
Stage 2	538	555	-	581	558	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	214	258	614	228	252	619	1112	-	-	1118	-	-
Mov Cap-2 Maneuver	214	258	-	228	252	-	-	-	-	-	-	-
Stage 1	551	566	-	563	550	-	-	-	-	-	-	-
Stage 2	506	544	-	550	551	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.9	16.7	0.3	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1112	-	-	274	340	1118	-	-
HCM Lane V/C Ratio	0.014	-	-	0.225	0.097	0.009	-	-
HCM Control Delay (s)	8.3	0	-	21.9	16.7	8.2	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.3	0	-	-

Appendix F

ITE Trip Generation Sheets & Internal Capture Calculations

Senior Adult Housing - Single-Family
(251)

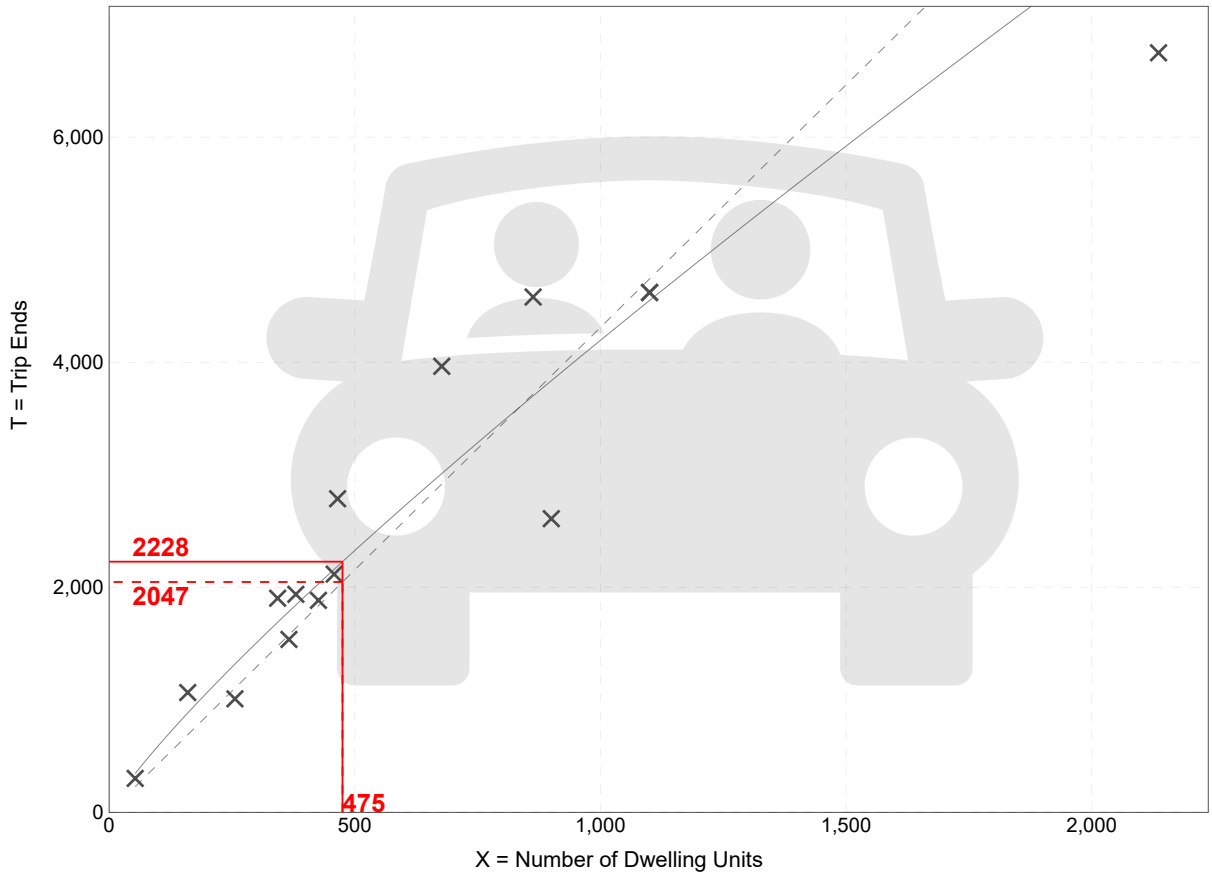
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 15
Avg. Num. of Dwelling Units: 646
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.31	2.90 - 6.66	1.07

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.85 Ln(X) + 2.47 **R^2= 0.94**

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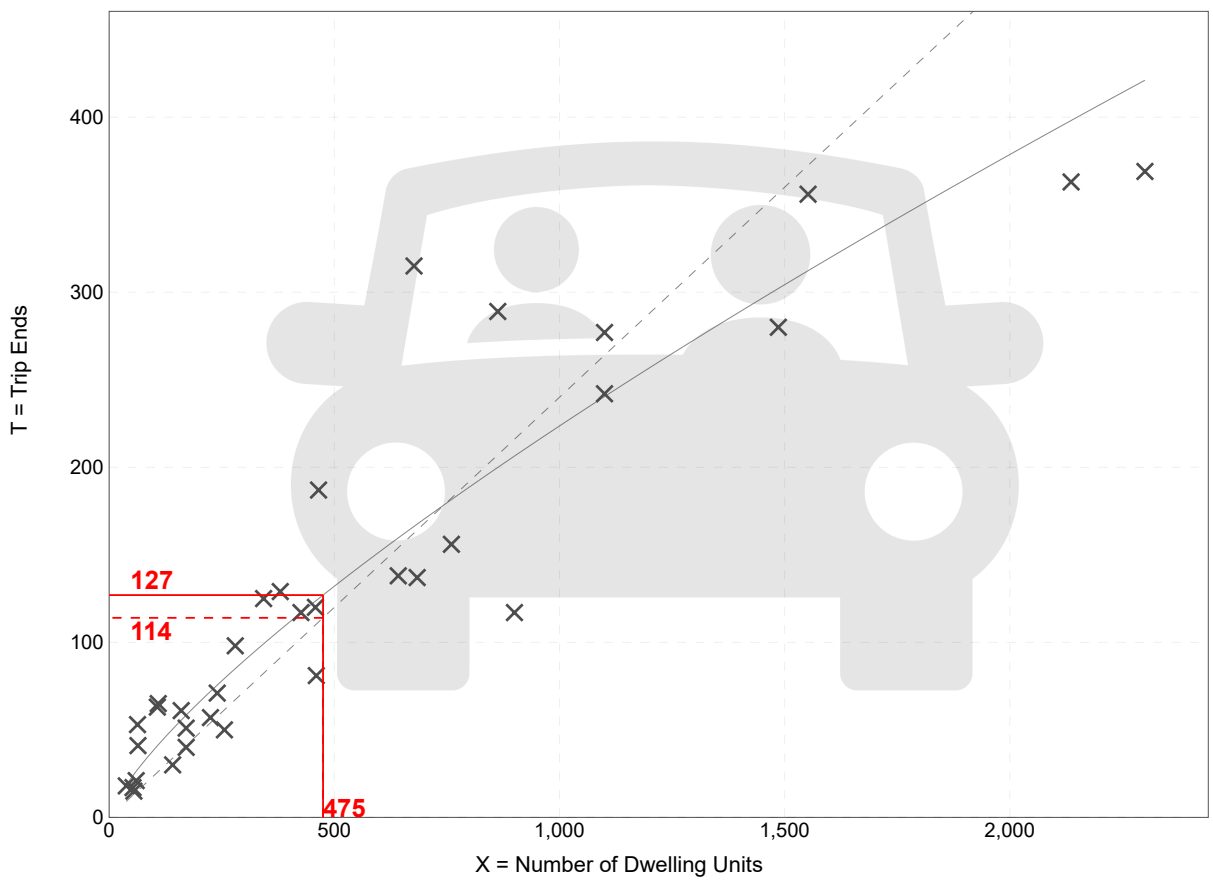
Senior Adult Housing - Single-Family
(251)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 34
Avg. Num. of Dwelling Units: 557
Directional Distribution: 33% entering, 67% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.24	0.13 - 0.84	0.10

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.76 Ln(X) + 0.16

R^2= 0.88

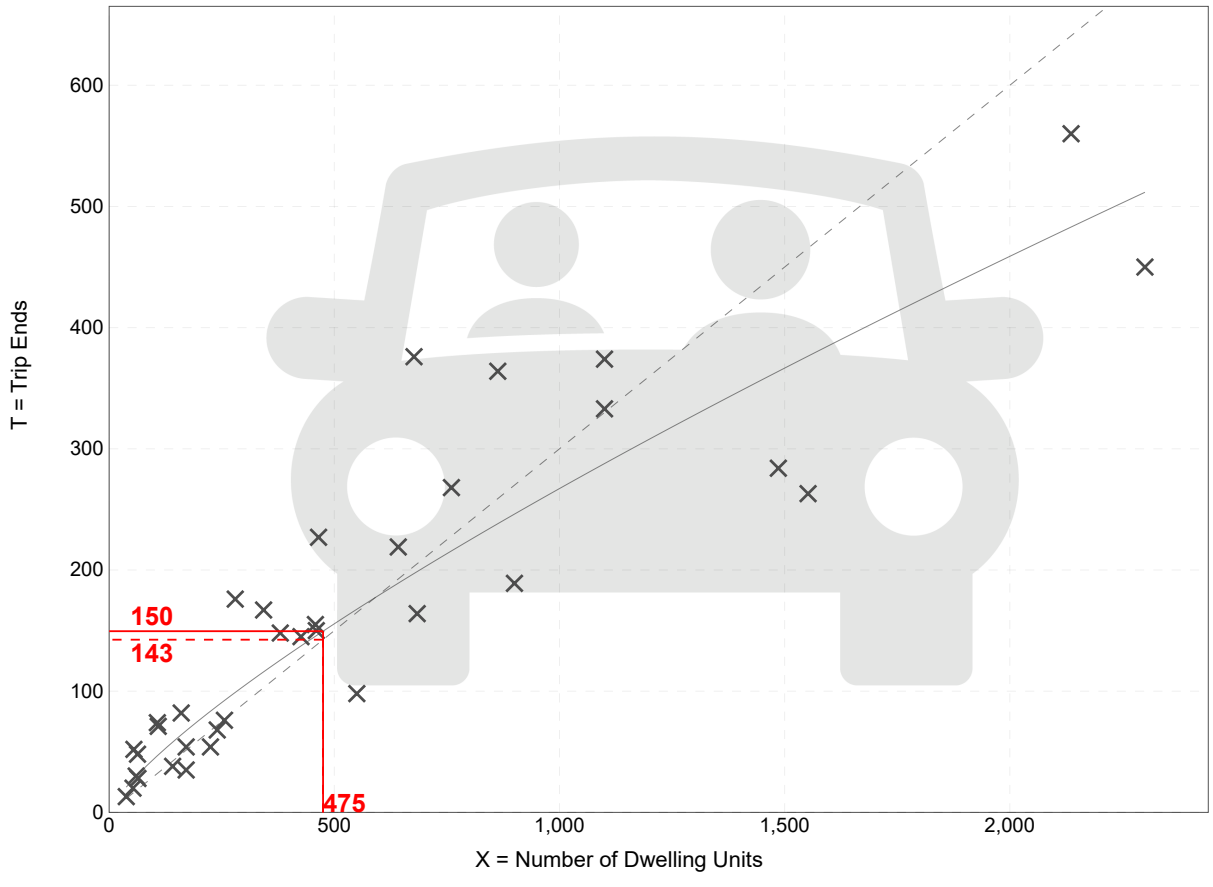
Senior Adult Housing - Single-Family
(251)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 35
Avg. Num. of Dwelling Units: 556
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.30	0.17 - 0.95	0.12

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.78 Ln(X) + 0.20 **R^2= 0.86**

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Senior Adult Housing - Multifamily
(252)

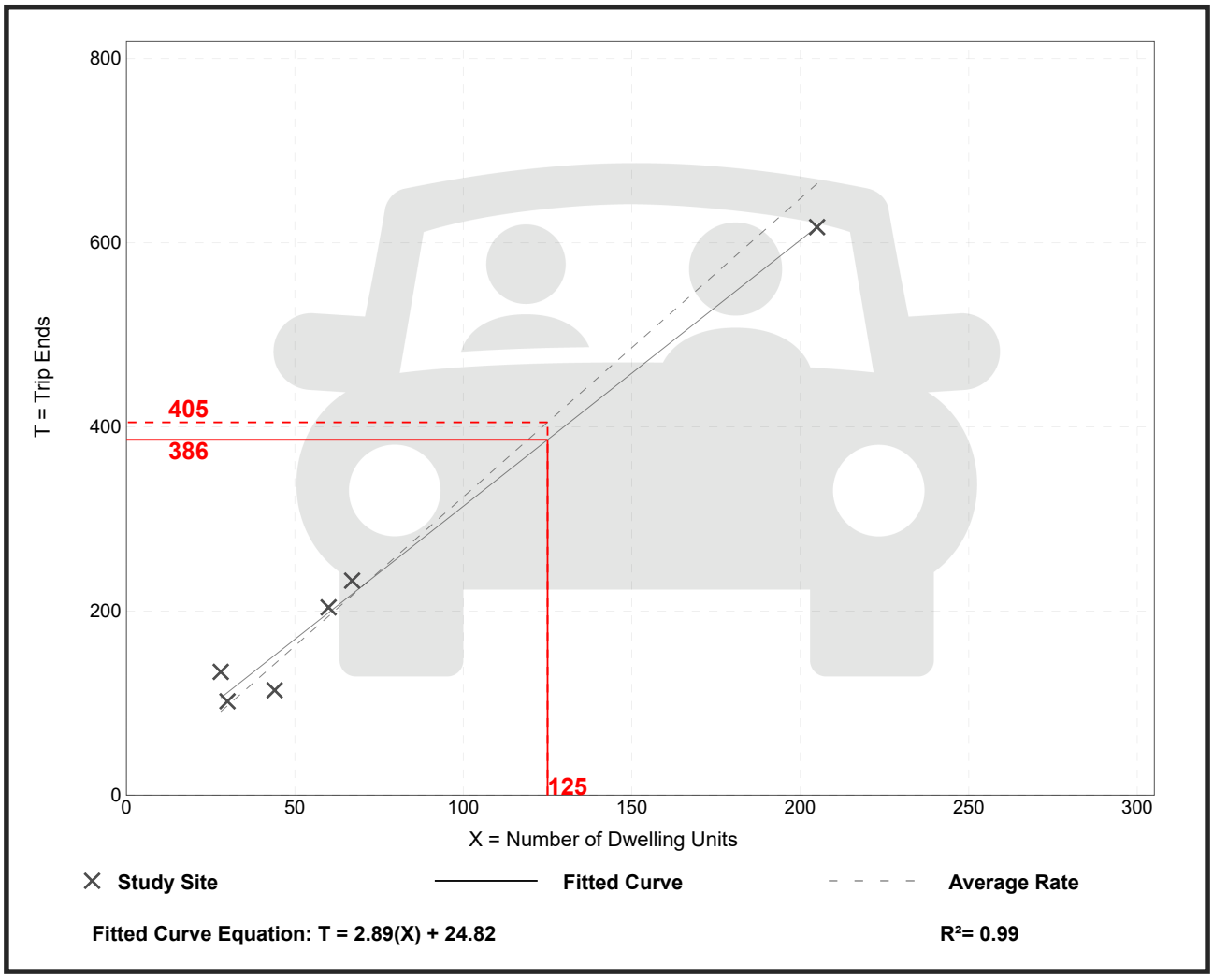
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 6
Avg. Num. of Dwelling Units: 72
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
3.24	2.59 - 4.79	0.53

Data Plot and Equation



Fitted Curve Equation: T = 2.89(X) + 24.82

R^2= 0.99

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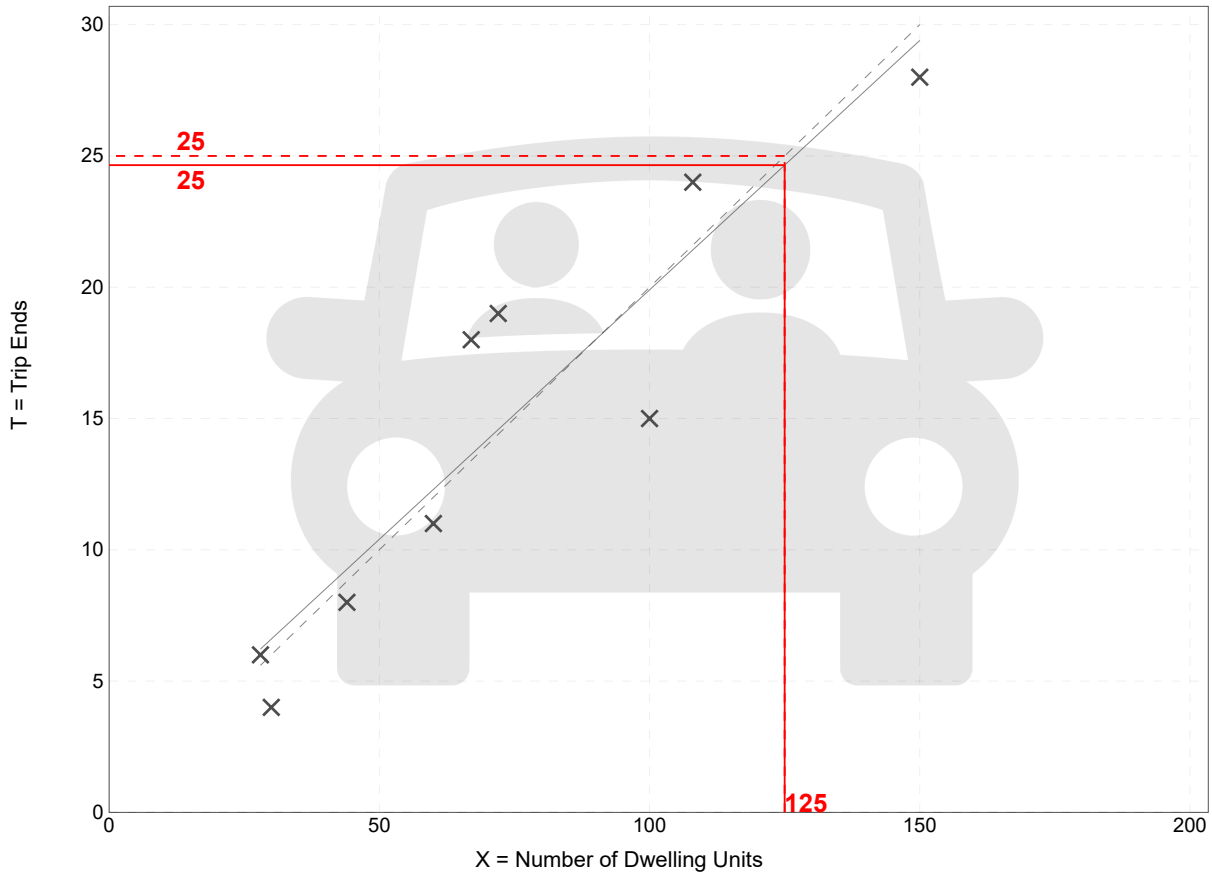
Senior Adult Housing - Multifamily
(252)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 9
Avg. Num. of Dwelling Units: 73
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.20	0.13 - 0.27	0.04

Data Plot and Equation



Fitted Curve Equation: T = 0.19(X) + 0.90 **R^2= 0.85**

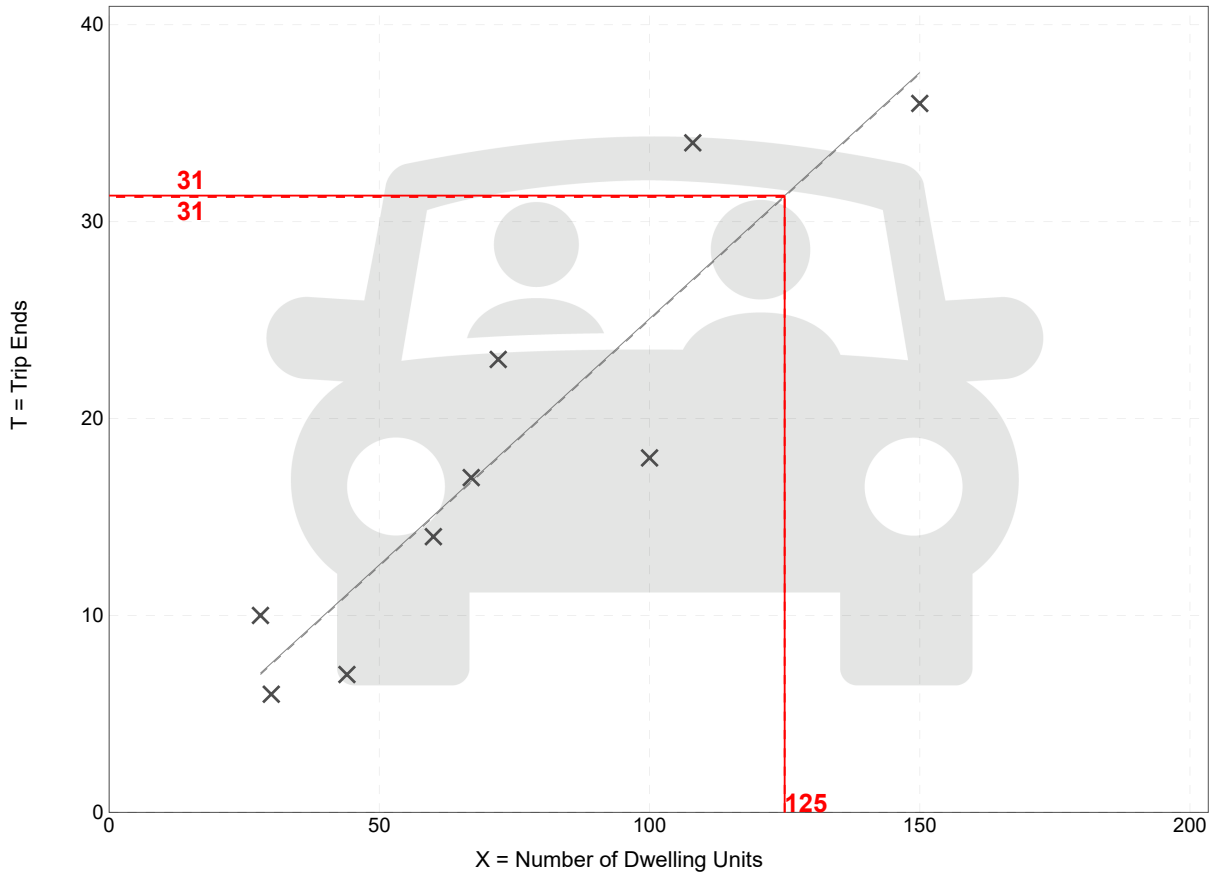
Senior Adult Housing - Multifamily
(252)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 9
Avg. Num. of Dwelling Units: 73
Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.25	0.16 - 0.36	0.06

Data Plot and Equation



Fitted Curve Equation: T = 0.25(X) + 0.07

R^2= 0.84

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Shopping Plaza (40-150k) - Supermarket - Yes
(821)

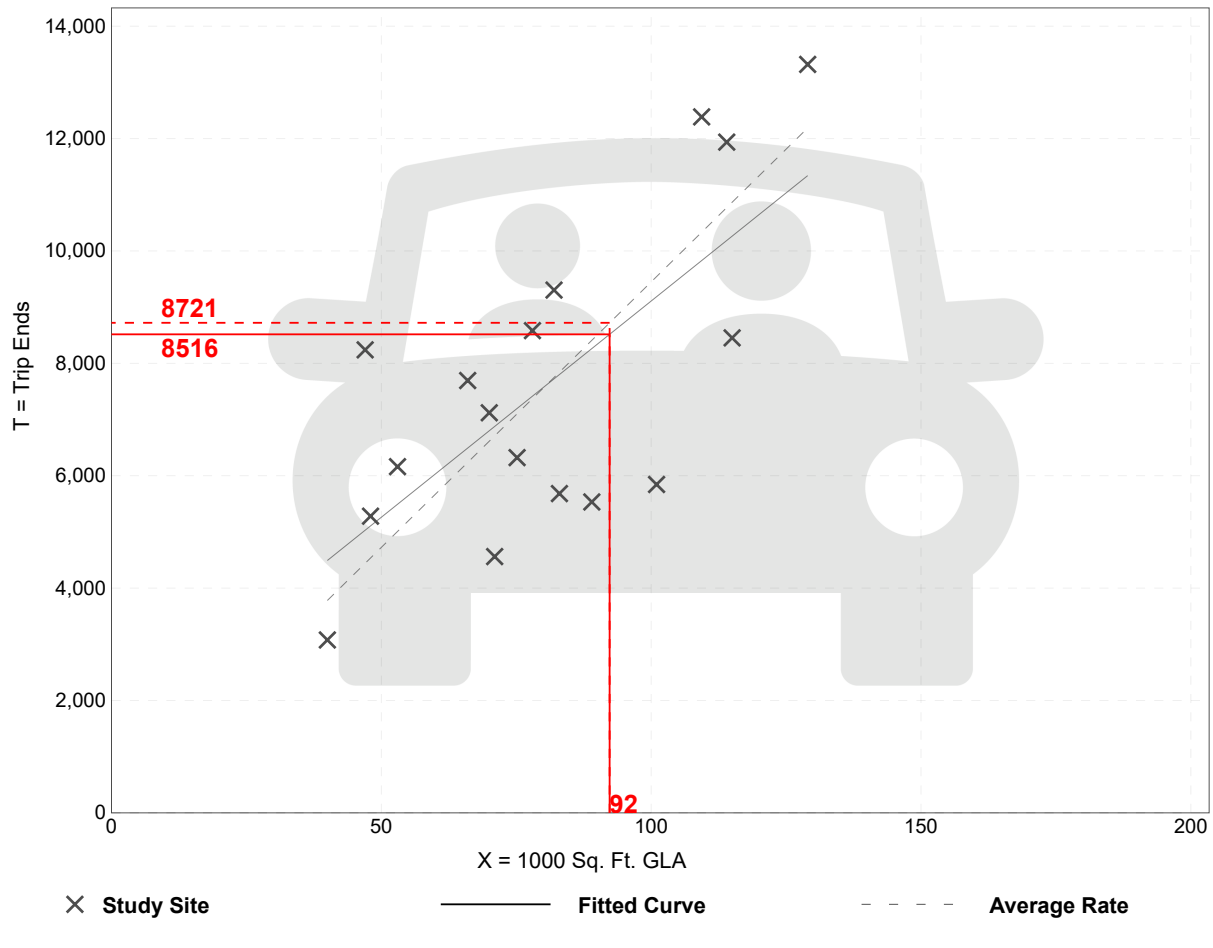
Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 17
Avg. 1000 Sq. Ft. GLA: 81
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
94.49	57.86 - 175.32	26.55

Data Plot and Equation



Fitted Curve Equation: T = 76.96(X) + 1412.79

R^2= 0.50

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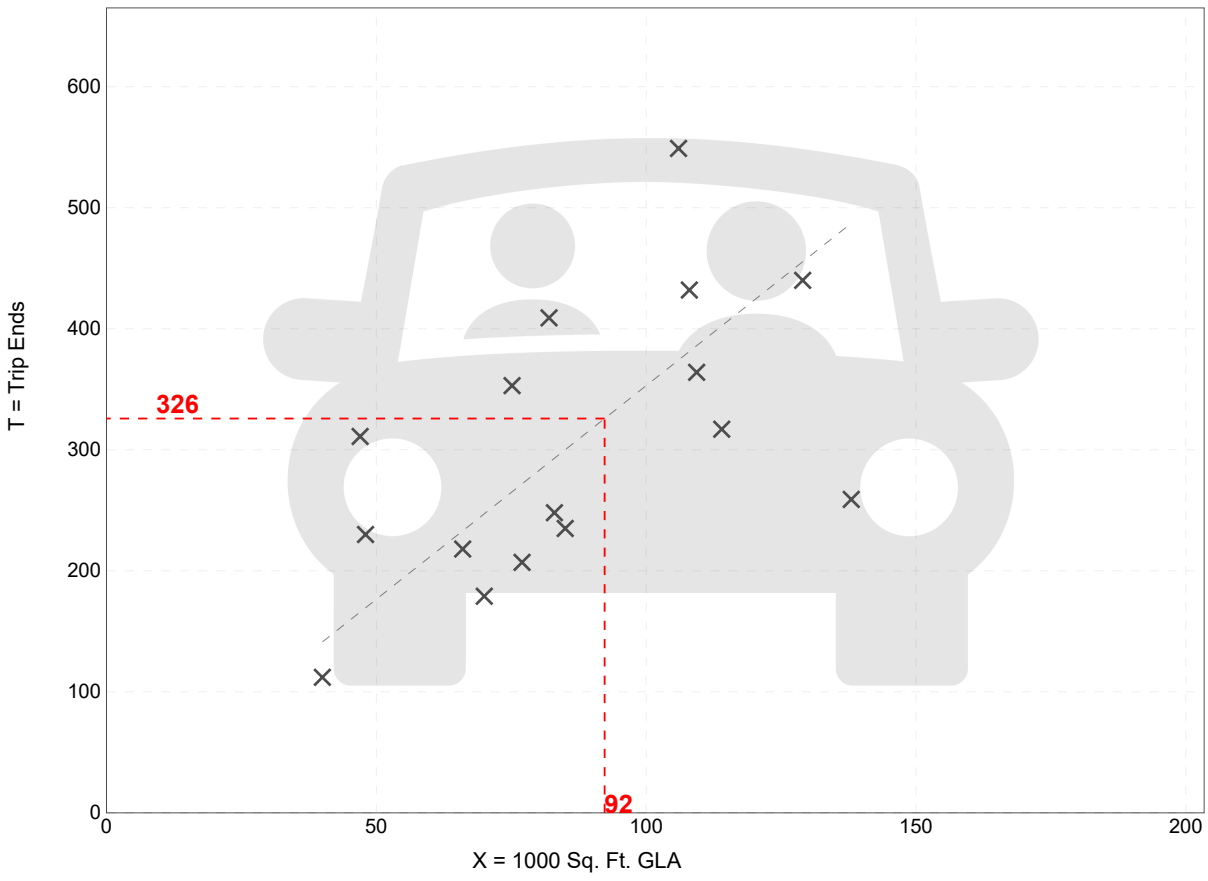
Shopping Plaza (40-150k) - Supermarket - Yes
(821)

Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 16
Avg. 1000 Sq. Ft. GLA: 86
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.53	1.88 - 6.62	1.17

Data Plot and Equation



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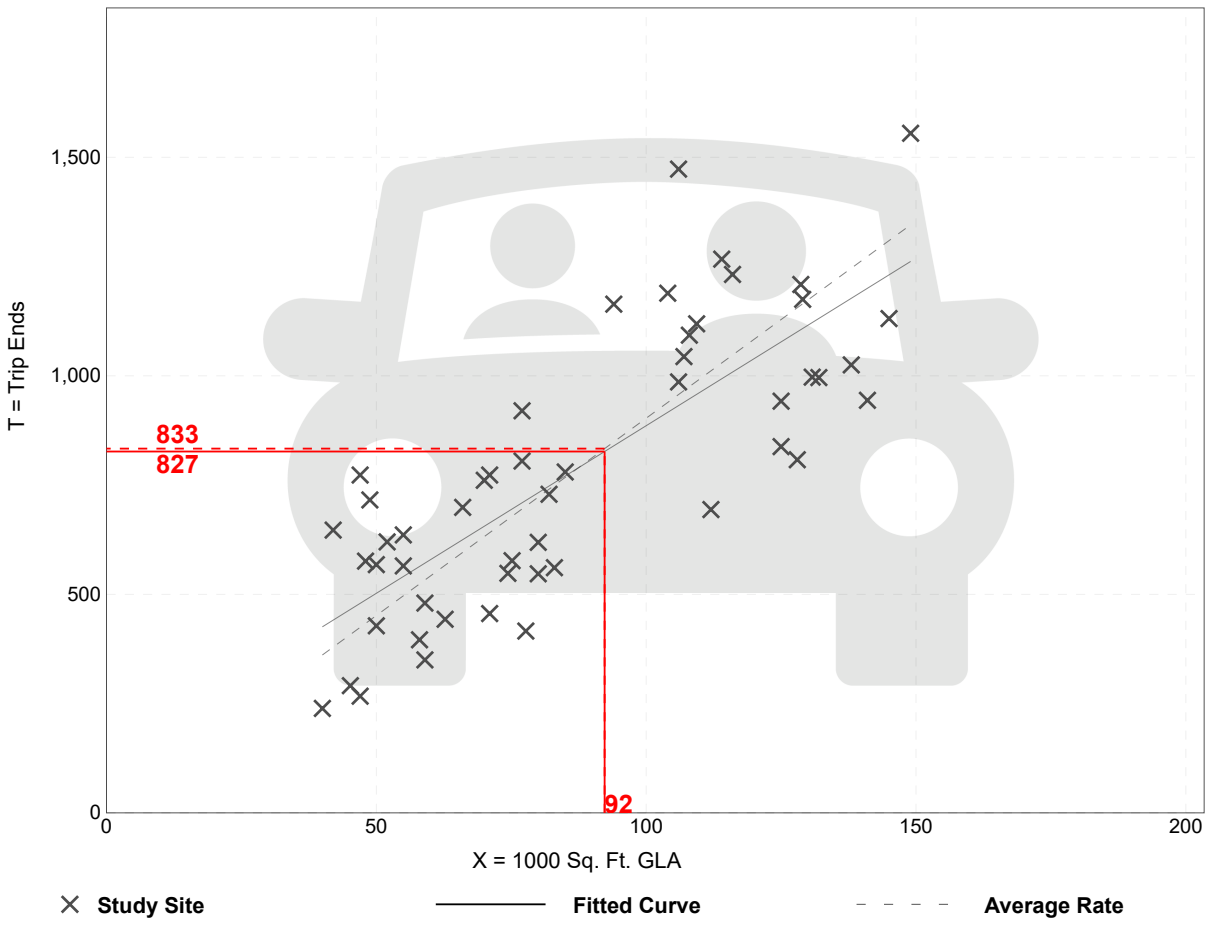
Shopping Plaza (40-150k) - Supermarket - Yes
(821)

Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 51
Avg. 1000 Sq. Ft. GLA: 87
Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
9.03	5.35 - 16.45	2.37

Data Plot and Equation



Fitted Curve Equation: T = 7.67(X) + 118.86

R^2= 0.62

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Convenience Store
(851)

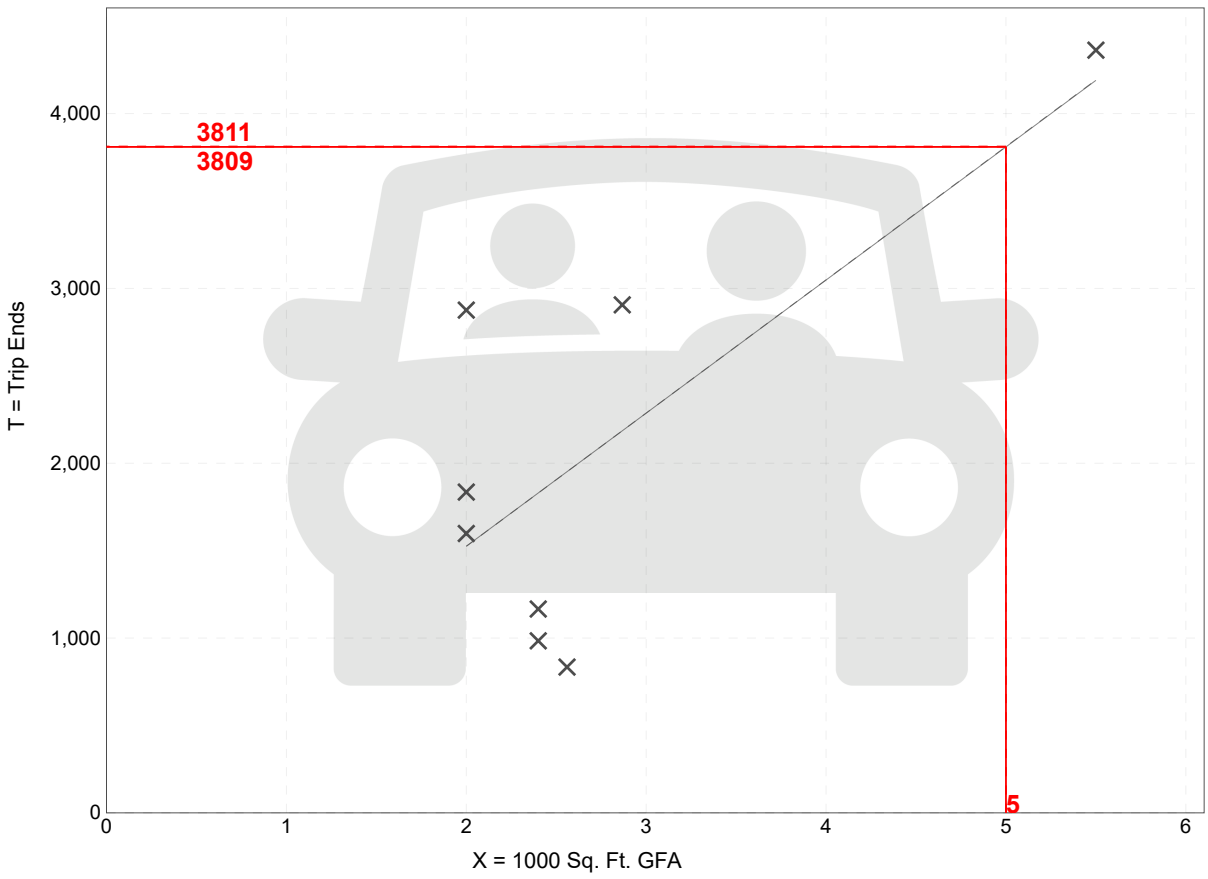
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
762.28	325.78 - 1438.00	333.89

Data Plot and Equation



Fitted Curve Equation: T = 761.44(X) + 2.27

R^2= 0.53

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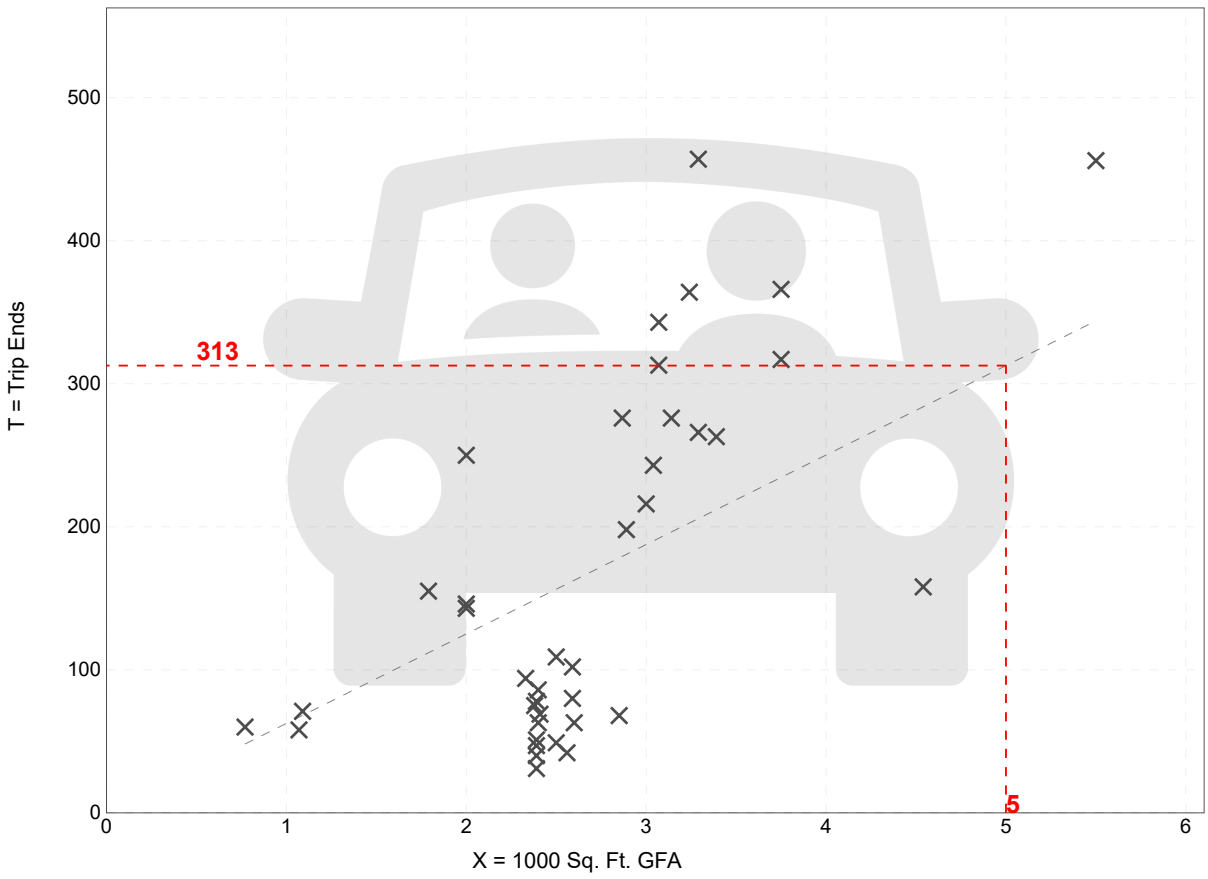
Convenience Store
(851)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 39
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
62.54	12.97 - 138.91	35.04

Data Plot and Equation



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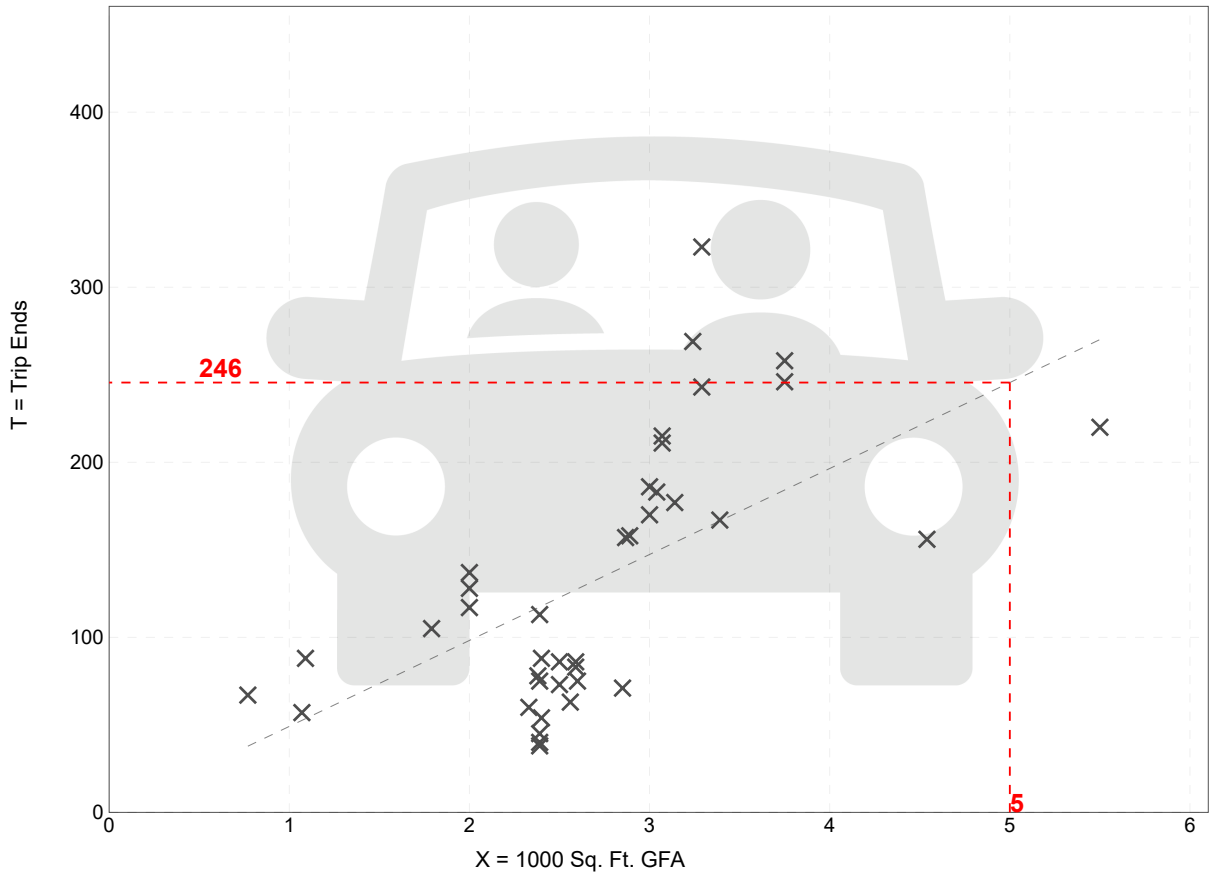
Convenience Store
(851)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 39
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
49.11	15.90 - 98.18	20.84

Data Plot and Equation



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Fast-Food Restaurant with Drive-Through Window
(934)

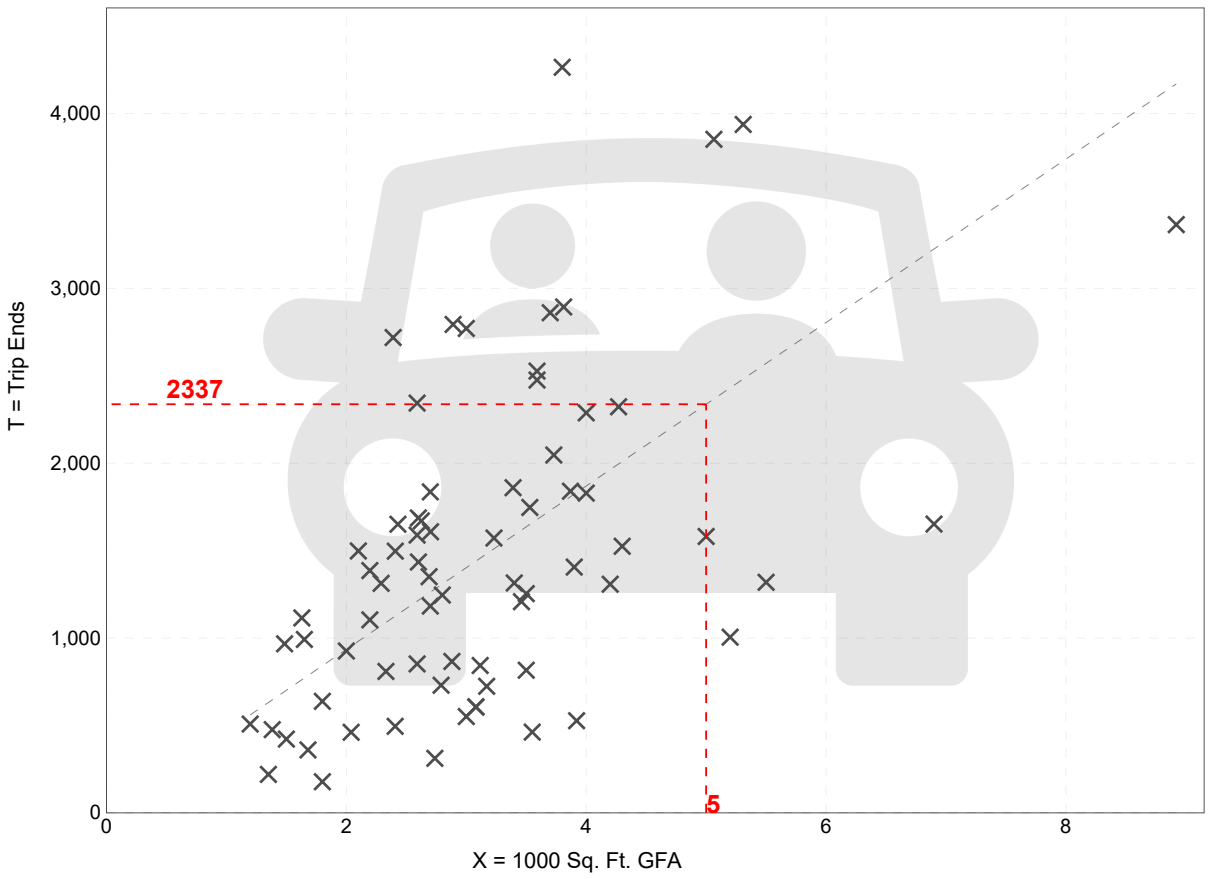
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 71
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
467.48	98.89 - 1137.66	238.62

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

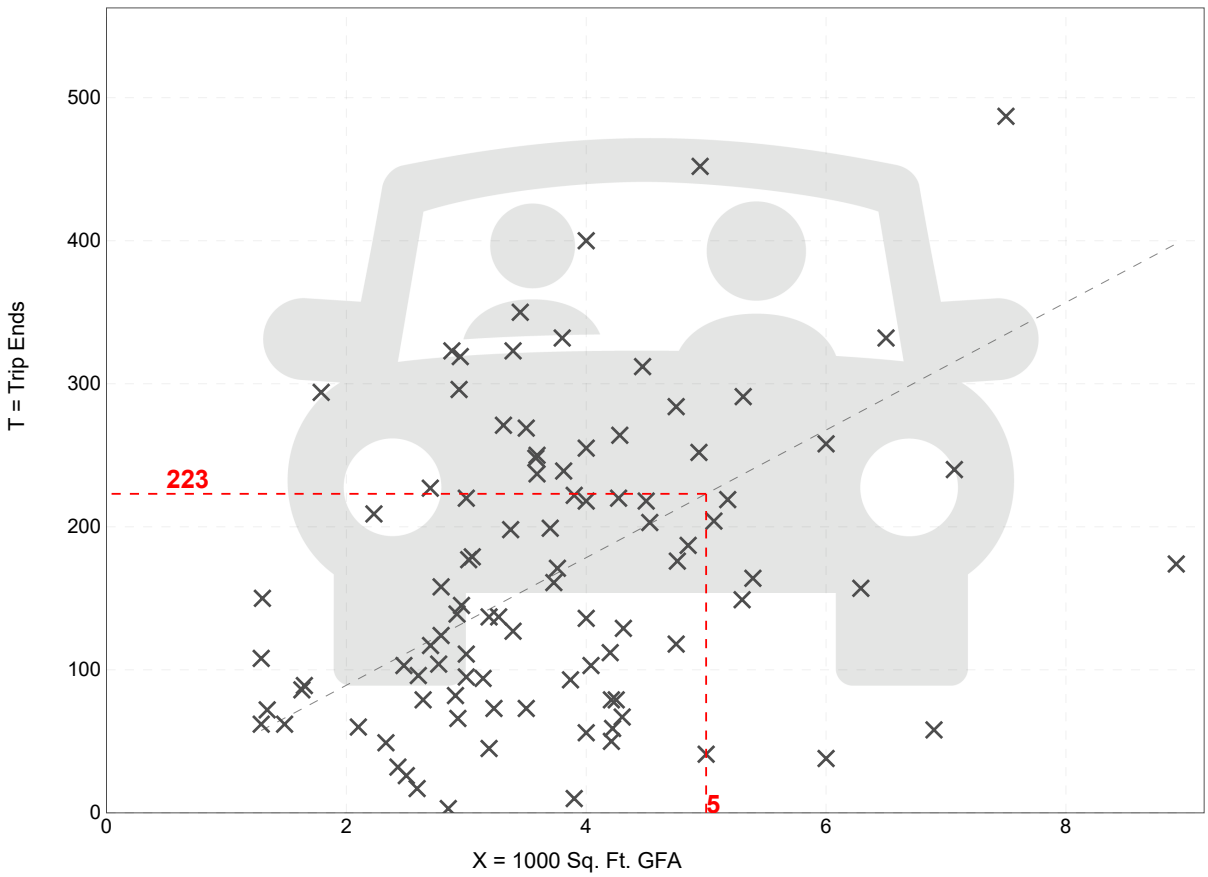
Fast-Food Restaurant with Drive-Through Window
(934)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 96
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
44.61	1.05 - 164.25	27.14

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= **

Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

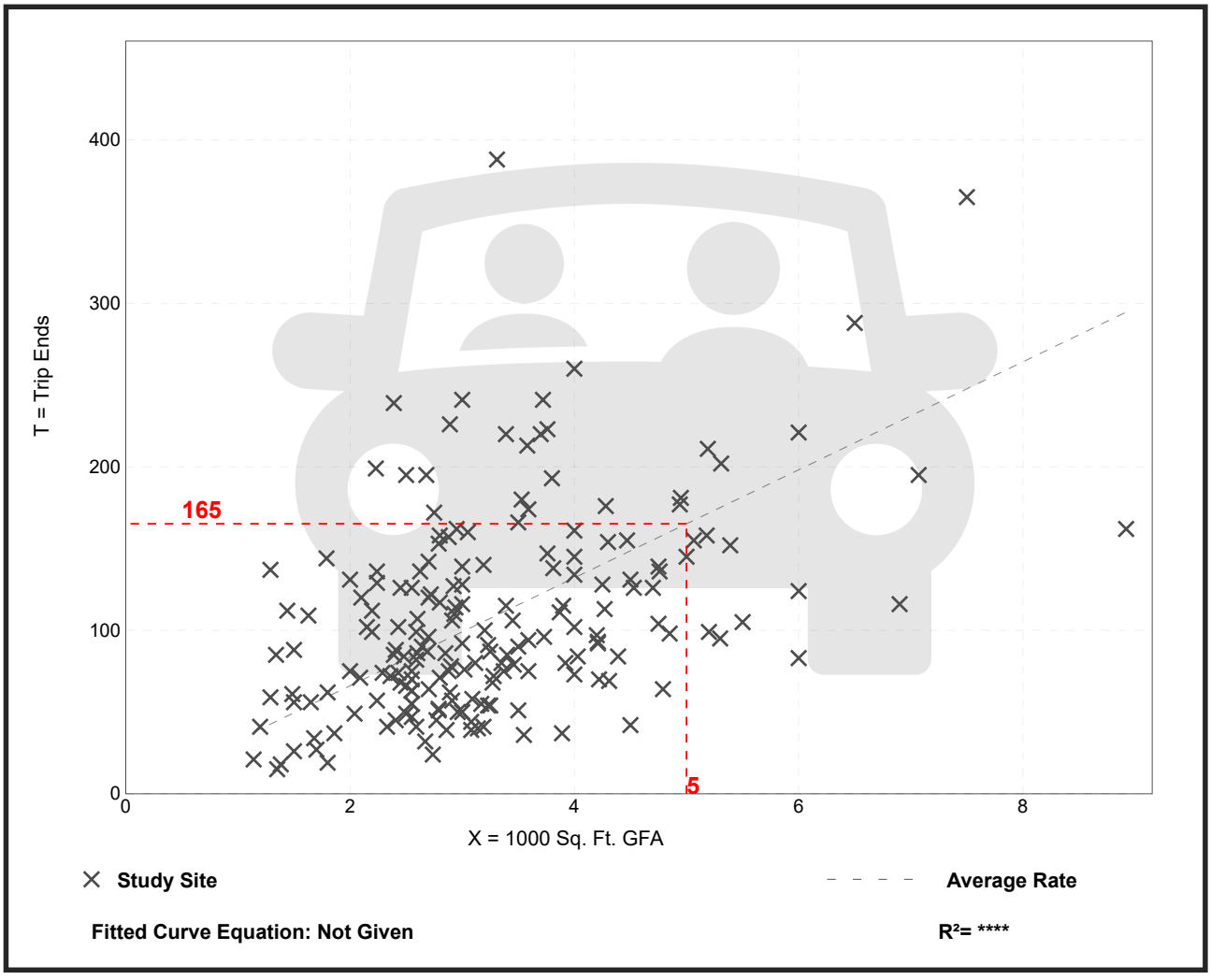
Fast-Food Restaurant with Drive-Through Window
(934)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 190
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.03	8.77 - 117.22	17.59

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual* , 11th Edition

Land Use Code	821
Land Use	Shopping Plaza (40 - 150k)
Setting	General Urban/Suburban
Time Period	Weekday PM Peak Period
# Data Sites	15
Average Pass-By Rate	40%

Pass-By Characteristics for Individual Sites

GLA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume	Source
					Primary (%)	Diverted (%)	Total (%)		
45	Florida	1992	844	56	24	20	44	—	30
50	Florida	1992	555	41	41	18	59	—	30
52	Florida	1995	665	42	33	25	58	—	30
53	Florida	1993	162	59	—	—	41	—	30
57.23	Kentucky	1993	247	31	53	16	69	2659	34
60	Florida	1995	1583	40	38	22	60	—	30
69.4	Kentucky	1993	109	25	42	33	75	1559	34
77	Florida	1992	365	46	—	—	54	—	30
78	Florida	1991	702	55	23	22	45	—	30
82	Florida	1992	336	34	—	—	66	—	30
92.857	Kentucky	1993	133	22	50	28	78	3555	34
100.888	Kentucky	1993	281	28	50	22	72	2111	34
121.54	Kentucky	1993	210	53	30	17	47	2636	34
144	New Jersey	1990	176	32	44	24	68	—	24
146.8	Kentucky	1993	—	36	39	25	64	—	34

Table F.14 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period Land Use Code 851—Convenience Market (Open 24 Hours)

SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
3	Overland Park, KS	Aug. 1987	68	4:30–5:30 p.m.	34	53	13	66	—	—
3	Overland Park, KS	July 1987	68	4:30–5:30 p.m.	28	50	22	72	—	—
~1.9	Billings, MT	1987	461	4:00–6:00 p.m.	62	13	25	38	—	ITE Montana Section Tech Comm
<50.0	Chicago suburbs, IL	1987	72	3:00–6:00 p.m.	28	—	—	72	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	54	3:00–6:00 p.m.	78	—	—	22	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	34	3:00–6:00 p.m.	69	—	—	31	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	100	3:00–6:00 p.m.	63	—	—	37	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	43	3:00–6:00 p.m.	43	—	—	57	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	135	3:00–6:00 p.m.	39	—	—	61	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	74	3:00–6:00 p.m.	53	—	—	47	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	80	3:00–6:00 p.m.	64	—	—	36	—	Kenig, O'Hara, Humes, Flock

Average Pass-By Trip Percentage: 51
"—" means no data were provided

Table F.15 Pass-By and Non-Pass-By Trips Weekday, AM Peak Period Land Use Code 853—Convenience Market with Gasoline Pumps

SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
2.8	Louisville area, KY	1993	—	7:00–9:00 a.m.	54	11	35	46	1,240	Barton-Aschman Assoc.
2.4	Louisville area, KY	1993	—	7:00–9:00 a.m.	48	17	35	52	1,210	Barton-Aschman Assoc.
4.2	Louisville area, KY	1993	47	7:00–9:00 a.m.	62	19	19	38	1,705	Barton-Aschman Assoc.
2.6	Crestwood, KY	1993	—	7:00–9:00 a.m.	72	15	13	28	940	Barton-Aschman Assoc.
3.7	Louisville area, KY	1993	49	7:00–9:00 a.m.	66	16	18	34	990	Barton-Aschman Assoc.
3.0	New Albany, IN	1993	62	7:00–9:00 a.m.	74	10	16	26	790	Barton-Aschman Assoc.
2.3	Louisville, KY	1993	58	7:00–9:00 a.m.	64	5	31	36	1,255	Barton-Aschman Assoc.
2.2	New Albany, IN	1993	79	7:00–9:00 a.m.	56	6	38	44	635	Barton-Aschman Assoc.
3.6	Louisville area, KY	1993	49	7:00–9:00 a.m.	67	4	29	33	1,985	Barton-Aschman Assoc.

Average Pass-By Trip Percentage: 63
"—" means no data were provided

Table F.31 Pass-By and Non-Pass-By Trips Weekday, AM Peak Period
Land Use Code 934—Fast-Food Restaurant with Drive-Through Window

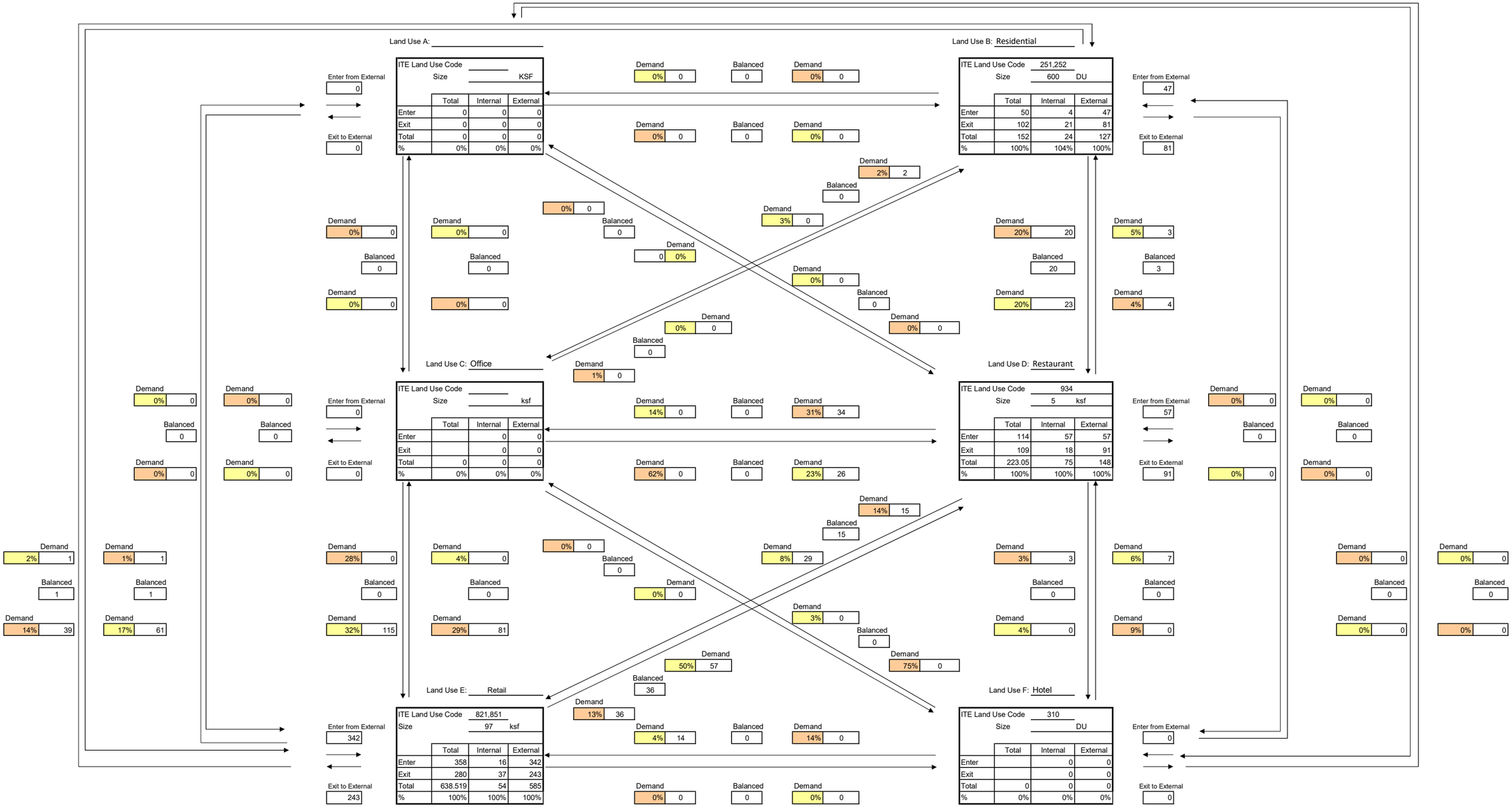
SEATS	SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
—	<5	Chicago suburbs, IL	1987	84	7:00–9:00 a.m.	44	—	—	56	—	Kenig, O'Hara, Humes, Flock
88	1.4	Louisville area, KY	1993	—	7:00–9:00 a.m.	62	22	16	38	1,407	Barton-Aschman Assoc.
100	3.6	Louisville, KY	1993	—	7:00–9:00 a.m.	32	47	21	68	437	Barton-Aschman Assoc.
87	4.2	New Albany, IN	1993	—	7:00–9:00 a.m.	46	23	31	54	1,049	Barton-Aschman Assoc.
150	3.0	Louisville area, KY	1993	—	7:00–9:00 a.m.	43	14	43	57	2,903	Barton-Aschman Assoc.
—	3.3	varies	1996	—	6:00–9:00 a.m.	68	—	—	32	—	Oracle Engineering

Average Pass-By Trip Percentage: 49
"—" means no data were provided

Analyst TMC
Date

Multi-Use Development
Internal Capture Summary

Name of Devlopment: PROJECT TRIP GENERATION
Time Period AM Peak Hour



Net External Trips for Multi-Use Development

	Land Use A 0	Land Use B Residential	Land Use C Office	Land Use D estaura	Land Use E Retail	Land Use F Hotel	**Total**	Passer By	**Net Trips**
Enter	0	47	0	57	342	0	445	1	444
Exit	0	81	0	91	243	0	415	1	414
Sub-Total	0	127	0	148	585	0	**860**	2	858
Passer By Trips					2		2		
Total	**0**	**127**	**0**	**148**	**583**	**0**	**858**		**858**
Single-Use Trip Gen Estimate	0	152	0	223	639	0	1,014		

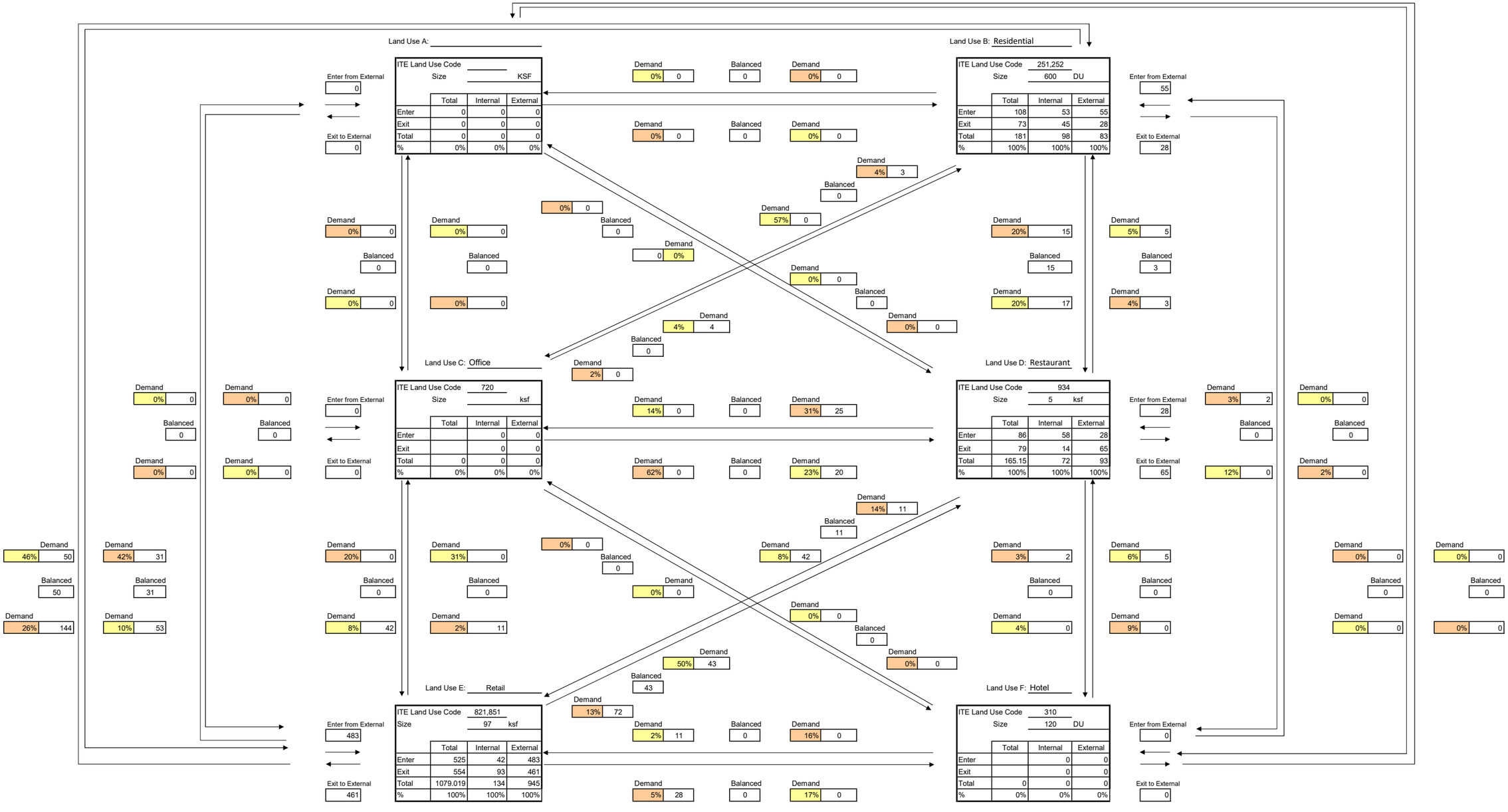
Internal Capture
154
15.2%

Source: Traffic Mobility Consultants,LLC, based on procedures from the ITE Trip Generation Handbook, 3rd Edition

Analyst TMC
Date

Multi-Use Development
Internal Capture Summary

Name of Devlopment: PROJECT TRIP GENERATION
Time Period PM Peak Hour



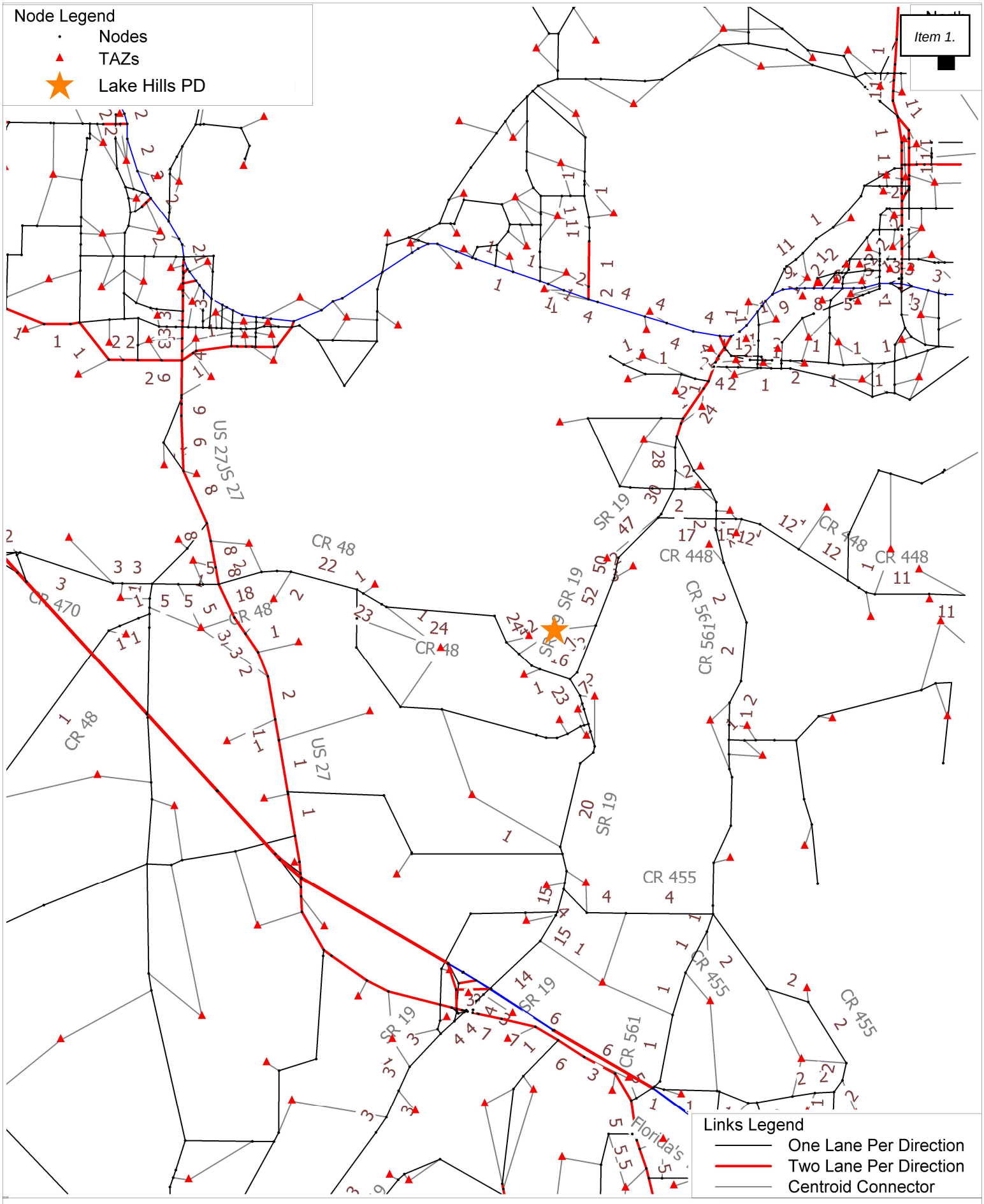
Net External Trips for Multi-Use Development

	Land Use A 0	Land Use B Residential	Land Use C Office	Land Use D estaura	Land Use E Retail	Land Use F Hotel	**Total**	Passer By	**Net Trips**
Enter	0	55	0	28	483	0	566	1	565
Exit	0	28	0	65	461	0	554	1	553
Sub-Total	0	83	0	93	945	0	**1,121**	2	1,119
Passer By Trips					2		2		
Total	**0**	**83**	**0**	**93**	**943**	**0**	**1,119**		**1,119**
Single-Use Trip Gen Estimate	0	181	0	165	1,079	0	1,425		

Source: Traffic Mobility Consultants,LLC, based on procedures from the ITE Trip Generation Handbook, 3rd Edition

Internal Capture
304
21.4%

Appendix G
CFRPM Model Output



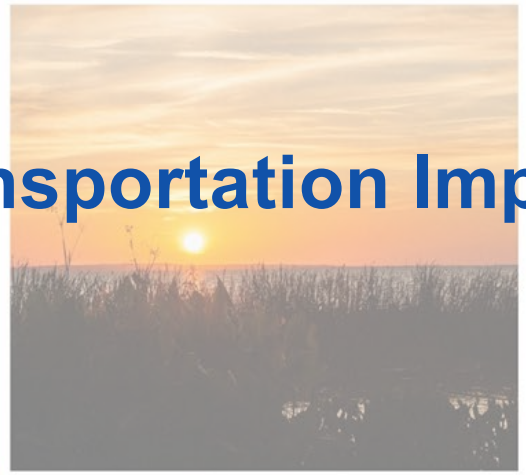
23103 Lake Hills PD Howey-In-The-Hills, FL - TAZ 7676
CFRPM7 CF2025 Project Distribution
V2.0 C:\FSUTMS\D5\CFRPM7\Base\CF_2025\P21237\OUTPUT\HWYLOAD_SL_AllDay_A25.NET Wed 12 Jan 2022

cube

Appendix H
Planned and Programmed Improvements







Transportation Improvement Program

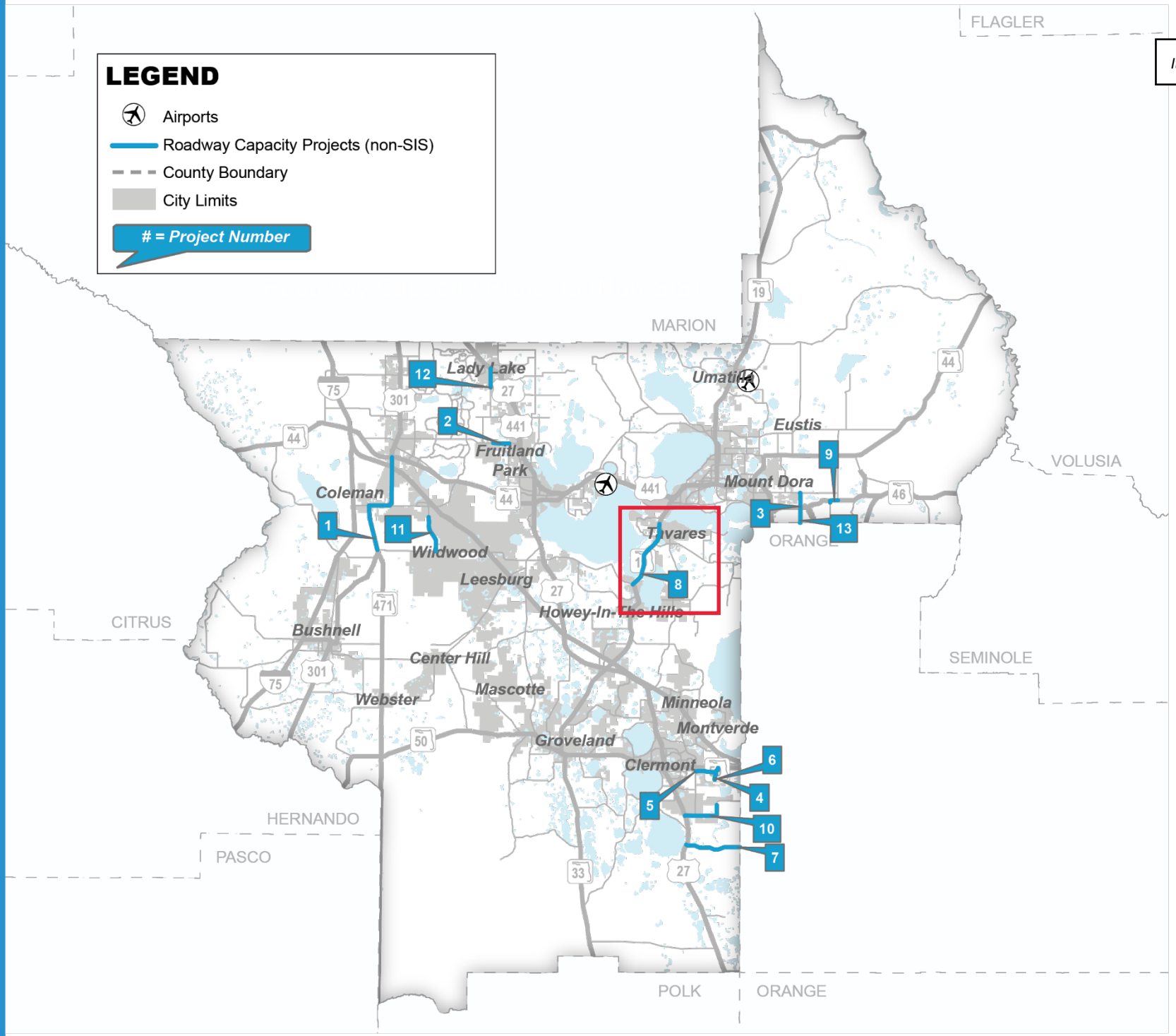
FISCAL YEARS 2023-2027

APPROVED

AMENDED

The preparation of this report was financed in part by the Federal Highway Administration, Federal Transit Administration, U.S. Department of Transportation, and local participating governments. The views and opinions of the report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

ROADWAY CAPACITY PROJECTS (NON-SIS)



7

Project Description: WELLNESS WAY FROM US-27 TO THE LAKE/ORANGE COUNTY LINE

Work Description: NEW ROAD CONSTRUCTION

FM# 4487331

Funding Source(s): Local and State

LRTP Page: PG. 4-12

Phase	<2023	2023	2024	2025	2026	2027	>2027	Amount Funded
PDE	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
PE	$ -	$ -	$ 3,000,000	$ -	$ -	$ -	$ -	$ 3,000,000
ENV	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
ROW	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
LAR	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
RRU	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CST	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ 3,000,000	$ -	$ -	$ -	$ -	$ 3,000,000

Responsible Agency: RESPONSIBLE AGENCY NOT AVAILABLE County: LAKE Total Project Cost: $ 3,000,000

8

Project Description: SR 19 FROM CR 48 TO CR 561

Work Description: ADD LANES & RECONSTRUCT

FM# 2383191

Funding Source(s): State and Federal

LRTP Page: PG. 4-12

Phase	<2023	2023	2024	2025	2026	2027	>2027	Amount Funded
PDE	$ 1,161,015	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,161,015
PE	$ 4,141,718	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,141,718
ENV	$ 492,196	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ 692,196
ROW	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
LAR	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
RRU	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CST	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ 5,794,929	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ 5,994,929

Responsible Agency: FDOT County: LAKE Total Project Cost: $ 5,994,929

Lake-Sumter MPO
Metropolitan Planning Organization

2022 List of Priority Projects

Lake~Sumter Metropolitan Planning Organization

Adopted June 22, 2022

Capacity Rank	Sponsor/ Location	FM #	Project Name	From	To	Description	Performance Measure(s)	Proposed Phase	Proposed Phase FY	Proposed Phase Cost	Programmed Phase(s)	Programmed Phase FY	CMP Congested Corridors 2021 Analysis (for informational purposes)
20	Lake County	-	Woodlea Road	SR 19	End	Road Widening	System Performance	Design Update/ ROW	2023/24	$3,000,000			**Operating at Acceptable Level of Service**
21	FDOT/ Lake County	238319-1	SR 19	Howey Bridge	CR 561	Road Widening	System Performance	CST	2023/24	$35,000,000			**Extremely Congested (2021)**
22	Lake County	-	Hancock Road	Hartwood Marsh Rd	Wellness Way	New Road	System Performance	CST	2025/26	$20,000,000			**New Roadway, Not on CMP Network**
23	Lake County	-	SR 46A	SR 44	SR 46	Road Widening	System Performance	CST	2023/24	$TBD	Design		**Congested (2021)**

Top 20 Project

Lake-Sumter MPO
2022 List of Priority Projects

The annual List of Priority Projects (LOPP) is a critical step in the process of planning, programming and implementing the highest priority transportation projects within the Lake~Sumter Metropolitan Planning Organization (LSMPO) planning area. The LOPP is the bridge between the Long-Range Transportation Plan and the annual selection of projects to program for funding in FDOT's Five-Year Work Program and LSMPO's Transportation Improvement Program (TIP).

» Projects in the LOPP are the highest priority unfunded needs in the MPO area.

» Each MPO is required to annually develop a LOPP and submit it to FDOT, along with the necessary project information.

» The 2022 LOPP will be used by FDOT to determine projects that might be added to the FY 2023/24 – 2027/28 Tentative Five-Year Work Program. It will similarly guide LSMPO's development of the TIP for the same period.

The LOPP Structure

The LSMPO LOPP is divided into two categories. Tier 1 consists of the Top 20 highest priority projects. Tier 2 includes other LSMPO priorities, categorized by phase, that have not yet advanced into Tier 1. Additionally, the LOPP includes special purpose lists for modal projects and, as needed, project lists for certain funding programs. The LOPP structure is:

» **Tier 1**
- Top 20 Priorities

» **Tier 2**
- Construction Project (CST) Priorities
- Right-of-Way Acquisition (ROW) Priorities
- Design Project Priorities
- Project Development & Environment Study (PD&E) Priorities
- Planning Study Priorities

» **Special Purpose – Modal**
- Trail Priorities – Combined list of all trail priorities in Tier 1 and Tier 2. Includes a separate ranking of trail projects as a group.
- Transit Priorities

» **Special Purpose – Funding Program Project Lists**
- As warranted, lists of projects by certain funding programs will be included (see the Project Screening Form for more information)

MATCHLINE1000+54.61 Ext. -254.61

MATCHLINE1005+00.00

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

NATHAN BALO, P.E.
P.E. LICENSE NUMBER 70824
HORIZON ENGINEERING GROUP, INC.
2603 MAITLAND CENTER PARKWAY, SUITE B
MAITLAND, FLORIDA 32751
CERTIFICATE OF AUTHORIZATION 00009544

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
19	LAKE	238319-1-52-01

ROADWAY PLANS

SHEET NO. 128

astruyk 4/15/2022 3:59:16 PM X:\1050613_SR19\23831915201\roadway\PLANRD01.dgn

Appendix I
Surrounding Developments Committed Trips

PROPOSED DEVELOPMENT AND TRIP GENERATION

The proposed development is a 154-unit single family residential development in the City of Howey-in-the-Hills, Florida. A proposed site plan and its access configuration is shown in **Figure 3**. To determine the impact of this development on the area roadways, an analysis of its trip generation characteristics was made. This included the determination of the number of trips generated by the site and their distribution onto the surrounding roadways.

Trip Generation

The trip generation of the proposed development was calculated using rates obtained from the 10th Edition of the *Institute of Transportation Engineers (ITE) Trip Generation Manual.* This calculation is summarized in **Table 3.** The trip generation sheets are included in the study methodology.

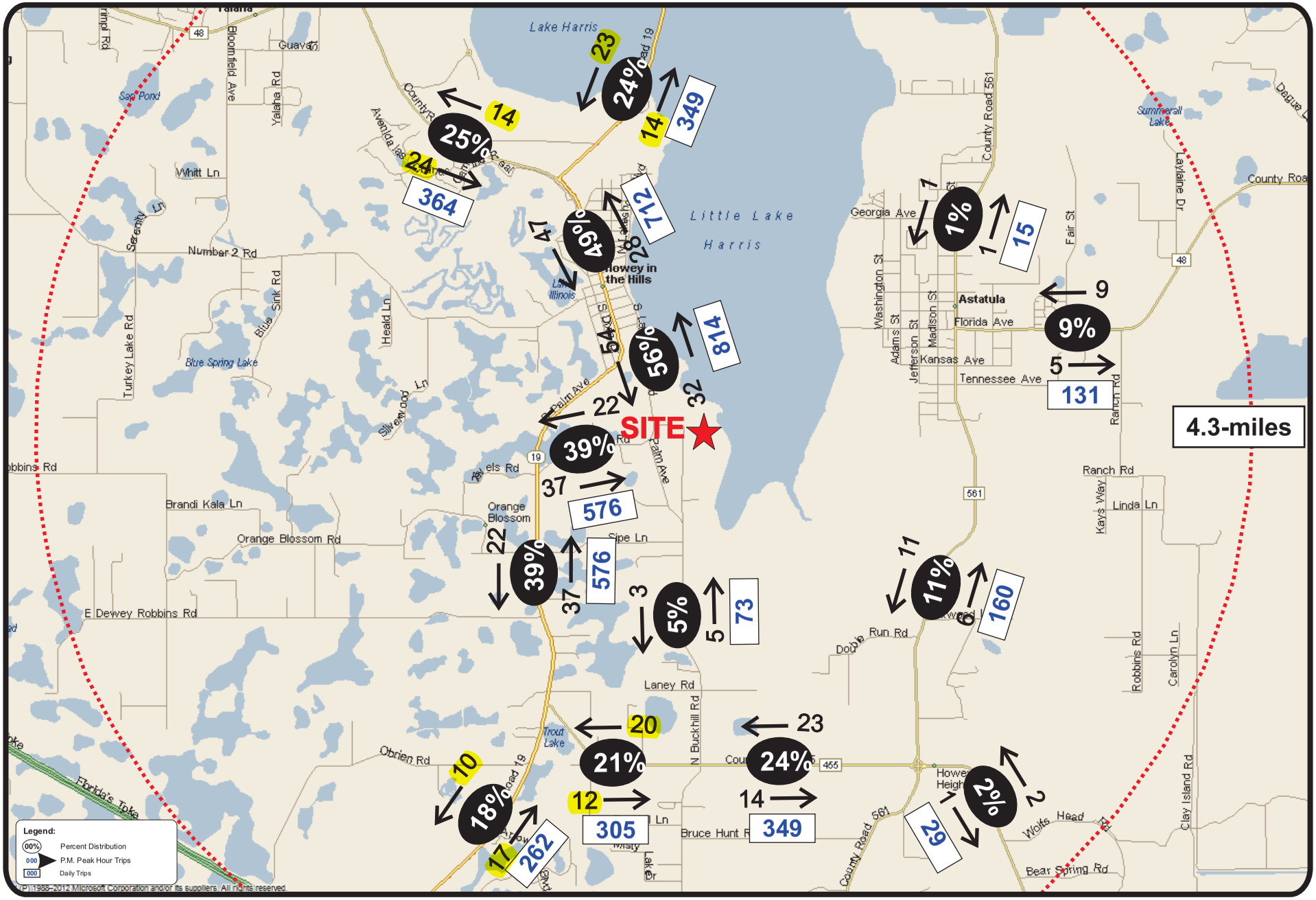
Table 3
Trip Generation Summary

ITE Code	Land Use	Size	Daily Trips		P.M. Peak Hour Generation			
			Rate	Trips	Rate	Enter	Exit	Total
210	Single-Family Housing	154 Units	9.44	1,454	0.99	96	57	153
Total Trips				**1,454**	**---**	**96**	**57**	**153**

The proposed development is estimated to generate 1,454 daily trips and 153 P.M. peak hour trips, 96 entering and 57 exiting.

Trip Distribution/Trip Assignment

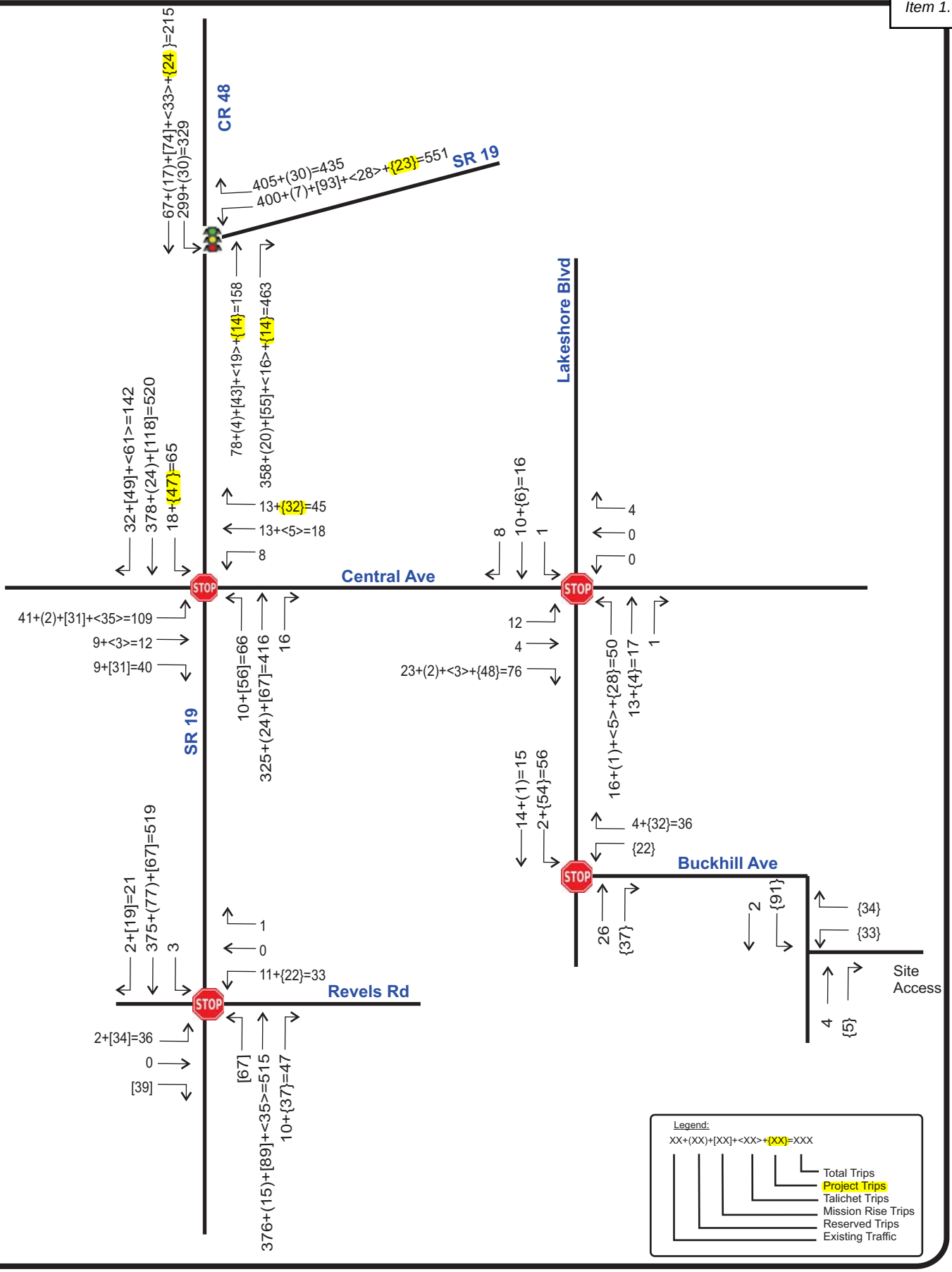
The distribution of the project trips within the study area was determined with the use of the Central Florida Regional Planning Model (CFRPM). Prior to use this model, a minor modification was made to add a traffic analysis zone (TAZ) representing the proposed development. Subsequently the model was run with a select zone analysis to determine a distribution pattern as shown in **Figure 4.** The model distribution plot is included in the study methodology. Utilizing this distribution pattern, the development's daily and P.M. peak hour trips were assigned to the area roadways also shown in Figure 4.



Whispering Hills
Project № 5199
Figure 4

Trip Distribution/ Assignment

N
NTS



Whispering Hills
Project № 5199
Figure 5

Projected P.M. Peak Hour Intersection Volumes

PROPOSED DEVELOPMENT AND TRIP GENERATION

The proposed development comprises 165 single family units. To determine the impact of this development, an analysis of its trip generation characteristics was conducted. This included the determination of the trips to be generated as well as their distribution and assignment to the area roadways.

Trip Generation

Trip generation rates were obtained from the 10th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. **Table 3** provides a summary of the trip generation for the proposed development. As indicated, the proposed development is projected to generate 1,648 new daily trips, of which 165 trips will occur in the P.M. peak hour. **Appendix D** provides copies of the ITE trip generation graphs.

Table 3
Trip Generation Summary

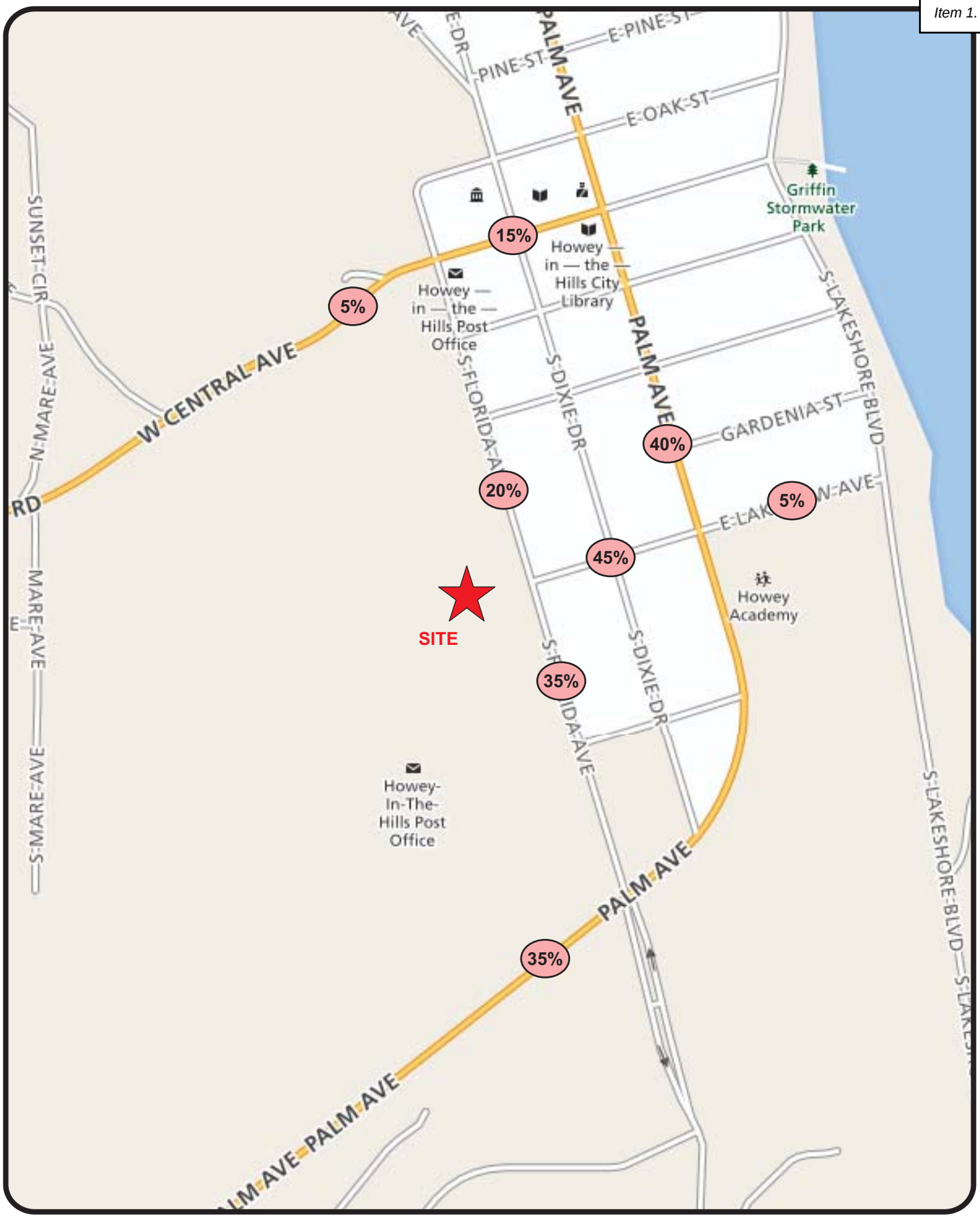
ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
210	Single Family	165 DUs	9.99	1,648	0.74	122	31	91	1.00	165	104	61

Notes:
Trip Generation analysis based on ITE Trip Generation Manual, 10th Edition
The ITE equations were used as the R-squared correlation coefficient was greater than 0.75

As the P.M. peak hour volume is approximated 25% more that the A.M. peak hour volumes, in an effort to be conservative, the P.M. peak hour will be analyzed.

Trip Distribution / Trip Assignment

A trip distribution pattern was estimated using the currently adopted *Central Florida Regional Planning Model (CFRPM)*. A Select Zone Analysis (SZA) was conducted by modifying the 2020 interim year model network to include a Traffic Analysis Zone (TAZ) representing the proposed project and the model's socio-economic data updated to reflect the proposed project buildout. The resulting trip distribution model plot is provided in the **Appendix E.** Many of the local streets were not coded in the adopted model network; therefore, reasonable assumptions were made using engineering judgement to assign project traffic to these local streets. The distribution thus developed is illustrated in **Figure 3**. Utilizing this distribution, the development project trips will be assigned to the area roadways.

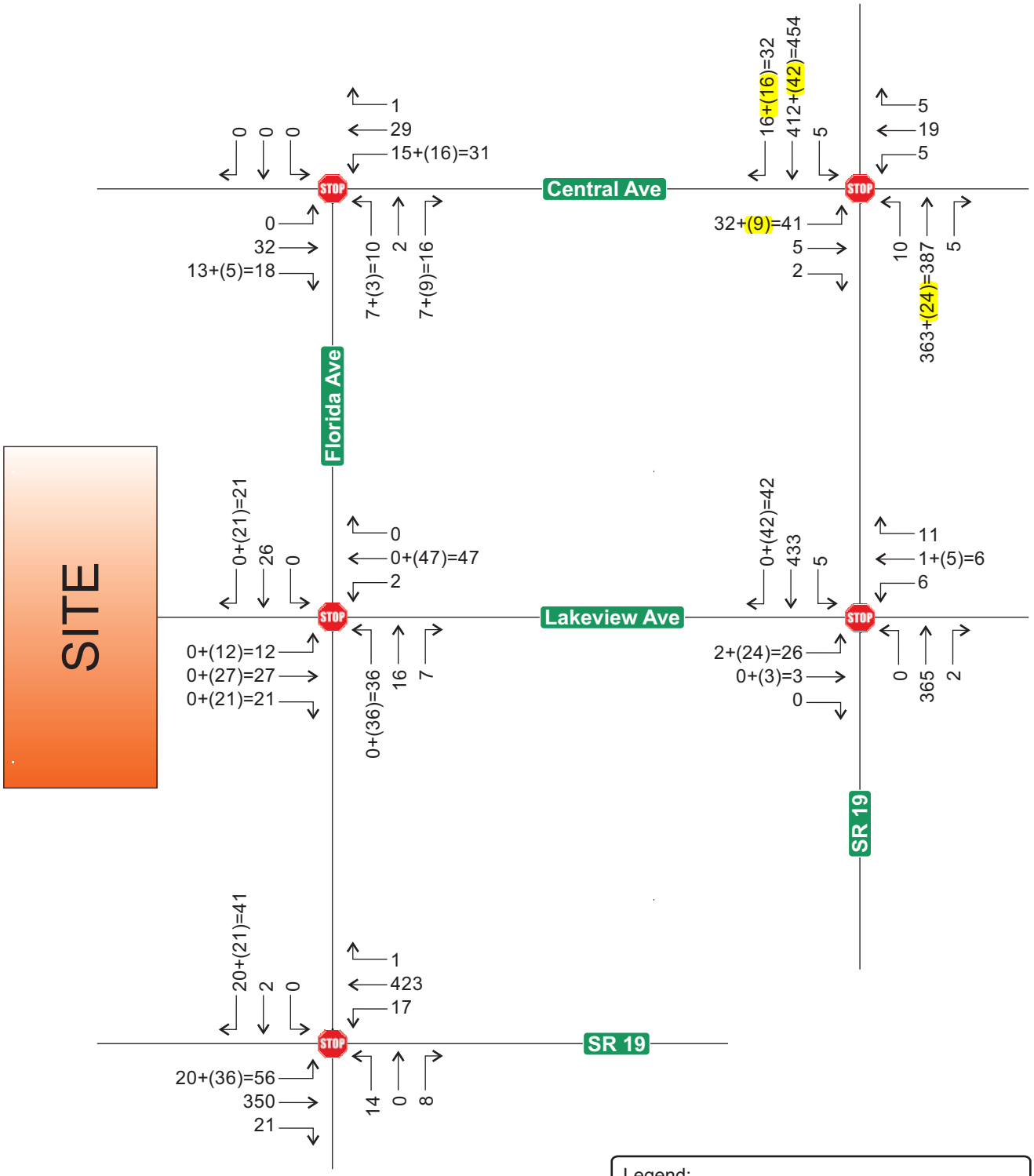


Talichet PUD
Project № 5045
Figure 3

Trip Distribution Map

Table 4
Projected Roadway Capacity Analysis

Seg ID	Roadway	Segment	Lanes	LOS Stnd	PH Dir Capacity	Dir	Backg'd Vol	Trip Dist	Project Vol	% Sig.	Total Vol	Projected LOS
3030	SR 19	CR 561 to LAKE HARRIS NORTH END	2	D	1,190	NB/EB	1,121	28.0%	17	1.43%	1,138	D
						SB/WB	1,071		29	2.44%	1,100	D
3040	SR 19	LAKE HARRIS NORTH END to CR 48	2	C	850	NB/EB	451	28.0%	17	2.00%	468	C
						SB/WB	497		29	3.41%	526	C
3050	SR 19	CR 48 to CENTRAL AVENUE	2	C	710	NB/EB	328	65.0%	40	5.63%	368	C
						SB/WB	287		68	9.58%	355	C
3060	SR 19	CENTRAL AVENUE to CR 455	2	C	850	NB/EB	328	35.0%	36	4.24%	364	B
						SB/WB	287		21	2.47%	308	B
3070	SR 19	CR 455 to US 27 / SR 25	2	C	850	NB/EB	312	22.0%	23	2.71%	335	B
						SB/WB	354		13	1.53%	367	B
1250	C.R. 48	LIME AVENUE to SR 19	2	D	792	NB/EB	372	32.0%	33	4.17%	405	C
						SB/WB	318		20	2.53%	338	C



*Schematic drawing. Not to scale.
** Any +/- 1 project trip discrepancy is due to rounding

Talichet PUD
Project № 5045
Figure 5

Projected P.M. Peak Hour Traffic Volumes

To: Ron Roberts

From: Turgut Dervish, P.E.

Date: June 4, 2021

RE: Talichet Traffic Study Update
TPD # 5045

The Talichet project has already been constructed and platted with 93 single family units. You are now proposing to add 20 net additional lots to Talichet bringing the total to 113 units. The original traffic study was conducted for 132 single family units. Since the current Talichet project is less than 132 units, its impact on the area roadways would be less than the original plan. **Table 1** is a summary calculation of daily and A.M./P.M. peak hour trips for the three development scenarios for Talichet. As can be seen, the current proposed plan will generate less daily and A.M./P.M. peak hour trips than the development included in the original study.

Table 1
Trip Generation Summary

ITE Code	Land Use	Size (DU)	Daily		A.M. Peak Hour				P.M. Peak Hour			
			Rate	Trips	Rate	Enter	Exit	Total	Rate	Enter	Exit	Total
Original Plan												
210	Single Family	132	10.17	1,342	0.75	25	74	99	1.00	83	49	132
Constructed Plan												
210	Single Family	93	10.46	972	0.76	18	52	70	1.02	60	35	95
Current Proposed Plan												
210	Single Family	113	10.30	1,164	0.75	21	64	85	1.01	72	42	114

Please call if you have questions or need additional information.

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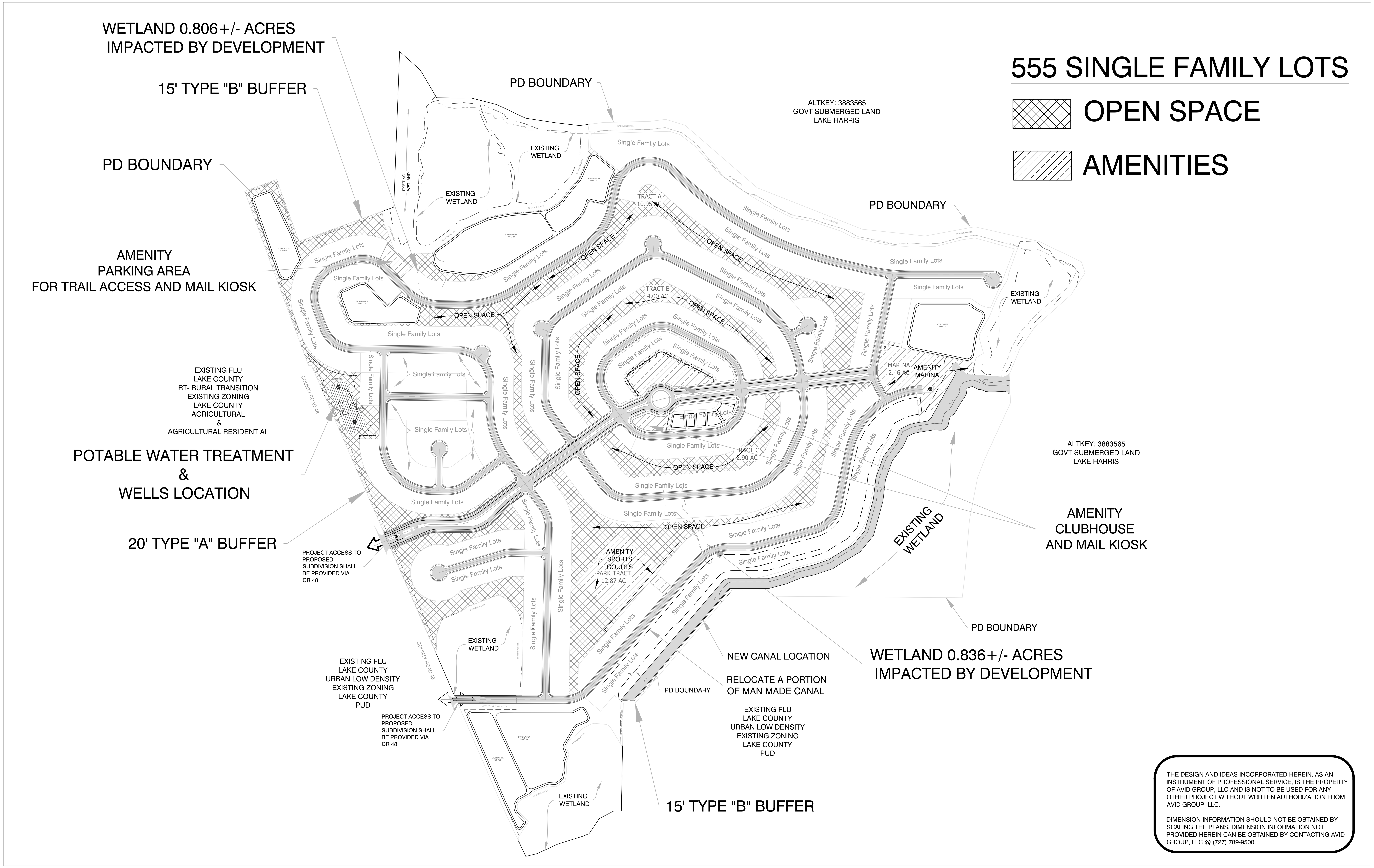
LAND USE PLAN

LAKE COUNTY, FLORIDA

SECTION 15, TOWNSHIP 20 SOUTH, RANGE 25 EAST

SECTION 22, TOWNSHIP 20 SOUTH, RANGE 25 EAST



DIMENSION INFORMATION SHOULD NOT BE OBTAINED BY SCALING THE PLANS. DIMENSION INFORMATION NOT PROVIDED HEREIN CAN BE OBTAINED BY CONTACTING AVID GROUP, LLC @ (727) 789-9500.

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		

NOT VALID WITHOUT ORIGINAL SIGNATURE BY A REGISTERED PROFESSIONAL

AVID GROUP® COA #1398, LB 7345

PROJ. MANAGER: P. PENZA

PROJ. #: 3386005

DATE: 04/22/2021

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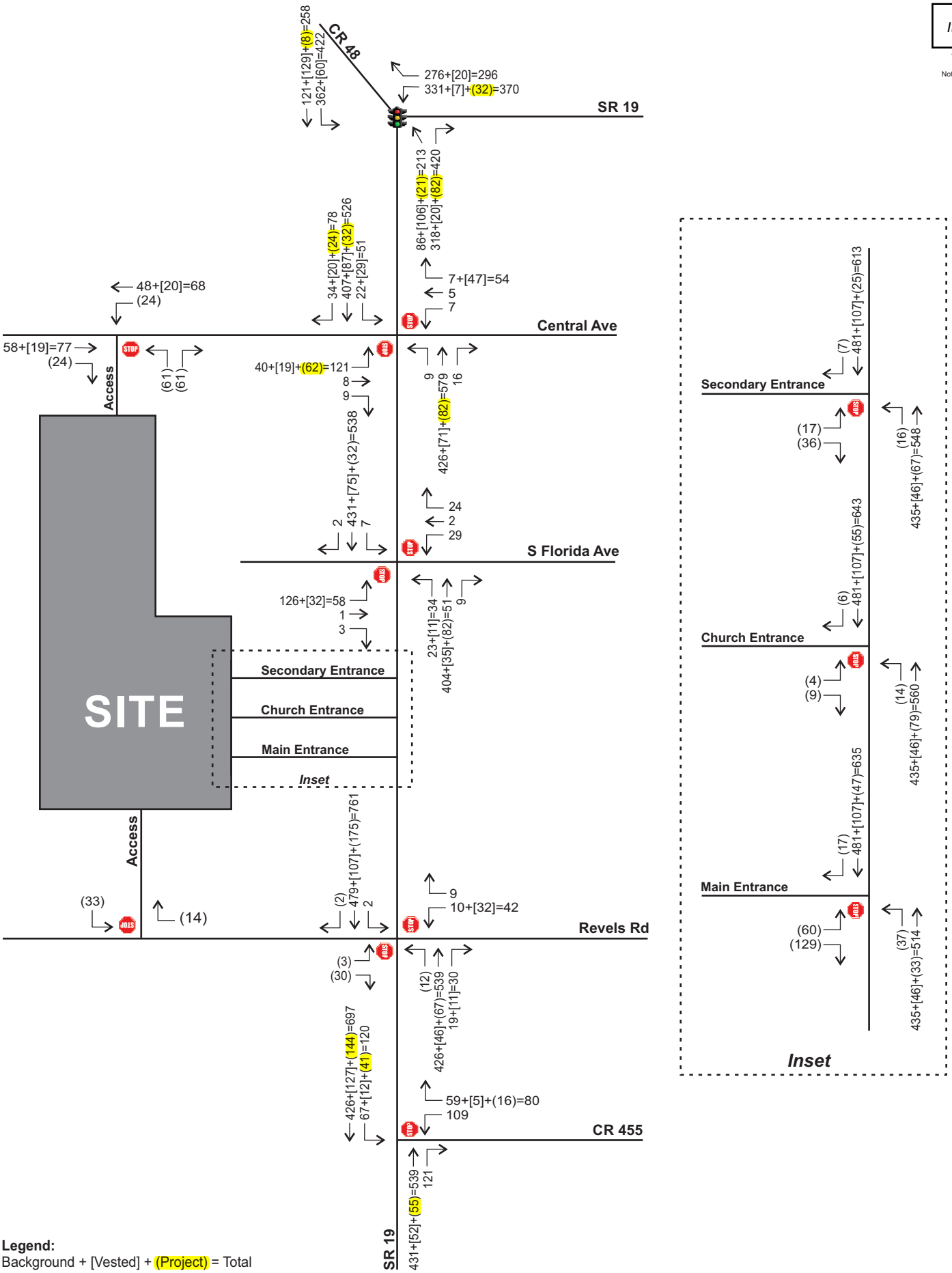
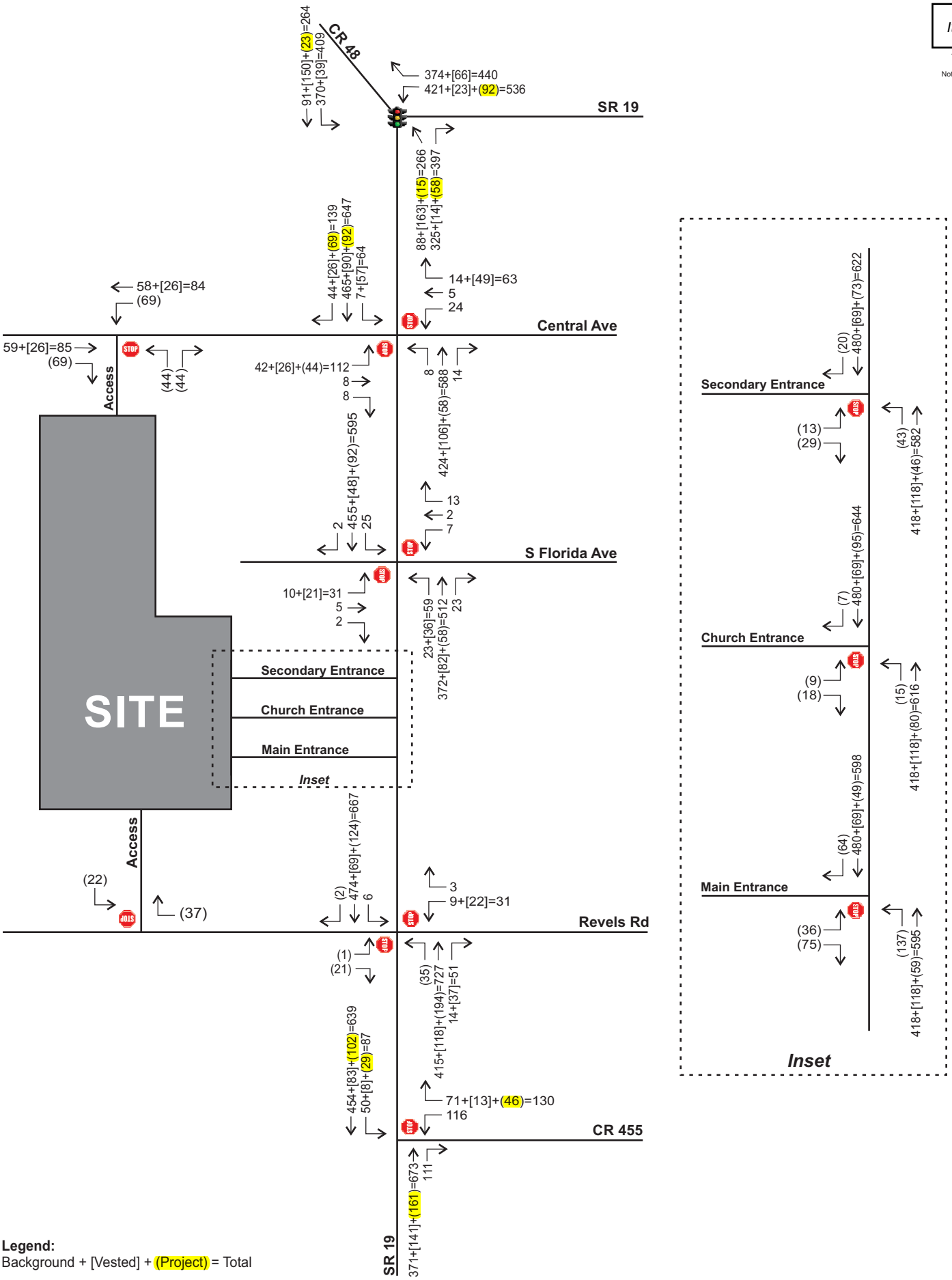
Lake County, Florida

LUP

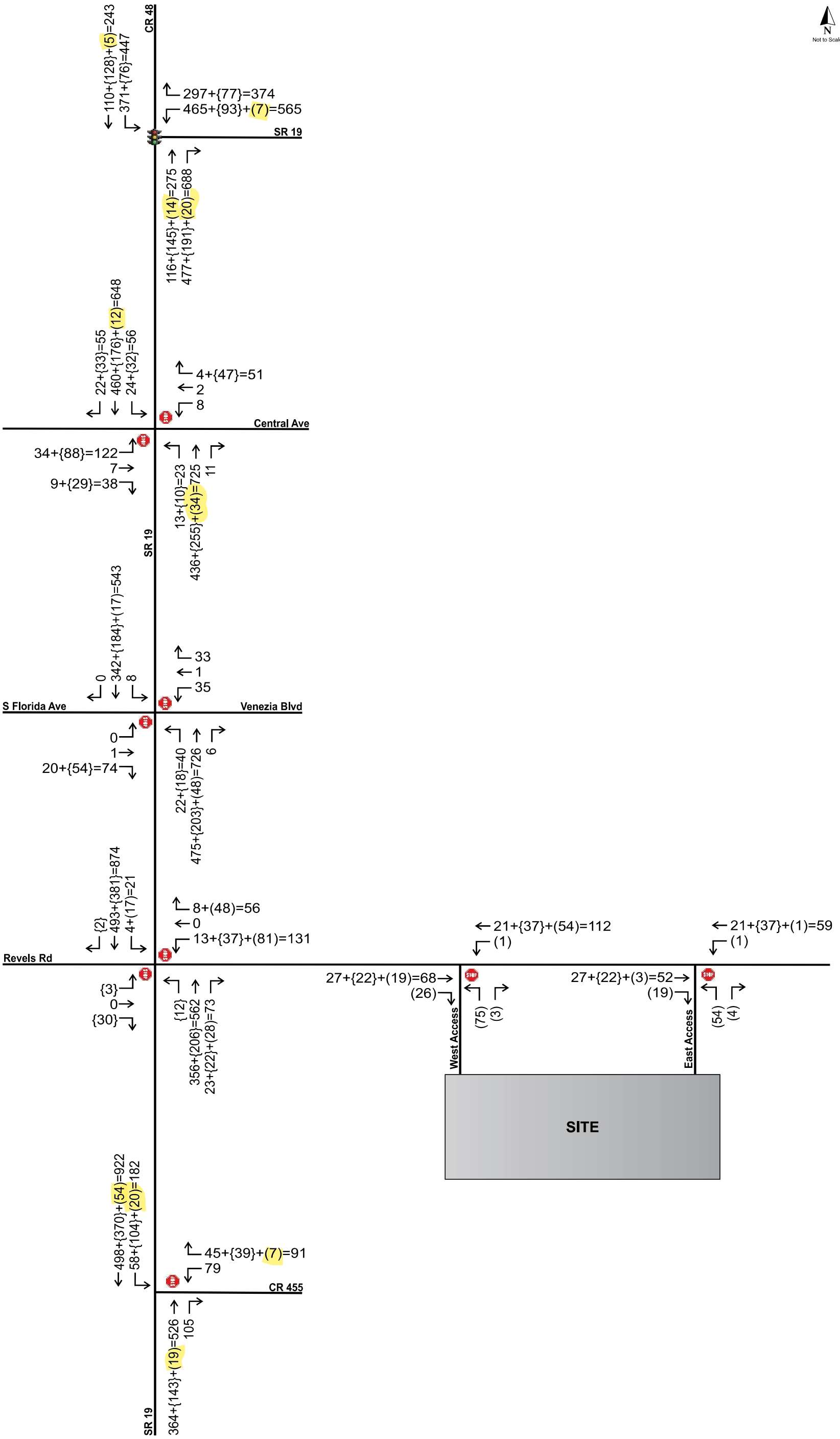
SHEET NO. 2



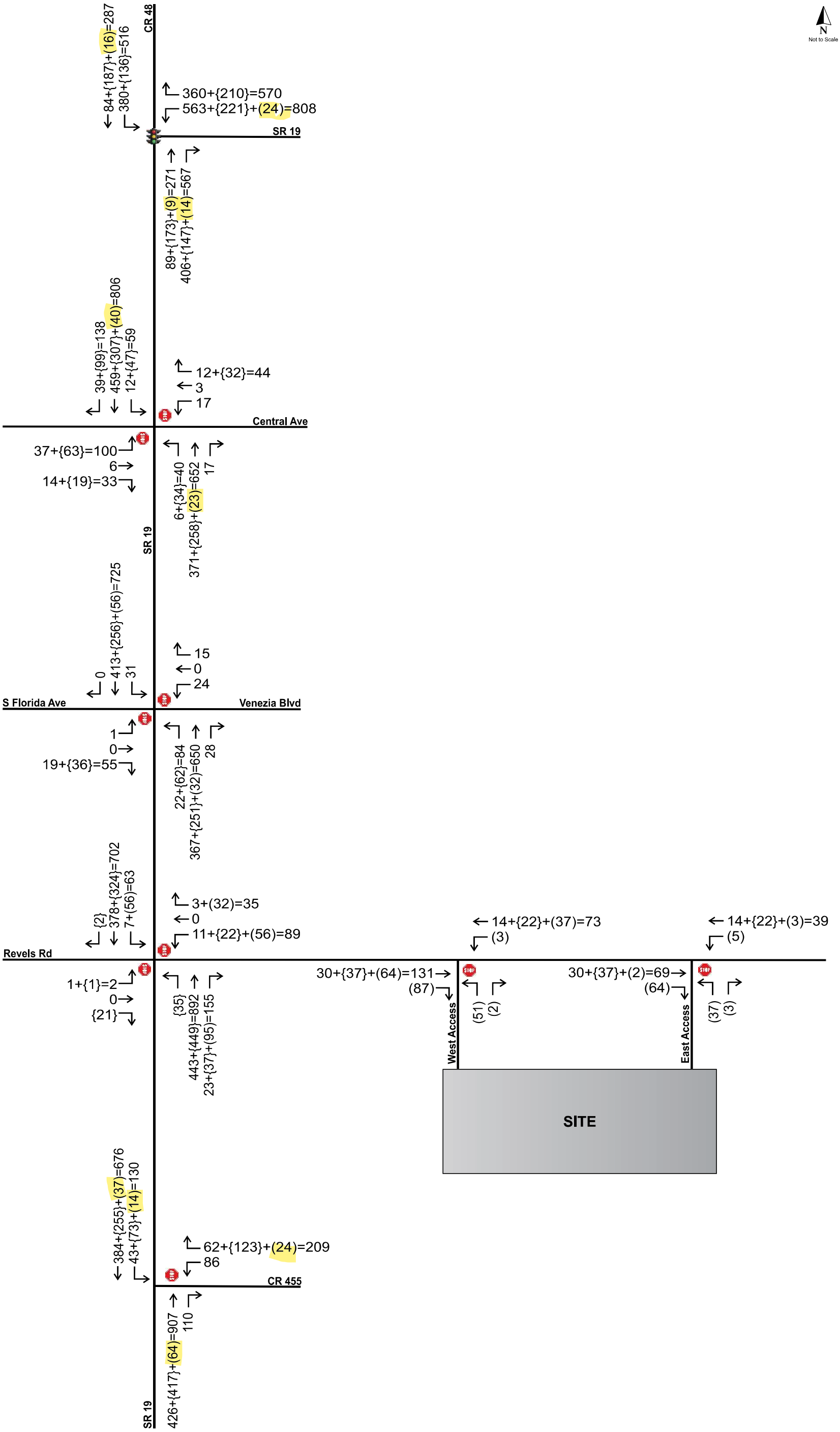
Legend:
Background + [Vested] + (Project) = Total



Legend:
Background + [Vested] + (Project) = Total

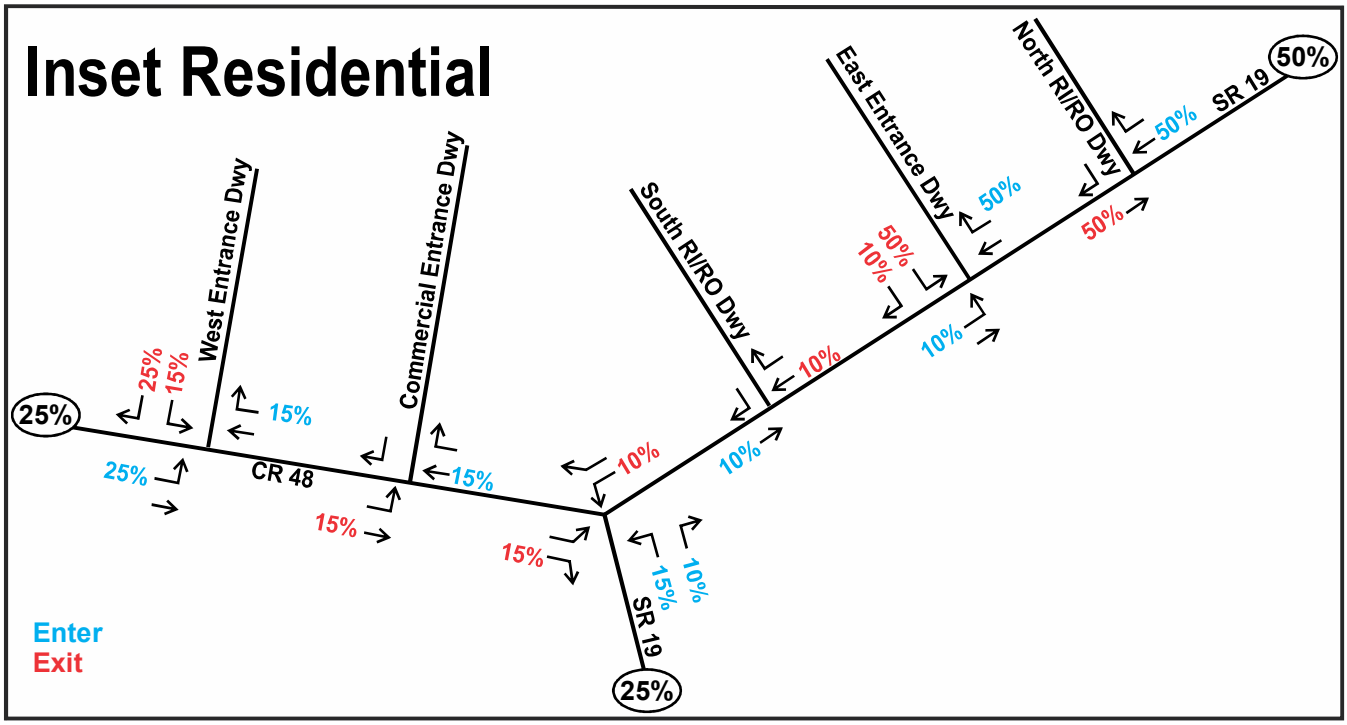


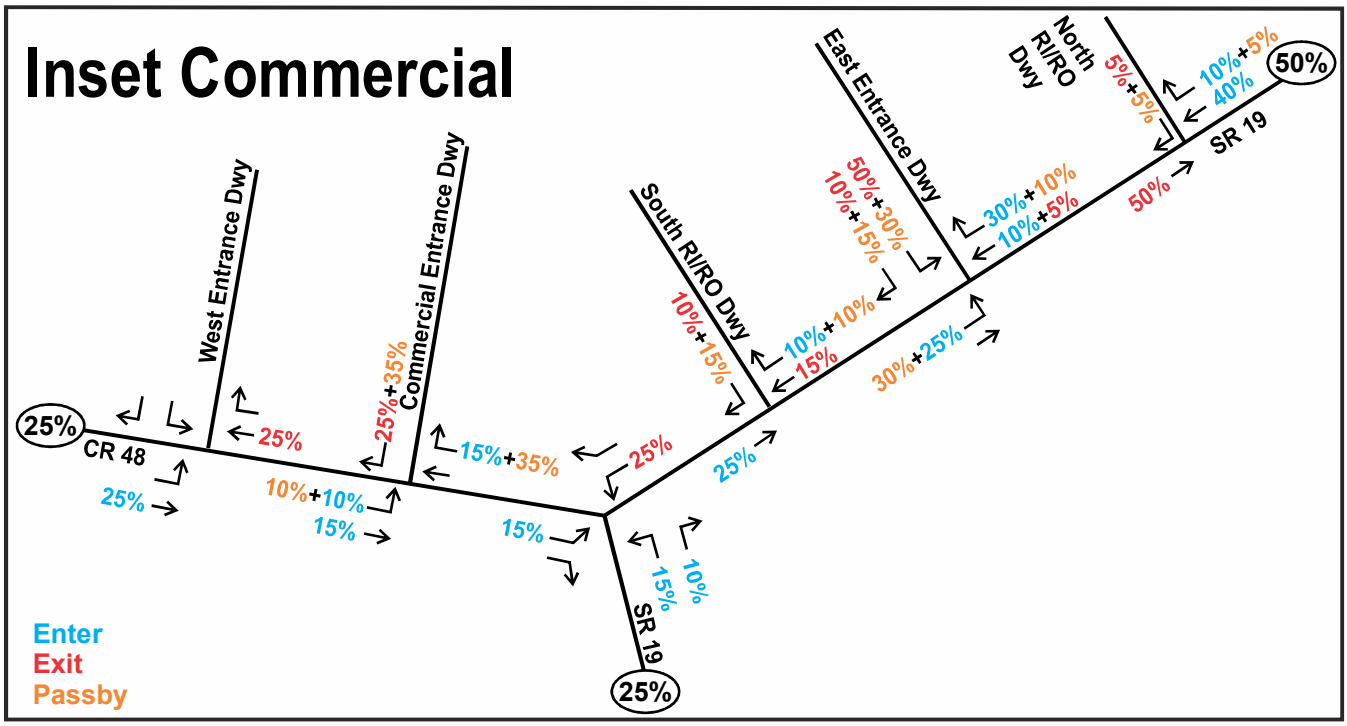
Legend:
Background + {Committed} + (Project) = Total



Legend:
Background + {Committed} + (Project) = Total

Appendix J
Intersection Volume Projections


Inset Residential
West Entrance Dwy
Commercial Entrance Dwy
South RI/RO Dwy
East Entrance Dwy
North RI/RO Dwy
SR 19
CR 48
25%
50%
25%
15%
15%
25%
15%
15%
15%
10%
10%
10%
10%
50%
10%
50%
50%
50%
15%
10%
Enter
Exit


Inset Commercial
West Entrance Dwy
Commercial Entrance Dwy
South RI/RO Dwy
East Entrance Dwy
North RI/RO Dwy
SR 19
CR 48
25%
50%
25%
25%
25%+35%
15%+35%
10%+10%
15%
15%
25%
25%
10%+15%
10%+10%
15%
50%+30%
10%+15%
30%+10%
10%+5%
30%+25%
50%
5%+5%
10%+5%
40%
15%
10%
Enter
Exit
Passby

Project No. 23103 Lake Hills TIA Cou
2028 Buildout - Intersection Volumes B

Period	ITE	Enter	Exit		Enter	Exit	SF	Years	SF		Years	Pass By	Enter	Exit		AGR	Legend
AM Peak	Resdt	44	86	Comrcl	216	175	1.00	5	1.00		5		184	155		2.00%	Existing + {Vested or GR} + (Project) = Total

Intersection= SR 19 & CR 455 — 1

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L	0	1.00	0	2.00%	0						0								0	0	
EB	T	0	1.00	0	2.00%	0						0								0	0	
	R	0	1.00	0	2.00%	0						0								0	0	
	L	89	1.00	89	2.00%	9						9								0	98	89 + {9} = 98
WB	T	0	1.00	0	2.00%	0						0								0	0	
	R	65	1.00	65	2.00%	7	12	16		5	7	40				5%		5%		13	118	65 + {40} + (13) = 118
	L	0	1.00	0	2.00%	0						0								0	0	
NB	T	421	1.00	421	2.00%	42	10	55	21	18	19	123				20%		20%		52	596	421 + {123} + (52) = 596
	R	112	1.00	112	2.00%	11						11								0	123	112 + {11} = 123
	L	79	1.00	79	2.00%	8	20	41		13	20	94					5%		5%	13	186	79 + {94} + (13) = 186
SB	T	390	1.00	390	2.00%	39	17	144	23	53	54	291					20%		20%	52	733	390 + {291} + (52) = 733
	R	0	1.00	0	2.00%	0						0								0	0	

Intersection= SR 19 & CR 48 — 2

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L	0	1.00	0	2.00%	0						0								0	0	
EB	T	0	1.00	0	2.00%	0						0								0	0	
	R	0	1.00	0	2.00%	0						0								0	0	
	L	371	1.00	371	2.00%	37	14	32			7	53					25%		10%	52	476	371 + {53} + (52) = 476
WB	T	0	1.00	0	2.00%	0						0								0	0	
	R	305	1.00	305	2.00%	31				46		46								0	351	305 + {46} = 351
	L	0	1.00	0	2.00%	0						0								0	0	
NB	T	86	1.00	86	2.00%	9	24	21	29	23	14	111				15%		15%		39	236	86 + {111} + (39) = 236
	R	433	1.00	433	2.00%	43	23	82			20	125				10%		10%		26	584	433 + {125} + (26) = 584
	L	328	1.00	328	2.00%	33				32		33				15%				32	393	328 + {33} + (32) = 393
SB	T	79	1.00	79	2.00%	8	14	8	17	65	5	109							15%	13	201	79 + {109} + (13) = 201
	R	0	1.00	0	2.00%	0						0								0	0	

NB SR 19 SB: CR 48
WB:SR 19

Intersection= SR 19 & CR 448 — 3

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L	9	1.00	9	2.00%	1						1								0	10	9 + {1} = 10
EB	T	4	1.00	4	2.00%	0						0								0	4	4
	R	5	1.00	5	2.00%	1						1								0	6	5 + {1} = 6
	L	155	1.00	155	2.00%	16				18		18				20%		20%		52	225	155 + {18} + (52) = 225
WB	T	5	1.00	5	2.00%	1						1								0	6	5 + {1} = 6
	R	12	1.00	12	2.00%	1						1								0	13	12 + {1} = 13
	L	8	1.00	8	2.00%	1						1								0	9	8 + {1} = 9
NB	T	619	1.00	619	2.00%	62	23	82	29	78		212					30%		30%	79	910	619 + {212} + (79) = 910
	R	172	1.00	172	2.00%	17				53		53					20%		20%	52	277	172 + {53} + (52) = 277
	L	53	1.00	53	2.00%	5						5								0	58	53 + {5} = 58
SB	T	454	1.00	454	2.00%	45	14	32	17	28		91				30%		30%		78	623	454 + {91} + (78) = 623
	R	4	1.00	4	2.00%	0						0								0	4	4

Intersection= SR 19 & Central Ave — 4

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L	21	1.00	21	2.00%	2		62	14			76								0	97	21 + {76} = 97
EB	T	3	1.00	3	2.00%	0						0								0	3	3
	R	16	1.00	16	2.00%	2						2								0	18	16 + {2} = 18
	L	14	1.00	14	2.00%	1						1								0	15	14 + {1} = 15
WB	T	4	1.00	4	2.00%	0						0								0	4	4
	R	14	1.00	14	2.00%	1	47					47								0	61	14 + {47} = 61
	L	9	1.00	9	2.00%	1						1								0	10	9 + {1} = 10
NB	T	419	1.00	419	2.00%	42		82	36	66	34	218				25%		25%		65	702	419 + {218} + (65) = 702
	R	8	1.00	8	2.00%	1						1								0	9	8 + {1} = 9
	L	33	1.00	33	2.00%	3	32					32								0	65	33 + {32} = 65
SB	T	384	1.00	384	2.00%	38		32	12	23	12	79					25%		25%	65	528	384 + {79} + (65) = 528
	R	18	1.00	18	2.00%	2		24	5			29								0	47	18 + {29} = 47

Intersection= SR 19 & East Entrance Dwy — 5

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L		1.00	0	2.00%	0						0		30%	47		50%		50%	131	178	[47] + (131) = 178
EB	T		1.00	0	2.00%	0						0			0					0	0	
	R		1.00	0	2.00%	0						0		15%	23		10%		10%	26	49	[23] + (26) = 49
	L		1.00	0	2.00%	0						0			0					0	0	
WB	T		1.00	0	2.00%	0						0			0					0	0	
	R		1.00	0	2.00%	0						0			0					0	0	
	L		1.00	0	2.00%	0						0	30%		55	25%		10%		58	113	[55] + (58) = 113
NB	T	761	1.00	761	2.00%	76	23	82	29	132	20	286			0					0	992	706 + {286} = 992
	R		1.00	0	2.00%	0						0			0					0	0	
	L		1.00	0	2.00%	0						0			0					0	0	
SB	T	614	1.00	614	2.00%	61	14	32	17	46	7	116			0	10%	5%			30	741	595 + {116} + (30) = 741
	R		1.00	0	2.00%	0						0	10%		19	30%		50%		87	106	[19] + (87) = 106

Intersection= CR 48 & West Entrance Dwy — 6

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L		1.00	0	2.00%	0						0						25%		10	10	(10)
EB	T	407	1.00	407	2.00%	41	14	8	17	97	5	141				25%				54	602	407 + {141} + (54) = 602
	R		1.00	0	2.00%	0						0								0	0	
	L		1.00	0	2.00%	0						0								0	0	
WB	T	391	1.00	391	2.00%	39	24	21	29	69	14	157					25%			43	591	391 + {157} + (43) = 591
	R		1.00	0	2.00%	0						0						15%		7	7	(7)
	L		1.00	0	2.00%	0						0								0	0	
NB	T		1.00	0	2.00%	0						0								0	0	
	R		1.00	0	2.00%	0						0								0	0	
	L		1.00	0	2.00%	0						0							15%	13	13	(13)
SB	T		1.00	0	2.00%	0						0								0	0	
	R		1.00	0	2.00%	0						0							25%	21	21	(21)

EB: CR 48, WB: CR 48, SB: West Entrance Dwy

Intersection= CR 48 & Commercial Entrance Dwy — 7

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L		1.00	0	2.00%	0						0			0					0	0	
EB	T		1.00	0	2.00%	0						0			0					0	0	
	R		1.00	0	2.00%	0						0			0					0	0	
	L		1.00	0	2.00%	0						0			0					0	0	
WB	T		1.00	0	2.00%	0						0			0					0	0	
	R		1.00	0	2.00%	0						0		35%	54		25%			43	97	[54] + (43) = 97
	L		1.00	0	2.00%	0						0			0					0	0	
NB	T	391	1.00	391	2.00%	39	24	21	29	69	14	157			0			15%		7	491	327 + {157} + (7) = 491
	R		1.00	0	2.00%	0						0	35%		64	15%				32	96	[64] + (32) = 96
	L		1.00	0	2.00%	0						0	10%		18	10%				22	40	[18] + (22) = 40
SB	T	407	1.00	407	2.00%	41	14	8	17	97	5	141			0	15%			15%	45	575	389 + {141} + (45) = 575
	R		1.00	0	2.00%	0						0			0					0	0	

Intersection= SR 19 & North RI/RO Dwy — 8

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L		1.00	0	2.00%	0						0			0					0	0	
EB	T		1.00	0	2.00%	0						0			0					0	0	
	R		1.00	0	2.00%	0						0		5%	8		5%			9	17	[8] + (9) = 17
	L		1.00	0	2.00%	0						0			0					0	0	
WB	T		1.00	0	2.00%	0						0			0					0	0	
	R		1.00	0	2.00%	0						0			0					0	0	
	L		1.00	0	2.00%	0						0			0					0	0	
NB	T	761	1.00	761	2.00%	76	23	82	29	132	20	286			0		50%		50%	131	1178	761 + {286} + (131) = 1178
	R		1.00	0	2.00%	0						0			0					0	0	
	L		1.00	0	2.00%	0						0			0					0	0	
SB	T	614	1.00	614	2.00%	61	14	32	17	46	7	116			0	40%		50%		108	829	605 + {116} + (108) = 829
	R		1.00	0	2.00%	0						0	5%		9	10%				22	31	[9] + (22) = 31

Intersection= SR 19 & South RI/RO Dwy — 9

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L		1.00	0	2.00%	0						0			0					0	0	
EB	T		1.00	0	2.00%	0						0			0					0	0	
	R		1.00	0	2.00%	0						0		15%	23		10%			18	41	[23] + (18) = 41
	L		1.00	0	2.00%	0						0			0					0	0	
WB	T		1.00	0	2.00%	0						0			0					0	0	
	R		1.00	0	2.00%	0						0			0					0	0	
	L		1.00	0	2.00%	0						0			0					0	0	
NB	T	761	1.00	761	2.00%	76	23	82	29	132	20	286			0	25%		10%		58	1105	761 + {286} + (58) = 1105
	R		1.00	0	2.00%	0						0			0					0	0	
	L		1.00	0	2.00%	0						0			0					0	0	
SB	T	614	1.00	614	2.00%	61	14	32	17	46	7	116			0		15%		10%	34	745	595 + {116} + (34) = 745
	R		1.00	0	2.00%	0						0	10%		19	10%				22	41	[19] + (22) = 41

Project No. 23103 Lake Hills TIA Cou
2028 Buildout - Intersection Volumes B

Period	ITE	Enter	Exit		Enter	Exit	SF	Years	SF		Years	Pass By	Enter	Exit		AGR	Legend
PM Peak	Resdt	86	58	Comrcl	271	283	1.00	5	1.00		5		209	215		2.00%	Existing + {Vested or GR} + (Project) = Total

Intersection= SR 19 & CR 455 — 1

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L	0	1.00	0	2.00%	0						0								0	0	
EB	T	0	1.00	0	2.00%	0						0								0	0	
	R	0	1.00	0	2.00%	0						0								0	0	
	L	139	1.00	139	2.00%	14						14								0	153	139 + {14} = 153
WB	T	0	1.00	0	2.00%	0						0								0	0	
	R	97	1.00	97	2.00%	10	20	46		16	24	106				5%		5%		18	221	97 + {106} + (18) = 221
	L	0	1.00	0	2.00%	0						0								0	0	
NB	T	417	1.00	417	2.00%	42	17	161	23	63	64	328				20%		20%		71	816	417 + {328} + (71) = 816
	R	152	1.00	152	2.00%	15						15								0	167	152 + {15} = 167
	L	64	1.00	64	2.00%	6	12	29		9	14	64					5%		5%	17	145	64 + {64} + (17) = 145
SB	T	387	1.00	387	2.00%	39	10	102	21	37	37	207					20%		20%	68	662	387 + {207} + (68) = 662
	R	0	1.00	0	2.00%	0						0								0	0	

Intersection= SR 19 & CR 48 — 2

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L	0	1.00	0	2.00%	0						0								0	0	
EB	T	0	1.00	0	2.00%	0						0								0	0	
	R	0	1.00	0	2.00%	0						0								0	0	
	L	394	1.00	394	2.00%	39	23	92			24	139					25%		10%	76	609	394 + {139} + (76) = 609
WB	T	0	1.00	0	2.00%	0						0								0	0	
	R	342	1.00	342	2.00%	34				158		158								0	500	342 + {158} = 500
	L	0	1.00	0	2.00%	0						0								0	0	
NB	T	67	1.00	67	2.00%	7	14	15	17	78	9	133				15%		15%		54	254	67 + {133} + (54) = 254
	R	381	1.00	381	2.00%	38	14	58			14	86				10%		10%		35	502	381 + {86} + (35) = 502
	L	323	1.00	323	2.00%	32				92		92				15%				41	456	323 + {92} + (41) = 456
SB	T	77	1.00	77	2.00%	8	24	23	29	47	16	139							15%	9	225	77 + {139} + (9) = 225
	R	0	1.00	0	2.00%	0						0								0	0	

NB SR 19 SB: CR 48
WB:SR 19

Intersection= SR 19 & CR 448 — 3

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L	10	1.00	10	2.00%	1						1								0	11	10 + {1} = 11
EB	T	11	1.00	11	2.00%	1						1								0	12	11 + {1} = 12
	R	14	1.00	14	2.00%	1						1								0	15	14 + {1} = 15
	L	190	1.00	190	2.00%	19				63		63				20%		20%		71	324	190 + {63} + (71) = 324
WB	T	14	1.00	14	2.00%	1						1								0	15	14 + {1} = 15
	R	30	1.00	30	2.00%	3						3								0	33	30 + {3} = 33
	L	11	1.00	11	2.00%	1						1								0	12	11 + {1} = 12
NB	T	568	1.00	568	2.00%	57	14	15	17	56		102					30%		30%	102	772	568 + {102} + (102) = 772
	R	179	1.00	179	2.00%	18				37		37					20%		20%	68	284	179 + {37} + (68) = 284
	L	54	1.00	54	2.00%	5						5								0	59	54 + {5} = 59
SB	T	647	1.00	647	2.00%	65	23	23	29	95		170				30%		30%		107	924	647 + {170} + (107) = 924
	R	9	1.00	9	2.00%	1						1								0	10	9 + {1} = 10

Intersection= SR 19 & Central Ave — 4

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L	34	1.00	34	2.00%	3		44	9			53								0	87	34 + {53} = 87
EB	T	6	1.00	6	2.00%	1						1								0	7	6 + {1} = 7
	R	18	1.00	18	2.00%	2						2								0	20	18 + {2} = 20
	L	8	1.00	8	2.00%	1						1								0	9	8 + {1} = 9
WB	T	8	1.00	8	2.00%	1						1								0	9	8 + {1} = 9
	R	15	1.00	15	2.00%	2	32					32								0	47	15 + {32} = 47
	L	15	1.00	15	2.00%	2						2								0	17	15 + {2} = 17
NB	T	407	1.00	407	2.00%	41		58	24	79	23	184				25%		25%		89	680	407 + {184} + (89) = 680
	R	19	1.00	19	2.00%	2						2								0	21	19 + {2} = 21
	L	9	1.00	9	2.00%	1	47					47								0	56	9 + {47} = 56
SB	T	381	1.00	381	2.00%	38		92	42	46	40	220					25%		25%	85	686	381 + {220} + (85) = 686
	R	52	1.00	52	2.00%	5		69	16			85								0	137	52 + {85} = 137

Intersection= SR 19 & East Entrance Dwy — 5

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L			0	2.00%	0						0		30%	65		50%		50%	170	235	[65] + (170) = 235
EB	T			0	2.00%	0						0			0					0	0	
	R			0	2.00%	0						0		15%	32		10%		10%	34	66	[32] + (34) = 66
	L			0	2.00%	0						0			0					0	0	
WB	T			0	2.00%	0						0			0					0	0	
	R			0	2.00%	0						0			0					0	0	
	L			0	2.00%	0						0	30%		63	25%		10%		76	139	[63] + (76) = 139
NB	T			704	2.00%	70	14	32	17	92	14	169			0					0	810	641 + {169} = 810
	R			0	2.00%	0						0			0					0	0	
	L			0	2.00%	0						0			0					0	0	
SB	T			851	2.00%	85	23	82	29	158	24	316			0	10%	5%			41	1187	830 + {316} + (41) = 1187
	R			0	2.00%	0						0	10%		21	30%		50%		124	145	[21] + (124) = 145

From SR 19 & CR 48

Intersection= CR 48 & West Entrance Dwy — 6

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L			0	2.00%	0						0						25%		22	22	(22)
EB	T			400	2.00%	40	24	23	29	139	16	231				25%				68	699	400 + {231} + (68) = 699
	R			0	2.00%	0						0								0	0	
	L			0	2.00%	0						0								0	0	
WB	T			409	2.00%	41	14	15	17	236	9	291					25%			70	770	409 + {291} + (70) = 770
	R			0	2.00%	0						0						15%		13	13	(13)
	L			0	2.00%	0						0								0	0	
NB	T			0	2.00%	0						0								0	0	
	R			0	2.00%	0						0								0	0	
	L			0	2.00%	0						0							15%	9	9	(9)
SB	T			0	2.00%	0						0								0	0	
	R			0	2.00%	0						0							25%	15	15	(15)

EB: CR 48, WB: CR 48, SB: West Entrance Dwy

Intersection= CR 48 & Commercial Entrance Dwy — 7

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L			0	2.00%	0						0			0					0	0	
EB	T			0	2.00%	0						0			0					0	0	
	R			0	2.00%	0						0			0					0	0	
	L			0	2.00%	0						0			0					0	0	
WB	T			0	2.00%	0						0			0					0	0	
	R			0	2.00%	0						0		35%	75		25%			70	145	[75] + (70) = 145
	L			0	2.00%	0						0			0					0	0	
NB	T			409	2.00%	41	14	15	17	236	9	291			0			15%		13	640	336 + {291} + (13) = 640
	R			0	2.00%	0						0	35%		73	15%				41	114	[73] + (41) = 114
	L			0	2.00%	0						0	10%		21	10%				27	48	[21] + (27) = 48
SB	T			400	2.00%	40	24	23	29	139	16	231			0	15%			15%	50	660	379 + {231} + (50) = 660
	R			0	2.00%	0						0			0					0	0	

Intersection= SR 19 & North RI/RO Dwy — 8

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L			0	2.00%	0						0			0					0	0	
EB	T			0	2.00%	0						0			0					0	0	
	R			0	2.00%	0						0		5%	11		5%			14	25	[11] + (14) = 25
	L			0	2.00%	0						0			0					0	0	
WB	T			0	2.00%	0						0			0					0	0	
	R			0	2.00%	0						0			0					0	0	
	L			0	2.00%	0						0			0					0	0	
NB	T			704	2.00%	70	14	32	17	92	14	169			0		50%		50%	170	1043	704 + {169} + (170) = 1043
	R			0	2.00%	0						0			0					0	0	
	L			0	2.00%	0						0			0					0	0	
SB	T			851	2.00%	85	23	82	29	158	24	316			0	40%		50%		151	1308	841 + {316} + (151) = 1308
	R			0	2.00%	0						0	5%		10	10%				27	37	[10] + (27) = 37

Intersection= SR 19 & South RI/RO Dwy — 9

Approach	Mvmt	Raw	SF	Adjusted	GR	GR Vol.	Whisp. Hills	The Reserve	Talichet	Drake Point	Watermark	Vested or GR	% PB Ent	% PB Ext	Passby	%Comrcl Ent	%Comrc Ext	%Resdt Ent	%Resdt Ext	Project	Total	Formula
	L			0	2.00%	0						0			0					0	0	
EB	T			0	2.00%	0						0			0					0	0	
	R			0	2.00%	0						0		15%	32		10%			28	60	[32] + (28) = 60
	L			0	2.00%	0						0			0					0	0	
WB	T			0	2.00%	0						0			0					0	0	
	R			0	2.00%	0						0			0					0	0	
	L			0	2.00%	0						0			0					0	0	
NB	T			704	2.00%	70	14	32	17	92	14	169			0	25%		10%		76	949	704 + {169} + (76) = 949
	R			0	2.00%	0						0			0					0	0	
	L			0	2.00%	0						0			0					0	0	
SB	T			851	2.00%	85	23	82	29	158	24	316			0		15%		10%	48	1194	830 + {316} + (48) = 1194
	R			0	2.00%	0						0	10%		21	10%				27	48	[21] + (27) = 48

Appendix K
HCM Worksheets - Projected Conditions

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	98	105	544	123	173	681
Future Vol, veh/h	98	105	544	123	173	681
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	440	450	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	5	5	12	4	4
Mvmt Flow	107	114	591	134	188	740

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1707	591	0	0	725	0
Stage 1	591	-	-	-	-	-
Stage 2	1116	-	-	-	-	-
Critical Hdwy	6.57	6.25	-	-	4.14	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.345	-	-	2.236	-
Pot Cap-1 Maneuver	~ 92	501	-	-	869	-
Stage 1	525	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 72	501	-	-	869	-
Mov Cap-2 Maneuver	173	-	-	-	-	-
Stage 1	525	-	-	-	-	-
Stage 2	230	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.7	0	2.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	173	501	869	-
HCM Lane V/C Ratio	-	-	0.616	0.228	0.216	-
HCM Control Delay (s)	-	-	54.4	14.3	10.3	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	3.4	0.9	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	98	118	596	123	186	733
Future Vol, veh/h	98	118	596	123	186	733
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	440	450	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	17	5	5	12	4	4
Mvmt Flow	107	128	648	134	202	797

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1849	648	0	0	782	0
Stage 1	648	-	-	-	-	-
Stage 2	1201	-	-	-	-	-
Critical Hdwy	6.57	6.25	-	-	4.14	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.345	-	-	2.236	-
Pot Cap-1 Maneuver	~ 75	465	-	-	827	-
Stage 1	493	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 57	465	-	-	827	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	493	-	-	-	-	-
Stage 2	201	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	41.2	0	2.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	151	465	827	-
HCM Lane V/C Ratio	-	-	0.705	0.276	0.244	-
HCM Control Delay (s)	-	-	71.9	15.7	10.8	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	4.1	1.1	1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	153	203	745	167	128	594
Future Vol, veh/h	153	203	745	167	128	594
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	440	450	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	1	1	4	0	2
Mvmt Flow	161	214	784	176	135	625

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1679	784	0	0	960	0
Stage 1	784	-	-	-	-	-
Stage 2	895	-	-	-	-	-
Critical Hdwy	6.47	6.21	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.309	-	-	2.2	-
Pot Cap-1 Maneuver	~ 101	395	-	-	725	-
Stage 1	441	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 82	395	-	-	725	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	441	-	-	-	-	-
Stage 2	318	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	42.5	0	2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	205	395	725	-
HCM Lane V/C Ratio	-	-	0.786	0.541	0.186	-
HCM Control Delay (s)	-	-	66.7	24.3	11.1	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	5.5	3.1	0.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	11.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	153	221	816	167	145	662
Future Vol, veh/h	153	221	816	167	145	662
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	440	450	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	7	1	1	4	0	2
Mvmt Flow	161	233	859	176	153	697

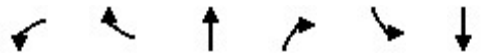
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1862	859	0	0	1035	0
Stage 1	859	-	-	-	-	-
Stage 2	1003	-	-	-	-	-
Critical Hdwy	6.47	6.21	-	-	4.1	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.309	-	-	2.2	-
Pot Cap-1 Maneuver	~ 78	358	-	-	679	-
Stage 1	407	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 60	358	-	-	679	-
Mov Cap-2 Maneuver	174	-	-	-	-	-
Stage 1	407	-	-	-	-	-
Stage 2	269	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	61.1	0	2.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	174	358	679	-
HCM Lane V/C Ratio	-	-	0.926	0.65	0.225	-
HCM Control Delay (s)	-	-	103.3	31.9	11.8	-
HCM Lane LOS	-	-	F	D	B	-
HCM 95th %tile Q(veh)	-	-	7	4.4	0.9	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary
2: SR 19 & CR 48



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	424	351	197	558	361	188
Future Volume (veh/h)	424	351	197	558	361	188
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1722	1781	1856	1707	1767
Adj Flow Rate, veh/h	456	377	212	0	388	202
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	12	8	3	13	9
Cap, veh/h	392	331	688		301	1124
Arrive On Green	0.23	0.23	0.39	0.00	0.19	0.64
Sat Flow, veh/h	1725	1459	1781	1572	1626	1767
Grp Volume(v), veh/h	456	377	212	0	388	202
Grp Sat Flow(s),veh/h/ln	1725	1459	1781	1572	1626	1767
Q Serve(g_s), s	22.7	22.7	8.3	0.0	18.5	4.7
Cycle Q Clear(g_c), s	22.7	22.7	8.3	0.0	18.5	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	392	331	688		301	1124
V/C Ratio(X)	1.16	1.14	0.31		1.29	0.18
Avail Cap(c_a), veh/h	392	331	688		301	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	38.6	21.4	0.0	40.7	7.5
Incr Delay (d2), s/veh	98.5	92.2	1.2	0.0	153.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	29.4	24.4	6.2	0.0	30.5	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	137.2	130.9	22.6	0.0	193.9	7.8
LnGrp LOS	F	F	C		F	A
Approach Vol, veh/h	833		212	A		590
Approach Delay, s/veh	134.3		22.6			130.2
Approach LOS	F		C			F

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.0	45.0		30.0		70.0
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	20.5	10.3		24.7		6.7
Green Ext Time (p_c), s	0.0	1.1		0.0		1.0

Intersection Summary		
HCM 6th Ctrl Delay		118.3
HCM 6th LOS		F

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
2: SR 19 & CR 48

Projected AM Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	476	351	236	584	393	201
Future Volume (veh/h)	476	351	236	584	393	201
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1811	1722	1781	1856	1707	1767
Adj Flow Rate, veh/h	512	377	254	0	423	216
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	6	12	8	3	13	9
Cap, veh/h	392	331	688		301	1124
Arrive On Green	0.23	0.23	0.39	0.00	0.19	0.64
Sat Flow, veh/h	1725	1459	1781	1572	1626	1767
Grp Volume(v), veh/h	512	377	254	0	423	216
Grp Sat Flow(s),veh/h/ln	1725	1459	1781	1572	1626	1767
Q Serve(g_s), s	22.7	22.7	10.2	0.0	18.5	5.1
Cycle Q Clear(g_c), s	22.7	22.7	10.2	0.0	18.5	5.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	392	331	688		301	1124
V/C Ratio(X)	1.31	1.14	0.37		1.41	0.19
Avail Cap(c_a), veh/h	392	331	688		301	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	38.6	22.0	0.0	40.7	7.5
Incr Delay (d2), s/veh	155.8	92.2	1.5	0.0	201.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	39.3	24.4	7.7	0.0	37.0	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	194.5	130.9	23.5	0.0	242.3	7.9
LnGrp LOS	F	F	C		F	A
Approach Vol, veh/h	889		254	A		639
Approach Delay, s/veh	167.5		23.5			163.1
Approach LOS	F		C			F

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.0	45.0		30.0		70.0
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	20.5	12.2		24.7		7.1
Green Ext Time (p_c), s	0.0	1.3		0.0		1.1

Intersection Summary			
HCM 6th Ctrl Delay		145.4	
HCM 6th LOS		F	

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Approach	WB	NB	SB
Entry Lanes	2	2	2
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	889	882	639
Demand Flow Rate, veh/h	965	921	713
Vehicles Circulating, veh/h	274	478	543
Vehicles Exiting, veh/h	1125	778	696
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.6	13.9	11.2
Approach LOS	A	B	B

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	LT	R	L	TR
Assumed Moves	L	TR	LT	R	L	TR
RT Channelized						
Lane Util	0.563	0.437	0.298	0.702	0.670	0.330
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544
Entry Flow, veh/h	543	422	274	647	478	235
Cap Entry Lane, veh/h	1107	1107	919	919	866	866
Entry HV Adj Factor	0.943	0.893	0.926	0.971	0.885	0.917
Flow Entry, veh/h	512	377	254	628	423	216
Cap Entry, veh/h	1043	989	851	892	767	795
V/C Ratio	0.491	0.381	0.298	0.704	0.552	0.271
Control Delay, s/veh	9.2	7.8	7.5	16.5	13.1	7.6
LOS	A	A	A	C	B	A
95th %tile Queue, veh	3	2	1	6	3	1

HCM 6th Signalized Intersection Summary
2: SR 19 & CR 48

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	533	500	200	467	415	216
Future Volume (veh/h)	533	500	200	467	415	216
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1841	1885	1841	1826	1856
Adj Flow Rate, veh/h	573	362	215	0	446	232
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	4	1	4	5	3
Cap, veh/h	401	354	728		322	1180
Arrive On Green	0.23	0.23	0.39	0.00	0.19	0.64
Sat Flow, veh/h	1767	1560	1885	1560	1739	1856
Grp Volume(v), veh/h	573	362	215	0	446	232
Grp Sat Flow(s),veh/h/ln	1767	1560	1885	1560	1739	1856
Q Serve(g_s), s	22.7	22.7	7.9	0.0	18.5	5.2
Cycle Q Clear(g_c), s	22.7	22.7	7.9	0.0	18.5	5.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	401	354	728		322	1180
V/C Ratio(X)	1.43	1.02	0.30		1.39	0.20
Avail Cap(c_a), veh/h	401	354	728		322	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	38.7	21.3	0.0	40.8	7.6
Incr Delay (d2), s/veh	206.7	53.6	1.0	0.0	192.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	49.3	19.7	6.3	0.0	38.0	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	245.4	92.3	22.3	0.0	232.8	7.9
LnGrp LOS	F	F	C		F	A
Approach Vol, veh/h	935		215	A		678
Approach Delay, s/veh	186.1		22.3			155.9
Approach LOS	F		C			F

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.0	45.0		30.0		70.0
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	20.5	9.9		24.7		7.2
Green Ext Time (p_c), s	0.0	1.1		0.0		1.2

Intersection Summary		
HCM 6th Ctrl Delay		155.6
HCM 6th LOS		F

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
2: SR 19 & CR 48

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	609	500	254	502	456	225
Future Volume (veh/h)	609	500	254	502	456	225
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1856	1841	1885	1841	1826	1856
Adj Flow Rate, veh/h	655	362	273	0	490	242
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	4	1	4	5	3
Cap, veh/h	401	354	728		322	1180
Arrive On Green	0.23	0.23	0.39	0.00	0.19	0.64
Sat Flow, veh/h	1767	1560	1885	1560	1739	1856
Grp Volume(v), veh/h	655	362	273	0	490	242
Grp Sat Flow(s),veh/h/ln	1767	1560	1885	1560	1739	1856
Q Serve(g_s), s	22.7	22.7	10.4	0.0	18.5	5.5
Cycle Q Clear(g_c), s	22.7	22.7	10.4	0.0	18.5	5.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	401	354	728		322	1180
V/C Ratio(X)	1.63	1.02	0.38		1.52	0.21
Avail Cap(c_a), veh/h	401	354	728		322	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	38.7	22.0	0.0	40.8	7.6
Incr Delay (d2), s/veh	295.9	53.6	1.5	0.0	250.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	65.5	19.7	8.1	0.0	46.4	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	334.6	92.3	23.5	0.0	291.5	8.0
LnGrp LOS	F	F	C		F	A
Approach Vol, veh/h	1017		273	A		732
Approach Delay, s/veh	248.3		23.5			197.7
Approach LOS	F		C			F

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	25.0	45.0		30.0		70.0
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	20.5	12.4		24.7		7.5
Green Ext Time (p_c), s	0.0	1.4		0.0		1.3

Intersection Summary	
HCM 6th Ctrl Delay	199.7
HCM 6th LOS	F

Notes

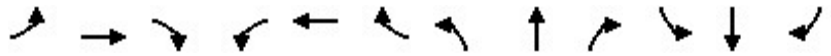
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	24.6
Intersection LOS	C

Approach	WB	NB	SB
Entry Lanes	2	2	2
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	1193	813	732
Demand Flow Rate, veh/h	1235	838	763
Vehicles Circulating, veh/h	276	514	675
Vehicles Exiting, veh/h	1076	924	836
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	19.2	24.3	33.7
Approach LOS	C	C	D

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	LT	R	L	TR
Assumed Moves	L	TR	LT	R	L	TR
RT Channelized						
Lane Util	0.547	0.453	0.329	0.671	0.674	0.326
Critical Headway, s	5.193	5.193	5.193	5.193	5.193	5.193
Entry Flow, veh/h	675	560	276	562	514	249
Cap Entry Lane, veh/h	857	857	676	676	575	575
Entry HV Adj Factor	0.970	0.961	0.990	0.961	0.953	0.971
Flow Entry, veh/h	655	538	273	540	490	242
Cap Entry, veh/h	832	824	669	649	548	559
V/C Ratio	0.787	0.653	0.408	0.832	0.893	0.433
Control Delay, s/veh	22.2	15.5	11.1	31.1	43.7	13.4
LOS	C	C	B	D	E	B
95th %tile Queue, veh	8	5	2	9	10	2

HCM 6th Signalized Intersection Summary
3: SR 19 & CR 448



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	4	6	173	6	13	9	831	225	58	545	4
Future Volume (veh/h)	10	4	6	173	6	13	9	831	225	58	545	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1693	1900	1648	1900	1841	1663	1900	1826	1900
Adj Flow Rate, veh/h	11	4	5	186	6	10	10	894	242	62	586	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	14	0	17	0	4	16	0	5	0
Cap, veh/h	332	136	170	312	113	189	23	951	728	86	1006	3
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.52	0.52	0.05	0.55	0.55
Sat Flow, veh/h	1419	768	960	1272	640	1067	1810	1841	1409	1810	1819	6
Grp Volume(v), veh/h	11	0	9	186	0	16	10	894	242	62	0	588
Grp Sat Flow(s),veh/h/ln	1419	0	1727	1272	0	1708	1810	1841	1409	1810	0	1825
Q Serve(g_s), s	0.5	0.0	0.3	11.1	0.0	0.6	0.4	35.6	7.8	2.6	0.0	16.6
Cycle Q Clear(g_c), s	1.1	0.0	0.3	11.4	0.0	0.6	0.4	35.6	7.8	2.6	0.0	16.6
Prop In Lane	1.00		0.56	1.00		0.63	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	332	0	306	312	0	302	23	951	728	86	0	1009
V/C Ratio(X)	0.03	0.00	0.03	0.60	0.00	0.05	0.44	0.94	0.33	0.72	0.00	0.58
Avail Cap(c_a), veh/h	589	0	617	546	0	617	336	1002	767	334	0	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	26.6	31.3	0.0	26.7	38.3	17.7	11.0	36.7	0.0	11.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.8	0.0	0.1	13.0	15.6	0.3	10.9	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	0.2	5.9	0.0	0.4	0.5	21.8	3.5	2.4	0.0	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	0.0	26.6	33.1	0.0	26.8	51.3	33.3	11.3	47.6	0.0	12.4
LnGrp LOS	C	A	C	C	A	C	D	C	B	D	A	B
Approach Vol, veh/h		20			202			1146			650	
Approach Delay, s/veh		26.9			32.6			28.8			15.7	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	50.7		20.9	9.3	47.8		20.9
Change Period (Y+Rc), s	5.5	7.5		* 7.1	* 5.6	7.5		* 7.1
Max Green Setting (Gmax), s	14.5	42.5		* 28	* 14	42.5		* 28
Max Q Clear Time (g_c+I1), s	2.4	18.6		13.4	4.6	37.6		3.1
Green Ext Time (p_c), s	0.0	3.3		0.5	0.1	2.7		0.0

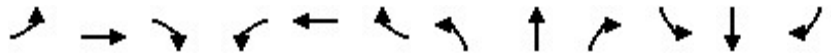
Intersection Summary		
HCM 6th Ctrl Delay	24.9	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR 19 & CR 448

Projected AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	4	6	225	6	13	9	910	277	58	623	4
Future Volume (veh/h)	10	4	6	225	6	13	9	910	277	58	623	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1693	1900	1648	1900	1841	1663	1900	1826	1900
Adj Flow Rate, veh/h	11	4	5	242	6	10	10	978	298	62	670	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	14	0	17	0	4	16	0	5	0
Cap, veh/h	385	168	210	358	140	234	22	918	703	82	970	3
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.01	0.50	0.50	0.05	0.53	0.53
Sat Flow, veh/h	1419	768	960	1272	640	1067	1810	1841	1409	1810	1819	5
Grp Volume(v), veh/h	11	0	9	242	0	16	10	978	298	62	0	672
Grp Sat Flow(s),veh/h/ln	1419	0	1727	1272	0	1708	1810	1841	1409	1810	0	1825
Q Serve(g_s), s	0.5	0.0	0.3	15.7	0.0	0.6	0.5	42.5	11.4	2.9	0.0	23.2
Cycle Q Clear(g_c), s	1.2	0.0	0.3	16.1	0.0	0.6	0.5	42.5	11.4	2.9	0.0	23.2
Prop In Lane	1.00		0.56	1.00		0.63	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	385	0	378	358	0	374	22	918	703	82	0	972
V/C Ratio(X)	0.03	0.00	0.02	0.68	0.00	0.04	0.45	1.06	0.42	0.76	0.00	0.69
Avail Cap(c_a), veh/h	539	0	566	501	0	565	308	918	703	306	0	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	26.1	32.4	0.0	26.2	41.8	21.3	13.6	40.2	0.0	14.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.2	0.0	0.0	13.3	48.6	0.4	13.3	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	0.3	8.3	0.0	0.4	0.5	37.0	5.5	2.7	0.0	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	0.0	26.2	34.7	0.0	26.3	55.1	69.9	14.0	53.5	0.0	16.8
LnGrp LOS	C	A	C	C	A	C	E	F	B	D	A	B
Approach Vol, veh/h		20			258			1286			734	
Approach Delay, s/veh		26.5			34.2			56.8			19.9	
Approach LOS		C			C			E			B	

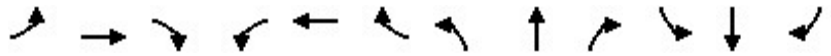
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.6	52.9		25.7	9.4	50.0		25.7
Change Period (Y+Rc), s	5.5	7.5		* 7.1	* 5.6	7.5		* 7.1
Max Green Setting (Gmax), s	14.5	42.5		* 28	* 14	42.5		* 28
Max Q Clear Time (g_c+I1), s	2.5	25.2		18.1	4.9	44.5		3.2
Green Ext Time (p_c), s	0.0	3.6		0.6	0.1	0.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	42.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR 19 & CR 448



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	12	15	253	15	33	12	670	216	59	817	10
Future Volume (veh/h)	11	12	15	253	15	33	12	670	216	59	817	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1900	1900	1885	1796	1900	1885	1900
Adj Flow Rate, veh/h	11	12	16	264	16	34	12	698	225	61	851	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	0	0	0	1	7	0	1	0
Cap, veh/h	380	171	228	398	125	266	27	865	698	86	921	6
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.01	0.46	0.46	0.05	0.49	0.49
Sat Flow, veh/h	1376	738	984	1393	542	1151	1810	1885	1522	1810	1870	13
Grp Volume(v), veh/h	11	0	28	264	0	50	12	698	225	61	0	857
Grp Sat Flow(s),veh/h/ln	1376	0	1723	1393	0	1693	1810	1885	1522	1810	0	1883
Q Serve(g_s), s	0.5	0.0	1.0	14.0	0.0	1.8	0.5	24.5	7.2	2.6	0.0	32.6
Cycle Q Clear(g_c), s	2.3	0.0	1.0	15.0	0.0	1.8	0.5	24.5	7.2	2.6	0.0	32.6
Prop In Lane	1.00		0.57	1.00		0.68	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	380	0	398	398	0	391	27	865	698	86	0	927
V/C Ratio(X)	0.03	0.00	0.07	0.66	0.00	0.13	0.45	0.81	0.32	0.71	0.00	0.92
Avail Cap(c_a), veh/h	561	0	626	587	0	621	341	1043	842	339	0	1041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	23.1	29.0	0.0	23.4	37.5	17.9	13.2	36.1	0.0	18.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	1.9	0.0	0.1	11.5	4.0	0.3	10.4	0.0	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	0.7	7.9	0.0	1.2	0.5	14.4	3.7	2.3	0.0	20.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	0.0	23.2	30.9	0.0	23.5	49.0	21.9	13.5	46.4	0.0	30.7
LnGrp LOS	C	A	C	C	A	C	D	C	B	D	A	C
Approach Vol, veh/h		39			314			935			918	
Approach Delay, s/veh		23.5			29.7			20.2			31.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.6	45.3		24.9	9.2	42.7		24.9
Change Period (Y+Rc), s	5.5	7.5		* 7.1	* 5.6	7.5		* 7.1
Max Green Setting (Gmax), s	14.5	42.5		* 28	* 14	42.5		* 28
Max Q Clear Time (g_c+I1), s	2.5	34.6		17.0	4.6	26.5		4.3
Green Ext Time (p_c), s	0.0	3.3		0.8	0.1	4.4		0.1

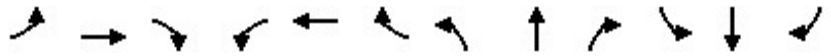
Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: SR 19 & CR 448

Projected PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	12	15	324	15	33	12	772	284	59	924	10
Future Volume (veh/h)	11	12	15	324	15	33	12	772	284	59	924	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1900	1900	1885	1796	1900	1885	1900
Adj Flow Rate, veh/h	11	12	16	338	16	34	12	804	296	61	962	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	0	0	0	1	7	0	1	0
Cap, veh/h	430	204	272	448	149	318	26	856	691	80	907	6
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.01	0.45	0.45	0.04	0.48	0.48
Sat Flow, veh/h	1376	738	984	1393	542	1151	1810	1885	1522	1810	1871	12
Grp Volume(v), veh/h	11	0	28	338	0	50	12	804	296	61	0	968
Grp Sat Flow(s),veh/h/ln	1376	0	1723	1393	0	1693	1810	1885	1522	1810	0	1883
Q Serve(g_s), s	0.5	0.0	1.1	21.1	0.0	2.0	0.6	36.3	11.8	3.0	0.0	43.3
Cycle Q Clear(g_c), s	2.5	0.0	1.1	22.1	0.0	2.0	0.6	36.3	11.8	3.0	0.0	43.3
Prop In Lane	1.00		0.57	1.00		0.68	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	430	0	475	448	0	467	26	856	691	80	0	913
V/C Ratio(X)	0.03	0.00	0.06	0.75	0.00	0.11	0.46	0.94	0.43	0.77	0.00	1.06
Avail Cap(c_a), veh/h	480	0	538	504	0	535	294	897	725	292	0	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.1	0.0	23.8	31.9	0.0	24.1	43.7	23.2	16.5	42.2	0.0	23.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	5.7	0.0	0.1	12.1	16.9	0.4	14.1	0.0	47.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	0.8	11.7	0.0	1.4	0.6	24.2	6.5	2.8	0.0	37.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	0.0	23.8	37.6	0.0	24.2	55.8	40.1	17.0	56.3	0.0	70.3
LnGrp LOS	C	A	C	D	A	C	E	D	B	E	A	F
Approach Vol, veh/h		39			388			1112			1029	
Approach Delay, s/veh		24.2			35.9			34.1			69.5	
Approach LOS		C			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.8	50.8		31.7	9.5	48.0		31.7
Change Period (Y+Rc), s	5.5	7.5		* 7.1	* 5.6	7.5		* 7.1
Max Green Setting (Gmax), s	14.5	42.5		* 28	* 14	42.5		* 28
Max Q Clear Time (g_c+I1), s	2.5	45.3		24.1	5.0	38.3		4.5
Green Ext Time (p_c), s	0.0	0.0		0.5	0.1	2.3		0.1

Intersection Summary	
HCM 6th Ctrl Delay	48.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	35.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	97	3	18	15	4	61	10	637	9	65	463	47
Future Vol, veh/h	97	3	18	15	4	61	10	637	9	65	463	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	14	0	25	0	0	0	22	4	0	12	5	11
Mvmt Flow	109	3	20	17	4	69	11	716	10	73	520	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1473	1441	547	1447	1462	721	573	0	0	726	0	0
Stage 1	693	693	-	743	743	-	-	-	-	-	-	-
Stage 2	780	748	-	704	719	-	-	-	-	-	-	-
Critical Hdwy	7.24	6.5	6.45	7.1	6.5	6.2	4.32	-	-	4.22	-	-
Critical Hdwy Stg 1	6.24	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.24	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.626	4	3.525	3.5	4	3.3	2.398	-	-	2.308	-	-
Pot Cap-1 Maneuver	~ 98	134	495	110	130	431	908	-	-	833	-	-
Stage 1	415	448	-	410	425	-	-	-	-	-	-	-
Stage 2	371	423	-	431	436	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 71	114	495	92	111	431	908	-	-	833	-	-
Mov Cap-2 Maneuver	~ 71	114	-	92	111	-	-	-	-	-	-	-
Stage 1	407	390	-	402	417	-	-	-	-	-	-	-
Stage 2	302	415	-	357	379	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 404.7	29.5	0.1	1.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	908	-	-	83	235	833	-	-
HCM Lane V/C Ratio	0.012	-	-	1.597	0.383	0.088	-	-
HCM Control Delay (s)	9	0	-	$ 404.7	29.5	9.7	0	-
HCM Lane LOS	A	A	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	10.8	1.7	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	51.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	97	3	18	15	4	61	10	702	9	65	528	47
Future Vol, veh/h	97	3	18	15	4	61	10	702	9	65	528	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	14	0	25	0	0	0	22	4	0	12	5	11
Mvmt Flow	109	3	20	17	4	69	11	789	10	73	593	53

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1619	1587	620	1593	1608	794	646	0	0	799	0	0
Stage 1	766	766	-	816	816	-	-	-	-	-	-	-
Stage 2	853	821	-	777	792	-	-	-	-	-	-	-
Critical Hdwy	7.24	6.5	6.45	7.1	6.5	6.2	4.32	-	-	4.22	-	-
Critical Hdwy Stg 1	6.24	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.24	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.626	4	3.525	3.5	4	3.3	2.398	-	-	2.308	-	-
Pot Cap-1 Maneuver	~ 78	109	449	87	106	391	851	-	-	781	-	-
Stage 1	378	415	-	374	393	-	-	-	-	-	-	-
Stage 2	337	391	-	393	404	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 54	91	449	70	88	391	851	-	-	781	-	-
Mov Cap-2 Maneuver	~ 54	91	-	70	88	-	-	-	-	-	-	-
Stage 1	369	354	-	365	384	-	-	-	-	-	-	-
Stage 2	268	382	-	317	345	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 651.1	39.3	0.1	1
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	851	-	-	63	192	781	-	-
HCM Lane V/C Ratio	0.013	-	-	2.105	0.468	0.094	-	-
HCM Control Delay (s)	9.3	0	-	$ 651.1	39.3	10.1	0	-
HCM Lane LOS	A	A	-	F	E	B	A	-
HCM 95th %tile Q(veh)	0	-	-	12.6	2.2	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	29.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	7	20	9	9	47	17	591	21	56	601	137
Future Vol, veh/h	87	7	20	9	9	47	17	591	21	56	601	137
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	15	0	6	0	0	0	0	2	0	0	4	4
Mvmt Flow	93	7	21	10	10	50	18	629	22	60	639	146

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1538	1519	712	1522	1581	640	785	0	0	651	0	0
Stage 1	832	832	-	676	676	-	-	-	-	-	-	-
Stage 2	706	687	-	846	905	-	-	-	-	-	-	-
Critical Hdwy	7.25	6.5	6.26	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.25	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.25	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.635	4	3.354	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 88	120	426	98	110	479	843	-	-	945	-	-
Stage 1	345	387	-	446	456	-	-	-	-	-	-	-
Stage 2	407	450	-	360	358	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 65	102	426	78	94	479	843	-	-	945	-	-
Mov Cap-2 Maneuver	~ 65	102	-	78	94	-	-	-	-	-	-	-
Stage 1	333	342	-	431	440	-	-	-	-	-	-	-
Stage 2	344	435	-	296	316	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 394.8	30.3	0.3	0.6
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	843	-	-	78	210	945	-	-
HCM Lane V/C Ratio	0.021	-	-	1.555	0.329	0.063	-	-
HCM Control Delay (s)	9.4	0	-	$ 394.8	30.3	9.1	0	-
HCM Lane LOS	A	A	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	10	1.4	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	47.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	87	7	20	9	9	47	17	680	21	56	686	137
Future Vol, veh/h	87	7	20	9	9	47	17	680	21	56	686	137
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	15	0	6	0	0	0	0	2	0	0	4	4
Mvmt Flow	93	7	21	10	10	50	18	723	22	60	730	146

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1723	1704	803	1707	1766	734	876	0	0	745	0	0
Stage 1	923	923	-	770	770	-	-	-	-	-	-	-
Stage 2	800	781	-	937	996	-	-	-	-	-	-	-
Critical Hdwy	7.25	6.5	6.26	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.25	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.25	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.635	4	3.354	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	~ 65	93	377	73	85	423	779	-	-	872	-	-
Stage 1	307	351	-	396	413	-	-	-	-	-	-	-
Stage 2	360	408	-	320	325	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 45	77	377	55	70	423	779	-	-	872	-	-
Mov Cap-2 Maneuver	~ 45	77	-	55	70	-	-	-	-	-	-	-
Stage 1	295	303	-	380	396	-	-	-	-	-	-	-
Stage 2	297	392	-	254	280	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 713.7	43.2	0.2	0.6
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	779	-	-	55	161	872	-	-
HCM Lane V/C Ratio	0.023	-	-	2.205	0.429	0.068	-	-
HCM Control Delay (s)	9.7	0	-	$ 713.7	43.2	9.4	0	-
HCM Lane LOS	A	A	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	12.1	1.9	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	26.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	178	49	113	992	741	106
Future Vol, veh/h	178	49	113	992	741	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	530	-	-	405
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	193	53	123	1078	805	115

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2129	805	920	0	-	0
Stage 1	805	-	-	-	-	-
Stage 2	1324	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 55	382	742	-	-	-
Stage 1	440	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 46	382	742	-	-	-
Mov Cap-2 Maneuver	~ 156	-	-	-	-	-
Stage 1	367	-	-	-	-	-
Stage 2	249	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	250.7	1.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	742	-	179	-	-
HCM Lane V/C Ratio	0.166	-	1.378	-	-
HCM Control Delay (s)	10.8	-	250.7	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.6	-	14.7	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	99.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	235	66	139	810	1187	145
Future Vol, veh/h	235	66	139	810	1187	145
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	530	-	-	405
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	255	72	151	880	1290	158

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2472	1290	1448	0	-	0
Stage 1	1290	-	-	-	-	-
Stage 2	1182	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 33	200	468	-	-	-
Stage 1	258	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 22	200	468	-	-	-
Mov Cap-2 Maneuver	~ 109	-	-	-	-	-
Stage 1	~ 175	-	-	-	-	-
Stage 2	291	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 846.1	2.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	468	-	121	-	-
HCM Lane V/C Ratio	0.323	-	2.704	-	-
HCM Control Delay (s)	16.3	-	$ 846.1	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	1.4	-	29.9	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	602	591	7	13	21
Future Vol, veh/h	10	602	591	7	13	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	375	-	-	375	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	654	642	8	14	23

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	650	0	-	0	1318	642			
Stage 1	-	-	-	-	642	-			
Stage 2	-	-	-	-	676	-			
Critical Hdwy	4.12	-	-	-	6.42	6.22			
Critical Hdwy Stg 1	-	-	-	-	5.42	-			
Critical Hdwy Stg 2	-	-	-	-	5.42	-			
Follow-up Hdwy	2.218	-	-	-	3.518	3.318			
Pot Cap-1 Maneuver	936	-	-	-	173	474			
Stage 1	-	-	-	-	524	-			
Stage 2	-	-	-	-	505	-			
Platoon blocked, %		-	-	-					
Mov Cap-1 Maneuver	936	-	-	-	171	474			
Mov Cap-2 Maneuver	-	-	-	-	171	-			
Stage 1	-	-	-	-	518	-			
Stage 2	-	-	-	-	505	-			

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	936	-	-	-	283
HCM Lane V/C Ratio	0.012	-	-	-	0.131
HCM Control Delay (s)	8.9	-	-	-	19.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	699	770	13	9	15
Future Vol, veh/h	22	699	770	13	9	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	375	-	-	375	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	760	837	14	10	16

Major/Minor	Major1			Major2		
Conflicting Flow All	851	0	-	0	1645	837
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	808	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	788	-	-	-	109	367
Stage 1	-	-	-	-	425	-
Stage 2	-	-	-	-	438	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	788	-	-	-	106	367
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	438	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	26.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	788	-	-	-	191
HCM Lane V/C Ratio	0.03	-	-	-	0.137
HCM Control Delay (s)	9.7	-	-	-	26.8
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	97	491	96	40	575
Future Vol, veh/h	0	97	491	96	40	575
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	375	375	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	105	534	104	43	625

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	534	0	0	638	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	546	-	-	946	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	546	-	-	946	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.2	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	546	946	-
HCM Lane V/C Ratio	-	-	0.193	0.046	-
HCM Control Delay (s)	-	-	13.2	9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	145	640	114	48	660
Future Vol, veh/h	0	145	640	114	48	660
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	375	375	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	158	696	124	52	717

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	696	0	0	820	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	0	442	-	-	809	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	442	-	-	809	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.6	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	442	809	-
HCM Lane V/C Ratio	-	-	0.357	0.064	-
HCM Control Delay (s)	-	-	17.6	9.8	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.6	0.2	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	17	0	1178	829	31
Future Vol, veh/h	0	17	0	1178	829	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	405
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	18	0	1280	901	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	901	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	337	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	337	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	337	-	-
HCM Lane V/C Ratio	-	0.055	-	-
HCM Control Delay (s)	-	16.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	1043	1308	37
Future Vol, veh/h	0	25	0	1043	1308	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	405
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	1134	1422	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1422	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	167	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	167	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	30.7	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	167	-	-
HCM Lane V/C Ratio	-	0.163	-	-
HCM Control Delay (s)	-	30.7	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	0.6	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	41	0	1105	745	41
Future Vol, veh/h	0	41	0	1105	745	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	405
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	45	0	1201	810	45

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	810	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	380	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	380	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	380	-	-
HCM Lane V/C Ratio	-	0.117	-	-
HCM Control Delay (s)	-	15.7	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	60	0	949	1194	48
Future Vol, veh/h	0	60	0	949	1194	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	405
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	65	0	1032	1298	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1298	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	198	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	198	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	31.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	198	-	-
HCM Lane V/C Ratio	-	0.329	-	-
HCM Control Delay (s)	-	31.9	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	1.4	-	-

Appendix L
Lake County Land Development Code Guidelines

2. Turn Lanes

Turn lanes consist of left-turn lanes and right-turn lanes (deceleration lanes). Turn lanes shall be installed on the road which is being accessed at the proposed entrance(s) to the development, as deemed necessary by the County Manager or Designee. The County Manager or Designee may also require turn lanes at adjacent or nearby intersections in lieu of, or in addition to, turn lanes at the development entrances.

Conditions which are to be considered in determining the need for turn lanes include the following:

a) If the property accessing the road is projected to generate 500 or more vehicle trips per day, or 50 or more vehicle trips in any hour;

b) If a traffic analysis indicates that turn lanes would be necessary to maintain capacity on fronting roads and/or on adjacent or nearby intersections.

c) If entrances are proposed at locations where grade, topography, site distance, traffic, or other unusual conditions indicate that turn lanes would be needed for traffic safety. The need for turn lanes to accommodate right turn movements and left turn movements shall be based upon anticipated traffic distribution and projected turning movement volumes among other considerations, including traffic safety.

C. ***Traffic Analysis***

1. Transportation Concurrency Management System

Transportation Concurrency Management System is administered by the Lake-Sumter Metropolitan Planning Organization (LSMPO). All information regarding traffic study could be found on LSPMO website www.lakesumtermpo.com/concurrency/index.aspx

D. ***Road Classification***

1. Arterial Roads

An arterial road is a route providing service which is relatively continuous and of relatively high traffic volume, long average trip length, high operating speed and of high mobility importance.

Arterial roads are grouped into the following sub-categories:

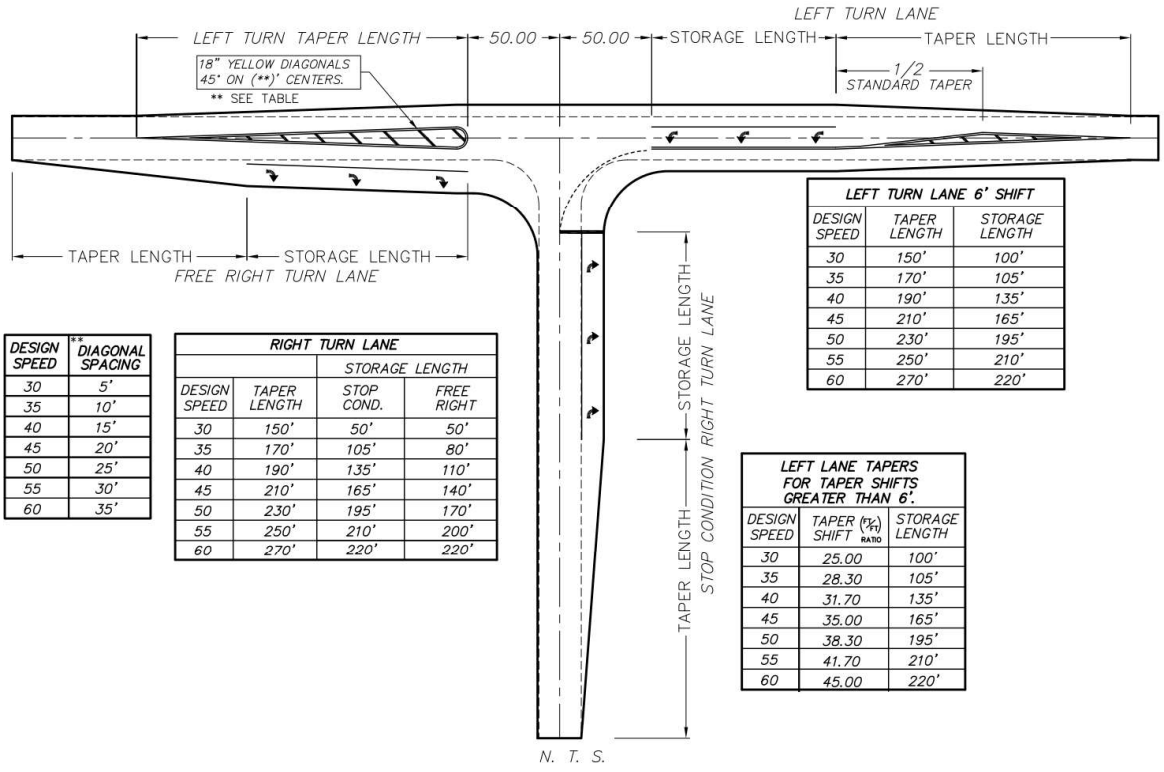
a) Principal Arterial
b) Minor Arterial

The classification of roads as arterials shall be based upon criteria established by the Florida Department of Transportation utilizing their most recent, adopted functional classification system.

2. Collector Roads

A collector road is a route providing services which is of relatively moderate traffic volume, moderate trip length and moderate operating speed. Collector roads collect and distribute the traffic between local roads and arterial roads and serves as a linkage between land access and mobility needs.

LAKE COUNTY STANDARD TURN LANES



LEFT TURN LANE 6' SHIFT		
DESIGN SPEED	TAPER LENGTH	STORAGE LENGTH
30	150'	100'
35	170'	105'
40	190'	135'
45	210'	165'
50	230'	195'
55	250'	210'
60	270'	220'

DESIGN SPEED	** DIAGONAL SPACING
30	5'
35	10'
40	15'
45	20'
50	25'
55	30'
60	35'

RIGHT TURN LANE			
		STORAGE LENGTH	
DESIGN SPEED	TAPER LENGTH	STOP COND.	FREE RIGHT
30	150'	50'	50'
35	170'	105'	80'
40	190'	135'	110'
45	210'	165'	140'
50	230'	195'	170'
55	250'	210'	200'
60	270'	220'	220'

LEFT LANE TAPERS FOR TAPER SHIFTS GREATER THAN 6'.		
DESIGN SPEED	TAPER SHIFT (W/Y1) RATIO	STORAGE LENGTH
30	25.00	100'
35	28.30	105'
40	31.70	135'
45	35.00	165'
50	38.30	195'
55	41.70	210'
60	45.00	220'

O:_CAD STANDARDS\DWG\Turn LanesR1.dwg (02/06/2007)

THIS SHOULD BE USED AS A GUIDE LINE ONLY.
ALL DESIGNS SHALL BE SUBMITTED FOR REVIEW.