



City Council Meeting & Public Hearing

FEBRUARY 27, 2023

OFFICIAL MINUTES

Office of the City Clerk

ALPHARETTA CITY HALL

COUNCIL CHAMBERS | 2 PARK PLAZA | 6:30 PM

OFFICIAL MINUTES

The public is advised that the following minutes are not a verbatim transcription of business presented at the Council Meeting of the date shown; but are a synopsis of pertinent information. The public is further advised that the video recording for said meeting is a matter of public record and is available to be viewed at the City Clerk's office during normal business hours or viewed online at <https://www.youtube.com/user/alpharettagov>.

I. CALL TO ORDER

- Mayor Gilvin called the meeting to order at 6:30 p.m.

II. ROLL CALL

• Council Members

- Mayor Jim Gilvin
- Donald F. Mitchell
- Douglas J. DeRito
- John Hipes
- Jason Binder

• Council Members Absent

- Mayor Pro Tem Dan Merkel
- Brian Will

• Staff

- Chris Lagerbloom, City Administrator
- Melissa Tracy, City Attorney with Jarrard & Davis
- James Drinkard, Asst. City Administrator
- Lauren Shapiro, City Clerk
- John Robison, Director of Public Safety
- Kathi Cook, Director of Community and Economic Development
- Morgan Rodgers, Director of Parks, Recreation, and Cultural Services
- Pete Sewczwicz, Director of Public Works

- Thomas Harris, Director of Finance
- Adam Montgomery, Information Technology Manager
- David Shostak, City Arborist

III. PLEDGE TO THE FLAG

IV. PRESENTATIONS & PROCLAMATIONS

A. Arbor Day 2023

- Mayor Gilvin presented the Arbor Day 2023 Proclamation to City Arborist, David Shostak.
- City Arborist, David Shostak, shared that on Saturday, March 4, 2023 at 10:00 am the Natural Resources Commission will be planting a tree at the Community Gardens at Wills Park (near the basketball court).

V. CONSENT AGENDA

A. Council Meeting Minutes (Meeting of 2/6/2023)

B. Council Meeting Minutes (Meeting of 2/20/2023)

C. Settlement Opt-in: National Opioid Settlements with Teva, Allergan, CVS, Walgreens, and Walmart

D. Alcoholic Beverage License Applications

Consideration of approval of the following alcoholic beverage license application:

1. PH-23-AB-02 RNR RCMH, LLC

d/b/a Rock N Roll Sushi

5530 Windward Parkway, Suite C300, Alpharetta, GA 30004

Restaurant

Consumption on Premises

Beer, Wine & Sunday Sales

Owner: RNR RMCH, LLC

Registered Agent: Jeanne Harvey

PUBLIC COMMENTS

- There were no public comments.
- ❖ Council Member Mitchell offered a motion to approve the Consent Agenda.
 - Council Member Hipes seconded the motion.
 - The motion was approved unanimously (5-0).

VI. PUBLIC HEARING

A. PH-23-02 Unified Development Code (UDC) Text Amendments – Procedures to Establish a Residential Infill Overlay District

First Reading

Consideration of text amendments to the Unified Development Code (UDC) to add procedures for establishing a residential infill overlay district.

- City Attorney, Melissa Tracy, read the Ordinance title aloud.
- Director of Community and Economic Development, Kathi Cook, came forward to present this item.
- The proposed Unified Development Code text amendments are attached hereto as "Exhibit A."
- This item was considered at the 2/3/2023 Planning Commission meeting. There were no public comments. Planning Commission requested that clarifications be made to the proposed regulations to specify that the residential infill overlay applies to non-HOA neighborhoods. After discussion, Planning Commission recommended approval (vote 7-0).
- In order to recognize particular needs of an existing neighborhood where an HOA is not present it is recommended that procedures be established for an application to be considered. An overlay district can help preserve special characteristics of a neighborhood with specific zoning regulations and design guidelines.
- Staff proposes procedures to establish a Residential Infill Overlay District. The procedures propose an initial 30% threshold of real property owners in support of the overlay for the City to consider creating a residential infill overlay district.
- A 75% threshold of real property owners in support is proposed prior to City Council adoption of the overlay. The intent of these procedures is to provide a process to establish a residential infill overlay district where there is support among a majority of the property owners in order to impose an additional layer of regulation to help combat incompatible development in established neighborhoods.

CITY COUNCIL DISCUSSION

- Council Member Binder asked about whether there is a minimum or maximum number of homes/size for the overlay and requested for Kathi to discuss (at the second reading) protections for homeowners in terms of stormwater, trees, architectural style, etc.
 - Director Cook shared that the overlay would include an entire HOA.

PUBLIC COMMENTS

- Mary Dedwyler (170 Shady Grove Lane, Alpharetta, Georgia) came forward to speak on this item as she is currently working towards gathering signatures for a petition in her neighborhood at this time.
- ❖ Council Member Hipes offered a motion to approve PH-23-02 Unified Development Code (UDC) Text Amendments – Procedures to Establish a Residential Infill Overlay District
 - Council Member Mitchell seconded the motion.
 - The motion was approved unanimously (5-0).

VII. OLD BUSINESS

A. Ordinance – Fiscal Year 2023 Mid-Year Budget Amendment

Second Reading

The first reading occurred during the February 20, 2023 City Council Meeting and Public Hearing.

Consideration of an Ordinance to adopt a Mid-Year Fiscal 2023 Budget for certain funds of the City of Alpharetta, Georgia appropriating the amounts shown in each budget as expenditures, adopting the item of revenue anticipation, prohibiting expenditures to exceed appropriations, and prohibiting expenditures to exceed actual funding available.

- City Attorney, Melissa Tracy, read the Ordinance title aloud.
- Director of Finance, Tom Harris, came forward to present this item.
- Since the first reading, there were some changes to the subscription amount (pro-rated) for Board and Commission email accounts and the revenues of the community agriculture program.
- City Administrator, Chris Lagerbloom, shared that there were some additional questions on the Pulse Point Software. At this time, the liaison to Public Safety, Council Member Will, has requested that this item be removed from the mid-year budget amendment and let us to continue to study that, and if appropriate, bring forward with the fiscal year 2024 budget.

PUBLIC COMMENTS

- There were no public comments.
- ❖ Council Member Binder offered a motion to approve the Mid-Year Fiscal 2023 Budget for certain funds of the City of Alpharetta, Georgia appropriating the amounts shown in each budget as expenditures, adopting the item of revenue anticipation, prohibiting expenditures to exceed appropriations, and prohibiting expenditures to exceed actual funding available.

- Council Member Mitchell seconded the motion.
- Council Member Hipes offered a friendly amendment that backing out from the proposed mid-year adjustments the Pulse Point Software.
 - Council Member Binder accepted the friendly amendment.
- The motion was approved (5-0).

VIII. NEW BUSINESS

A. Local Roads Safety Action Plan and Award of RFQ 23-1011

Consideration of approval to award RFQ 23-1001 to Alta, approve developing the Safety Action Plan for Alta in an amount not to exceed \$199,778.00, and authorize the Mayor to execute all necessary documents.

- Director of Public Works, Pete Sewczwicz, came forward to present this item.
- Through the U.S. Department of Transportation, the Bipartisan Infrastructure Law (BIL) established the new Safe Streets and Roads for All (SS4A) discretionary grant program. The SS4A program is to prevent roadway deaths and serious injuries. The following activities are eligible for the SS4A program: 1) Develop or update a comprehensive safety action plan; 2) Conduct planning, design, and development activities in support of an action plan; and 3) Carry out projects and strategies identified in an action plan.
- A scoping document was prepared by the Public Works Department and a request for Qualifications (RFQ 23-1001) was issued for this project on July 14, 2022.
- Request for Proposals (RFP 23-1003) was extended to the top 3 companies on September 1, 2022. Interviews were scheduled on September 27, 2022.
- After evaluation and verifying the submitted proposals, staff from the Public Works Department met and discussed the project scope with representatives of Alta Planning + Design (Alta), as the preferred respondent, on Thursday November 10, 2022. Alta is a local and experienced consultant that has worked on similar projects for other agencies in Tennessee, Missouri, Virginia, and Florida.
- Developing the safety action plan is anticipated to take 9 months from notice to proceed, followed by 3 months for writing the SS4A Implementation Grant.
- Alta's estimated cost for this project is \$199,778.00. The proposal, under Attachments, provides a detailed breakdown of the cost.

PUBLIC COMMENTS

- There were no public comments.
- ❖ Council Member DeRito offered a motion to approve the award of RFQ 23-1002 to AECOM, approve the Alpha Link design Task Order 1 for AECOM in an amount not to exceed \$450,825, approve the Project Management Task Order 1 for Atkins

in an amount not to exceed \$80,000, and authorize the Mayor to execute all necessary documents.

- Council Member Hipes seconded the motion.
- The motion was approved (5-0).

B. Memorandum of Understanding: Faithful Guardian and City of Alpharetta

Consideration of approval of a Memorandum of Understanding between Faithful Guardian and City of Alpharetta for training public safety employees.

- Director of Public Safety, John Robison, came forward to present this item.
- The fire department has relied on hiring certified firefighters/AEMT/Paramedics over the past twenty years. This is no longer an option due to limited lateral applicants. To address this, we are establishing our own recruit school, like most metro Atlanta departments. These six individuals would spend 12 weeks in AEMT school and 14 weeks in fire school.
- Alpharetta Fire will conduct the fire school. We have partnered with Faithful Guardian Training Center to provide the AEMT portion. The Commission accredits Faithful Guardian Training Center on Accreditation of Allied Health Education Programs. Faithful Guardian has trained several of our current employees.

PUBLIC COMMENTS

- There were no public comments.
 - ❖ Council Member Hipes offered a motion to approve the Memorandum of Understanding between Faithful Guardian and City of Alpharetta for training public safety employees.
 - Council Member DeRito seconded the motion.
 - The motion was approved unanimously (5-0).

IX. WORKSHOP ITEMS

A. Presentation of the Alpha Loop Downtown Link Plan

Presentation and discussion of the Alpha Loop Downtown Link Plan.

- Jacob Lange, Starr Whitehouse & Associates, came forward to present this item.
- The presentation is attached hereto as "Exhibit B."
- This plan focuses on the "Downtown Link" which connects the downtown Alpha Loop paths together.

CITY COUNCIL DISCUSSION

- Mayor Gilvin shared that he was concerned with the amount of brick due to the maintenance issues the city has faced with the uneven bricks currently in the downtown.
- Council Member Hipes asked about a standard bollard style for the downtown and lighting and the pedestrian signal light timing for crossing the intersection at Roswell Street and Old Milton Parkway (and other Alpha Loop intersections).
- Council Member Hipes shared that he would prefer to see a consistent artistic style so that it is easier to identify when someone is on the Alpha Loop.

B. Rucker Road Park Design Conceptual Site Plan Discussion

Discussion and consideration of the conceptual site plan for Rucker Road Park designed by Columbia Engineering & Services, Inc.

- Director of Recreation, Parks, and Recreation, Morgan Rodgers, came forward to present this conceptual site plan.

CITY COUNCIL DISCUSSION

- Council Member Binder asked about adding in a hawks crossing signal in this area.
- Council Member Mitchell shared that he agreed with Council Member Binder's request. Additionally, he would like to see if the surrounding neighborhood's could have connections/trails built to this park.

C. Town Green Special Events: Survey and Recommendation

Presentation and discussion of survey results regarding special events on the Town Green and discussion of staff's recommendations.

- Director of Recreation, Parks, and Recreation, Morgan Rodgers, came forward to present this item.
- James Drinkard shared that amplified sound or structures within a park require a permit, which is required by the park rules.
- Staff's future recommendations are provided as the following:
 1. City Center Concerts should take place no more frequently than two Fridays per month on the Town Green, but not the same week as Food Truck Alley or Home By Dark Concerts.
 2. Big Screen on the Town Green must be permitted.
 3. Corn Hole ATL should be allowed to gather and play on the Town Green, and the turf area of Old Roswell, weekly, on Wednesday evenings.
 4. Give staff the ability to permit ancillary events that do not impact the downtown business flow and operations, which would include the City

Center Snow Day, Fit Life Expo, Alpharetta Wine Festival, Menorah Lighting and Petals & Parasols.

CITY COUNCIL DISCUSSION:

- Council Member Hipes asked whether the sidewalks in front of the Jewel Box buildings at City Center are publicly owned sidewalks.
- Council Member Binder shared that he hopes that we have a policy that applies city-wide.
- Mayor Gilvin asked for City Administrator, Chris Lagerbloom, to determine what is considered public right of way in the downtown.
- City Attorney, Melissa Tracy, shared that there is a covenant between the City of Alpharetta and City Center that discusses business encroachment into the right-of-way.
- Council Member DeRito asked whether there is an issue on the matter of City Center and sidewalk use.
- Council Member Mitchell shared that he does not want the City to become too regulated and enjoys the look and use of the town green and areas in downtown as an outdoor living room.
- Council Member Binder shared that he was comfortable with all staff recommendations, other than number 2.
- Council Member Hipes shared that he likes the staff recommendations, as permitted, and does not believe that any business should be able to roll out a TV on the town green.
- Mayor Gilvin directed Director Rodgers that he does not have a direction at this time, and to either permit everything or use your discretion with the policies that we have in place, and that we will have to have this conversation again when the full council is present.

X. PUBLIC COMMENT

- There were no public comments.

XI. REPORTS

- City Administrator, Chris Lagerbloom, provided a report on municipal elections. If we decide to use the services of Fulton County would cost \$7.66 per registered voter (\$379,408 total). March 31st is the deadline to transmit the executed Intergovernmental Agreement back to Fulton County.
 - Council Member Hipes asked about when we would know the costs if we were to conduct the elections ourselves.

- City Administrator Lagerbloom shared that we are working on that number and believe that it would be less than \$7.66 and more than \$2.96 per registered voter.

XII. EXECUTIVE SESSION

- ❖ Council Member Mitchell offered a motion to recess to Executive Session.
 - Council Member Binder seconded the motion.
 - The motion was approved unanimously (5-0).
- Mayor Gilvin recessed the meeting at 8:38 p.m.
- Mayor Gilvin reconvened the meeting at 8:46 p.m.

XIII. ADJOURNMENT

- With there being no further items to consider or discuss, Mayor Gilvin adjourned the meeting at 8:47 p.m.

Respectfully submitted,



Lauren Shapiro, City Clerk

EXHIBIT A

SECTION 2.3 SUPPLEMENTARY REGULATIONS

2.3.1 General exemptions.

- A. *Heights—Exclusions.* The following structures are exempt from the height limitations imposed within each zoning district:
1. Church spires, cupolas, and chimneys.
 2. Agricultural accessory structures, such as barns, silos, windmills, and the like.
 3. Parapets and structures used for ornamental or aesthetic purposes not to exceed twelve (12) feet.
 4. Elevator penthouses not to exceed fifteen (15) feet.
 5. Mechanical equipment on building roofs or rooftop antennas provided any such equipment exceeding 12 feet in height shall be contained within a structure or otherwise screened from ground view from adjoining streets and properties.
- B. *Front Yard Requirements—Existing Residential Areas.* The setback requirements of this Ordinance shall not apply to any residential lot where the average setback on developed lots located adjacent to and on each side of such lot and within the same zoning district and fronting on the same street as such lot is less than the minimum required setback. In such cases, the setback of such a lot may be less than the required setback but not less than the average of the existing setbacks on the developed lots. In no case, however, shall setbacks be less than 15 feet.

If the adjacent developed lots on both sides of a vacant residential lot, within the same zoning district and fronting on the same street as such lot, have front yard setbacks greater than the minimum required by the zoning district, then the minimum setback on the vacant lot shall be the average of the 2 adjacent developed lots.

- C. *Double Frontage Lots.*
1. Double frontage lots should be avoided except where essential to provide separation of residential development from traffic arteries or to overcome specific disadvantages of topography and orientation. A landscaped or natural buffer of at least twenty feet (20'), across which shall be the right of access, shall be provided along the line of lots abutting such a traffic artery.
 2. On lots having frontage on two (2) streets, but not located on a corner, the minimum front yard setback requirement shall be provided along each street frontage.
- D. *Setbacks—Exclusions.*
1. No building or structure or projection thereof, including porch, deck, terrace or chimney, shall be erected closer to a property line than the applicable setback regulation prescribed herein allows. However, uncovered steps, patio slabs, driveways, walkways, retaining walls of no more than 4' in height, and roof overhangs of up to 18" may be located within setback areas.
 2. Required setbacks may accommodate vegetated runoff reduction measures, provided such setbacks meet fire code standards. The runoff reduction measures may not compromise public safety such as the sight distance triangles required by the City.
- E. *Flag Lots.*
1. Flag lots are prohibited for residential development. Residential building sites must meet minimum lot width requirements at the front setback line or at twice the required front setback for cul-de-sac lots.

(Ord. No. 730 , § 6, 12-5-2016; Ord. No. 732 , § 2, 2-6-2017)

2.3.2 Temporary uses.

The Director may authorize a temporary use, as follows:

- A. Carnival, circus or fair on property zoned and used for non-residential use, for a period not to exceed 4 days. A period not to exceed 30 days may be granted by the Director if the event is held within a designated amphitheater facility as defined by Code and confirmed by the Director. Site shall meet adequate parking and safety concerns and limit impacts to surrounding properties.
- B. Outdoor tent sales on property zoned and used for non-residential use, for a period not to exceed forty-five (45) days. Authorization may not be granted more than two (2) times per year, per property.
- C. Seasonal events associated with a not-for-profit on property zoned and used for non-residential use, for a period not to exceed seventy-five (75) days. Authorization may not be granted more than two (2) times per year, per property.

Seasonal Events associated with a for-profit entity on property zoned and used for non-residential use for a period not to exceed thirty (30) days. Authorization may not be granted more than four (4) times per year, per property. Seasonal events, such as an ice-skating rink, corn maze, haunted house, etc. shall be limited to activities that draw fewer than 100 people at a time.
- D. Religious meeting in a tent or other temporary structure on property zoned and used for non-residential use, for a period not to exceed sixty (60) days.
- E. Open lot sale of Christmas trees, fruit and vegetables, and other harvested products on property zoned and used for non-residential use, for a period not to exceed forty-five (45) days.
- F. Real estate sales office, related to an active development, in any district, for a period not to exceed one (1) year, provided no sleeping accommodations are maintained in the structure.
- G. Contractor's office, construction trailer and equipment shed, in any district, related to an active development, for a period of one (1) year provided that such office be placed on the property to which it is appurtenant.
- H. Commercial television or motion picture filming activities not to exceed seven (7) calendar days at any residential location, or a period not to exceed twenty-one (21) days if approved by the Mayor and Council. The director or the Mayor and Council may impose conditions to the issuance of the permit to minimize the disturbance to the residential neighborhood. These conditions may include neighborhood notification requirements, parking and traffic control, and limitations on the hours of operation. In no event shall filming activities commence prior to 7:00 a.m. or continue after 10:00 p.m.
- I. All temporary certificates of zoning compliance may be renewed provided that it is determined that said use is clearly of a temporary nature, will cause no increased traffic congestion and will not create a nuisance to surrounding uses.
- J. The director may require City Council review and approval of any temporary uses.
- K. Fireworks sales in a tent or other temporary structure in the L-1 District, for a period not to exceed ninety (90) days.

(Ord. No. 688, § 1, 4-28-2014 ; Ord. No. 708 , § 1, 8-10-2015; Ord. No. 718 , § 15, 12-14-2015; Ord. No. 808 , § 3(Exh. C), 9-8-2020; Ord. No. 836 , § 1(Exh. B), 10-4-2021)

2.3.3 Accessory uses and structures.

- A. *Home Occupations.* An occupation, profession or trade customarily carried on by an occupant in a dwelling unit as a secondary use which is clearly incidental to the dwelling unit for residential purposes and which meets all of the following conditions:
1. The use shall be carried on wholly within the dwelling unit principal building. The attachment of an accessory building by a breezeway, roof or similar structure shall not be deemed as sufficient for the accessory building to be considered as a portion of the primary building.
 2. Not more than 25% of the floor area, not to exceed 500 square feet, of the dwelling unit building shall be used for the conduct of the home occupation.
 3. No merchandise or articles shall be displayed for advertising purposes, nor be displayed in such a way as to be visible from outside the dwelling unit. Garage doors shall not be left in the open position when the garage is used for the storage of business related materials.
 4. No merchandise or articles shall be stored other than inside the dwelling unit.
 5. No equipment or business vehicles may be stored or parked on the premises except that 1 business vehicle (the carrying capacity of which shall not exceed 1andhalf; tons and shall not exceed six (6) tires and/or two (2) axles) used exclusively by the resident may be parked in a carport, garage or an approved parking space in the rear or side yard and not within the public street or right-of-way.
 6. A home occupation may not generate more than six non-residential trips per day to the home, excluding occupant trips.
 7. There shall be no alteration of the residential character of the dwelling unit or premises or structures on the premises.
 8. No person not a resident of the dwelling unit shall work in the dwelling unit in connection with the home occupation. This prohibition shall also apply to independent contractors and employees who serve the resident of the dwelling unit.
 9. One (1) off-street paved parking space for each 250 square feet of floor area devoted to the home occupation shall be provided in addition to the required parking for residential use of the building.
 10. No motor power, other than electrically operated motors, shall be used and the total horsepower of such motors shall not exceed 3 horsepower or 1 horsepower for any single motor.
 11. No nameplate or sign shall be displayed upon the dwelling unit or structure on the premises except 1 unlighted sign not exceeding 1 square foot in area and located not less than 20 feet from any property line.
 12. No aspect of the home occupation which is noticeable to neighbors shall be conducted between the hours of 9:00 p.m. of one evening and 7:00 a.m. of the next day.
- B. *Swimming Pools.* All swimming pools shall comply with the following requirements:
- Construction Plan:* An application for a permit to construct a swimming pool shall be submitted to and approved by the Building Official.
- Pool Location:* Swimming pools and their auxiliary structures shall maintain a 20' setback from side and rear property lines or the same setback as the principle structure, whichever is less. Swimming pools shall not be located within the required front yard of any lot or closer to the front lot line than the principal building on the lot. Pools may also not be located within a buffer or easement.

Accessory Buildings: Pool houses, cabanas and other structures related to a swimming pool shall be subject to all of the requirements for "accessory buildings" and shall maintain a minimum 10 foot setback from side and rear lot lines or the same setbacks as the principal.

Fencing: All swimming pools shall be enclosed by a fence that is at least 5 feet in height and constructed so as not to pass a four inch (4") diameter sphere through any opening. The fence must be maintained in good condition and shall be self-closing and self-latching. The fencing shall be located so as to not obstruct visibility at road intersections.

- C. *Uses Customarily Accessory to Dwellings Located in Residential Zoning Districts.* Each of the following uses is considered to be a customary accessory use to a dwelling, and as such, may be situated on the same lot with the principal use to which it serves as an accessory provided that the setback and yard requirements are met and provided that the accessory structure is not located closer to a road than the principal structure. No such accessory use shall be more than 20% in size of principal use or be located in a required front yard.
1. Private garage not to exceed the following storage capacities; 'For-Sale' dwelling, 4 automobiles; 'For-Rent' dwelling, 2 automobiles per dwelling unit; group dwelling, 1½ automobiles per sleeping room. Structures shall maintain a 10 foot setback from rear and side lot lines or the same setbacks as the principal building, whichever is less.
 2. Open storage space or parking area for motor vehicles provided that such space does not exceed the maximum respective storage capacities listed above; and provided that such space shall not be used for more than 1 commercial vehicle licensed as 1 ton or more in capacity per family residing on the premises.
 3. Shed or tool room for the storage of household goods or equipment used in grounds or building maintenance. Structures shall maintain a 10 foot setback from rear and side lot lines or the same setbacks as the principal building, whichever is less.
 4. Miscellaneous free-standing structures such as gazebos shall maintain a 10 foot setback from lot lines or the same setbacks as the principal building, whichever is less.
 5. Children's playhouse and play equipment.
 6. Quarters for the keeping of pets owned by occupants for non-commercial purposes provided that such use does not generate a nuisance to adjoining properties. Such quarters shall maintain a 20 foot setback from rear and side lot lines.
 7. Private swimming pool and bathhouse or cabana. Swimming pool shall maintain a 20 foot setback from side and rear lot lines, or the same setback as the principle structure whichever is less. All other structures shall maintain a 10 foot setback from side and rear lot lines or the same setbacks as the principal building, whichever is less.
 8. Structures designed and used for purposes of shelter in the event of man-made or natural catastrophes. Same setbacks shall apply as for the principal building.
 9. Backyard chickens on minimum 1-acre properties with a single-family detached dwelling, limited to no more than 6 chickens and no roosters allowed. Associated structures (chicken coop, run, etc.) shall maintain a minimum 25' setback from the rear and side property lines. Chicken coop and run shall not exceed 9' in height. No chickens shall be permitted within any undisturbed water buffers, wetlands, or regulated floodplain.

(Ord. No. 833 , § 1(Exh. A), 7-26-2021)

2.3.4 Standards for dwelling, 'for-sale', detached houses.

- A. All detached 'For-Sale' dwellings shall meet or exceed the following requirements in addition to the requirements of all applicable Building Codes:
1. Each dwelling shall be connected to a potable water supply and sanitary sewage disposal system approved by the Fulton County Development Services Department.
 2. Foundation: The structure shall be attached to a permanent foundation constructed in accordance with the Building Code.
 3. Exterior siding: Exterior siding materials shall consist of wood, brick, stone, concrete, stucco, EIFS or similar materials, or lap siding of masonite, vinyl or similar materials, or any combination of the above.

The exterior siding shall extend the full height of the exterior walls, from the surrounding grade to the bottom of the eaves or other juncture with the roof.
 4. Roofs: All roof surfaces shall have a minimum pitch of 2.25:12 (2¼ inches of rise for every 12 inches of run), except that mansard and gambrel roofs must meet this requirement only for those surfaces that rise from the eaves. All roof surfaces exposed to view shall be covered with asphalt or fiberglass shingles, wood shakes or shingles, clay tiles, slate, standing seam metal or similar materials.
 5. Houses shall be at least 20 ft. in width.
 6. A porch or hard surfaced landing shall be provided at each exterior door and stairway top and bottom, which shall be at least as wide as the door it serves, but no less than 36 inches in width and 36 inches in depth.

2.3.5 Buffers and landscape requirements.

See UDC Section 3.2.8.

(Ord. No. 718 , § 16, 12-14-2015; Ord. No. 732 , §§ 3, 4, 2-6-2017; Ord. No. 737 , § 1, 5-1-2017; Ord. No. 739 , 5-1-2017)

2.3.6 Fence and wall requirements.

- A. *Height.* Height of fences and walls used as fences shall not exceed six (6) feet on residential property and eight (8) feet on non residential property. These limits may be exceeded by up to 50% on sloped lots where the appearance of an even fence line is desired.
- B. *Location on Property.* In order to prevent the obstruction of visibility, no walls, fences, shrubbery or hedges over three (3) feet in height shall be located within twenty (20) feet of an intersection of two or more streets or within ten (10) feet of the edge of a driveway leading to a street. Fences and walls shall be placed at least five (5) feet from required landscape strips and buffers to accommodate construction and maintenance unless approved otherwise at a public hearing.
- C. *Materials.* Fences and walls used as fences shall be made of wood which shall be protected from decay by the use of naturally durable wood or wood that is pressure treated, metal, brick, block, vinyl or stone. The use of plywood/sheet goods as a material is prohibited. Barbed, razor wire or electrically charged fencing shall be permitted in AG and RE districts and may be permitted, subject to administrative review and approval, in other districts.
- D. *Appearance.* All fencing shall be constructed with finished side facing away from the property owners property. Fences and walls used as fences shall not be finished with bright or primary colors or be visually distracting in any other way. A privacy fence or chainlink fence along a public or private right-of-way shall only be permitted when the required landscape strip and associated landscape material is provided. Privacy

and chainlink fences shall be prohibited in a front yard, except that the Director of Community Development, or designee, may approve a privacy fence in the front yard on collector or arterial streets.

- E. *Permit.* A permit for construction shall not be required to erect a fence or wall used as a fence which is built in accordance with these standards. Signage incorporated into such fences shall require a sign permit.

(Ord. No. 720 , § 1, 2-22-2016; Ord. No. 808 , § 3(Exh. C), 9-8-2020)

2.3.7 Reserved Procedures to Establish a Residential Infill Overlay District.

- A. The City shall require the filing of a petition and completed application for any Residential Infill Overlay District on forms promulgated by the Community Development department director. A Residential Infill Overlay District shall apply to established neighborhoods without a homeowner's association (HOA).
- B. Any person(s) interested in pursuing the approval of a Residential Infill Overlay District upon request to the Community Development department will be provided with a petition and application form. The petition will allow for persons to sign in favor of the approval of a Residential Infill Overlay District. All signatories to the petition must be real property owners residing within the proposed Residential Infill Overlay District. The Community Development director shall not allow the petition process for the adoption of a Residential Infill Overlay District ordinance to begin to be reviewed and investigated by city staff until thirty (30) percent of the property owners in the proposed Residential Infill Overlay District have voted in favor of the imposition of the Residential Infill Overlay District designation by signing the petition described in this division. Once the thirty (30) percent threshold has been achieved, the Community Development director shall initiate notice to all property owners within the proposed district of a public hearing to be held at the Planning Commission and City Council meetings.
- C. Application forms must be accompanied by a boundary map and a complete list of each property located in the Residential Infill Overlay District by street address or tax parcel identification number(s). All applications must be accompanied by a written description of why the particular properties qualify for a Residential Infill Overlay District designation. This written description shall include an analysis of all the following criteria that shall guide the Planning Commission and City Council in deciding if specific property should be classified as a Residential Infill Overlay District:
1. Whether the built environment of a neighborhood and its location, size or age, is one in which it is desirable to ensure that new and remodeled single-family dwellings and related accessory uses and structures are compatible with the height, size, and level of forestation of the existing dwellings and lots; and
 2. Whether there is a need to establish and maintain a balance between preserving the character of a mature neighborhood while accommodating compatible new residential developments.
- D. All applications and petitions for a Residential Infill Overlay District shall become final upon presentation and approval at a public hearing before the Planning Commission and City Council, at which time the petition will include a minimum of seventy-five (75) percent of the property owners having voted in favor of the imposition of the Residential Infill Overlay District designation.
- E. The staff of the Community Development department shall conduct a site inspection on all complete applications for a Residential Infill Overlay District designation and shall investigate and prepare an analysis of such application and shall include a written analysis of whether the properties at issue satisfy the criteria identified in subsection C. The staff of the Community Development department shall present its findings and recommendations in written form to the Planning Commission and City Council. Copies of the written findings shall be reasonably available to the public.
- F. In addition to all other applicable standards and criteria, the Planning Commission and City Council shall consider whether the property at issue satisfies the criteria set forth in subsection C. If the Planning

Commission and City Council approves the creation of a specific Residential Infill Overlay District, the newly created district shall be governed by the regulations in this division and any other applicable regulations in the code.

Editor's note(s)—Ord. No. 730 , § 7, adopted Dec. 5, 2016, repealed former § 2.3.7 which pertained to conditional uses.

EXHIBIT B



DOWNTOWN LINK CONCEPTUAL DESIGN REPORT

ALPHARETTA, GA

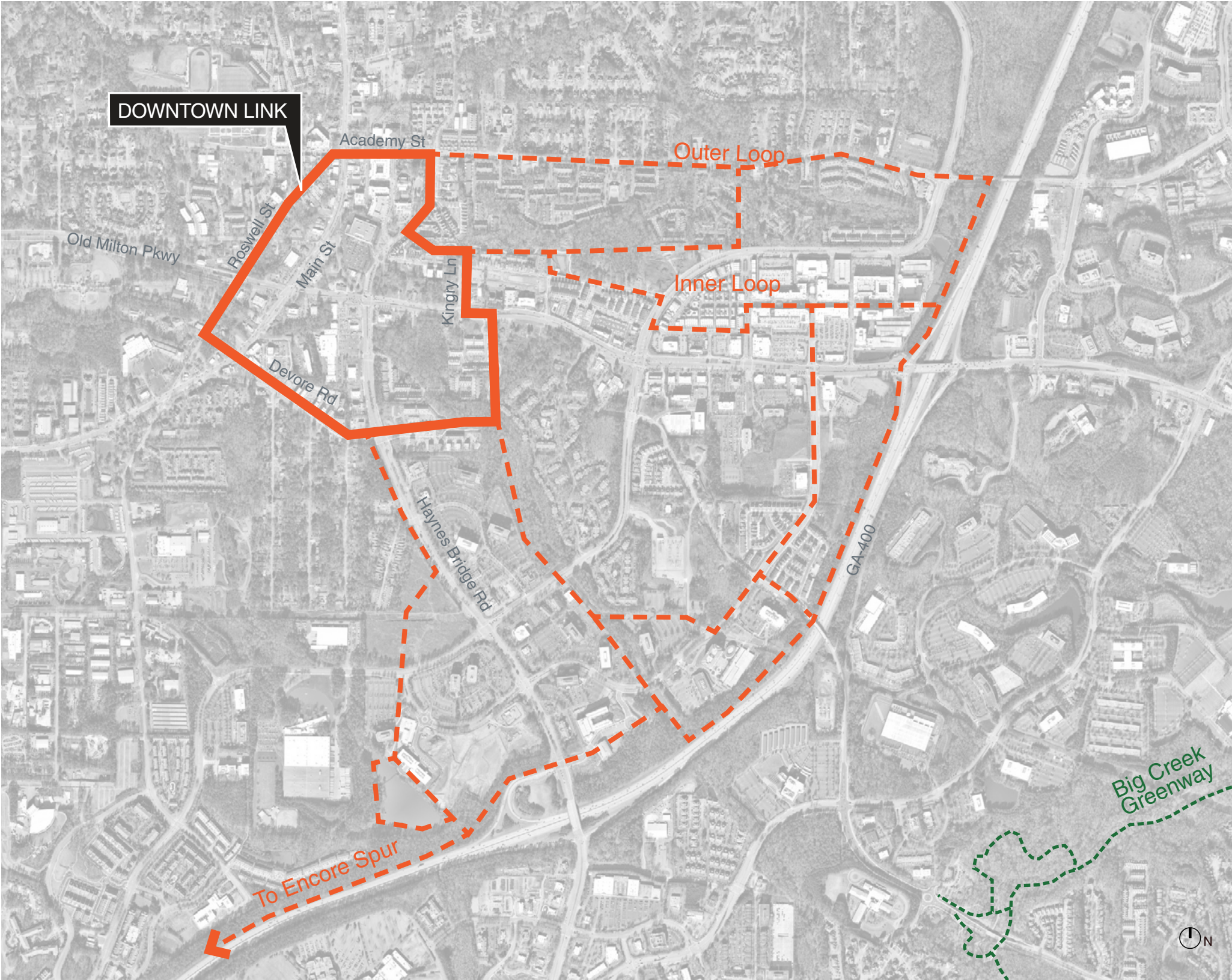
01/13/2023



STARR WHITEHOUSE
Landscape Architects
and Planners PLLC



EXECUTIVE SUMMARY



PROJECT OVERVIEW

Alpharetta has experienced unprecedented growth since the AlphaLoop was originally planned. Development continues to boom, with hotels, offices, multi-family residences, and mixed-use lifestyle centers in various stages of development emerging throughout the downtown district. Alpharettans understand the valuable connectivity that the AlphaLoop brings. Residents want to be near the trail, and the development community is eager to build the trail to make that possible. Establishing a clear and comprehensive vision for the downtown trail is critical to maximizing the public benefit of these private investments and ensuring a cohesive and connected AlphaLoop system for commuters and recreational users alike.

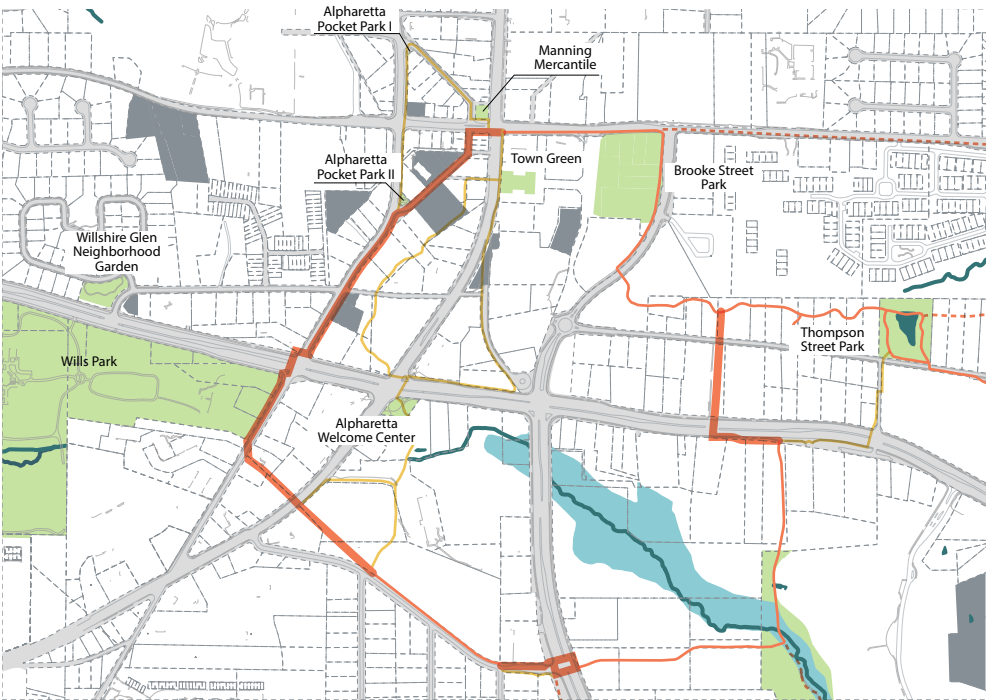
PROJECT GOALS

This trail study and conceptual design report establishes a district-wide framework for the AlphaLoop Downtown Link that creates a dynamic and legible public realm experience aligned to the unique opportunities and constraints of Alpharetta's urban context. It maximizes connections to open space assets, commercial and institutional attractions, and existing and future AlphaLoop alignments. To achieve these goals, this study considers the following:

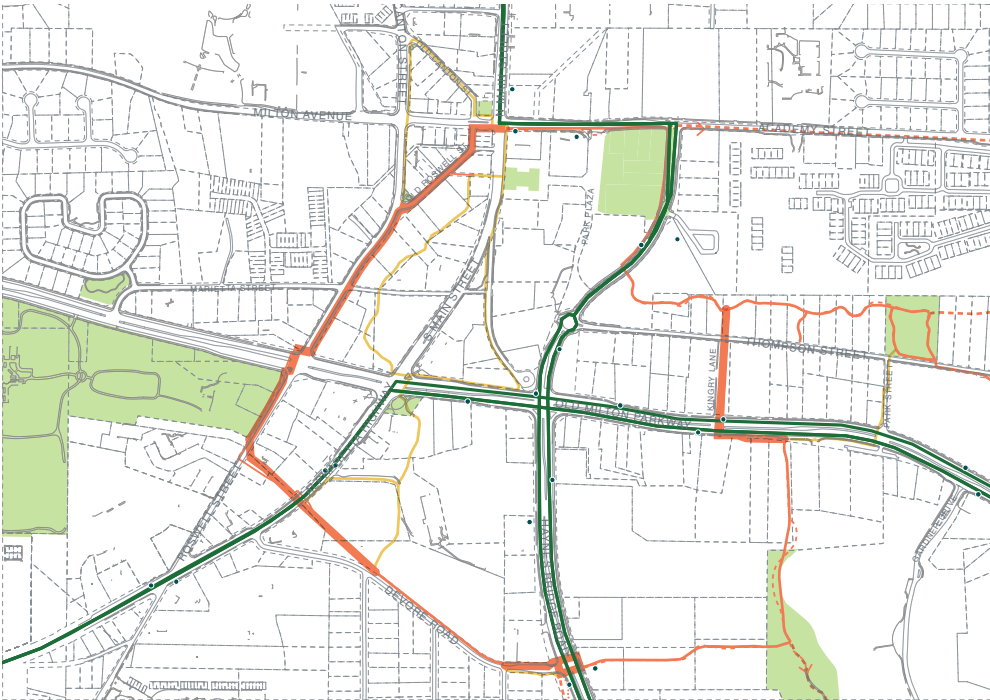
- Existing reports and studies
- Recent and upcoming development
- Minimizing right-of-way acquisition and impacts to privately held land
- Safe and efficient roadway crossings
- Catalyzing future pedestrian oriented development
- Connectivity to the broader pedestrian and bicycle circulation system



ANALYSIS



OPEN SPACE CONNECTIVITY



TRANSIT CONNECTIVITY

ANALYSIS MAPPING

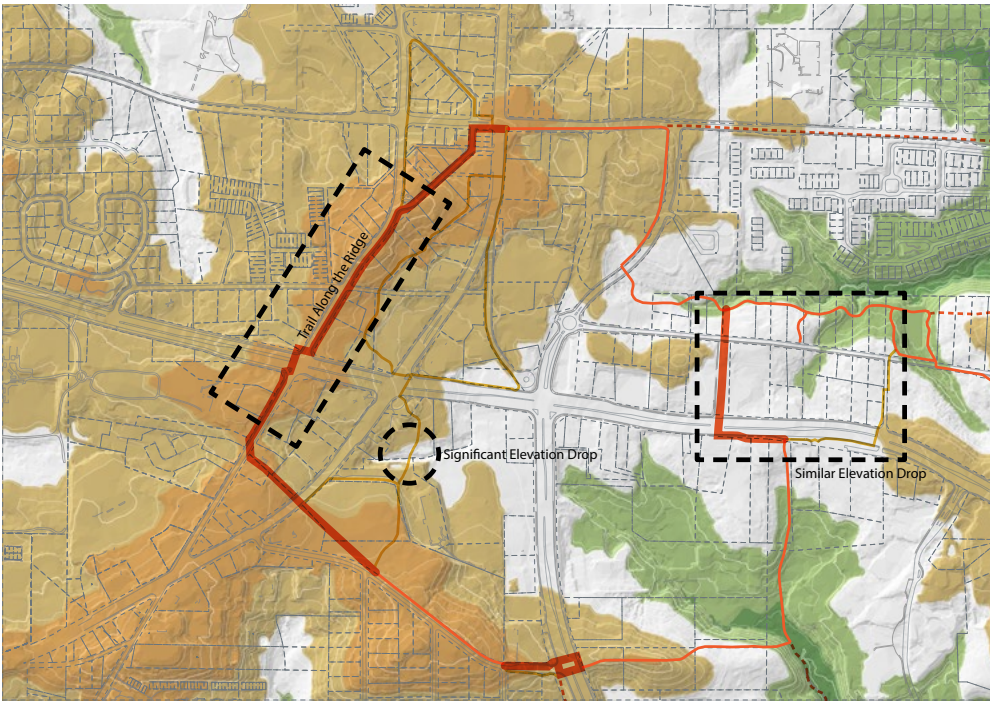
Through GIS mapping and analysis, a series of potential trail alignments were evaluated based on the following variables:

- Connectivity to open space assets, transit networks, existing pedestrian infrastructure, and roadway ownership.
- Crash and traffic data at key roadway crossings - both pedestrian and vehicular.
- Physiographic features such as topography, tree canopy, and hydrologic features.
- Right of way availability.
- Potential parking impacts.

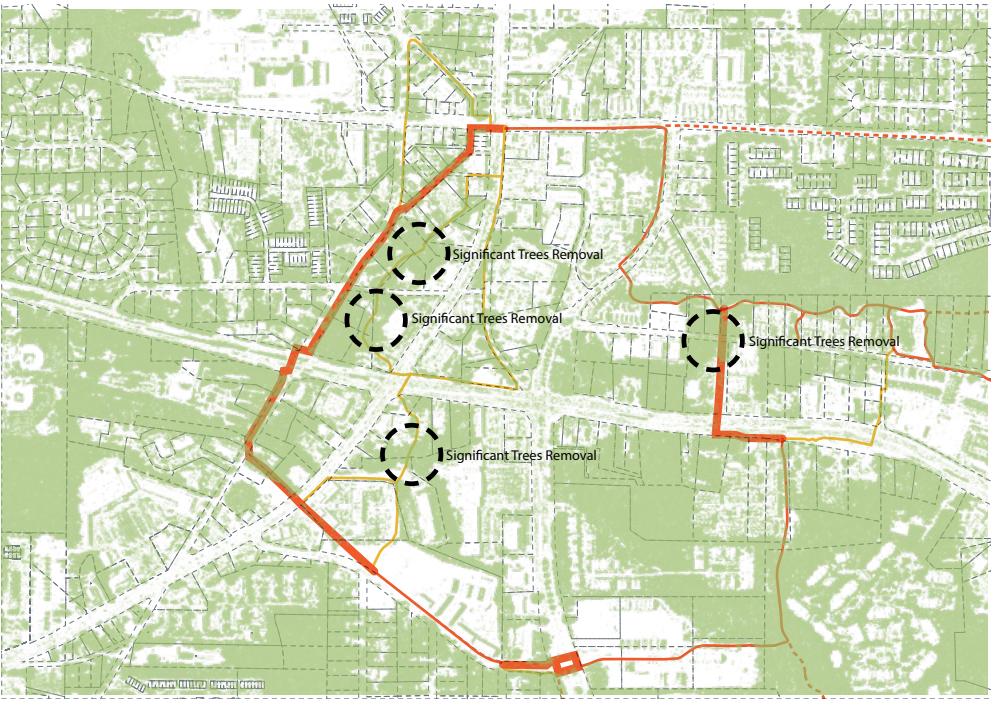
**See appendix for complete traffic study.*



CRASH DATA



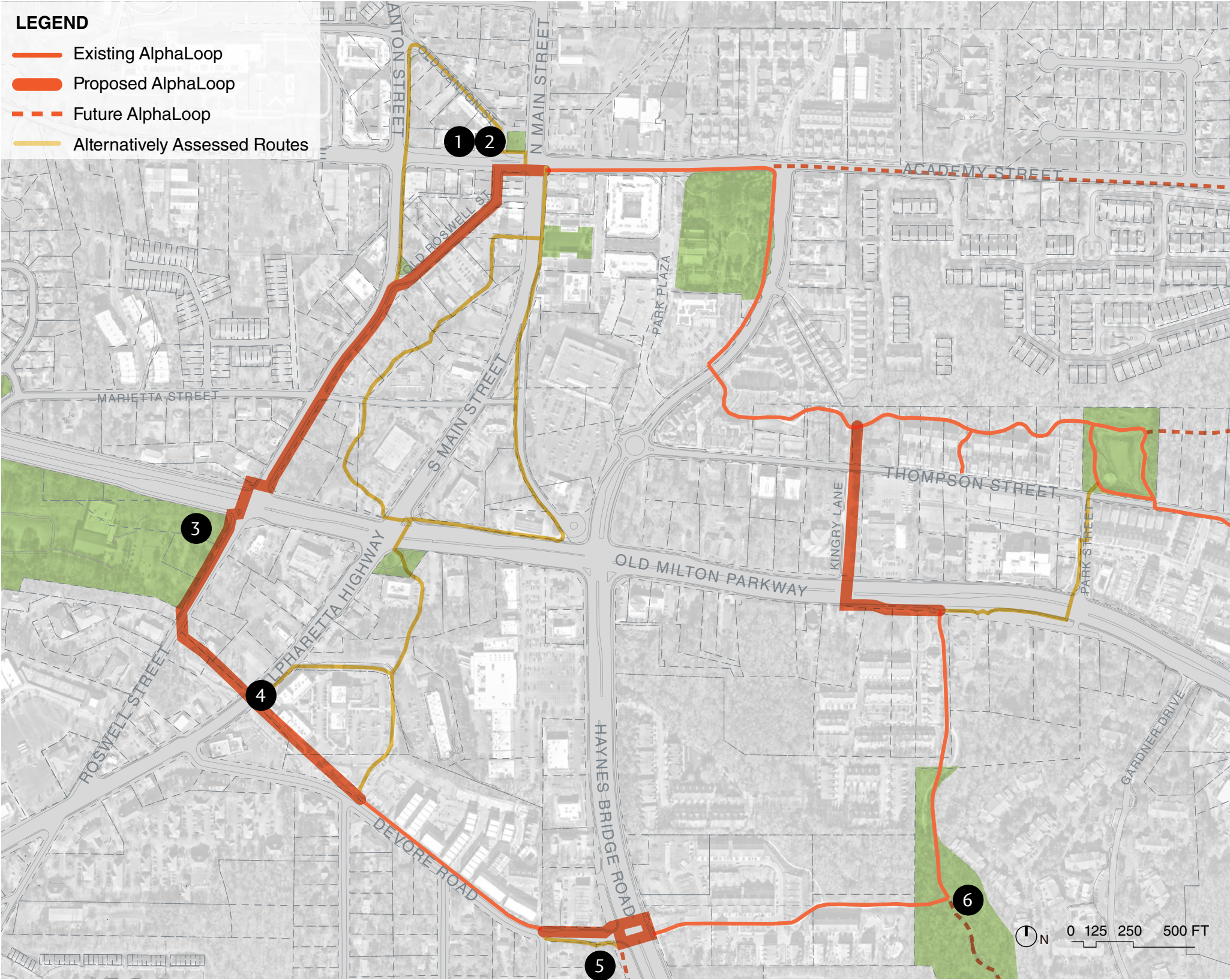
TOPOGRAPHY



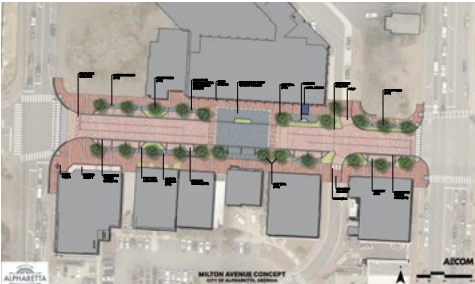
TREE CANOPY IMPACTS AND SHADING



REFERENCED STUDIES AND DEVELOPMENTS



1 MILTON AVE.
AECOM



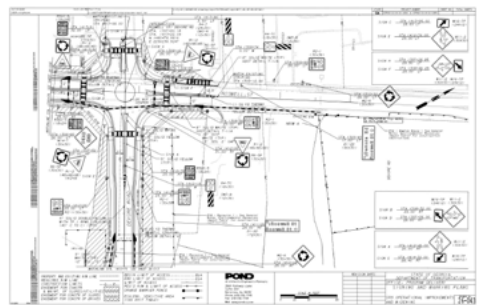
2 MILTON AVE.
KIMLEY HORN



3 WILLS PARK MASTER PLAN
JACOBS



4 DEVORE RD. REALIGNMENT
POND & COMPANY



5 ALCOVY ESTATES



6 ALPHALOOP EXTENSION
POND & COMPANY

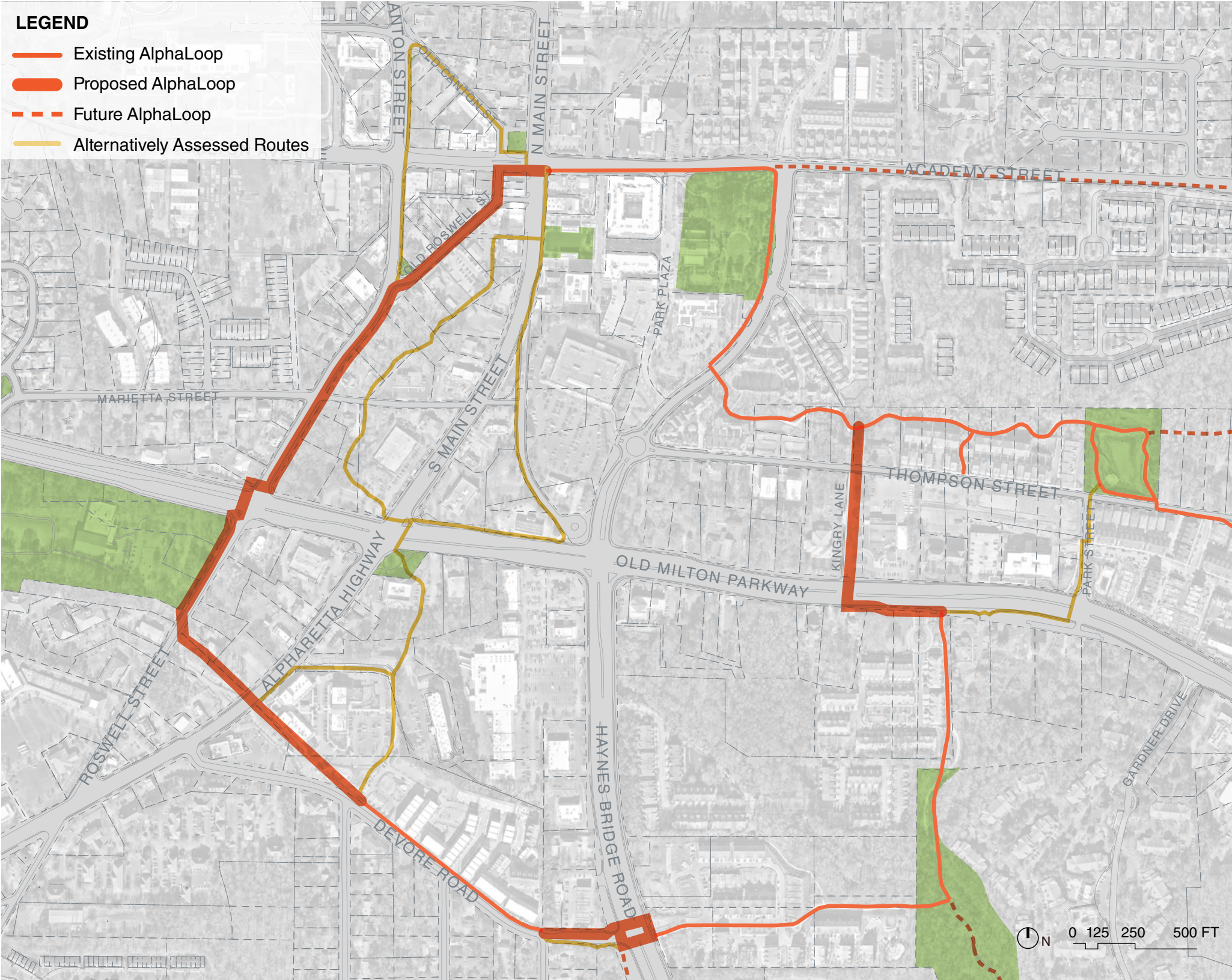


OTHER REFERENCED PLANS AND DEVELOPMENTS

- Alpharetta City Trail, Pond & Company.
- North Point Area and Alpha Loop Trail Connectivity Feasibility Study, MKSK, Toole Design Group.
- Pickle and Social, Old Milton and Roswell Street



PREFERRED TRAIL ALIGNMENT



ESTABLISHING A PREFERRED ALIGNMENT

In the Downtown District, the Alpha Loop trail has been installed incrementally over the last decade by both the City and private developers who have stepped up to fund public realm improvements. The primary goal of our alignment is to find the safest and most legible path to integrating these existing stretches of trail.

The preferred alignment leverages these prior investments to create a cohesive network that “Connects Alpharetta to the stuff.” The alignment prioritizes pedestrian/bicyclist safety and limits right-of-way acquisition. It endeavors to move Alpharettans through the Downtown District freely, while simultaneously identifying opportunities to encourage them to stop and stay awhile.

This Conceptual Design Report is organized into two sections:

1. Focus Areas: Opportunities for Enhancing Safety and Placemaking
2. Design Standards: Establishing A Cohesive Transportation Network

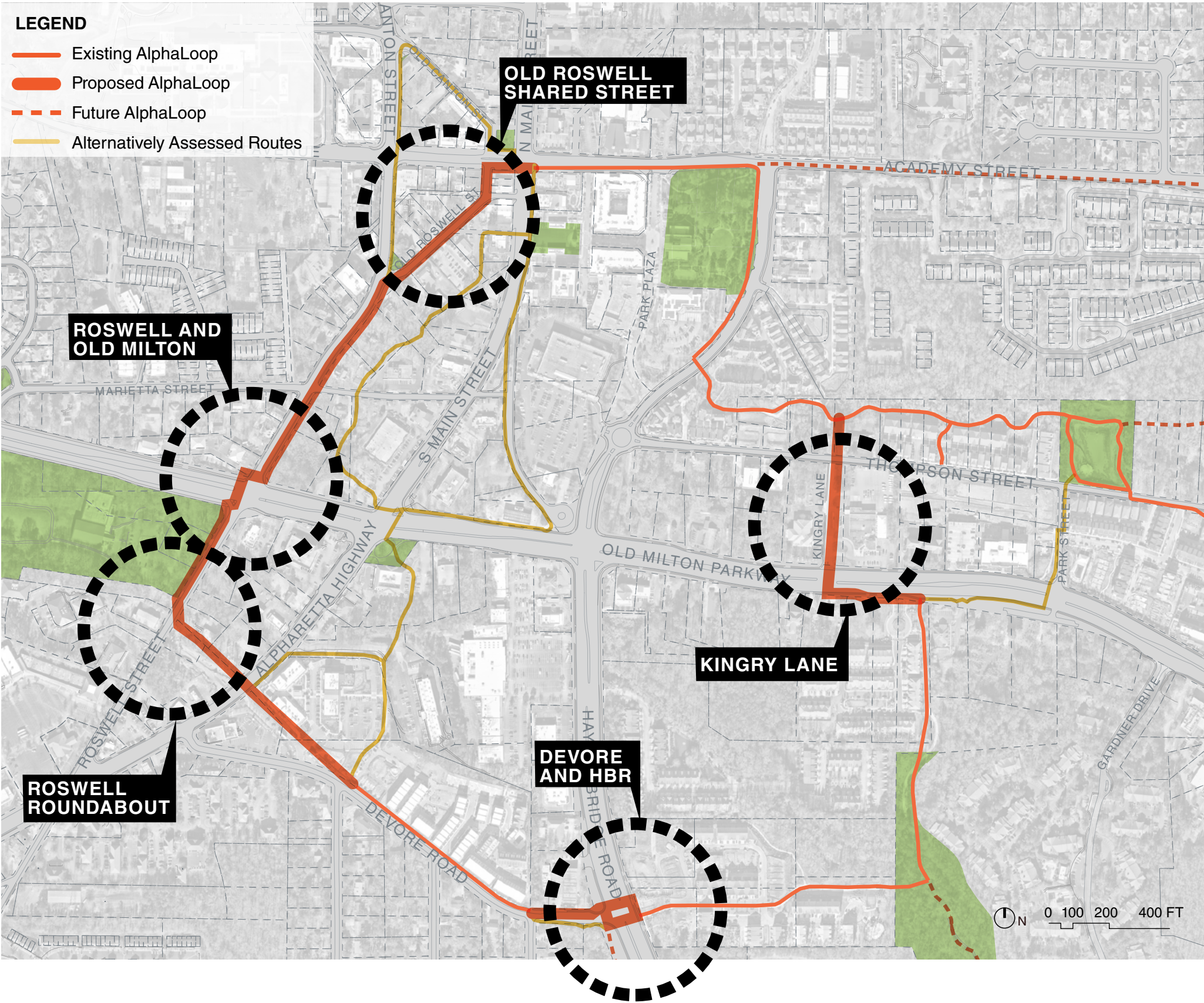


FOCUS AREAS

OPPORTUNITIES FOR ENHANCING SAFETY AND PLACEMAKING



FOCUS AREAS



OLD ROSWELL SHARED STREET

Develop a conceptual design for the conversion of Old Roswell Street to a shared street where pedestrian, bicycle, and vehicular traffic coalesce in a single, curbless, urban plaza space.

ROSWELL AND OLD MILTON

Determine optimal crossing from NE corner of intersection to SW corner of intersection, including shortening the crossing distance for pedestrians, providing pedestrian and bicycle safety improvements, and integrating with the planned Wills Park Gateway design concept.

ROSWELL ROUNDABOUT

Recommend pedestrian and bicycle safety improvements for the new Devore Road alignment (currently under construction), including widening of the AlphaLoop trail to the standard 12’ width, establishing pavement material standards for consistency, and enhancing AlphaLoop crosswalks for improved vehicular recognition.

DEVORE AND HAYNES BRIDGE ROAD (HBR)

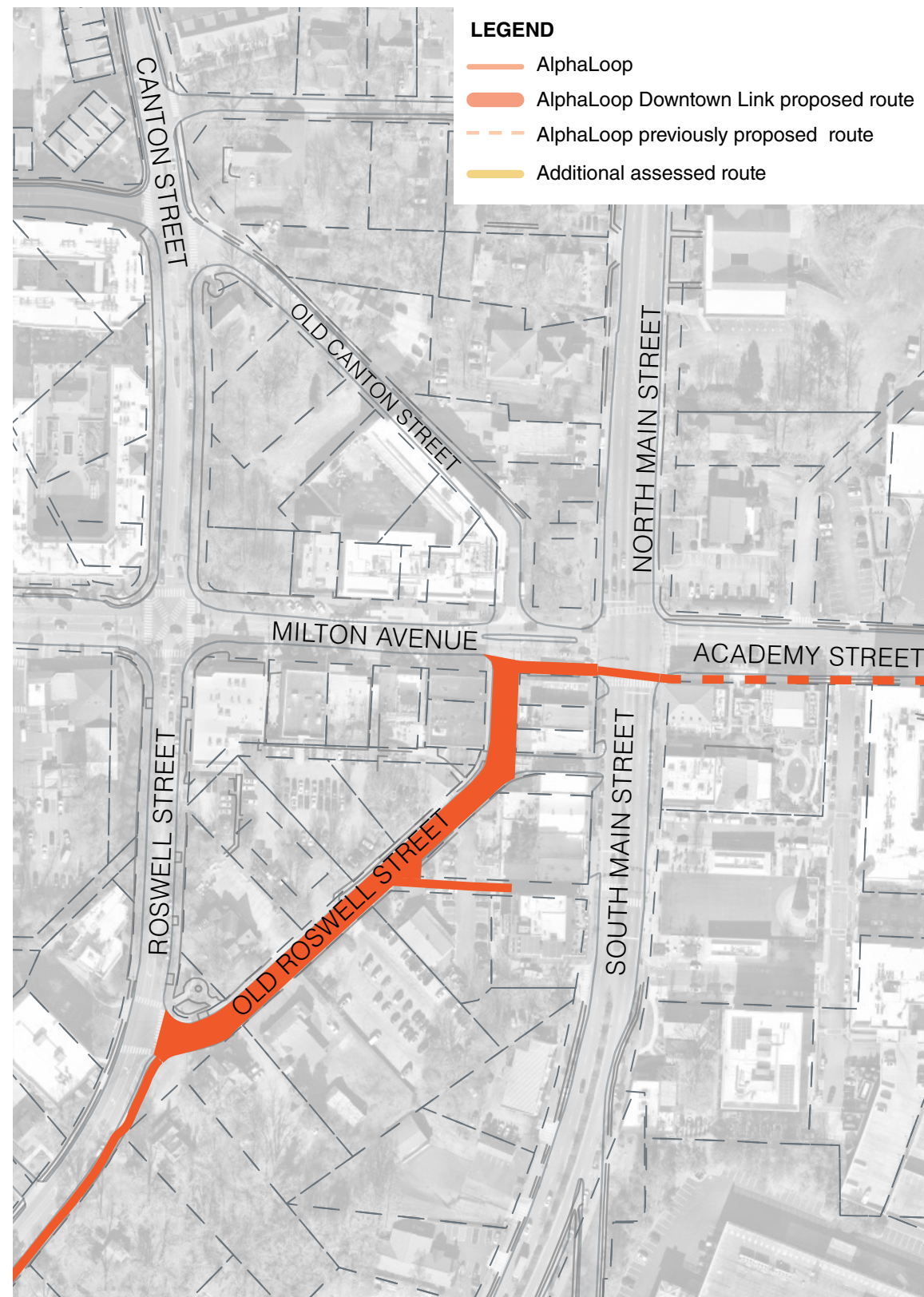
Eliminate the planned trail crossing at Jon Scott and Devore Road and align the trail on the north side of Devore, replacing the QuikTrip deceleration lane. Enhance all four crosswalks to better denote the trail’s presence to vehicular traffic at a key intersection of the Downtown Link and Outer Loop.

KINGRY LANE

Develop two feasible alternatives for connecting the existing trail spur south of Old Milton Parkway with AlphaLoop’s first phase constructed north of Thompson Street.



OLD ROSWELL STREET SHARED STREET OPTION

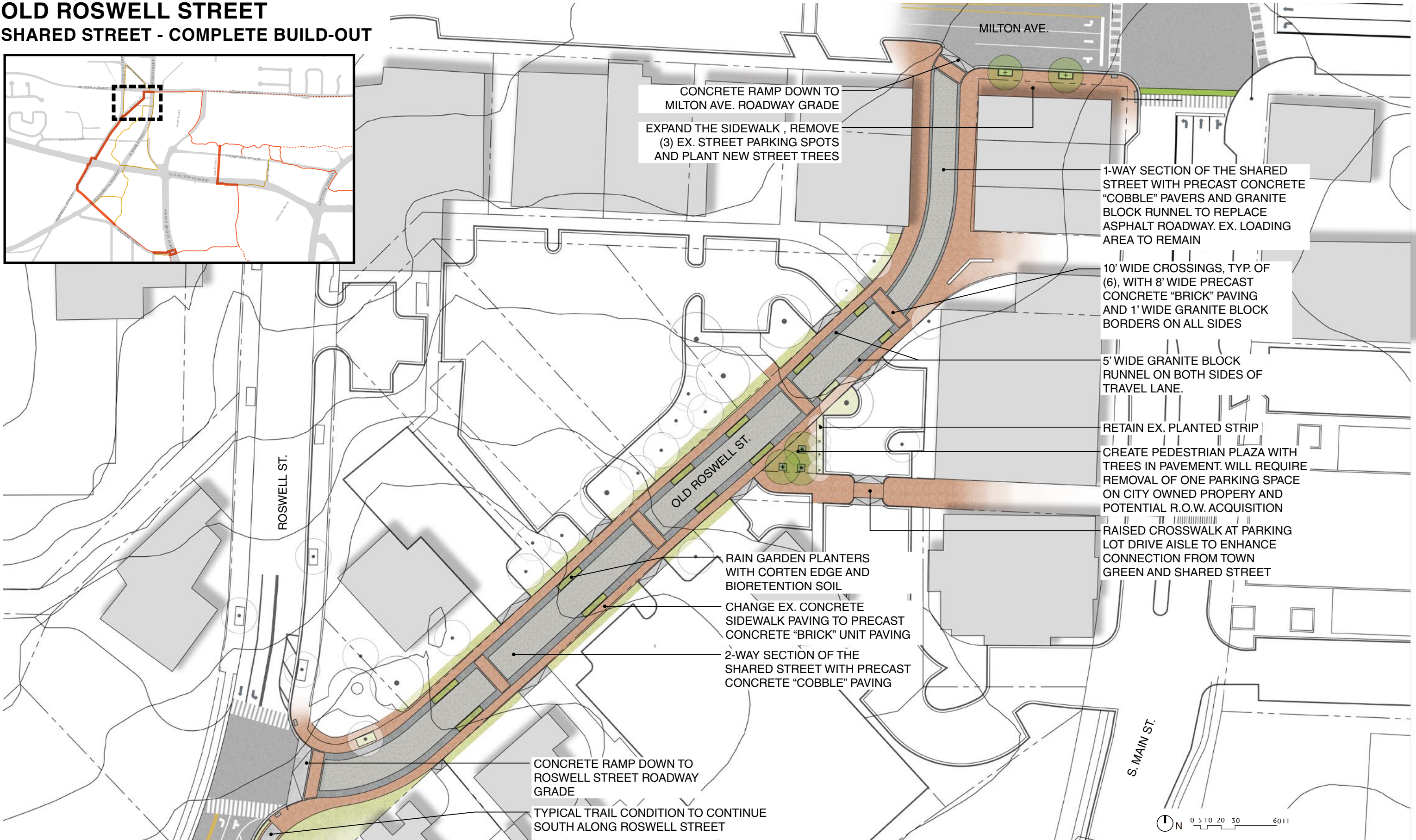
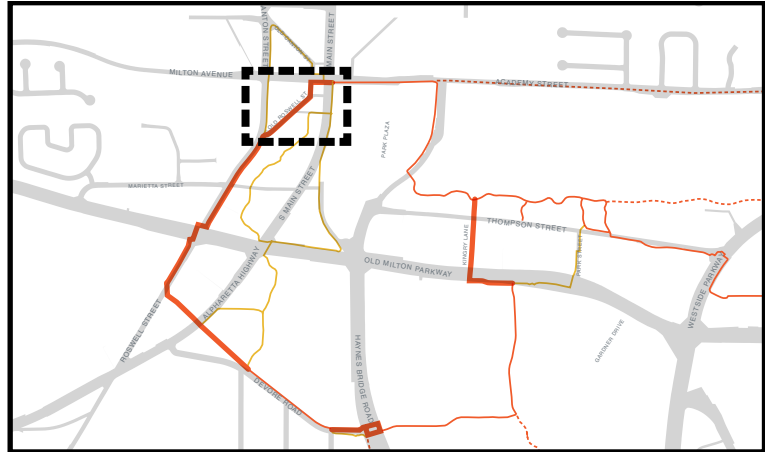


OLD ROSWELL STREET KEY CONSIDERATIONS

- Evaluate the potential for converting Old Roswell Street to a pedestrianized or shared street where pedestrian, bicycle, and vehicular traffic can coalesce in a single, curbless, urban plaza space. Note: this was shown in previous Downtown Alpharetta study.
- Synthesize current and proposed development plans including the redevelopment of Milton Avenue into a pedestrian plaza and potential additional development.
- Connect 3 existing pocket parks and potential City-owned event open space at the corner of Roswell and Milton, and extend the axis from City Hall into the new shared street.
- Synthesize AlphaLoop design standards and visual character with that of Downtown to ensure that the AlphaLoop is legible without compromising the sense of place characteristic of Downtown.
- Explore alternative options (i.e. “Partial Build-out) for aligning the Alpha Loop along Old Roswell Street, including pedestrian safety enhancements in lieu of a full shared street build-out.



OLD ROSWELL STREET
SHARED STREET - COMPLETE BUILD-OUT



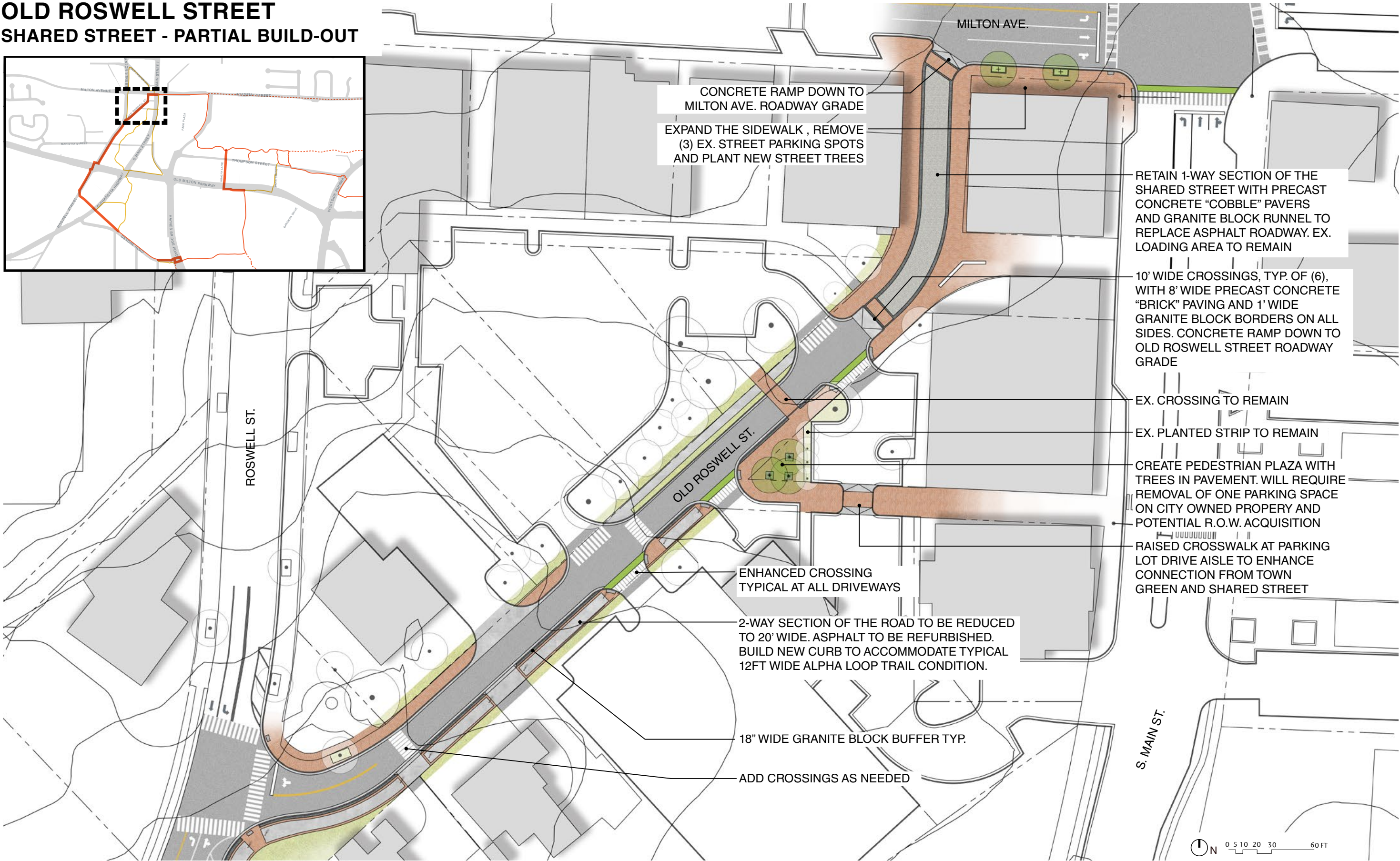
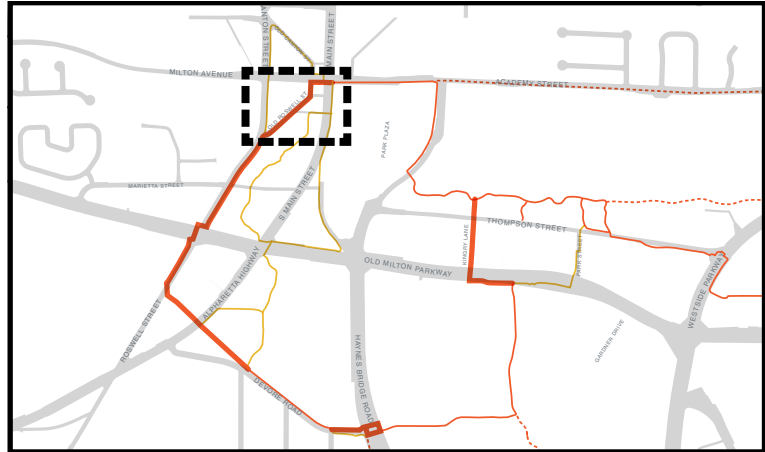
OLD ROSWELL STREET
SHARED STREET - COMPLETE BUILD-OUT



OLD ROSWELL STREET
SHARED STREET - COMPLETE BUILD-OUT



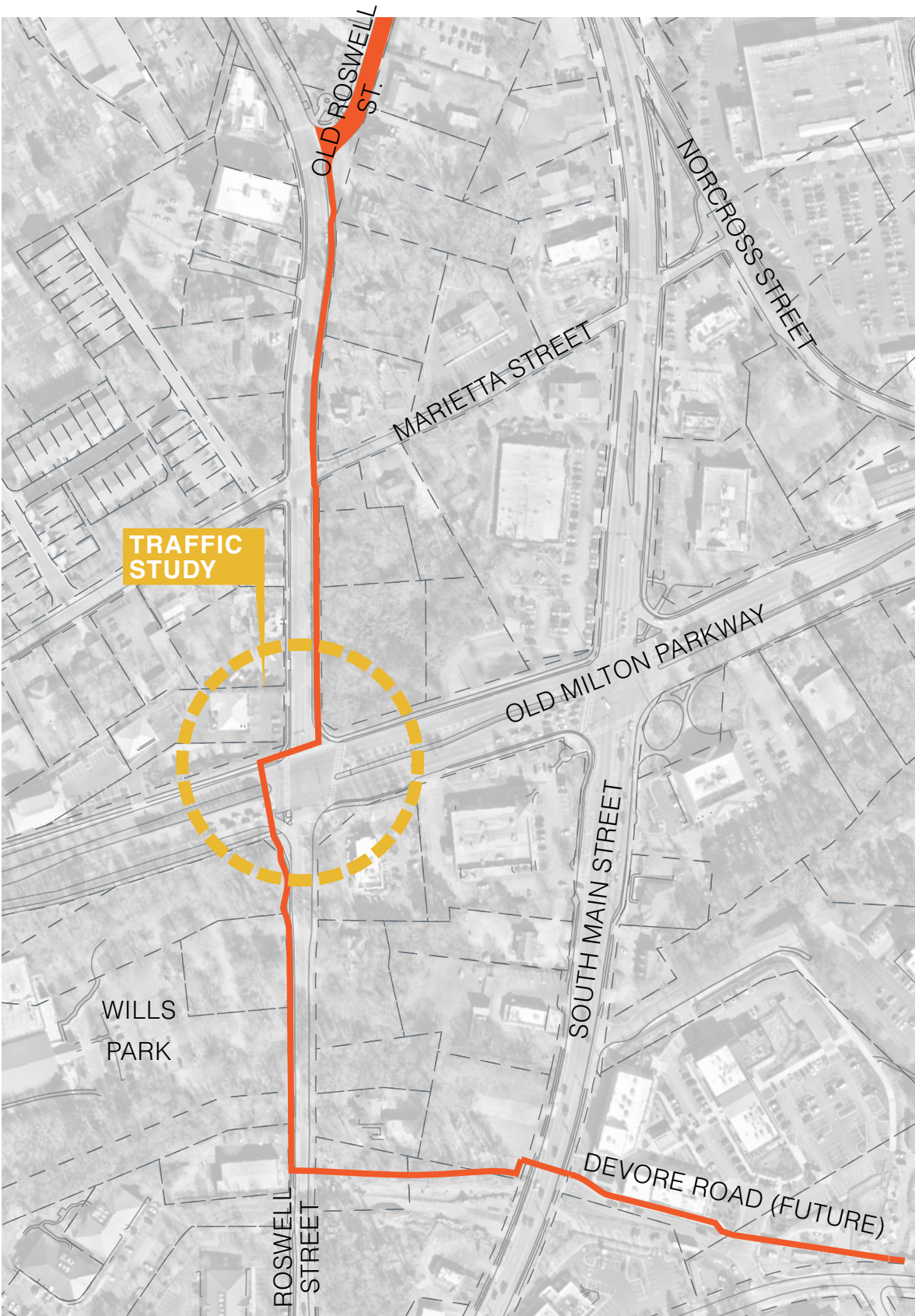
OLD ROSWELL STREET
SHARED STREET - PARTIAL BUILD-OUT



OLD ROSWELL STREET
SHARED STREET - PARTIAL BUILD-OUT



ROSWELL STREET AND OLD MILTON PARKWAY INTERSECTION ENHANCEMENT



KEY CONSIDERATIONS

- East alignment along Roswell Street between Old Roswell Street and Old Milton Parkway; West alignment along Roswell Street between Old Milton Parkway and Devore Road (future)
- Coordinate trail alignment with proposed improvements to Wills Park, including the Wills Park Gateway concept from the park Master Plan.
- Evaluate the optimal crosswalk movement based on pedestrian traffic analysis, connections to open space assets, and availability of public right-of-way.
- Provide pedestrian safety improvements including enhanced crosswalks, enlarged pedestrian plazas, and pedestrian refuges across Old Milton Parkway.
- Analyze the viability of removing the dedicated right turn lane on the eastbound Old Milton Parkway to southbound Roswell Street.

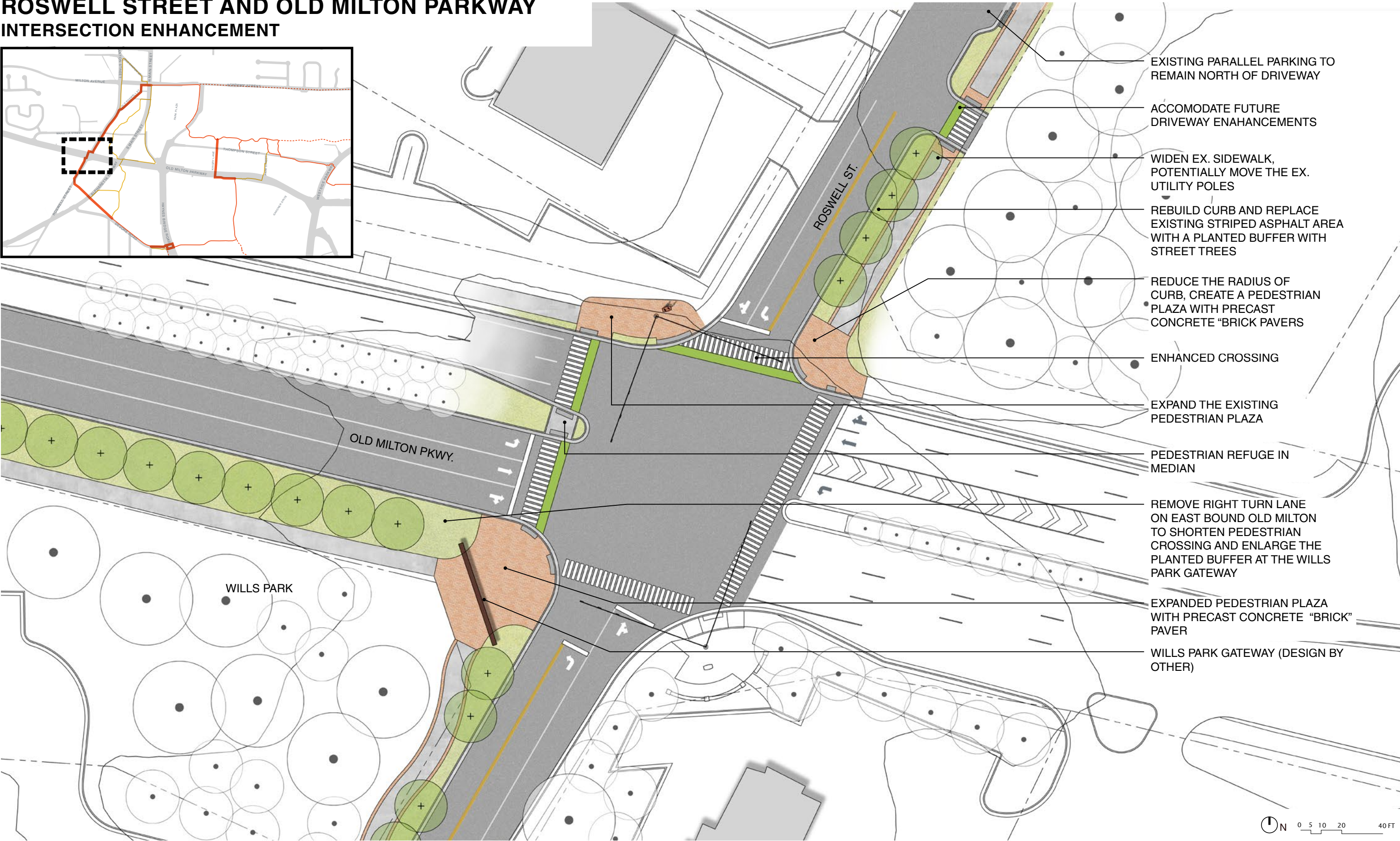
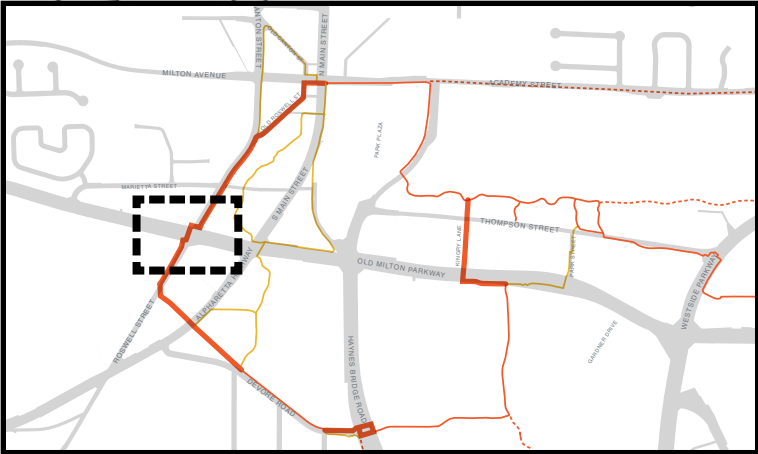
Traffic Study Findings

- Significant pedestrian and bike movement through this intersection, particularly in PM Peak
- “All red” at traffic signal would impact vehicular level of service, particularly in PM Peak
- Additional study: Assess a no-right-on-red for southbound turns from eastbound Old Milton Parkway
- Eliminating the eastbound right-turn-only lane from Old Milton Parkway to southbound Roswell Street will not have adverse impact on traffic.

**Complete Traffic Study has been attached as an appendix to this report.*



ROSWELL STREET AND OLD MILTON PARKWAY INTERSECTION ENHANCEMENT



EXISTING PARALLEL PARKING TO
REMAIN NORTH OF DRIVEWAY

ACCOMODATE FUTURE
DRIVEWAY ENAHANCEMENTS

WIDEN EX. SIDEWALK,
POTENTIALLY MOVE THE EX.
UTILITY POLES

REBUILD CURB AND REPLACE
EXISTING STRIPED ASPHALT AREA
WITH A PLANTED BUFFER WITH
STREET TREES

REDUCE THE RADIUS OF
CURB, CREATE A PEDESTRIAN
PLAZA WITH PRECAST
CONCRETE "BRICK PAVERS"

ENHANCED CROSSING

EXPAND THE EXISTING
PEDESTRIAN PLAZA

PEDESTRIAN REFUGE IN
MEDIAN

REMOVE RIGHT TURN LANE
ON EAST BOUND OLD MILTON
TO SHORTEN PEDESTRIAN
CROSSING AND ENLARGE THE
PLANTED BUFFER AT THE WILLS
PARK GATEWAY

EXPANDED PEDESTRIAN PLAZA
WITH PRECAST CONCRETE "BRICK"
PAVER

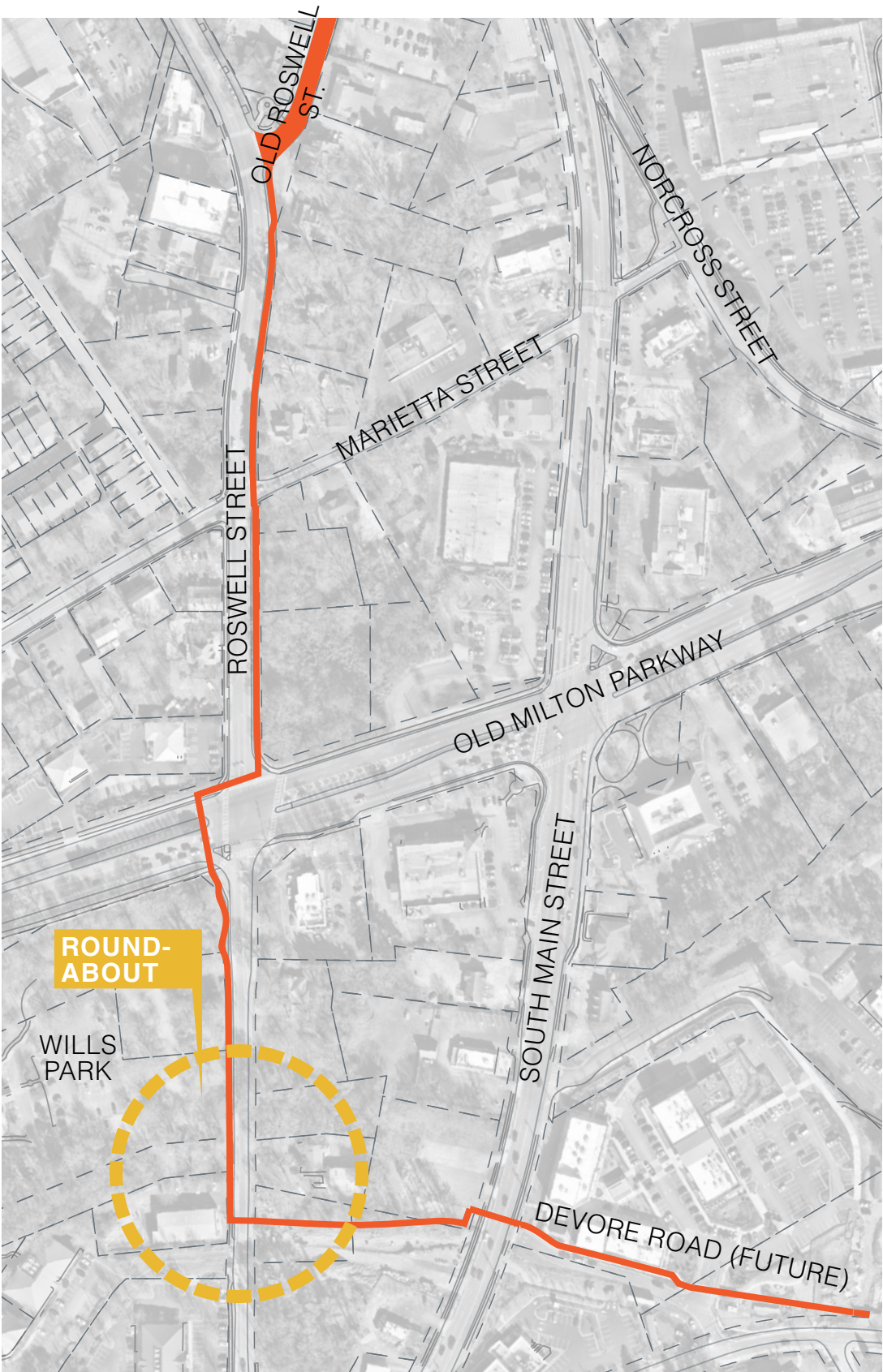
WILLS PARK GATEWAY (DESIGN BY
OTHER)



ROSWELL STREET AND OLD MILTON PARKWAY
INTERSECTION ENHANCEMENT



ROSWELL STREET AND DEVORE ROAD ROUNABOUT MODIFICATIONS

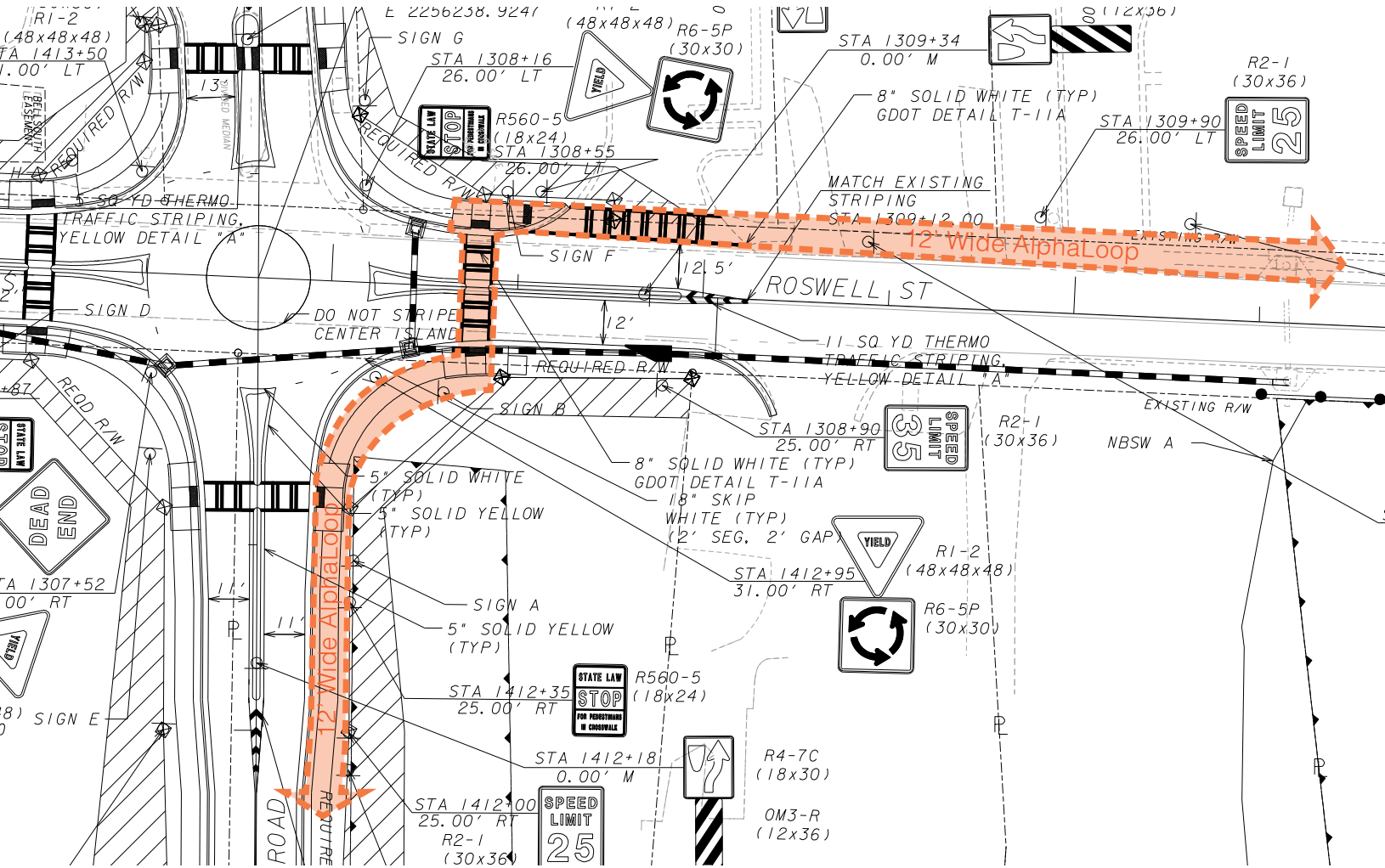


ALPHALOOP: DOWNTOWN LINK

17 January 13, 2023

KEY CONSIDERATIONS

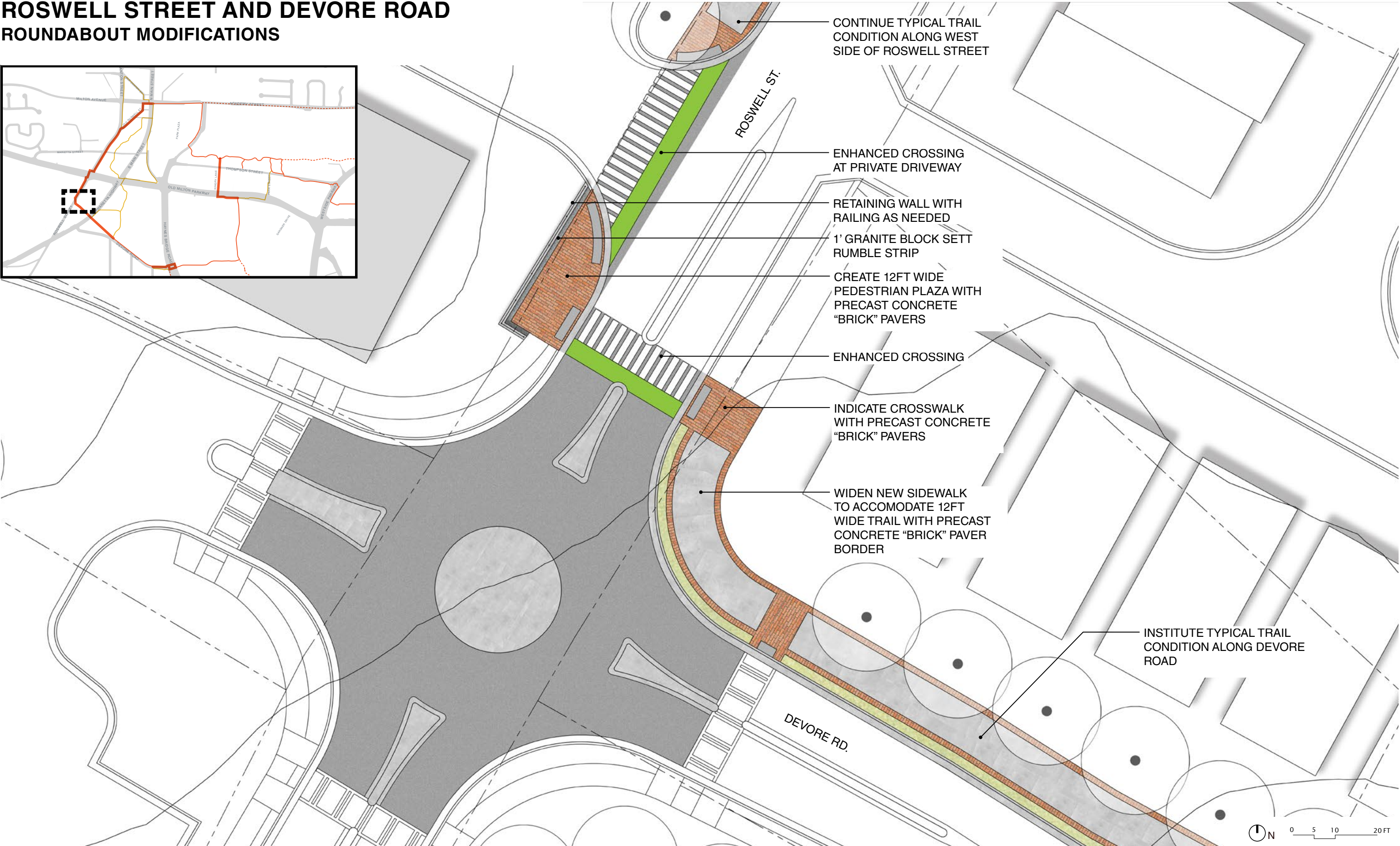
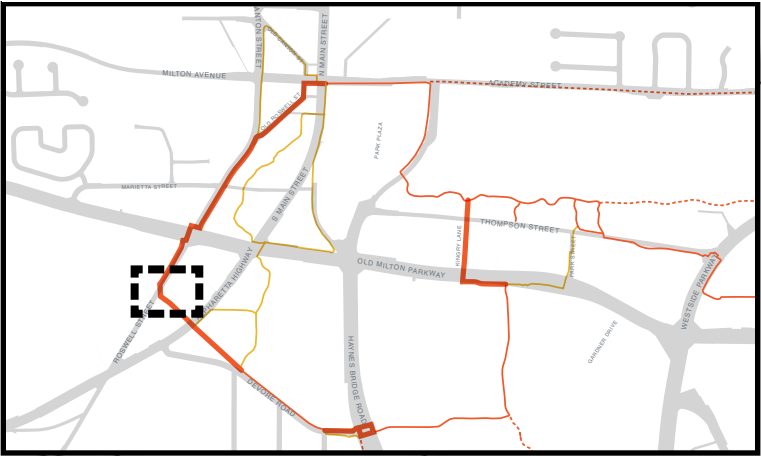
- Evaluate GDOT design (currently under construction) to determine safest route for crossing Roswell Street
- Propose expansion of trail to standard 12’ width where possible (may require adjustments to mapped street)
- Introduce Downtown Link design standards and materiality.



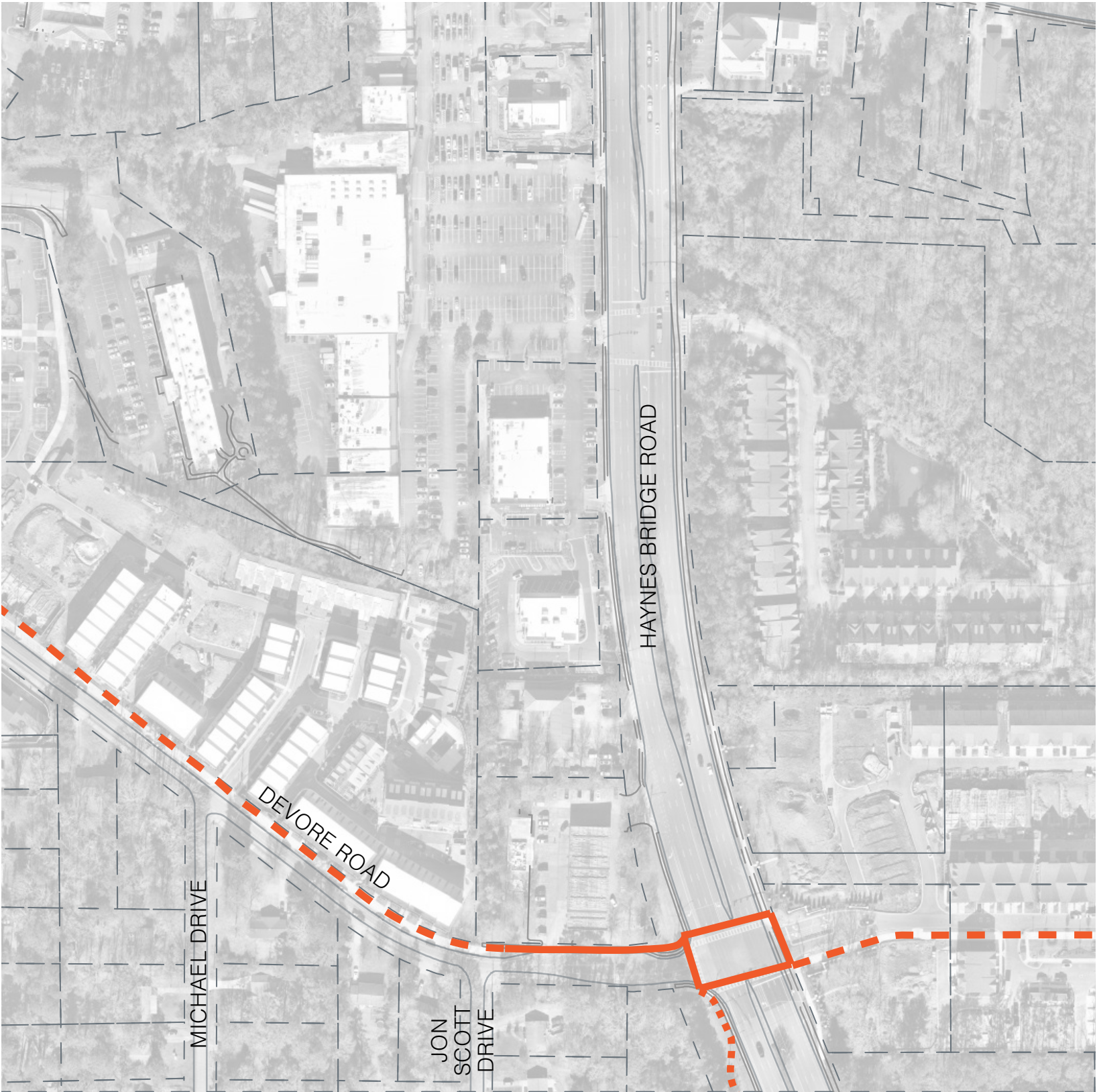
GDOT DESIGN PLAN



ROSWELL STREET AND DEVORE ROAD
ROUNDBOUT MODIFICATIONS



HAYNES BRIDGE ROAD AND DEVORE ROAD INTERSECTION ENHANCEMENT

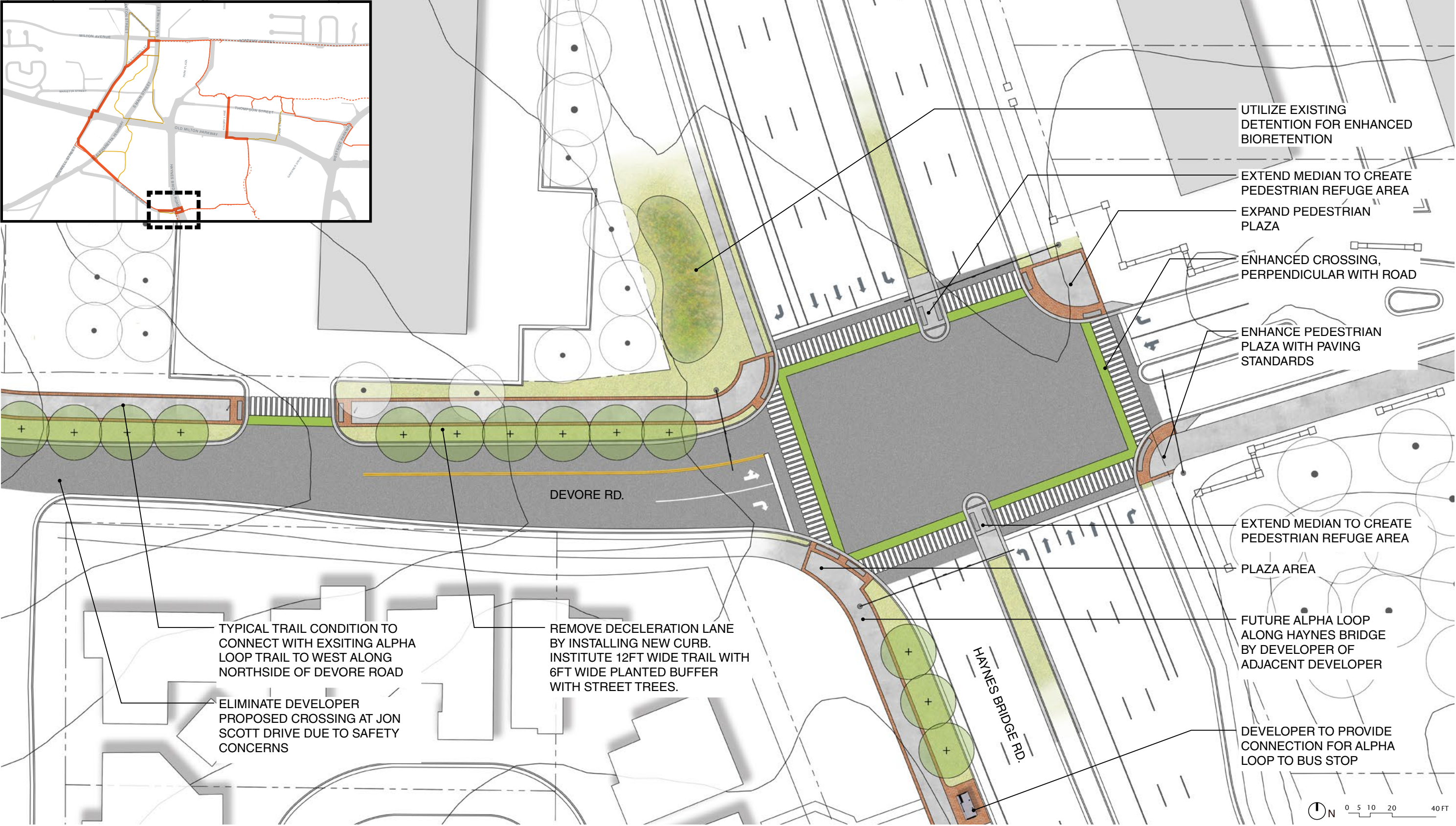


KEY CONSIDERATIONS

- Create a single, continuous and well-defined trail
- Utilize existing sidewalk along Devore Road as AlphaLoop Trail and explore how to instill the AlphaLoop experience.
- Explore modifications to the planned trail crossing at Jon Scott Drive and Devore Road, including locating the AlphaLoop within the gas station deceleration lane.
- Define trail crossing locations and types at intersection of Devore Road and Haynes Bridge Road, including the use of enhanced crosswalks to alert drivers of pedestrian and bicycle activity.



HAYNES BRIDGE ROAD AND DEVORE ROAD INTERSECTION ENHANCEMENT



**HAYNES BRIDGE ROAD AND DEVORE ROAD
INTERSECTION ENHANCEMENT**



KINGRY LANE BETWEEN OLD MILTON AND THOMPSON

OPTIONS FOR TRAIL ALIGNMENT



KEY CONSIDERATIONS

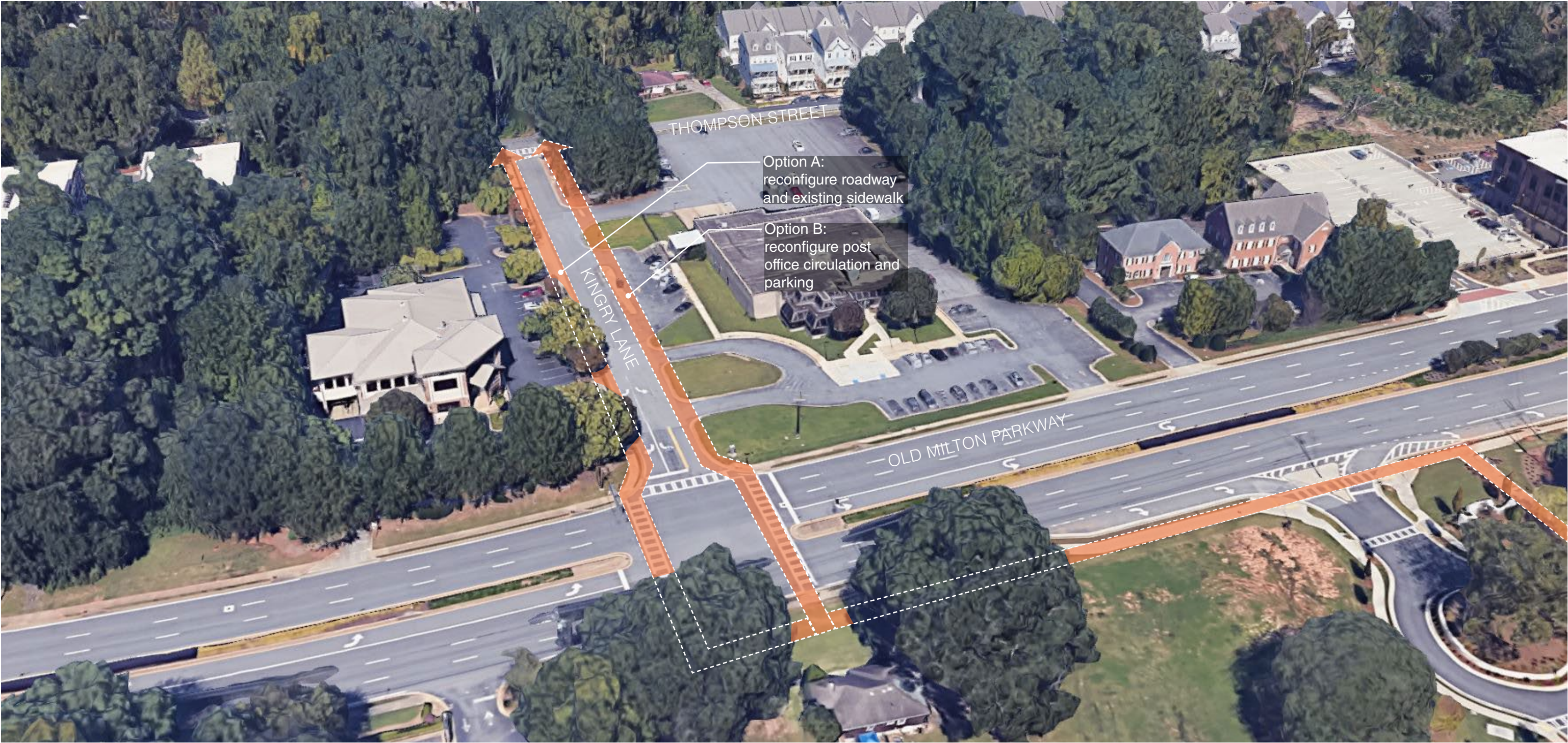
Initial study:

- Evaluate potential crossings at Park Street and Kingry Lane and assess connections to existing AlphaLoop north of Thompson along each street. *Kingry Lane was identified as the preferred crossing location.
- Perform traffic studies to make data-driven decisions regarding pedestrian safety enhancements.
- Provide trail alignment alternatives along Kingry given the right-of-way constraints on the west and the post office on the east.
- Explore a reconfiguration of the property adjacent to the Post Office to facilitate an enhanced pedestrian realm.
- Determine the best connection from Kingry Lane to AlphaLoop Phase 1 north of Thompson Street.

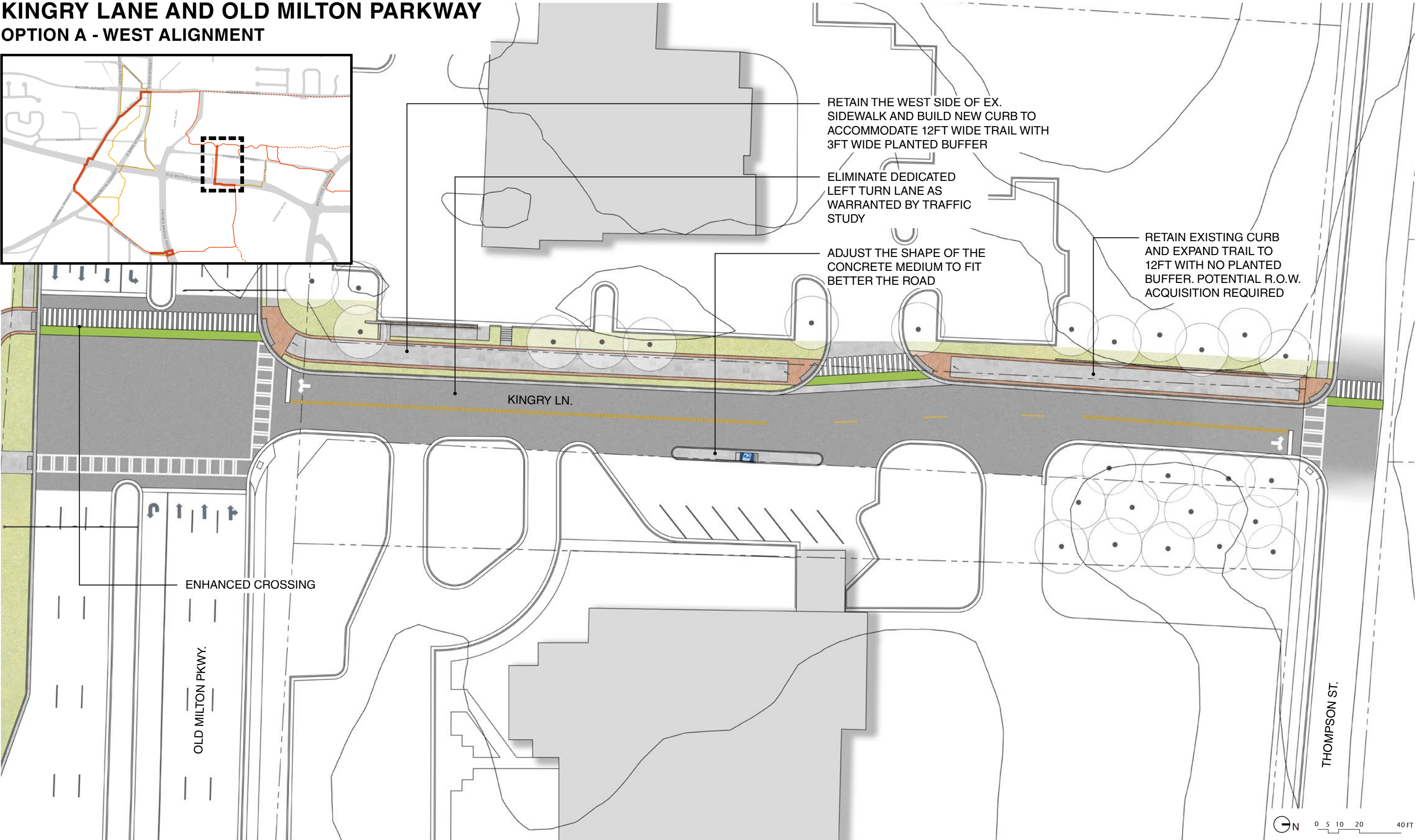
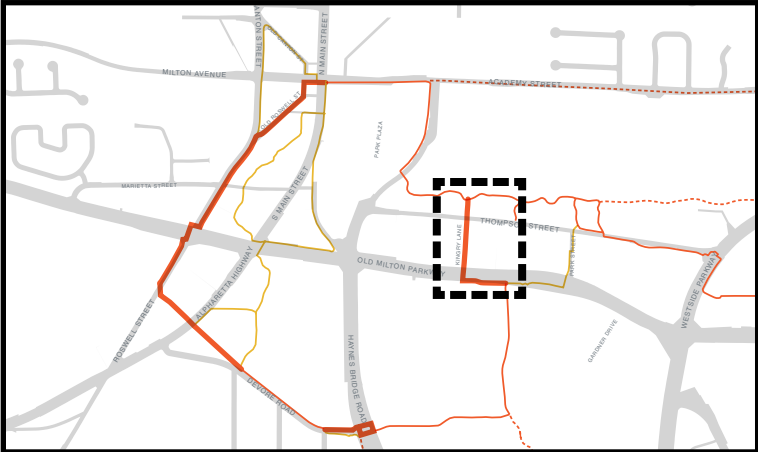
**Complete Traffic Study has been attached as an appendix to this report.*



KINGRY LANE BETWEEN OLD MILTON AND THOMPSON
OPTIONS FOR TRAIL ALIGNMENT



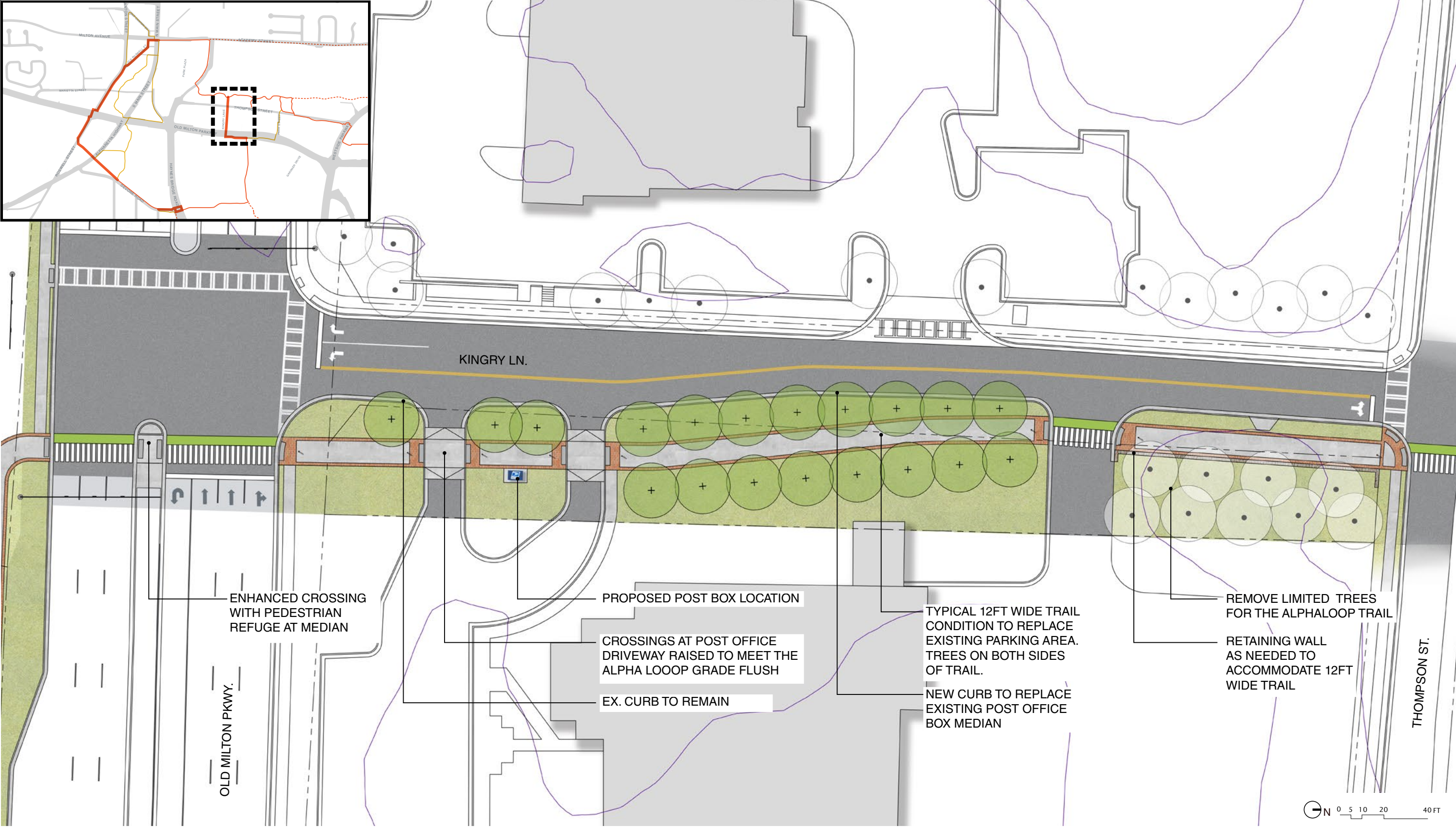
KINGRY LANE AND OLD MILTON PARKWAY
OPTION A - WEST ALIGNMENT



KINGRY LANE AND OLD MILTON PARKWAY
OPTION A - WEST ALIGNMENT



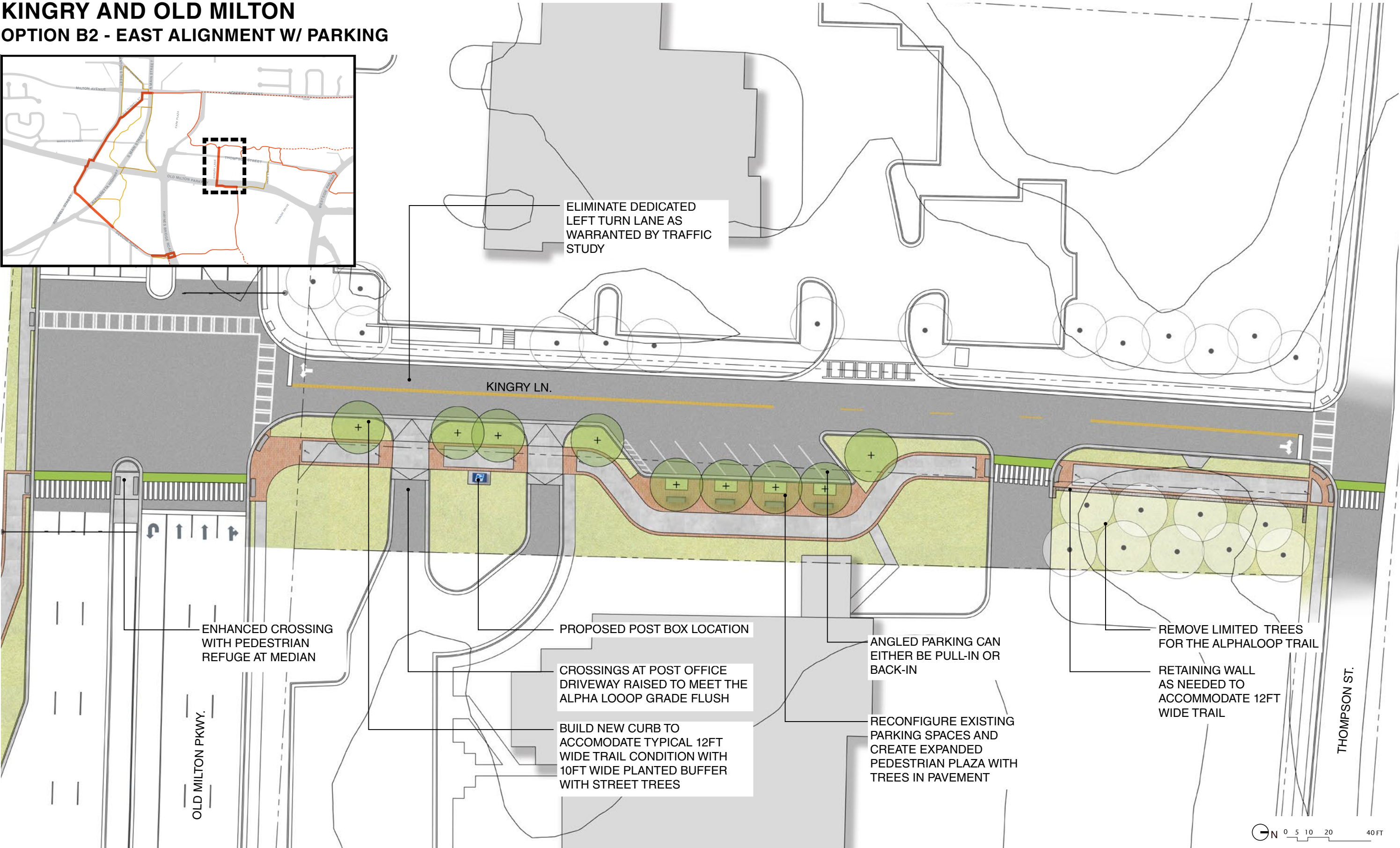
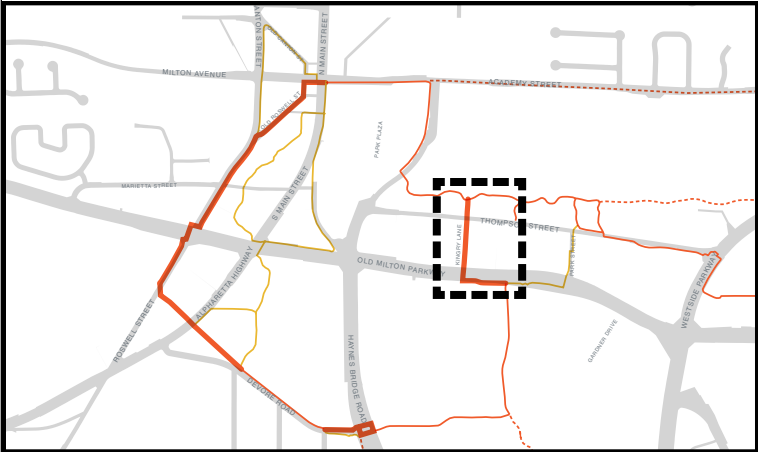
KINGRY LANE AND OLD MILTON PARKWAY
OPTION B1 - EAST ALIGNMENT W/O PARKING



KINGRY LANE AND OLD MILTON PARKWAY
OPTION B1 - EAST ALIGNMENT W/O PARKING



KINGRY AND OLD MILTON
OPTION B2 - EAST ALIGNMENT W/ PARKING



ELIMINATE DEDICATED
LEFT TURN LANE AS
WARRANTED BY TRAFFIC
STUDY

KINGRY LN.

ENHANCED CROSSING
WITH PEDESTRIAN
REFUGE AT MEDIAN

PROPOSED POST BOX LOCATION

CROSSINGS AT POST OFFICE
DRIVEWAY RAISED TO MEET THE
ALPHA LOOP GRADE FLUSH

BUILD NEW CURB TO
ACCOMMODATE TYPICAL 12FT
WIDE TRAIL CONDITION WITH
10FT WIDE PLANTED BUFFER
WITH STREET TREES

ANGLED PARKING CAN
EITHER BE PULL-IN OR
BACK-IN

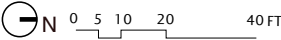
RECONFIGURE EXISTING
PARKING SPACES AND
CREATE EXPANDED
PEDESTRIAN PLAZA WITH
TREES IN PAVEMENT

REMOVE LIMITED TREES
FOR THE ALPHALOOP TRAIL

RETAINING WALL
AS NEEDED TO
ACCOMMODATE 12FT
WIDE TRAIL

OLD MILTON PKWY.

THOMPSON ST.



KINGRY AND OLD MILTON
OPTION B2 - EAST ALIGNMENT W/ PARKING



KINGRY AND OLD MILTON
OPTION B2 - EAST ALIGNMENT W/ PARKING

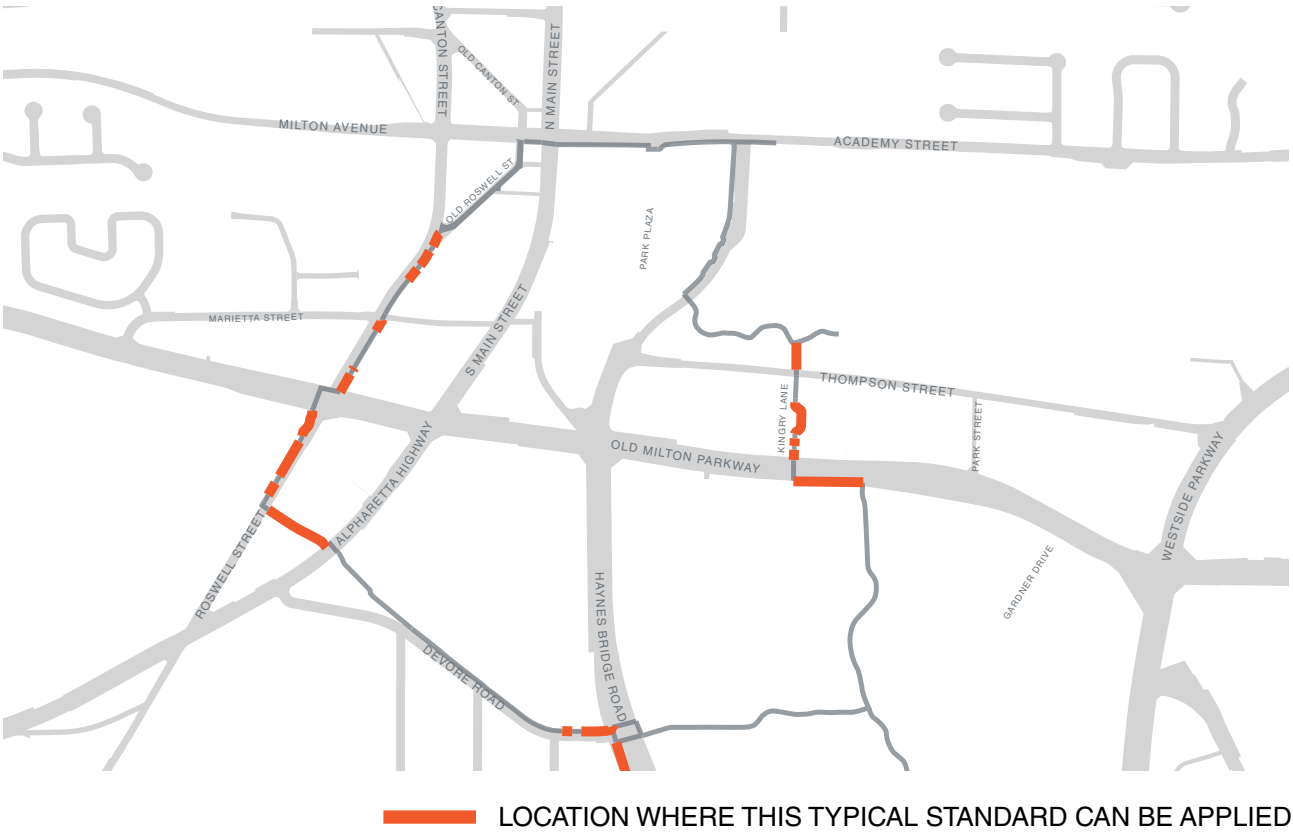
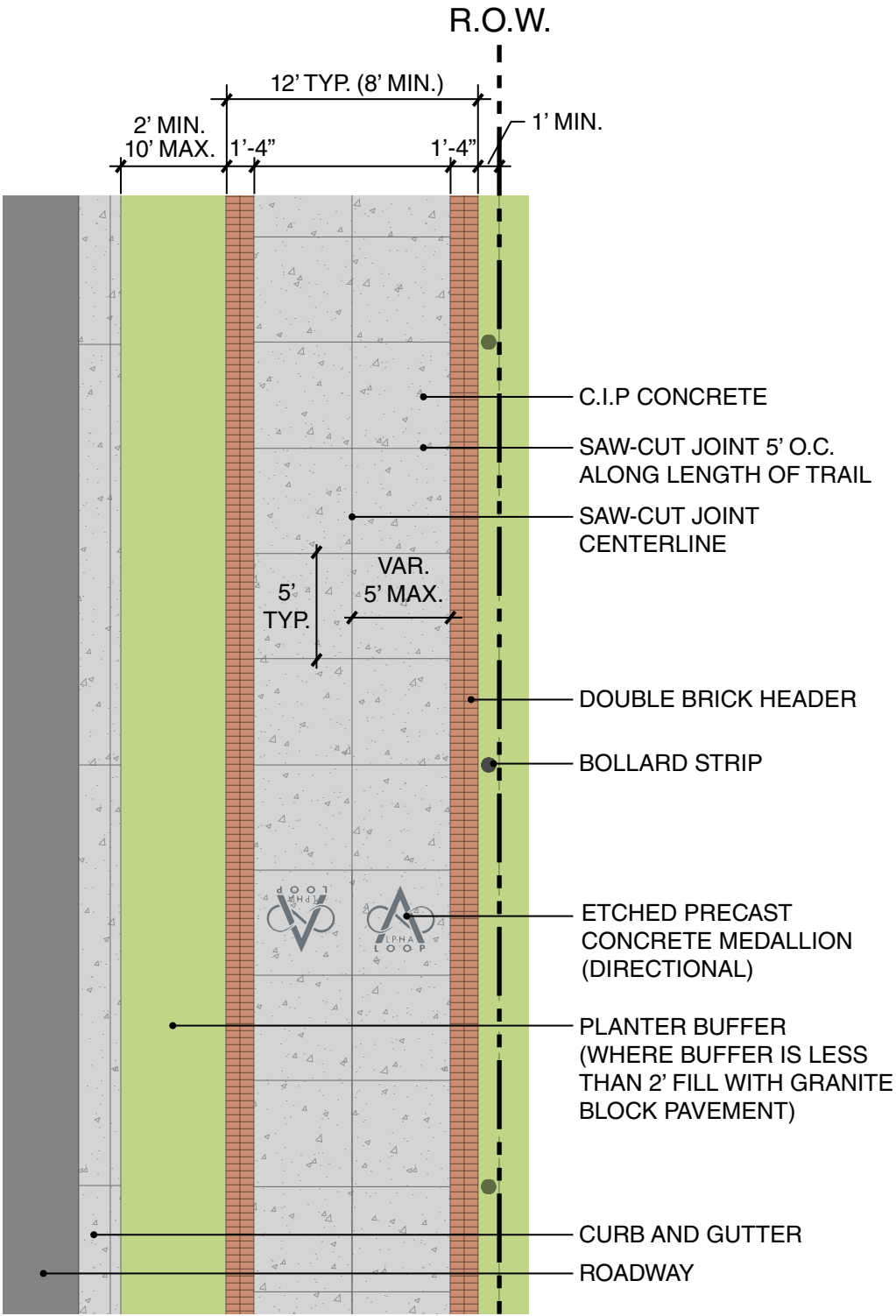


DESIGN STANDARDS ESTABLISHING A COHESIVE TRANSPORTATION NETWORK



DESIGN STANDARDS

TYPICAL CONDITION

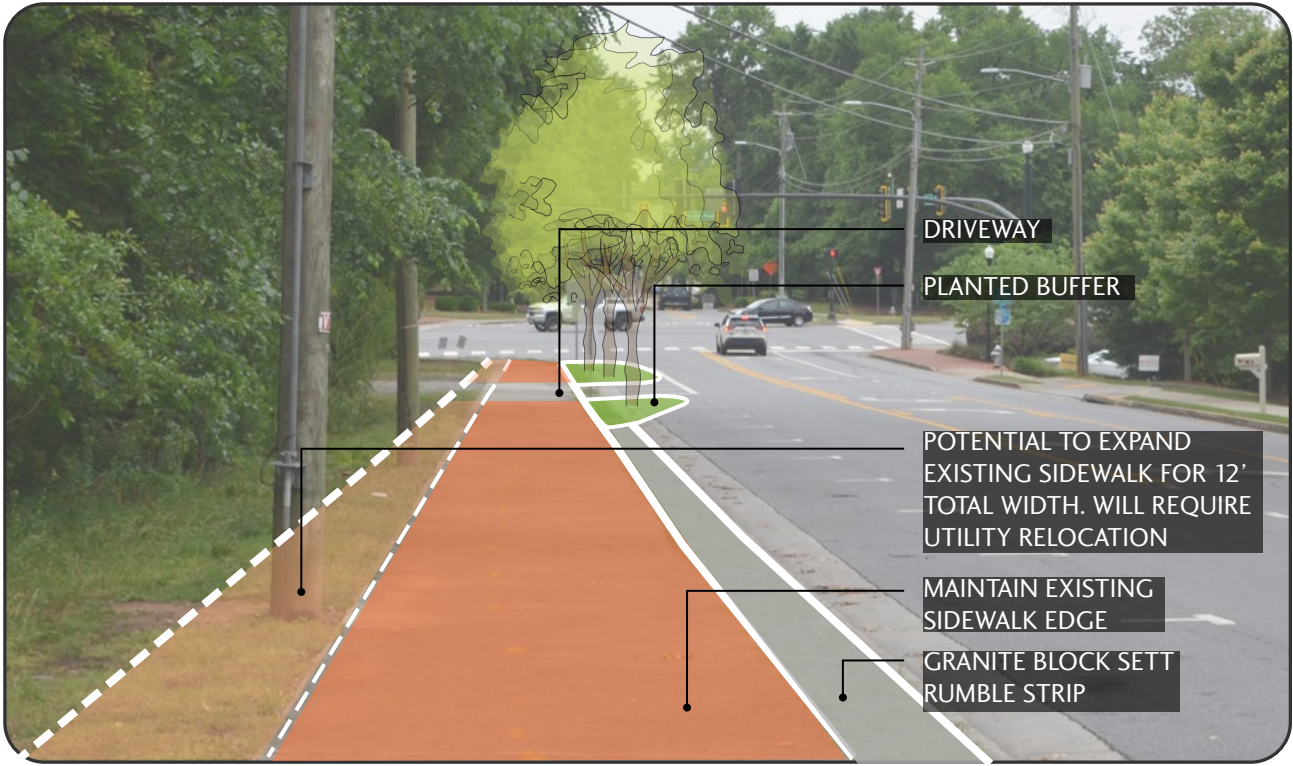
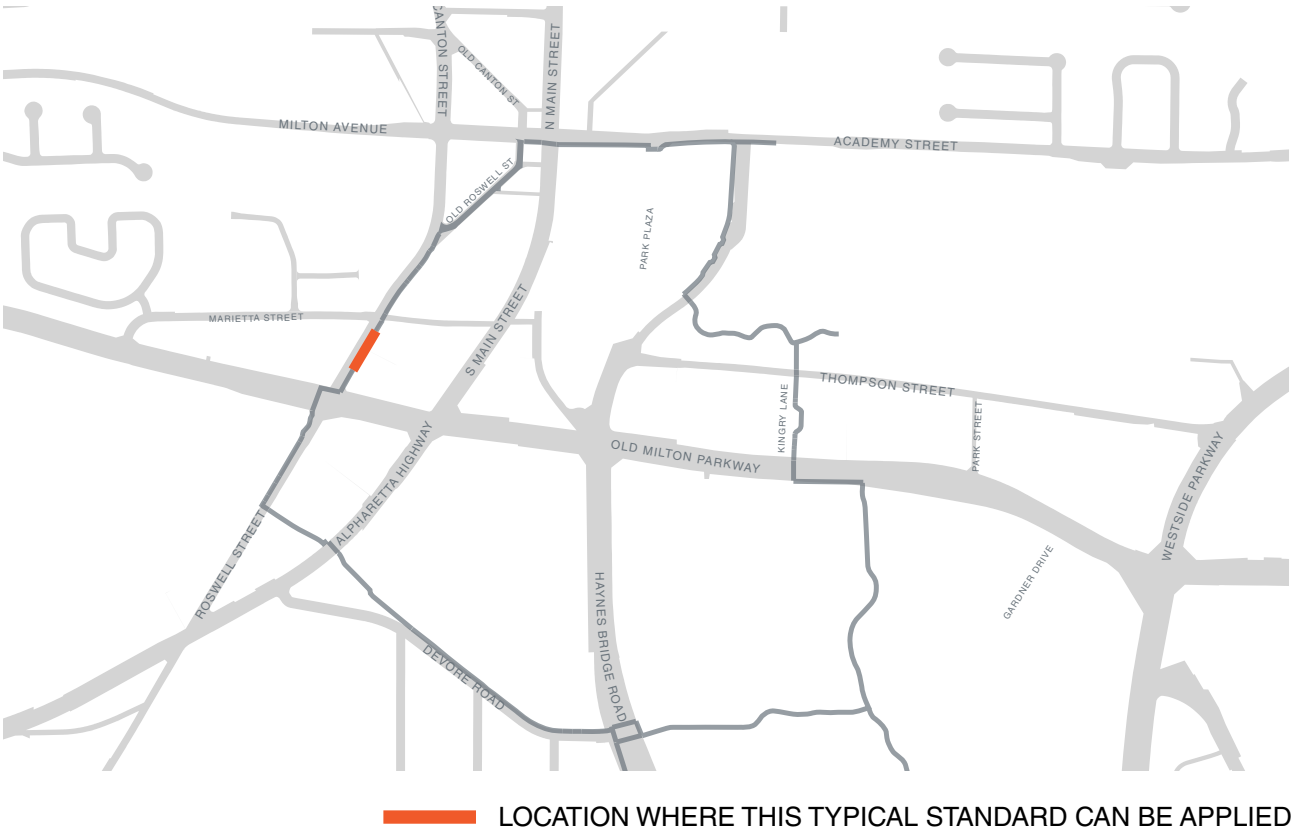
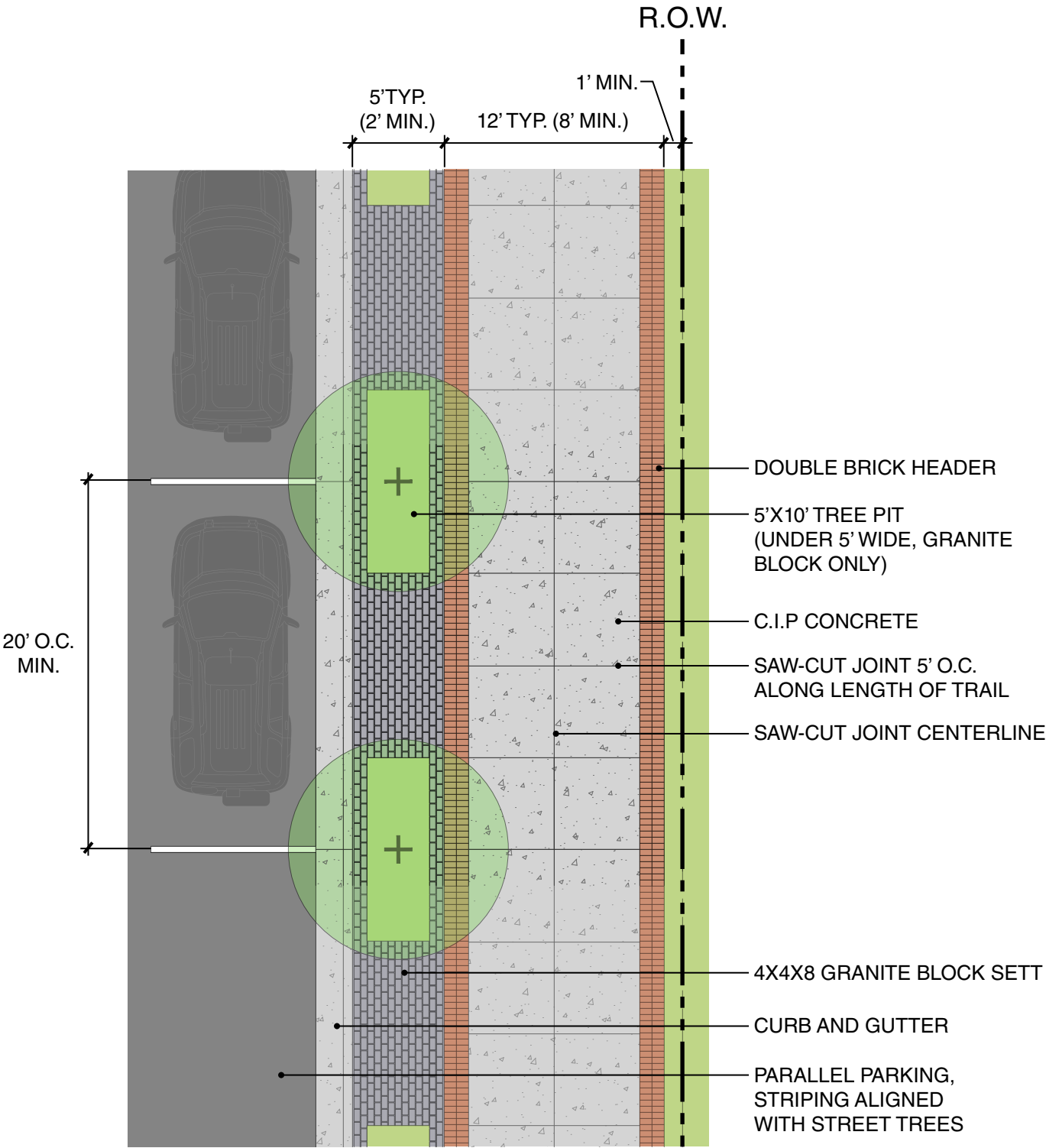


EXAMPLE OF THIS TYPICAL STANDARD SHOWN AS ROSWELL STREET NEXT TO WILLS PARK



DESIGN STANDARDS

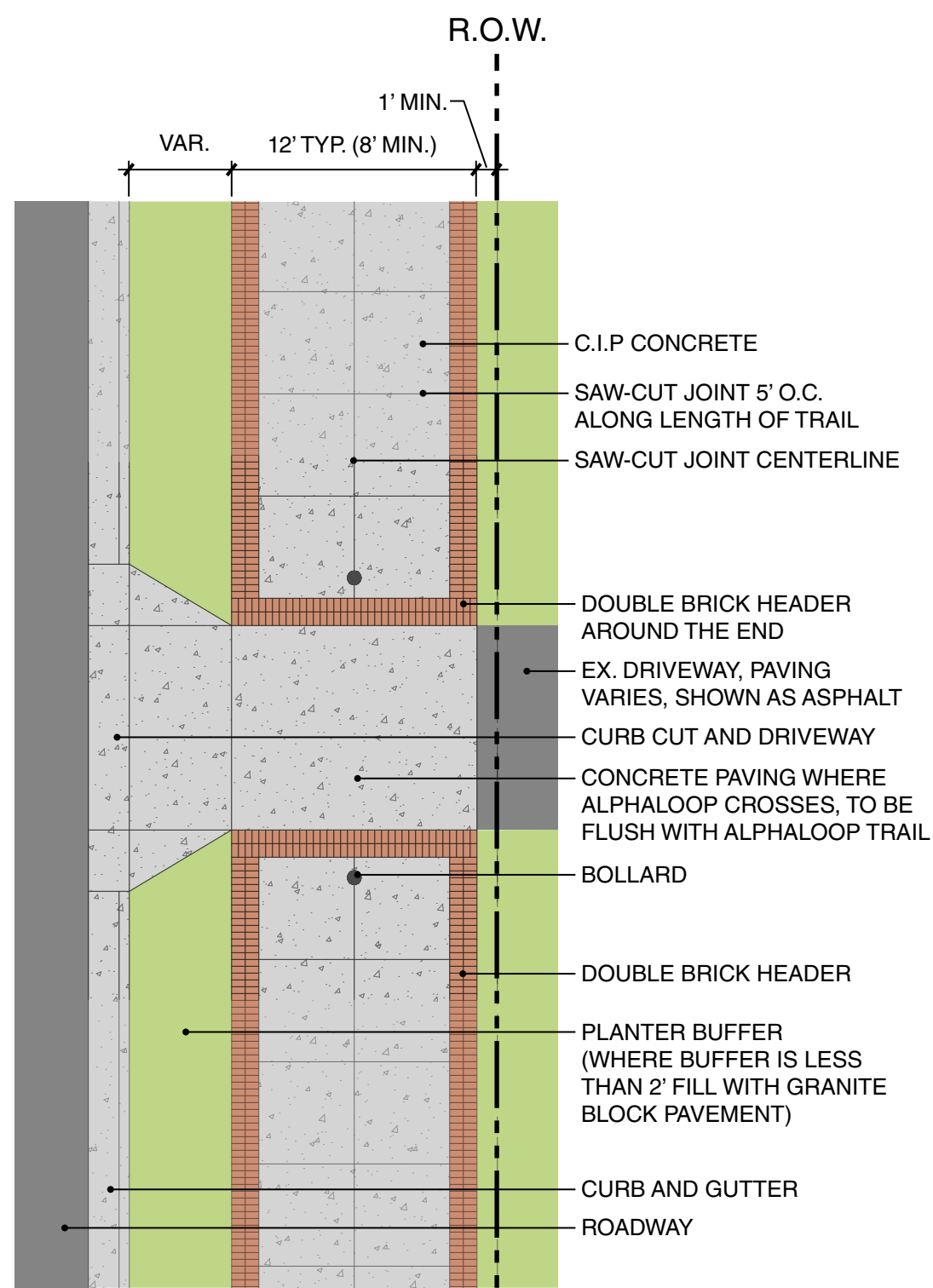
AT ON STREET PARKING / LANES



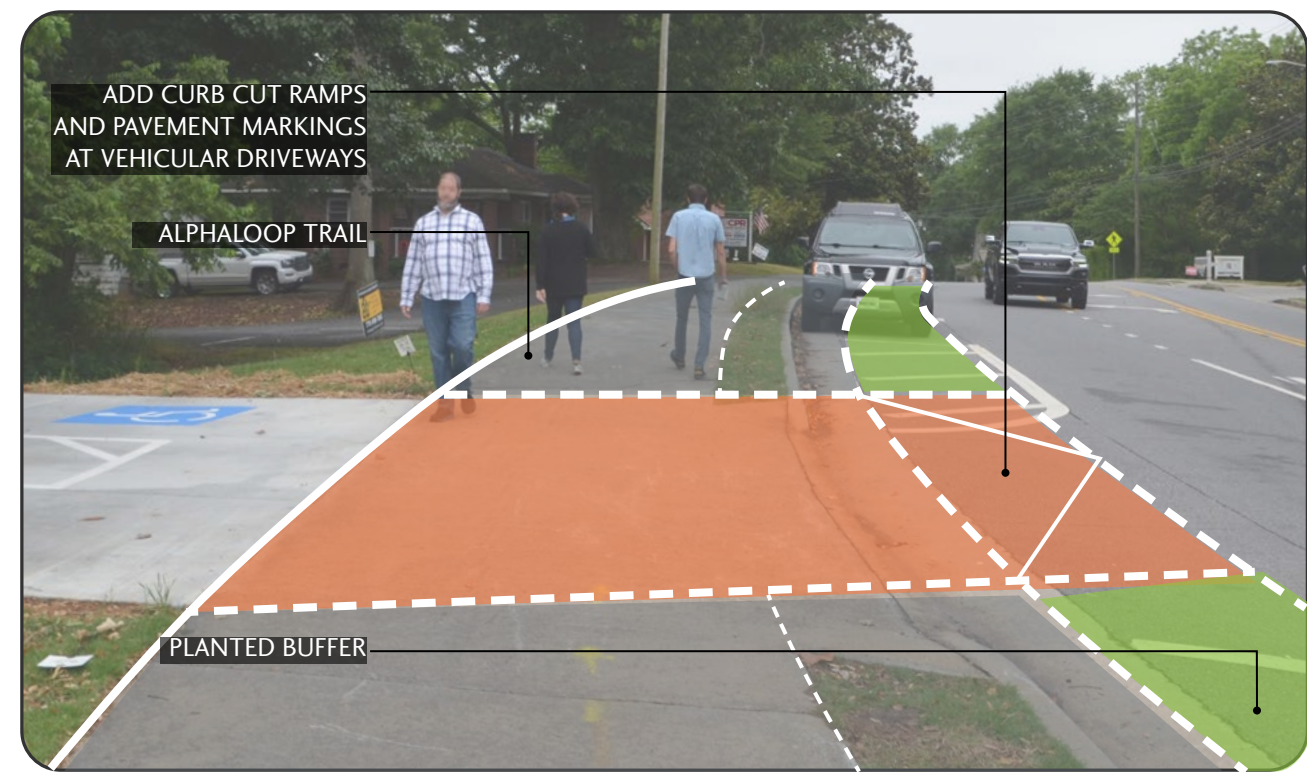
EXAMPLE OF THIS TYPICAL STANDARD SHOWN AS ROSWELL STREET BETWEEN OLD ROSWELL STREET AND OLD MILTON AVE



DESIGN STANDARDS AT PRIVATE DRIVEWAYS



LOCATION WHERE THIS TYPICAL STANDARD CAN BE APPLIED

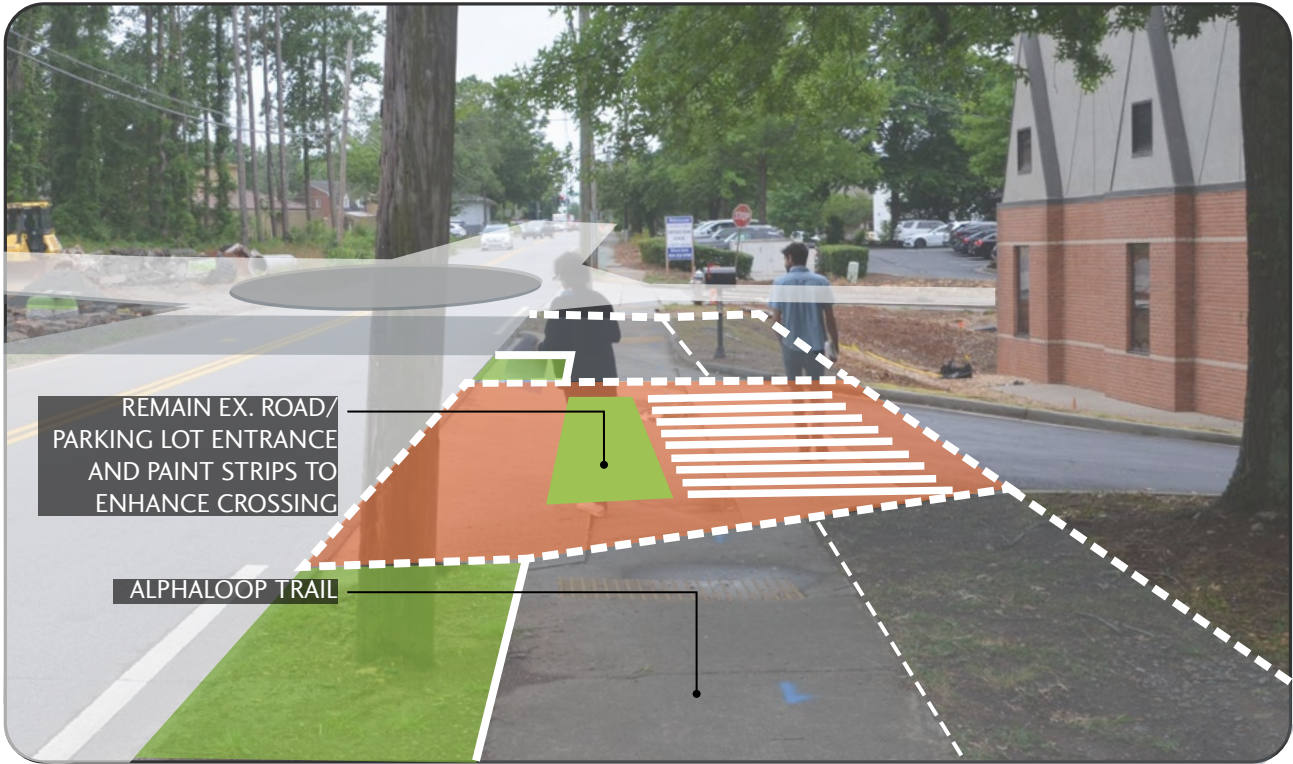
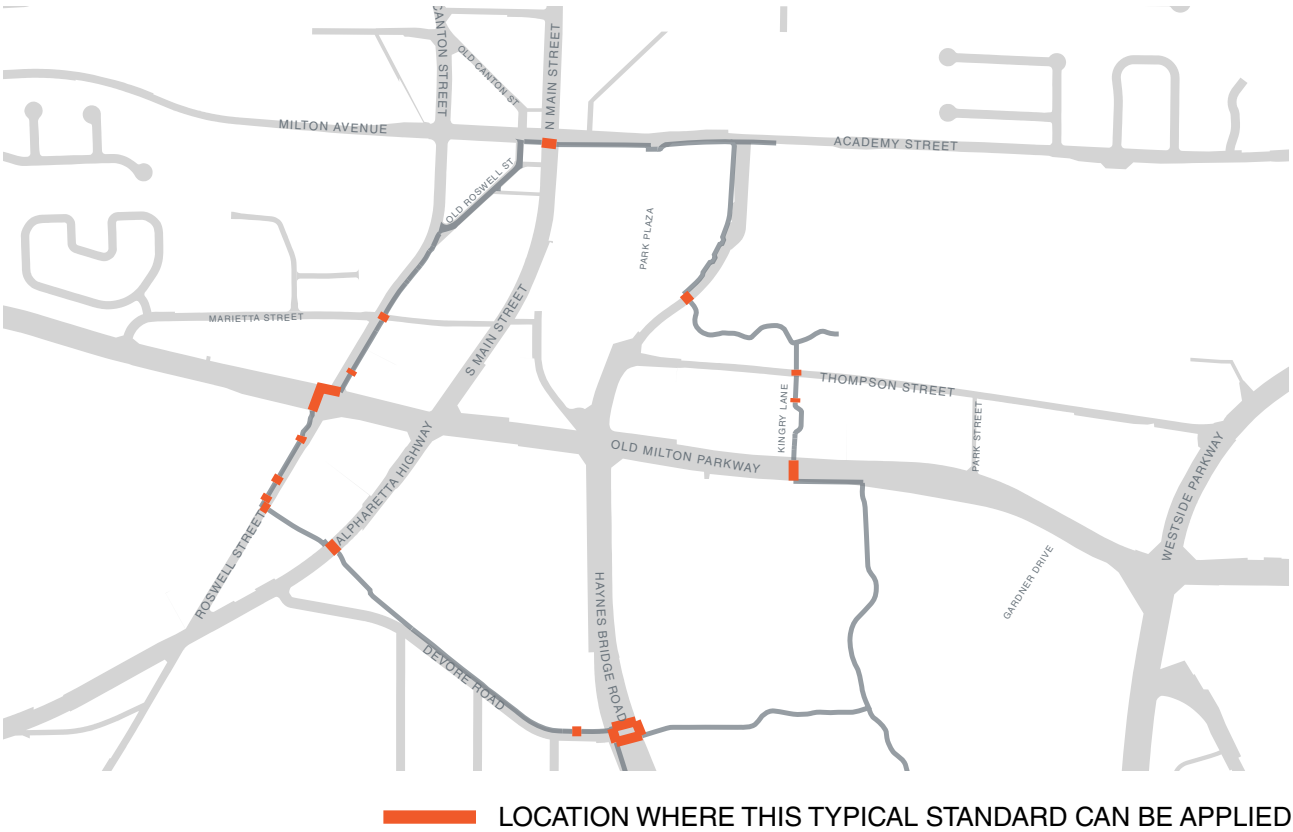
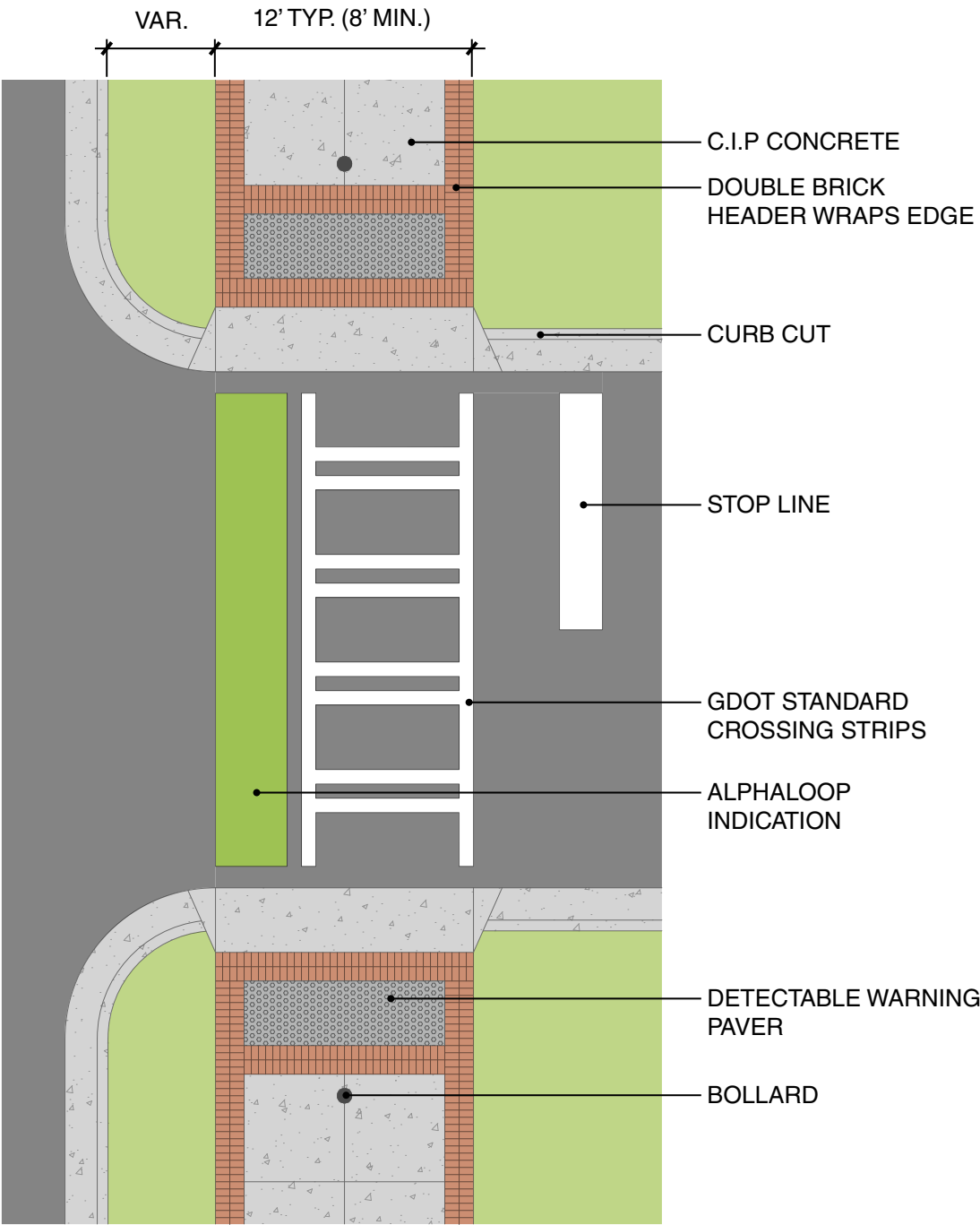


EXAMPLE OF THIS TYPICAL STANDARD SHOWN AS ROSWELL STREET BETWEEN OLD ROSWELL STREET AND OLD MILTON AVENUE



DESIGN STANDARDS

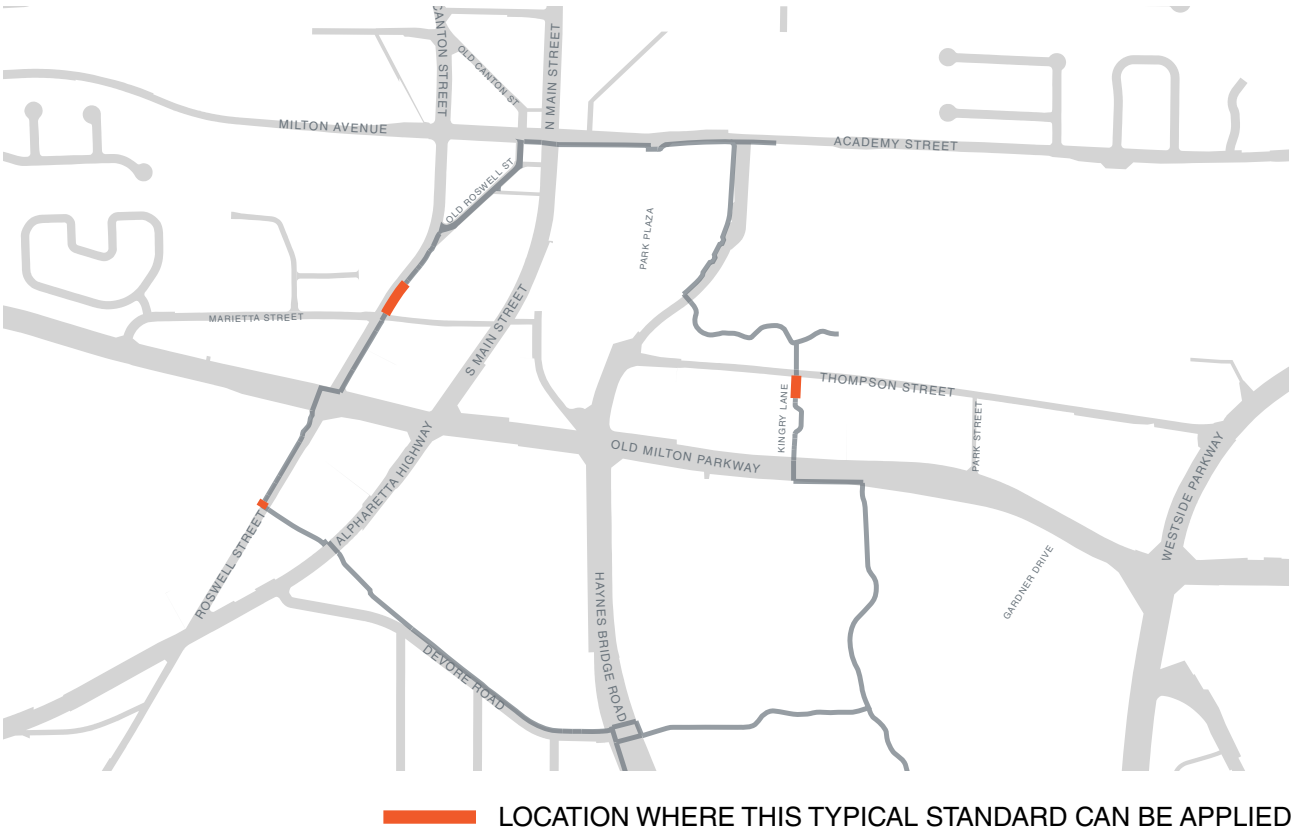
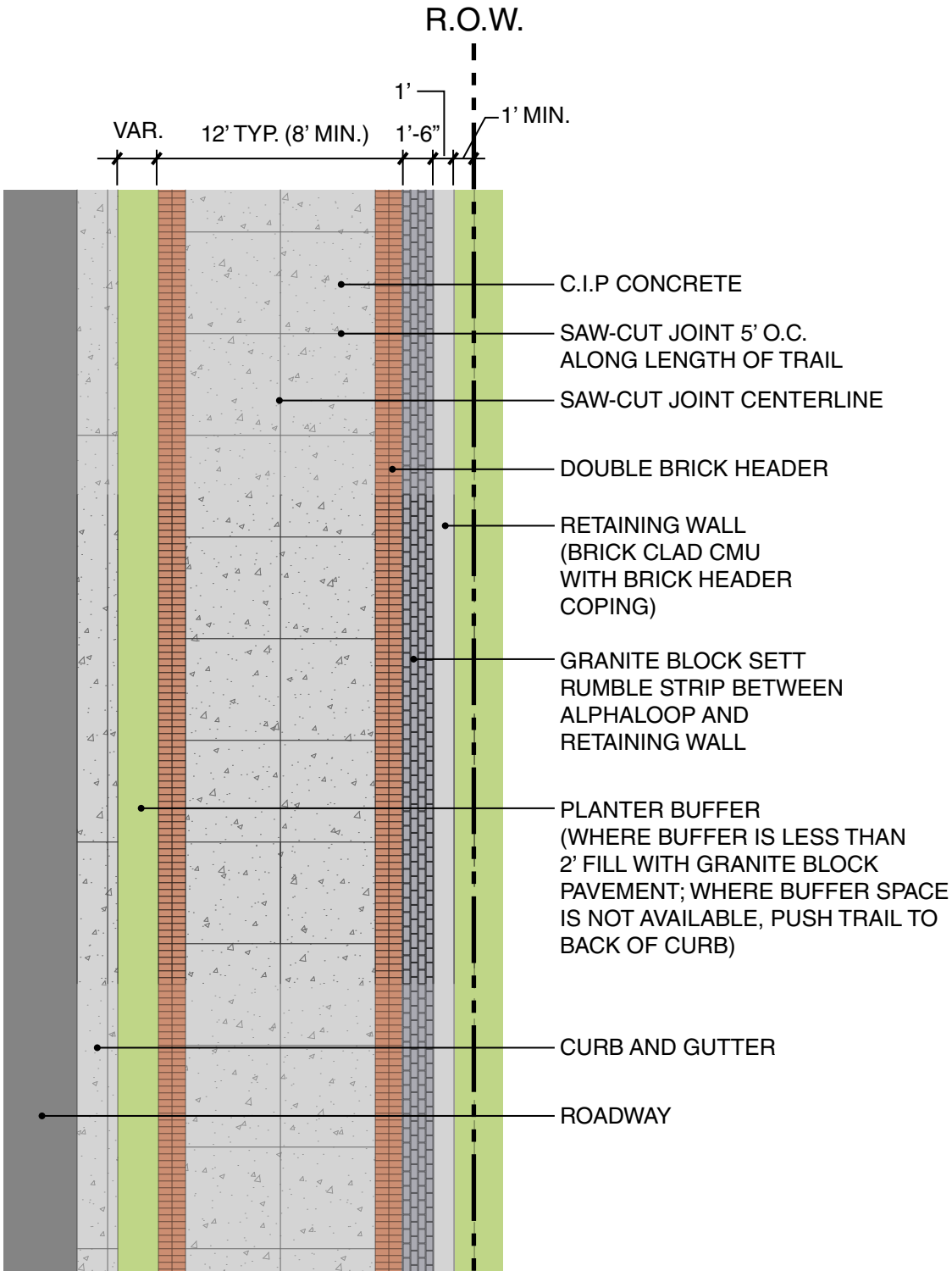
AT “T” INTERSECTIONS / PARKING LOT ENTRANCES



EXAMPLE OF THIS TYPICAL STANDARD SHOWN AS THE NEW ROUNDABOUT



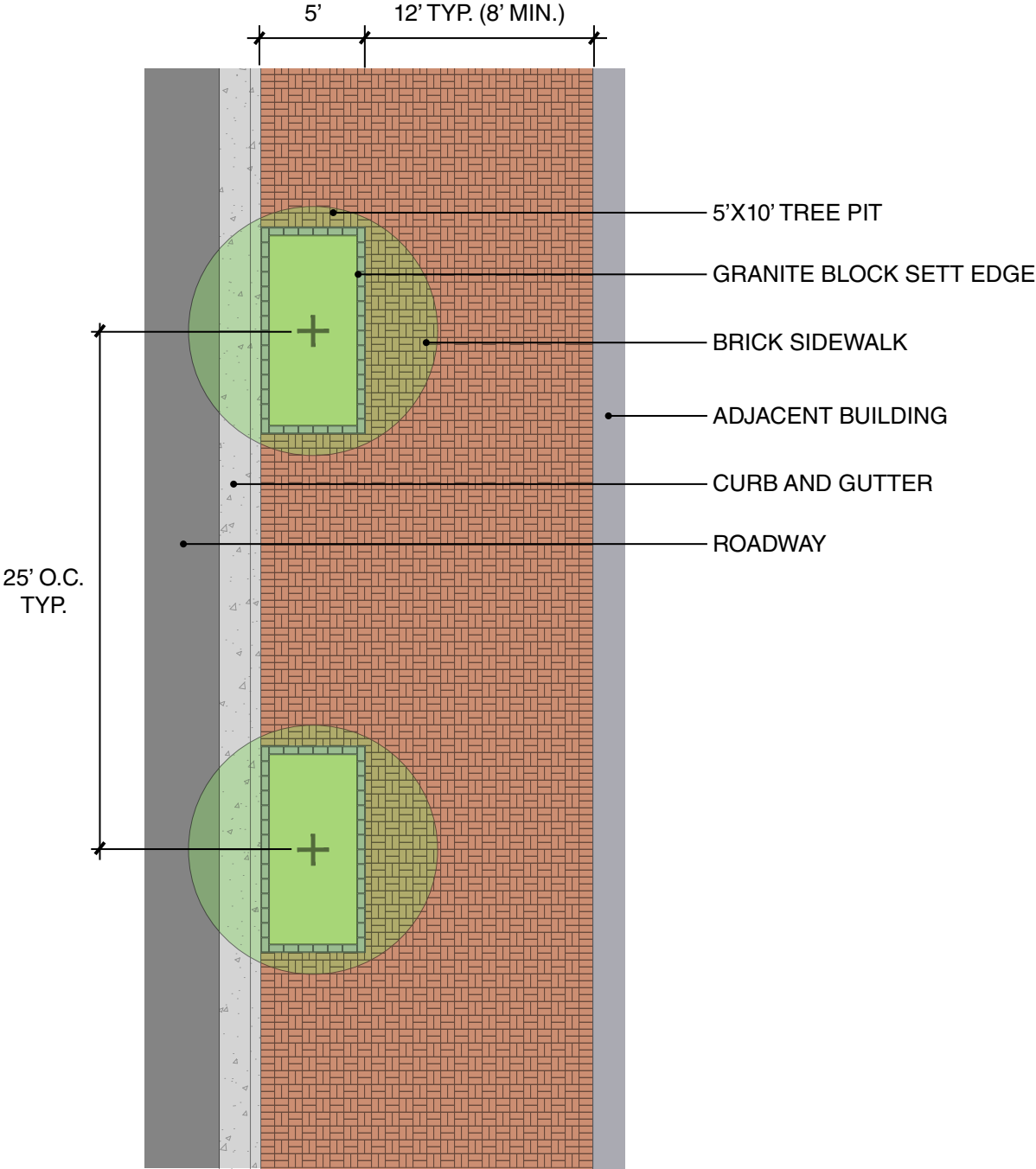
DESIGN STANDARD VIGNETTES AT GRADE CHANGES



EXAMPLE OF THIS TYPICAL STANDARD
SHOWN AS ROSWELL STREET CLOSE TO NORTH SIDE OF OLD MILTON AVENUE



DESIGN STANDARD VIGNETTES
DOWNTOWN BRICK SIDEWALK RETROFIT



LOCATION WHERE THIS TYPICAL STANDARD CAN BE APPLIED



EXAMPLE OF THIS TYPICAL STANDARD SHOWN AS MILTON AVE. AT DOWNTOWN



DESIGN STANDARDS
PAVING MATERIALS



CAST-IN-PLACE CONCRETE WITH SAWCUT JOINTS

- Typical AlphaLoop Trail



PRECAST CONCRETE "BRICK" PAVERS

- Old Roswell Shared Street Pedestrian Area
- All Plaza Areas
- Milton Avenue Brick Sidewalk Retrofit



PRECAST CONCRETE "BRICK" DOUBLE HEADER

- Typ. AlphaLoop Trail Edge (Both Sides)
- End of AlphaLoop Trail at Intersections/Driveways



CONCRETE COBBLE

- Old Roswell Shared Street Vehicular Area



GRANITE BLOCK SETTS

- Old Roswell Shared Street Runnel
- Street Tree Pits
- Buffer Strips (< 2ft wide)



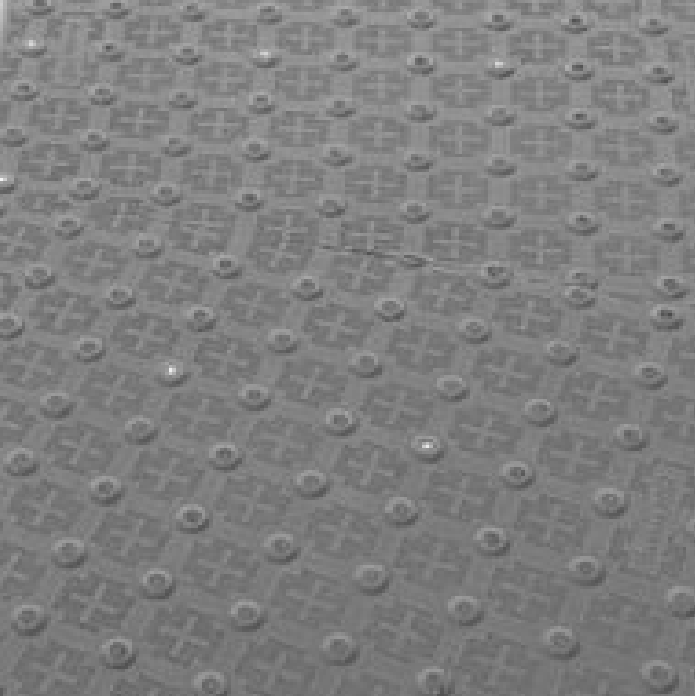
MMA COATING AT INDICATED CROSSINGS

- All Vehicular Crossings
- See Distinctive Crosswalk recommendations on next slide



ETCHED CONCRETE

- AlphaLoop Logo/Marker on Trail



DETECTABLE WARNING PAVER

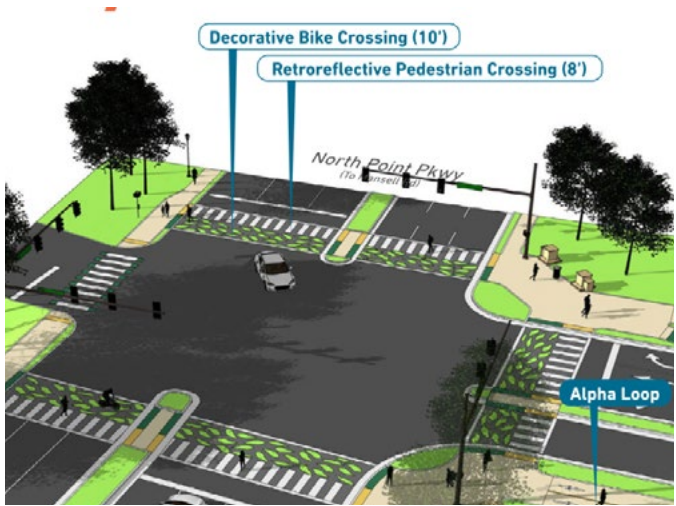
- At all crosswalks and at intersecting driveways along Alpha Loop trail



DESIGN STANDARDS
DISTINCTIVE CROSSWALKS

Downtown Alpharetta is a dynamic urban center that will continue to see increased pedestrian and bicycle traffic as the Alpha Loop is implemented, mixed-use developments come on line, and pedestrian safety improvements are made. There is an opportunity to increase the safety of pedestrians and bicyclists where the Alpha Loop crosses busy vehicular roadways such as Old Milton Parkway and Haynes Bride Road by instituting a Distinctive Crosswalk program. Doing so will increase the legibility of the Alpha Loop as a multi-use trail and downtown placemaking will be enhanced. Two potential options for Distinctive Crosswalk designs are proposed here:

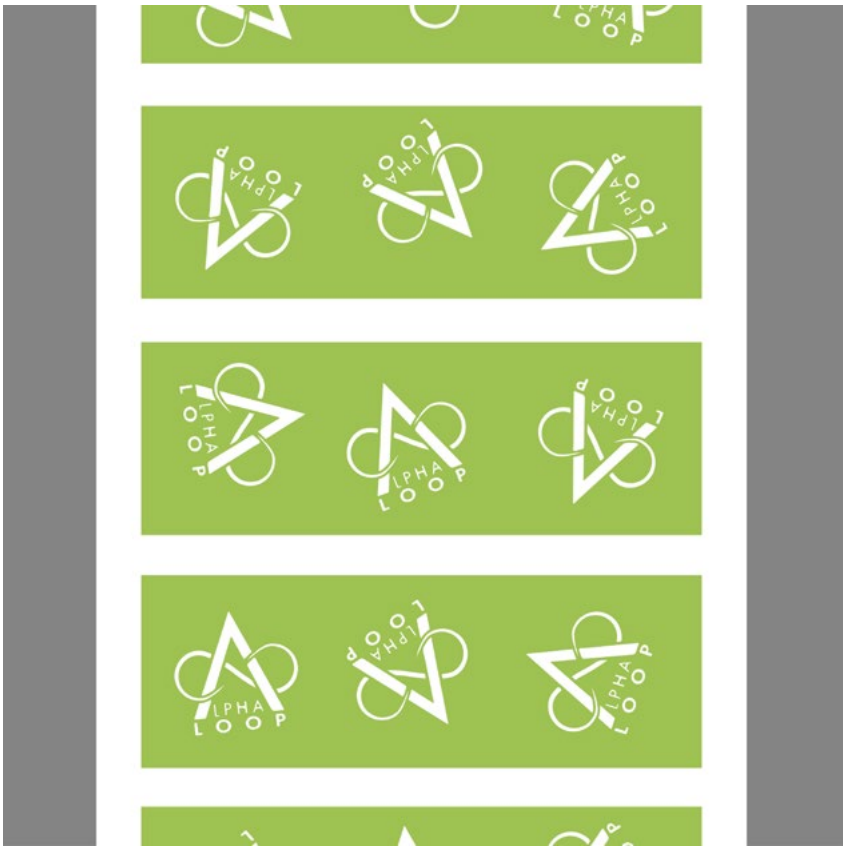
- 1. MMA sealcoat with Alpha Loop logo stenciling.
- 2. Partnership with Arts Alpharetta to commission local artists to design distinctive crosswalks.



PREVIOUS STUDY REFERENCE:
NORTHPOINT PLACEMAKING STUDY



OPTION 1a: STENCILED BIKE LANE STRIPE



OPTION 1b: STENCILED NEGATIVE SPACE



OPTION 2: POTENTIAL ARTS ALPHARETTA PARTNERSHIP



APPENDIX 1

CONCEPTUAL COST ESTIMATE



STARR WHITEHOUSE

Landscape Architects
and Planners PLLC

437 Memorial Drive SE, Suite A2
Atlanta, Georgia 30312
470.440.3401

Conceptual Cost Estimate

Date: January 13, 2023
To: Eric Graves
From: Jacob Lange
Principal
Project Name: Alpha Loop Downtown Link
Project No.: 22004
Subject: Conceptual Cost Estimate



Overview:

The cost estimate contained herein represents an order of magnitude estimate for the implementation of the Alpha Loop Downtown Link, as developed by Starr Whitehouse on behalf of the City of Alpharetta's Department of Community Development. This cost estimate is a supplement to the Alpha Loop Downtown Link Conceptual Design Report, issued on 1/12/2023.

The cost estimate is broken down into five (5) separate sections. They include:

1. Typical trail condition – approximately 3,590 linear feet of 12'-0" multi-use trail, including all incidental work required to implement the trail within the existing public right-of-way.
2. Old Roswell Shared Street (Complete Build-out Option) – The conversion of Old Roswell Street between Roswell Street and Milton Avenue to a shared street, including the replacement of the asphalt roadway with concrete unit pavers, integration of green infrastructure, and the creation of a pedestrian plaza adjacent to the street.
3. Old Roswell Shared Street (Partial Build-out Option) – The conversion of the northernmost portion of Old Roswell Street near Milton Avenue to a shared street, and the implementation of a 12'-0" wide multi-use trail along the east side of the remainder of Old Roswell Street.
4. Old Milton Parkway and Roswell Street Intersection Enhancements – Includes new pedestrian plazas at three of the four corners, creation of a pedestrian refuge zone at the Old Milton crossing, and the removal of the existing right turn lane from eastbound Old Milton to southbound Roswell Street.
5. Haynes Bridge Road and Devore Road Intersection Enhancements – Includes the removal of the deceleration lane at the Quick Trip gas station on Devore Road, enhancement of the pedestrian plazas at all four corners, integration of green infrastructure on the northwest corner of the intersection, and enhanced crossings across the entire intersection.

J. Lange to E. Graves

01/13/2023

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Each of the estimates is itemized by design element; they include exclusions, contingencies, and mobilization costs; and they are accompanied by a plan. For more information on the design, refer to the Conceptual Design Report.

Typical Trail Condition (approximately 3,590 linear feet of trail):

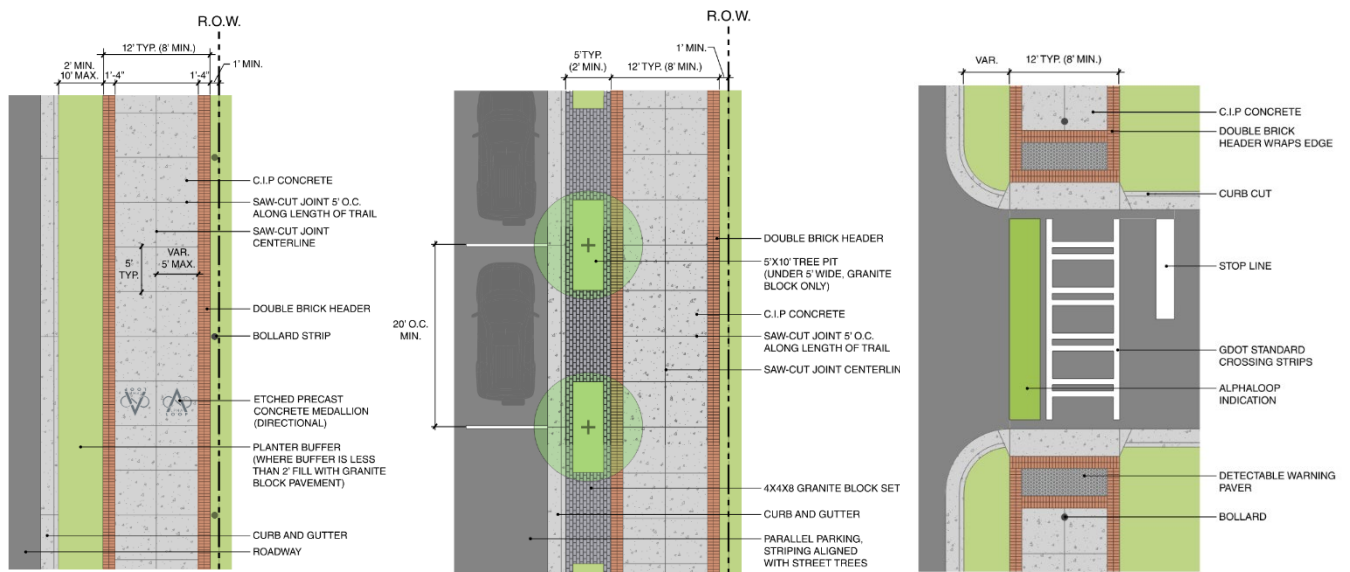


Figure 1: Typical Trail Condition Design Standards

ITEM	UNIT	QTY	UNIT COST	TOTAL
Demo/Excavation	CY	1994	\$ 92	\$ 183,988
Precast Concrete "Brick"	SY	1061	\$ 248	\$ 262,609
Granite Block	SY	142	\$ 378	\$ 53,550
Cast-in-place Concrete Pavement	SY	3726	\$ 240	\$ 894,149
Concrete Curb and Gutter	CY	199	\$ 1,388	\$ 276,729
Asphalt Pavement Restoration	SY	1994	\$ 53	\$ 104,708
Cast-in-place Concrete Base/Foundations	CY	134	\$ 825	\$ 110,237
Compacted Aggregate Base	CY	823	\$ 79	\$ 64,814
Thermoplastic Striping	LF	3590	\$ 5	\$ 16,155
Thermoplastic Crosswalk	SF	3000	\$ 4	\$ 11,250
Thermoplastic Symbol	EA	24	\$ 300	\$ 7,200
Detectable Warning ramp	SF	640	\$ 53	\$ 33,600
New Sod Lawn	SF	16155	\$ 3	\$ 48,465

J. Lange to E. Graves

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Trees	EA	35	\$	1,500	\$	52,500
Plantings	SF	4488	\$	23	\$	100,969
SUBTOTAL						\$ 2,220,923
Design Contingency (15%)						\$ 333,138
Mobilization/General Requirements (*15%)						\$ 383,109
TOTAL						\$ 2,937,170

*Mobilization is calculated at 15% for the Typical Trail Condition to account for multiple phases of construction across the district.

Exclusions:

1. Right-of-way acquisition, if required
2. Utilities, including relocation, replacement, or new infrastructure
3. Lighting
4. Modifications to traffic signal system
5. Signage
6. Excludes the Old Roswell Street Shared Street, the Old Milton and Roswell Street intersection, and the Haynes Bridge Road and Devore Road intersection. Those areas have been calculated separately.

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Old Roswell Shared Street (Complete Build-out):

OLD ROSWELL STREET SHARED STREET OPTION

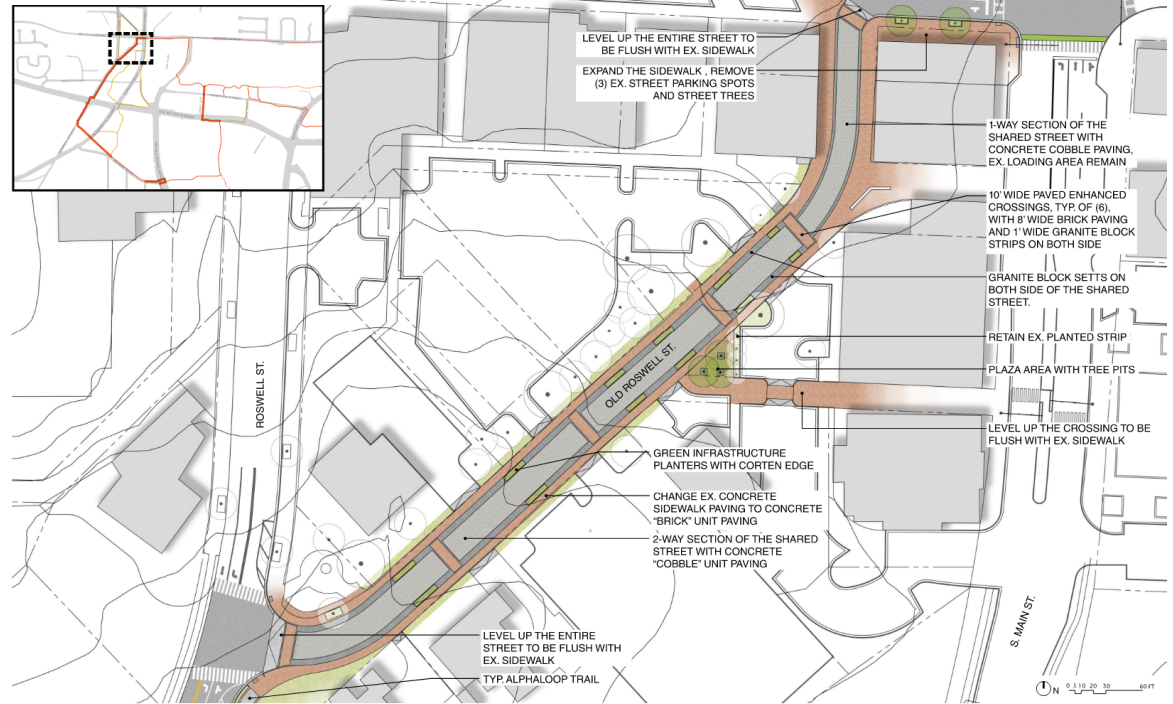


Figure 2: Old Roswell Shared Street (Complete Build-out Option) Concept Plan

ITEM	UNIT	QTY	UNIT COST	TOTAL
Demo/Excavation	CY	1135	\$ 92	\$ 104,745
Precast Concrete "Brick"	SY	1931	\$ 248	\$ 478,033
Precast Concrete "Cobble"	SY	1319	\$ 248	\$ 326,508
Granite Block	SY	513	\$ 378	\$ 193,956
Cast-in-place Concrete Pavement	SY	177	\$ 240	\$ 42,587
Concrete Curb and Gutter	CY	23	\$ 1,388	\$ 31,604
Asphalt Pavement Restoration	SY	858	\$ 53	\$ 45,063
Cast-in-place Concrete Base/Foundations	CY	358	\$ 825	\$ 294,998
Compacted Aggregate Base	CY	657	\$ 79	\$ 51,708
Steel Planter Edge	LF	507	\$ 113	\$ 57,038
Thermoplastic Striping	LF	620	\$ 5	\$ 2,790
Thermoplastic Cross-walk	SF	2500	\$ 4	\$ 9,375

J. Lange to E. Graves

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Thermoplastic Symbol	EA	15	\$	300	\$	4,500
Detectable Warning ramp	SF	60	\$	53	\$	3,150
Bioretention Soil	CY	85	\$	110	\$	9,308
New Sod Lawn	SF	4640	\$	3	\$	13,920
Trees	EA	5	\$	1,500	\$	7,500
Plantings	SF	765	\$	23	\$	17,213

SUBTOTAL	\$	1,693,992
Design Contingency (15%)	\$	254,099
Mobilization/General Requirements (5%)	\$	97,405
TOTAL	\$	2,045,496

Exclusions:

1. Right-of-way acquisition, if required
2. Utilities, including relocation, replacement, or new infrastructure
3. Lighting
4. Modifications to traffic signal system
5. Signage

J. Lange to E. Graves

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Old Roswell Shared Street (Partial Build-out):

OLD ROSWELL STREET LIMITED IMPACT OPTION

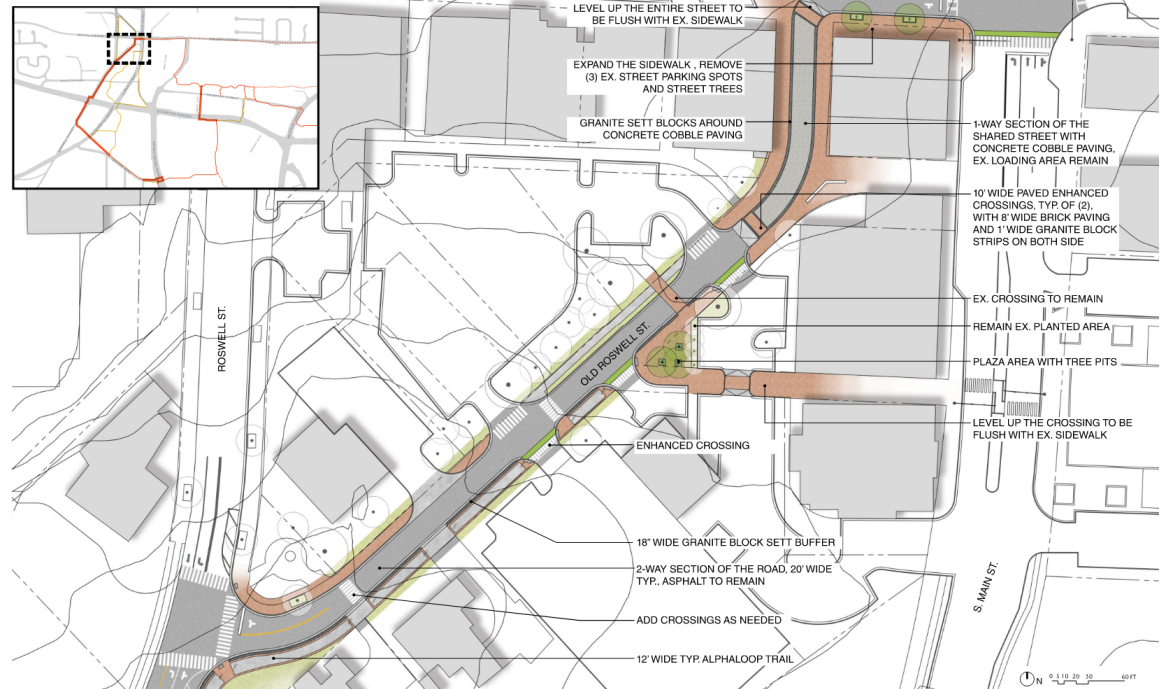


Figure 3: Old Roswell Shared Street (Partial Build-out) Concept Plan

ITEM	UNIT	QTY	UNIT COST	TOTAL
Demo/Excavation	CY	383	\$ 92	\$ 35,306
Precast Concrete "Brick"	SY	528	\$ 248	\$ 130,625
Precast Concrete "Cobble"	SY	290	\$ 248	\$ 71,775
Granite Block	SY	138	\$ 378	\$ 52,080
Cast-in-place Concrete Pavement	SY	325	\$ 240	\$ 77,920
Concrete Curb and Gutter	CY	49	\$ 1,388	\$ 67,679
Asphalt Pavement Restoration	SY	2134	\$ 53	\$ 112,058
Cast-in-place Concrete Base/Foundations	CY	90	\$ 825	\$ 74,213
Compacted Aggregate Base	CY	213	\$ 79	\$ 16,796
Steel Planter Edge	LF	0	\$ 113	\$ -
Thermoplastic Striping	LF	1050	\$ 5	\$ 4,725
Thermoplastic Cross-walk	SF	4240	\$ 4	\$ 15,900
Thermoplastic Symbol	EA	11	\$ 300	\$ 3,300

J. Lange to E. Graves

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Detectable Warning ramp	SF	100	\$	53	\$	5,250
Bioretention Soil	CY	0	\$	110	\$	-
New Sod Lawn	SF	2256	\$	3	\$	6,768
Trees	EA	5	\$	1,500	\$	7,500
Plantings	SF	0	\$	23	\$	-
SUBTOTAL					\$	681,896
Design Contingency (15%)					\$	102,284
Mobilization/General Requirements (5%)					\$	39,209
TOTAL					\$	823,390

Exclusions:

1. Right-of-way acquisition, if required
2. Utilities, including relocation, replacement, or new infrastructure
3. Lighting
4. Modifications to traffic signal system
5. Signage

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Old Milton Parkway and Roswell Street Intersection Enhancements:

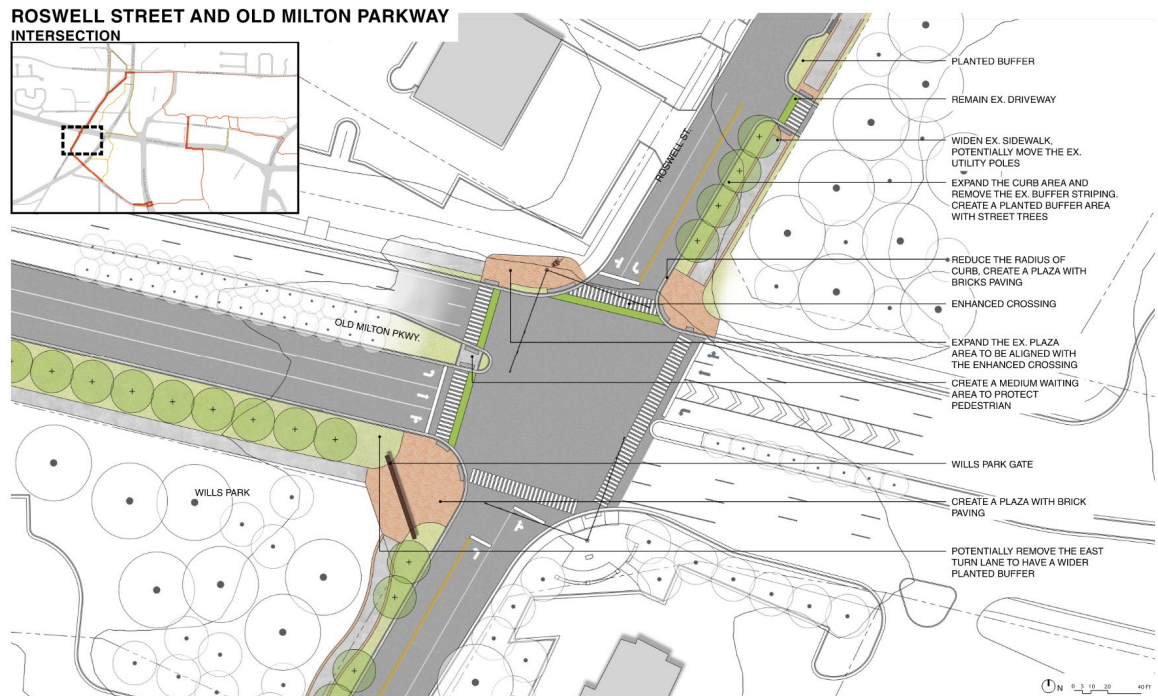


Figure 4: Old Milton Parkway and Roswell Street Concept Plan

ITEM	UNIT	QTY	UNIT COST	TOTAL
Demo/Excavation	CY	793	\$ 92	\$ 73,165
Precast Concrete "Brick"	SY	919	\$ 248	\$ 227,480
Cast-in-place Concrete Pavement	SY	472	\$ 240	\$ 113,333
Concrete Curb and Gutter	CY	59	\$ 1,388	\$ 81,708
Asphalt Pavement Restoration	SY	2306	\$ 53	\$ 121,042
Cast-in-place Concrete Base/Foundations	CY	101	\$ 825	\$ 83,409
Compacted Aggregate Base	CY	232	\$ 79	\$ 18,254
Thermoplastic Striping	LF	1600	\$ 5	\$ 7,200
Thermoplastic Cross-walk	SF	6305	\$ 4	\$ 23,644
Thermoplastic Symbol	EA	9	\$ 300	\$ 2,700
Detectable Warning ramp	SF	320	\$ 53	\$ 16,800
New Sod Lawn	SF	14427	\$ 3	\$ 43,281
Trees	EA	11	\$ 1,500	\$ 16,500
Plantings	SF	1603	\$ 23	\$ 36,068

J. Lange to E. Graves

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SUBTOTAL	\$	864,583
Design Contingency (15%)	\$	129,688
Mobilization/General Requirements (5%)	\$	49,714
TOTAL	\$	1,043,984

Exclusions:

1. Right-of-way acquisition, if required
2. Utilities, including relocation, replacement, or new infrastructure
3. Lighting
4. Modifications to traffic signal system
5. Signage
6. Wills Park Gateway feature

J. Lange to E. Graves

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Haynes Bridge Road and Devore Road Intersection Enhancements:

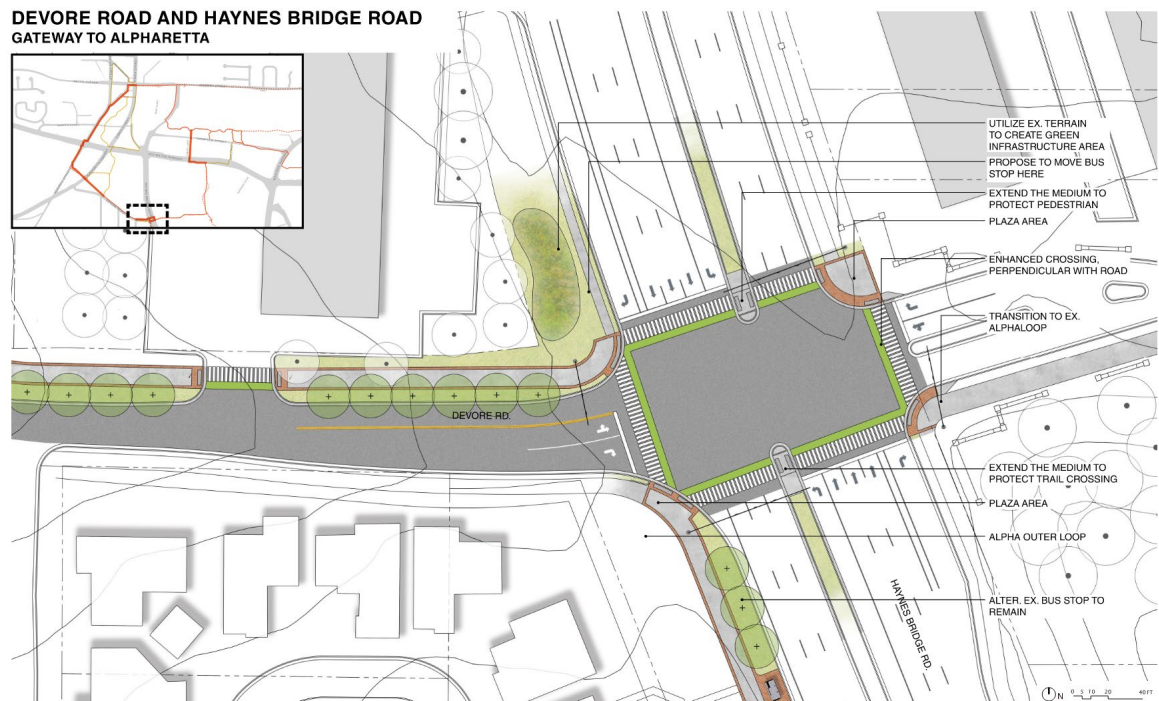


Figure 5: Haynes Bridge and Devore Concept Plan

ITEM	UNIT	QTY	UNIT COST	TOTAL
Demo/Excavation	CY	622	\$ 124	\$ 77,021
Precast Concrete "Brick"	SY	144	\$ 248	\$ 35,558
Cast-in-place Concrete Pavement	SY	476	\$ 240	\$ 114,133
Concrete Curb and Gutter	CY	41	\$ 1,388	\$ 56,271
Asphalt Pavement Restoration	SY	2733	\$ 53	\$ 143,500
Cast-in-place Concrete Base/Foundations	CY	16	\$ 825	\$ 13,038
Compacted Aggregate Base	CY	103	\$ 79	\$ 8,124
Thermoplastic Striping	LF	600	\$ 5	\$ 2,700
Thermoplastic Cross-walk	SF	9937	\$ 4	\$ 37,264
Thermoplastic Symbol	EA	2	\$ 300	\$ 600
Detectable Warning ramp	SF	430	\$ 53	\$ 22,575
Bioretention Soil	CY	404	\$ 110	\$ 44,202
New Sod Lawn	SF	13200	\$ 3	\$ 39,600
Trees	EA	9	\$ 1,500	\$ 13,500
Plantings	SF	3633	\$ 23	\$ 81,743

J. Lange to E. Graves

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SUBTOTAL	\$	689,827
Design Contingency (15%)	\$	103,474
Mobilization/General Requirements (5%)	\$	39,665
TOTAL	\$	832,966

Exclusions:

1. Right-of-way acquisition, if required
2. Utilities, including relocation, replacement, or new infrastructure
3. Lighting
4. Modifications to traffic signal system
5. Signage
6. Trail and bus stop at southwest corner (assumed to be built by previously approved private development)

APPENDIX 2

TRAFFIC STUDY



June 27, 2022

AlphaLoop
Traffic Study
5633.01

Prepared for:
Starr Whitehouse
Landscape Architects
and Planners
437 Memorial Drive SE,
Ste. A-2
Atlanta, GA 30312

Prepared by:
Michael Crawford, PE
PE# 019633



AlphaLoop Traffic Study

PREPARED BY:
Columbia Engineering and Services, Inc.
2862 Buford Highway, Suite 200
Duluth, GA 30096
770-925-0357

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Introduction

The AlphaLoop project is located in the City of Alpharetta in North Fulton County and aims to provide a comfortable, safe and consistent path for pedestrians and bicyclists to travel between parks. In order to achieve the goals for the path, four intersections have been evaluated to safely and efficiently cross pedestrians and bicyclists. The four intersections evaluated were Old Milton Parkway and Roswell Street, Old Milton Parkway and Kingry Lane, Old Milton Parkway and Park Street, and South Main Street and Devore Road. Traffic analyses were completed with the previous three years of crash data and the current traffic counts.

The vicinity for the studied locations is shown on Figure 1.

Old Milton Parkway is a four to six lane roadway divided by raised medians with left and right turn lanes. Roswell Street, at the intersection of Old Milton Parkway, is a two-lane road with left turn lanes. The speed limits posted are 35 mph on Old Milton Parkway and 25 mph on Roswell Street. The intersection is signalized.

S. Main Street at the intersection of Devore Road is a four-lane roadway, Devore Road being a two-lane. The posted speed on S. Main Street is 45 mph and 35 mph on Devore Road. The intersection is not signalized.

Kingry Lane and Park Street are both three-lane roadways with a left and a right turn lane onto Old Milton Parkway. No speed limits are posted on Kingry Lane or Park Street. The posted speed limit for Old Milton Parkway is 35 mph. Kingry Lane is a signalized intersection, however, Park Street is not.

Figure 1: Vicinity Map



Existing Conditions Analysis

Traffic counts were conducted on Thursday May 12th, 2022 and Wednesday May 25th, 2022. AM, noon and PM peak period counts were conducted at the intersection of Kingry Lane and Old Milton Parkway and Roswell Street and Old Milton Parkway. AM and PM peak counts were conducted at Old Milton Parkway and Park Street and at S. Main Street and Devore Road. Pedestrians and bicyclists were also recorded in the time frames. The quantity of pedestrians crossing in a time frame did not exceed 12 except for the PM peak periods at Roswell Street and Old Milton Parkway and at Kingry Lane and Old Milton Parkway.

Figure 2: PM Peak- Roswell St and Old Milton Parkway

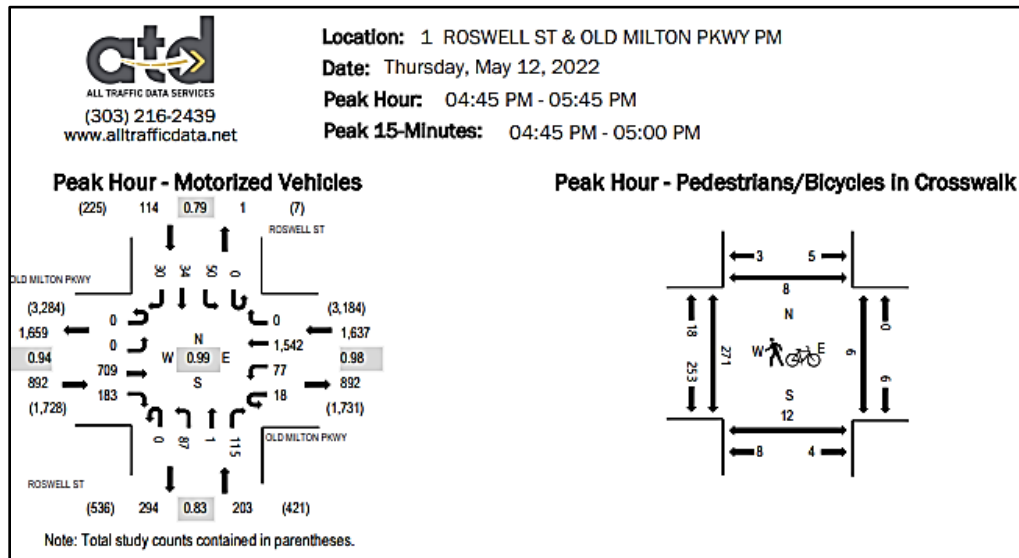
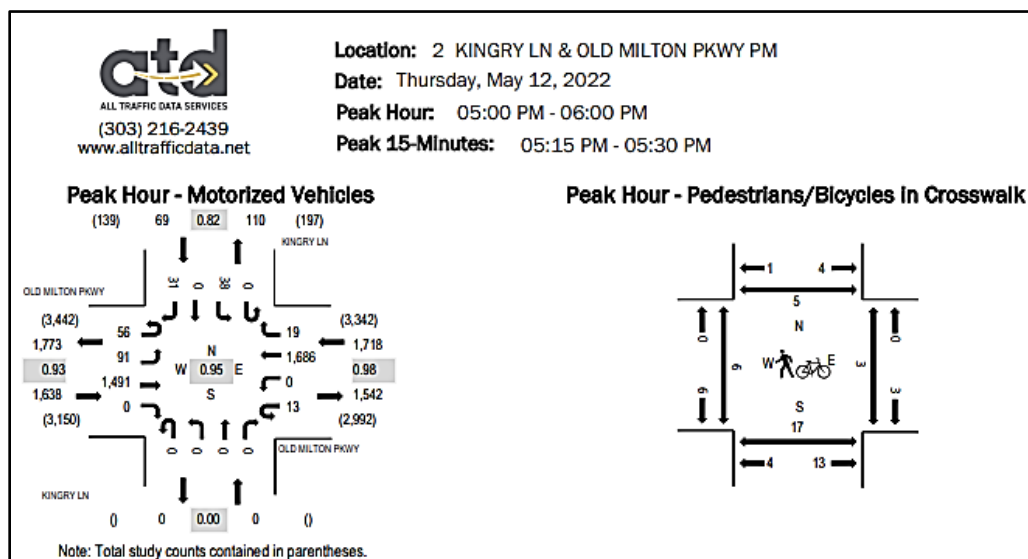


Figure 3: PM Peak- Kingry Lane and Old Milton Parkway



Complete traffic count data are provided in the Appendix.

Crash Diagram Analysis

To conduct the crash analysis for the intersections, the Georgia Electronic Accident Reporting System (GEARS) maintained by the Georgia Department of Transportation (GDOT) was utilized. Law enforcement agencies around the state report crash data to GEARS so that statewide and local crash analysis may be performed. The data analysis results in the generation of crash diagrams.

The crash diagrams portray crash data reported between December 2019 and May 2022. Each crash was categorized based on type of crash, time of day, type of weather and severity of the wreck. Figure 4 provides the complete crash diagrams.

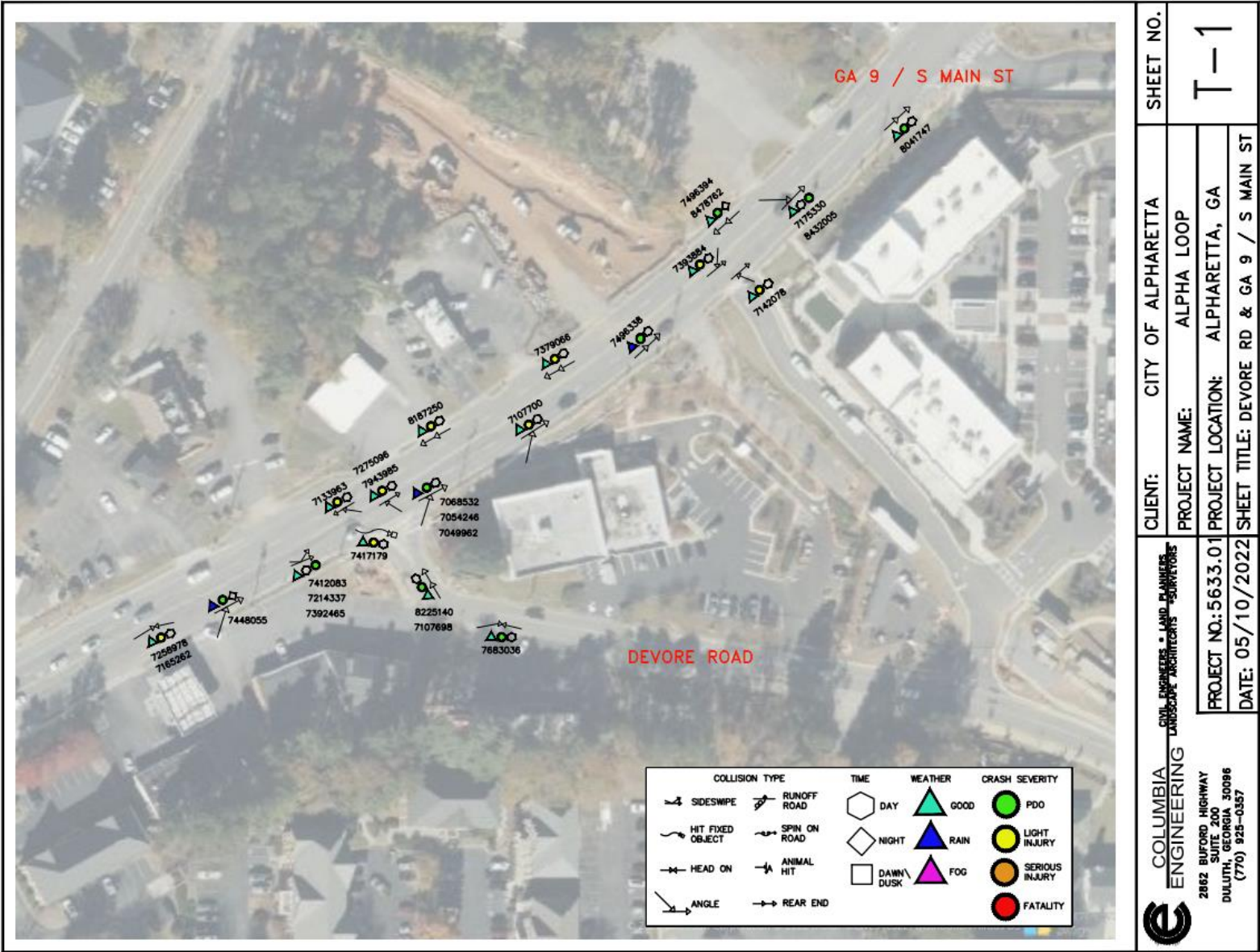
The first intersection analyzed was S. Main Street and Devore Road. The car crashes at this intersection consisted of angled wrecks, side-swipes and rear-end crashes. The majority of wrecks were angled crashes as people turned out onto S. Main Street. Some of the wrecks recorded were caused by illegal left turns onto S. Main Street. In this analysis, an alternative crossing path for pedestrians was also analyzed. The alternative crossing would be at S. Main Street and the proposed Devore Relocation Road. This intersection was found to have less wrecks onto S. Main Street than the current Devore Road.

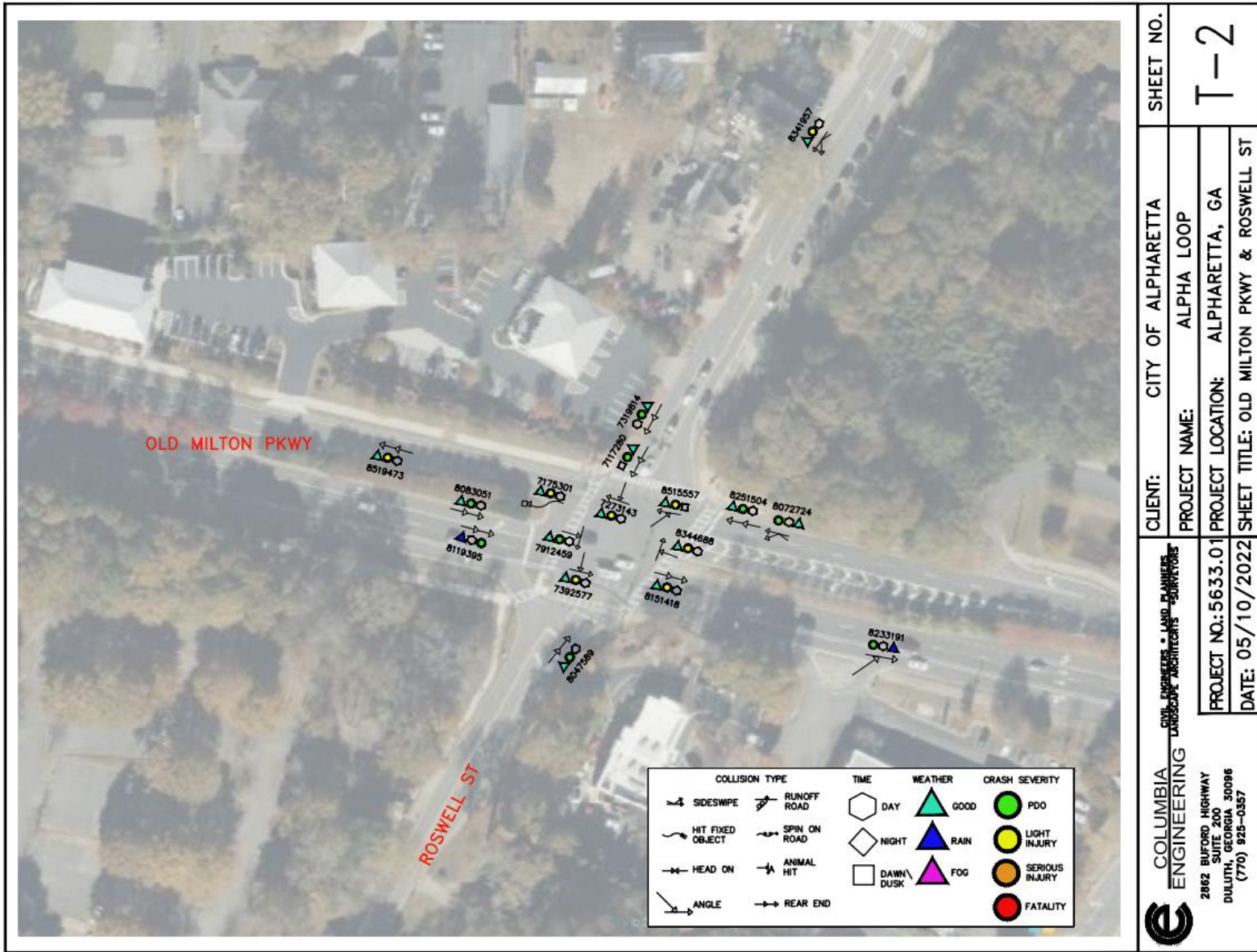
The second intersection analyzed was Roswell Street and Old Milton Parkway. The car crashes at this intersection consisted of angled wrecks, side-swipes and rear-end crashes. The majority of wrecks were angled crashes as vehicles attempted to turn in-between too small of gaps in the flow of through traffic.

Lastly, the intersection of Kingry Lane and Old Milton Parkway was analyzed. The car crashes at this intersection consisted of angled wrecks, side-swipes and rear-end crashes. The clear majority of wrecks were angled crashes as vehicles turned left from Old Milton Parkway onto Kingry Lane. The intersection of Park Street and Old Milton Parkway was included in this scope and was found to have a variety of angled wrecks, side-swipes and rear-end crashes. There were less wrecks at Park Street than recorded at Kingry Lane.

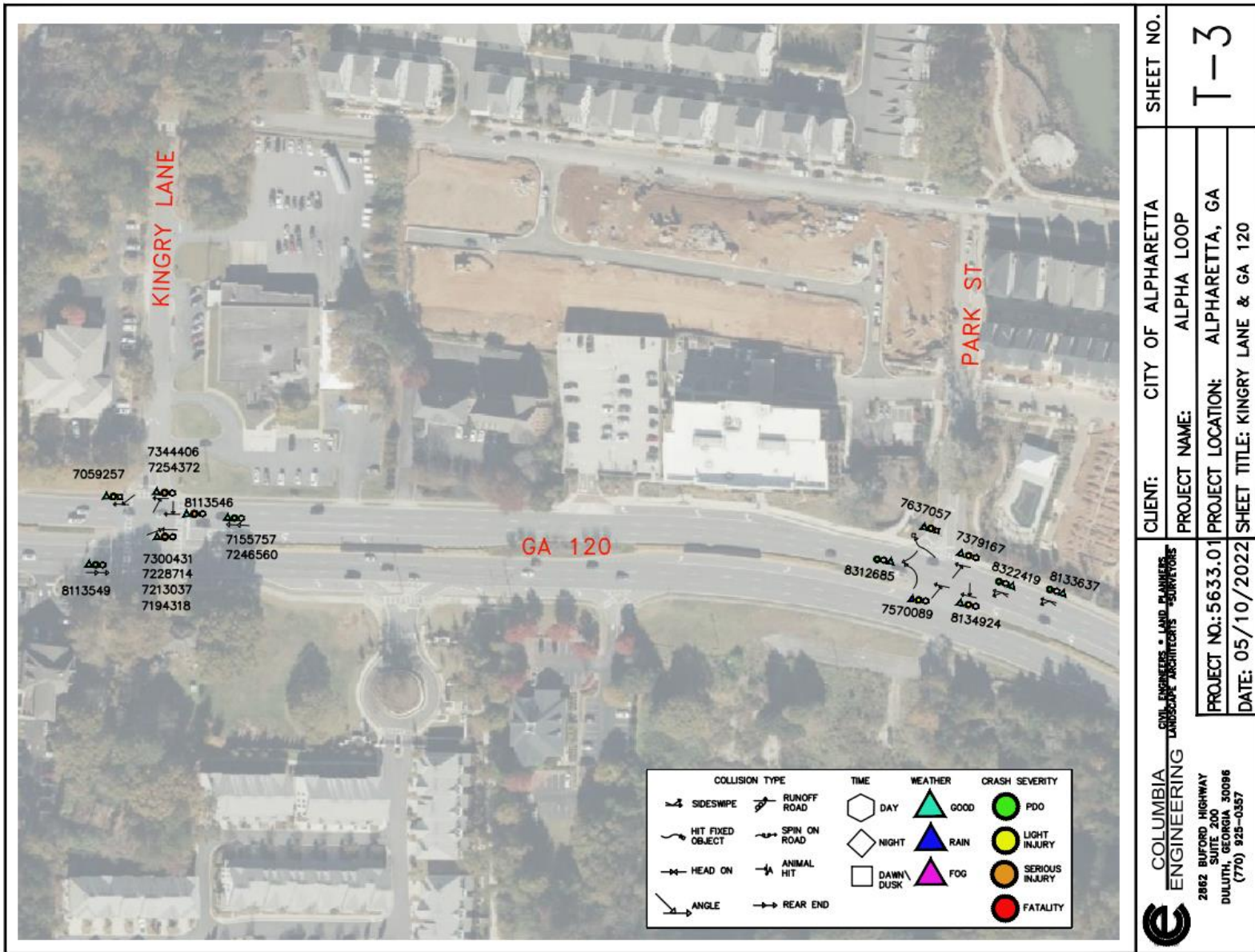
No pedestrians or bicyclists were involved in the reported crashes.

Figure 4: Existing Crash Data





 COLUMBIA ENGINEERING CIVIL ENGINEERS • LAND PLANNERS LANDSCAPE ARCHITECTS • SURVEYORS 2882 BUFORD HIGHWAY SUITE 200 DULUTH, GEORGIA 30096 (770) 925-0357	CLIENT: CITY OF ALPHARETTA		SHEET NO. T-2
	PROJECT NAME: ALPHA LOOP		
	PROJECT NO.: 5633.01		
	PROJECT LOCATION: ALPHARETTA, GA		
DATE: 05/10/2022		SHEET TITLE: OLD MILTON PKWY & ROSWELL ST	



COLUMBIA ENGINEERING CIVIL ENGINEERS & LAND PLANNERS LANDSCAPE ARCHITECTS - SURVEYORS 2862 BUFORD HIGHWAY DULUTH, GEORGIA 30086 (770) 925-0357	CLIENT:	CITY OF ALPHARETTA	SHEET NO.
	PROJECT NAME:	ALPHA LOOP	T-3
	PROJECT NO.: 5633.01	PROJECT LOCATION: ALPHARETTA, GA	
	DATE: 05/10/2022	SHEET TITLE: KINGRY LANE & GA 120	

Capacity Analysis

To determine the operation efficiency of the adjacent roads and intersections, under existing and total traffic conditions, SYNCHRO analysis was performed utilizing methods documented in the *Highway Capacity Manual (HCM)*, 6th Edition, published by the Transportation Research Board.

Level of Service is a function of driver expectation and is calculated based upon delay experienced by vehicles at intersections. For roadway segments, Level of Service (LOS) is a function of the average travel speed.

Level of Service is graded from A through F, with LOS A being the best and LOS F being the worst. The higher the letter grade, generally the higher levels of delay and congestion may be expected.

For unsignalized intersections, the average delay per vehicle is calculated for all vehicles traversing the intersection. Level of Service thresholds developed in the *Highway Capacity Manual* are then used to grade the intersection operations. Table 1 and 2 report the thresholds utilized for unsignalized and signalized intersections, respectively.

The study network intersections were analyzed with existing geometry for both the existing and total traffic scenarios. See Table 3 and 4 for Level of Service summaries.

Table 1: Level of Service Criteria – Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

Table 2: Level of Service Criteria – Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F ¹	>80	Forced flow (congested and queues fail to clear)

Table 3: Level of Service Analysis Summary- Unsignalized Intersections

Existing Traffic: Unsignalized Intersections					
		AM Peak Period		PM Peak Period	
Intersection	Movement	Delay (s)	LOS	Delay (s)	LOS
S. Main St. and Devore Road.	WBR	10.9	B	19.1	C
	SBL	9	A	11.9	B
Old Milton Pkwy and Park St.	EBL	21.2	C	31.3	D
	WBU	11.9	B	17.5	C
	SBL	52.2	F	134.5	F
	SBR	16.4	C	21.5	C

Table 4: Level of Service Analysis Summary- Signalized Intersections

Existing Traffic: Signalized Intersections						
	AM Peak Period		Noon Peak Period		PM Peak Period	
Intersection	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
Old Milton Pkwy and Kingry St	5.1	A	11.9	B	7.7	A
Old Milton Pkwy and Kingry St Removing Turn Lane	5.1	A	11.9	B	7.8	A
Old Milton Pkwy and Roswell	28	C	20.9	C	22.7	C
Old Milton Pkwy and Roswell All-Red Pedestrian Scramble	67.2	E	-	-	123.5	F

Alternatives Analysis

Two alternative pedestrian/cycling routes were considered in this analysis.

The first alternative was to direct pedestrians and cyclists to the proposed Devore Relocation Road in order to cross S. Main Street instead of crossing at Devore Road. By adjusting the crossing, foot-traffic would be crossing at an intersection with less recorded crashes in the last three years.

The second alternative was to direct pedestrians and cyclists to cross Old Milton Parkway at the intersection of Park Street instead of at Kingry Lane. Kingry Lane is a signalized intersection as Park Street is not, however, less crashes were recorded at Park Street.

Two alternative intersection configurations were investigated.

The first intersection configuration alternative was to combine the right and left turn lanes on Kingry Lane to a single lane of traffic turning onto Old Milton Parkway. Removing the lane would provide additional space for the AlphaLoop project to create a wider pathway. Combining the turn lanes have no significant impact upon the Level of Service on Kingry Lane as shown in Table 4.

The second intersection configuration alternative was to alter Old Milton Parkway and Roswell Street to have an all-red phase in order for foot-traffic to cross in any direction safely. The all-red pedestrian phase created a delay that moved the Level of Service into the F category during the PM peak period as shown in Table 4.

Conclusions

The report has analyzed traffic and safety conditions in the project vicinity of three proposed pedestrian crossings at Old Milton Parkway and Roswell Street, Old Milton Parkway and Kingry Lane, and South Main Street and Devore Road in North Fulton County. In the analysis, two alternative routes and two alternative intersection configurations were investigated. The alternative intersection configurations found that removing a lane at Kingry Street did not have significant effect on the Level of Service. The all-red pedestrian phase was found to have a significant negative impact on the Level of Service on Old Milton Road due to the delay.

Based on this analysis, the PM peak traffic had a higher volume of vehicles, pedestrians, and bicyclists than the AM and Noon peaks. Roswell Street and Old Milton Parkway had the highest volume of pedestrians recorded with 271 pedestrians/bicyclists crossing northbound across Old Milton Parkway between 4:45 PM and 5:45 PM.

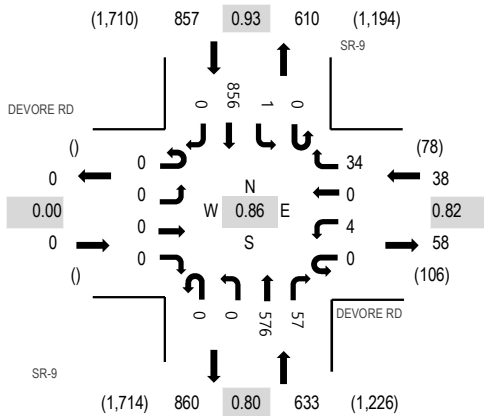
To conduct the crash analysis for the intersections, GEARS was utilized. The most car wrecks occurring at S. Main Street and Devore Road were angled crashes as people turned out onto S. Main Street. The majority of wrecks recorded at Roswell Street and Old Milton Parkway were angled crashes as vehicles attempted to turn left onto both roadways. Crashes recorded at Kingry Lane and Old Milton Parkway were most-often angled crashes as vehicles turned left from Old Milton Parkway onto Kingry Lane. No pedestrians or bicyclists were involved in the reported crashes.

Through the several analysis methods, it is concluded that the Level of Service at the three proposed AlphaLoop crossings currently maintain a LOS rating of C or above with the existing conditions. It is also important to note that no reported crashes included pedestrians or bicyclists at any of the studied locations.

Appendices

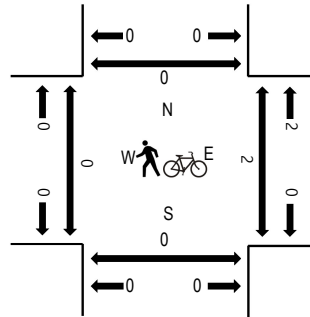
Appendix A- Traffic Count Data

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEVORE RD Eastbound				DEVORE RD Westbound				SR-9 Northbound				SR-9 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	0	0	0	0	6	0	0	101	5	0	0	195	0	307	1,521	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	8	0	0	128	13	0	1	223	0	373	1,528	0	1	0	0
7:30 AM	0	0	0	0	0	1	0	5	0	0	186	16	0	0	235	0	443	1,526	0	0	0	0
7:45 AM	0	0	0	0	0	2	0	7	0	0	147	19	0	0	223	0	398	1,487	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	14	0	0	115	9	0	0	175	0	314	1,493	0	1	0	0
8:15 AM	0	0	0	0	0	0	0	4	0	0	145	7	0	0	215	0	371		0	2	0	0
8:30 AM	0	0	0	0	0	1	0	14	0	0	156	21	0	1	211	0	404		0	0	0	0
8:45 AM	0	0	0	0	0	1	0	14	0	0	144	14	0	0	231	0	404		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Lights	0	0	0	0	0	4	0	34	0	0	558	54	0	1	837	0	1,488
Mediums	0	0	0	0	0	0	0	0	0	0	15	3	0	0	19	0	37
Total	0	0	0	0	0	4	0	34	0	0	576	57	0	1	856	0	1,528



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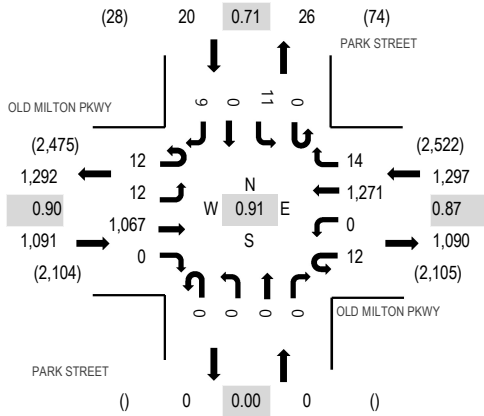
Location: 4 PARK STREET & OLD MILTON PKWY AM

Date: Wednesday, May 25, 2022

Peak Hour: 08:00 AM - 09:00 AM

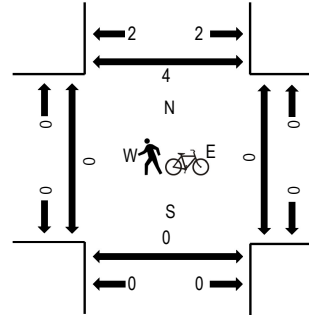
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	OLD MILTON PKWY Eastbound				OLD MILTON PKWY Westbound				PARK STREET Northbound				PARK STREET Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	1	1	194	0	1	0	252	8	0	0	0	0	0	2	0	1	460	2,246	0	0	0	0
7:15 AM	4	3	230	0	5	0	280	7	0	0	0	0	0	2	0	0	531	2,337	0	0	0	0
7:30 AM	2	2	301	0	5	0	292	8	0	0	0	0	0	0	0	0	610	2,381	0	0	0	2
7:45 AM	4	4	267	0	7	0	345	15	0	0	0	0	0	1	0	2	645	2,395	0	0	0	1
8:00 AM	0	3	258	0	2	0	282	3	0	0	0	0	0	2	0	1	551	2,408	0	0	0	0
8:15 AM	5	1	253	0	0	0	307	2	0	0	0	0	0	6	0	1	575		0	0	0	0
8:30 AM	6	4	281	0	5	0	319	5	0	0	0	0	0	1	0	3	624		0	0	0	1
8:45 AM	1	4	275	0	5	0	363	4	0	0	0	0	0	2	0	4	658		0	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5
Lights	12	11	1,051	0	12	0	1,194	13	0	0	0	0	0	11	0	8	2,312
Mediums	0	1	14	0	0	0	74	1	0	0	0	0	0	0	0	1	91
Total	12	12	1,067	0	12	0	1,271	14	0	0	0	0	0	11	0	9	2,408



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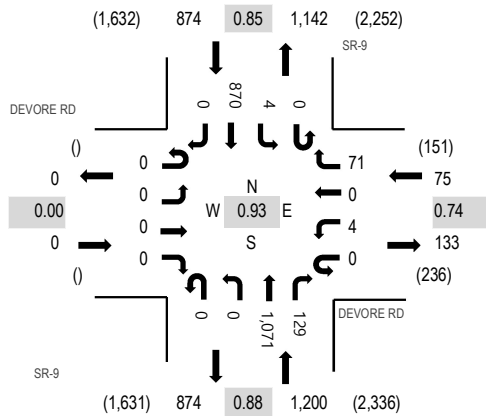
Location: 3 SR-9 & DEVORE RD PM

Date: Wednesday, May 25, 2022

Peak Hour: 05:00 PM - 06:00 PM

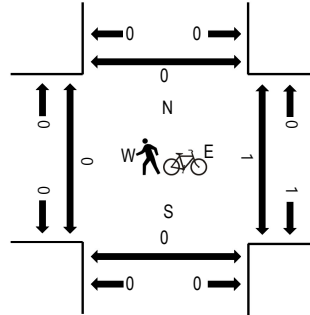
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	DEVORE RD Eastbound				DEVORE RD Westbound				SR-9 Northbound				SR-9 Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	1	0	27	0	0	277	28	0	1	171	0	505	1,970	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	11	0	0	248	20	0	1	205	0	485	1,996	0	1	0	0
4:30 PM	0	0	0	0	0	1	0	21	0	0	267	26	0	0	186	0	501	2,090	0	2	0	0
4:45 PM	0	0	0	0	0	0	0	15	0	0	244	26	0	1	193	0	479	2,133	0	1	0	0
5:00 PM	0	0	0	0	0	0	0	14	0	0	312	33	0	0	172	0	531	2,149	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	25	0	0	247	49	0	1	256	0	579		0	1	0	0
5:30 PM	0	0	0	0	0	0	0	16	0	0	286	24	0	1	217	0	544		0	0	0	0
5:45 PM	0	0	0	0	0	3	0	16	0	0	226	23	0	2	225	0	495		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5
Lights	0	0	0	0	0	4	0	71	0	0	1,062	127	0	4	855	0	2,123
Mediums	0	0	0	0	0	0	0	0	0	0	6	2	0	0	13	0	21
Total	0	0	0	0	0	4	0	71	0	0	1,071	129	0	4	870	0	2,149



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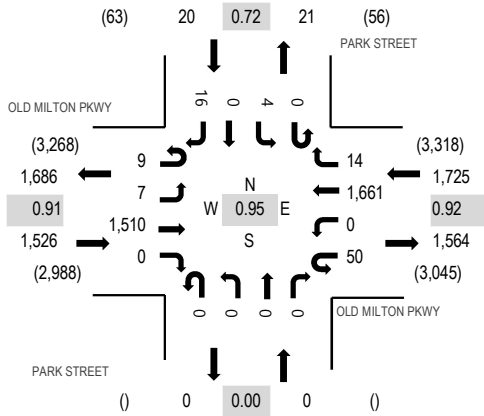
Location: 4 PARK STREET & OLD MILTON PKWY PM

Date: Wednesday, May 25, 2022

Peak Hour: 05:00 PM - 06:00 PM

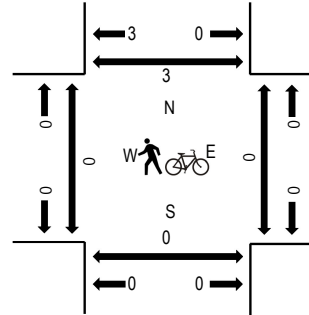
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	OLD MILTON PKWY Eastbound				OLD MILTON PKWY Westbound				PARK STREET Northbound				PARK STREET Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	2	1	349	0	5	0	335	5	0	0	0	0	0	2	0	6	705	3,098	0	0	0	1
4:15 PM	3	8	384	0	8	0	376	2	0	0	0	0	0	5	0	10	796	3,200	0	0	0	0
4:30 PM	4	5	359	0	9	0	455	7	0	0	0	0	0	3	0	8	850	3,213	0	0	0	3
4:45 PM	0	6	341	0	10	0	380	1	0	0	0	0	0	6	0	3	747	3,223	0	2	0	1
5:00 PM	6	3	366	0	9	0	414	3	0	0	0	0	0	0	0	6	807	3,271	0	0	0	1
5:15 PM	0	1	420	0	13	0	368	4	0	0	0	0	0	1	0	2	809		0	0	0	0
5:30 PM	3	2	380	0	17	0	450	3	0	0	0	0	0	1	0	4	860		0	0	0	0
5:45 PM	0	1	344	0	11	0	429	4	0	0	0	0	0	2	0	4	795		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	8
Lights	9	7	1,491	0	50	0	1,642	14	0	0	0	0	0	4	0	15	3,232
Mediums	0	0	15	0	0	0	15	0	0	0	0	0	0	0	0	1	31
Total	9	7	1,510	0	50	0	1,661	14	0	0	0	0	0	4	0	16	3,271



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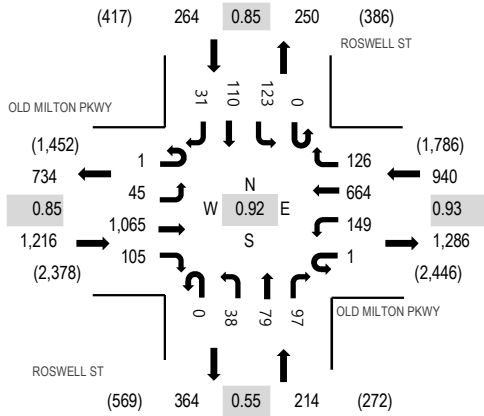
Location: 1 ROSWELL ST & OLD MILTON PKWY AM

Date: Thursday, May 12, 2022

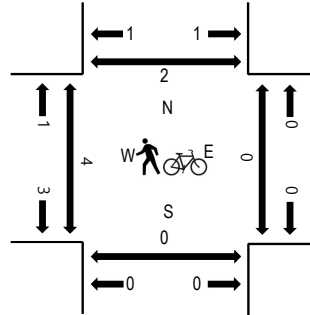
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	OLD MILTON PKWY Eastbound				OLD MILTON PKWY Westbound				ROSWELL ST Northbound				ROSWELL ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	5	209	2	1	14	118	19	0	1	4	5	0	12	24	5	419	2,410	2	0	1	0
7:15 AM	0	9	280	14	0	34	134	28	0	3	8	3	0	37	28	10	588	2,634	1	0	0	1
7:30 AM	0	14	242	43	0	61	170	29	0	12	26	43	0	31	39	8	718	2,616	2	0	0	0
7:45 AM	0	12	228	28	0	40	179	38	0	17	35	45	0	33	24	6	685	2,474	1	0	0	0
8:00 AM	1	10	315	20	1	14	181	31	0	6	10	6	0	22	19	7	643	2,443	0	0	0	1
8:15 AM	0	6	266	8	3	12	180	33	0	1	7	7	0	23	19	5	570		0	0	0	0
8:30 AM	0	2	253	31	2	14	171	46	0	7	3	4	0	21	16	6	576		0	1	0	3
8:45 AM	4	2	331	43	2	17	208	6	0	9	3	7	0	14	5	3	654		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	3	1	0	0	0	0	0	0	0	0	6
Lights	1	44	1,059	101	1	149	650	122	0	37	79	97	0	121	109	31	2,601
Mediums	0	1	4	4	0	0	11	3	0	1	0	0	0	2	1	0	27
Total	1	45	1,065	105	1	149	664	126	0	38	79	97	0	123	110	31	2,634



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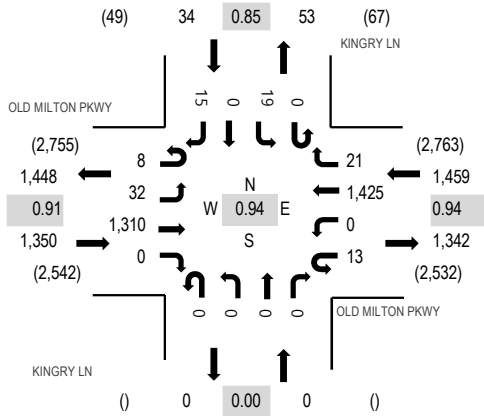
Location: 2 KINGRY LN & OLD MILTON PKWY AM

Date: Thursday, May 12, 2022

Peak Hour: 08:00 AM - 09:00 AM

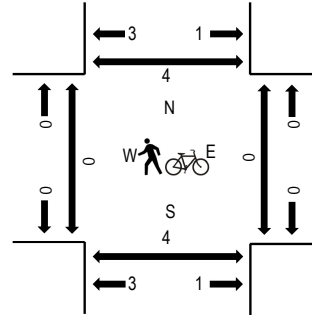
Peak 15-Minutes: 08:45 AM - 09:00 AM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	OLD MILTON PKWY Eastbound				OLD MILTON PKWY Westbound				KINGRY LN Northbound				KINGRY LN Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	1	1	190	0	1	0	301	0	0	0	0	0	0	2	0	4	500	2,511	0	0	1	0
7:15 AM	1	1	324	0	1	0	318	1	0	0	0	0	0	0	0	0	646	2,715	3	0	2	0
7:30 AM	2	0	298	0	1	0	342	4	0	0	0	0	0	1	0	3	651	2,770	0	0	1	1
7:45 AM	2	2	370	0	1	0	329	5	0	0	0	0	0	1	0	4	714	2,804	0	0	1	0
8:00 AM	1	8	354	0	2	0	327	4	0	0	0	0	0	6	0	2	704	2,843	0	0	0	1
8:15 AM	2	3	317	0	3	0	360	9	0	0	0	0	0	4	0	3	701		0	0	1	1
8:30 AM	2	13	292	0	3	0	359	6	0	0	0	0	0	6	0	4	685		0	0	1	0
8:45 AM	3	8	347	0	5	0	379	2	0	0	0	0	0	3	0	6	753		0	0	2	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	5	0	0	0	13	1	0	0	0	0	0	0	0	0	19
Lights	8	32	1,276	0	13	0	1,374	20	0	0	0	0	0	19	0	15	2,757
Mediums	0	0	29	0	0	0	38	0	0	0	0	0	0	0	0	0	67
Total	8	32	1,310	0	13	0	1,425	21	0	0	0	0	0	19	0	15	2,843



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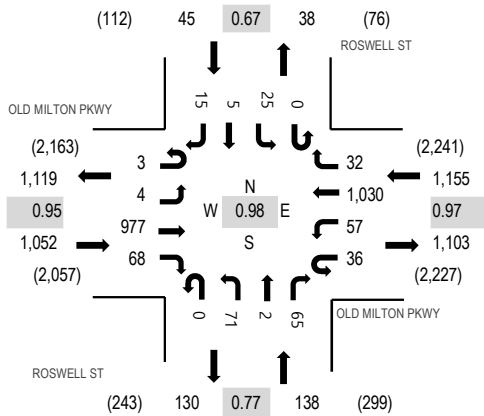
Location: 1 ROSWELL ST & OLD MILTON PKWY Noon

Date: Thursday, May 12, 2022

Peak Hour: 01:00 PM - 02:00 PM

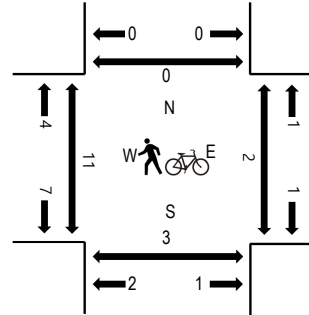
Peak 15-Minutes: 01:45 PM - 02:00 PM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	OLD MILTON PKWY Eastbound				OLD MILTON PKWY Westbound				ROSWELL ST Northbound				ROSWELL ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
12:00 PM	2	0	223	11	8	13	256	6	0	11	0	41	0	5	2	4	582	2,319	2	0	1	2
12:15 PM	0	1	243	14	12	12	239	13	0	22	1	17	0	9	0	8	591	2,338	2	3	3	0
12:30 PM	1	1	223	12	8	17	231	5	0	18	0	20	0	16	6	3	561	2,321	4	3	0	0
12:45 PM	0	2	258	14	10	11	236	9	0	11	0	20	0	11	1	2	585	2,363	1	1	1	0
1:00 PM	2	1	249	23	11	20	239	12	0	24	0	15	0	2	0	3	601	2,390	7	1	0	0
1:15 PM	0	1	226	19	14	9	257	6	0	11	0	18	0	8	2	3	574		3	0	1	0
1:30 PM	0	2	243	10	7	17	270	5	0	18	0	17	0	9	2	3	603		1	1	1	0
1:45 PM	1	0	259	16	4	11	264	9	0	18	2	15	0	6	1	6	612		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	3
Lights	3	4	956	66	36	56	1,002	30	0	54	2	60	0	23	5	15	2,312
Mediums	0	0	20	2	0	1	27	1	0	17	0	5	0	2	0	0	75
Total	3	4	977	68	36	57	1,030	32	0	71	2	65	0	25	5	15	2,390



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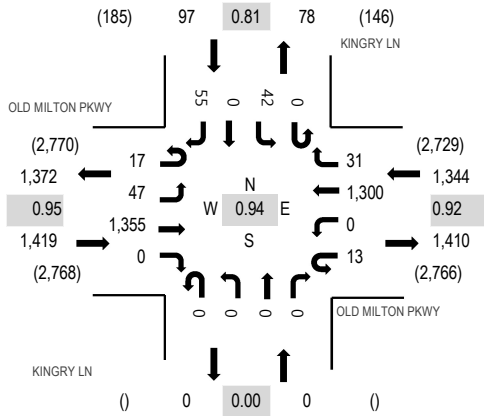
Location: 2 KINGRY LN & OLD MILTON PKWY Noon

Date: Thursday, May 12, 2022

Peak Hour: 01:00 PM - 02:00 PM

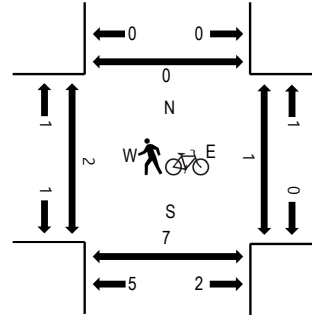
Peak 15-Minutes: 01:45 PM - 02:00 PM

Peak Hour - Motorized Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts - Motorized Vehicles

Interval Start Time	OLD MILTON PKWY Eastbound				OLD MILTON PKWY Westbound				KINGRY LN Northbound				KINGRY LN Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
12:00 PM	5	17	294	0	5	0	353	9	0	0	0	0	0	11	0	13	707	2,822	0	0	2	1
12:15 PM	4	11	339	0	6	0	292	0	0	0	0	0	0	5	0	19	676	2,788	0	0	1	1
12:30 PM	4	13	306	0	10	0	331	3	0	0	0	0	0	14	0	7	688	2,827	0	0	1	0
12:45 PM	6	10	340	0	17	0	354	5	0	0	0	0	0	9	0	10	751	2,852	1	0	1	2
1:00 PM	9	6	320	0	3	0	310	8	0	0	0	0	0	6	0	11	673	2,860	2	0	3	0
1:15 PM	2	13	353	0	3	0	310	8	0	0	0	0	0	13	0	13	715		0	1	2	0
1:30 PM	4	15	360	0	5	0	297	8	0	0	0	0	0	9	0	15	713		0	0	1	0
1:45 PM	2	13	322	0	2	0	383	7	0	0	0	0	0	14	0	16	759		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
Lights	17	45	1,281	0	13	0	1,262	30	0	0	0	0	0	41	0	53	2,742
Mediums	0	2	72	0	0	0	37	1	0	0	0	0	0	1	0	2	115
Total	17	47	1,355	0	13	0	1,300	31	0	0	0	0	0	42	0	55	2,860



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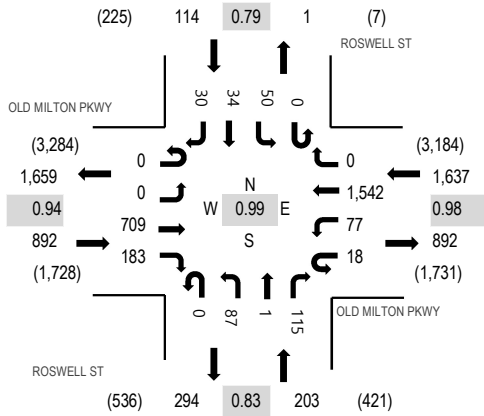
Location: 1 ROSWELL ST & OLD MILTON PKWY PM

Date: Thursday, May 12, 2022

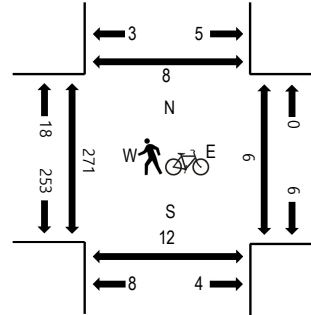
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	OLD MILTON PKWY Eastbound				OLD MILTON PKWY Westbound				ROSWELL ST Northbound				ROSWELL ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	1	2	173	45	3	14	346	1	0	31	0	35	0	12	10	5	678	2,790	9	1	1	1
4:15 PM	1	0	185	38	3	11	398	3	0	25	0	27	0	7	5	22	725	2,819	15	4	0	0
4:30 PM	0	0	167	28	3	18	365	0	0	39	0	24	0	10	4	8	666	2,799	18	6	4	0
4:45 PM	0	0	192	44	6	14	398	0	0	13	0	26	0	15	6	7	721	2,846	38	2	1	2
5:00 PM	0	0	171	48	5	16	378	0	0	18	0	45	0	3	11	12	707	2,768	76	0	4	2
5:15 PM	0	0	176	47	3	19	381	0	0	28	0	27	0	12	6	6	705		77	1	7	2
5:30 PM	0	0	170	44	4	28	385	0	0	28	1	17	0	20	11	5	713		80	3	0	2
5:45 PM	0	0	158	38	0	27	355	0	0	15	0	22	0	10	4	14	643		78	8	5	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	3
Lights	0	0	698	162	18	74	1,532	0	0	87	1	114	0	50	34	30	2,800
Mediums	0	0	10	21	0	3	8	0	0	0	0	1	0	0	0	0	43
Total	0	0	709	183	18	77	1,542	0	0	87	1	115	0	50	34	30	2,846



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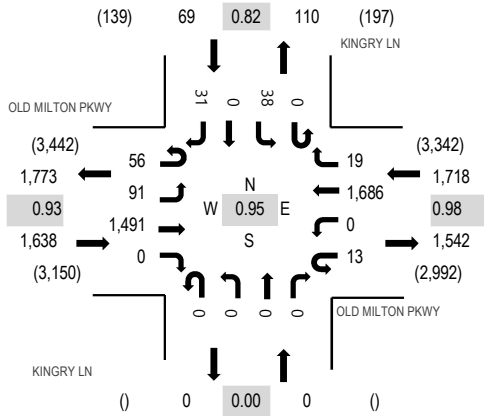
Location: 2 KINGRY LN & OLD MILTON PKWY PM

Date: Thursday, May 12, 2022

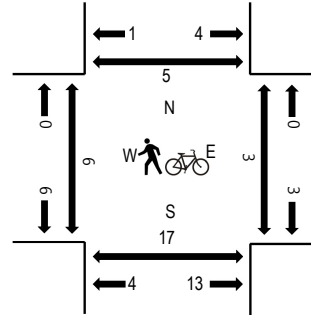
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	OLD MILTON PKWY Eastbound				OLD MILTON PKWY Westbound				KINGRY LN Northbound				KINGRY LN Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	15	8	337	0	4	0	370	8	0	0	0	0	0	13	0	7	762	3,206	0	2	0	1
4:15 PM	22	18	361	0	4	0	395	8	0	0	0	0	0	10	0	9	827	3,266	0	0	0	0
4:30 PM	16	19	340	0	4	0	420	6	0	0	0	0	0	5	0	7	817	3,337	0	0	0	0
4:45 PM	11	14	351	0	7	0	392	6	0	0	0	0	0	14	0	5	800	3,397	1	0	2	1
5:00 PM	11	19	356	0	3	0	404	7	0	0	0	0	0	12	0	10	822	3,425	0	2	2	4
5:15 PM	7	23	411	0	2	0	436	1	0	0	0	0	0	8	0	10	898		0	0	0	0
5:30 PM	21	22	388	0	3	0	429	2	0	0	0	0	0	8	0	4	877		2	0	14	0
5:45 PM	17	27	336	0	5	0	417	9	0	0	0	0	0	10	0	7	828		4	1	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	7
Lights	56	90	1,465	0	13	0	1,668	19	0	0	0	0	0	37	0	31	3,379
Mediums	0	1	23	0	0	0	14	0	0	0	0	0	0	1	0	0	39
Total	56	91	1,491	0	13	0	1,686	19	0	0	0	0	0	38	0	31	3,425

Appendix B- Capacity Analysis

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	W	W	W	W
Traffic Vol, veh/h	0	38	0	633	1	856
Future Vol, veh/h	0	38	0	633	1	856
Conflicting Peds, #/hr	0	2	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	0	688	1	930

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	811	346	0
Stage 1	344	-	-
Stage 2	467	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	817	650	-
Stage 1	689	-	-
Stage 2	597	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	816	649	-
Mov Cap-2 Maneuver	816	-	-
Stage 1	689	-	-
Stage 2	596	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT
Capacity (veh/h)	-	-	649	902
HCM Lane V/C Ratio	-	-	0.064	0.001
HCM Control Delay (s)	-	-	10.9	9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	W	W	W	W
Traffic Vol, veh/h	4	71	1071	129	4	870
Future Vol, veh/h	4	71	1071	129	4	870
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	77	1164	140	4	946

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1715	652	0
Stage 1	1234	-	-
Stage 2	481	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	81	411	-
Stage 1	238	-	-
Stage 2	588	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	80	411	-
Mov Cap-2 Maneuver	80	-	-
Stage 1	238	-	-
Stage 2	579	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	SBL	SBT
Capacity (veh/h)	-	-	337	527
HCM Lane V/C Ratio	-	-	0.242	0.008
HCM Control Delay (s)	-	-	19.1	11.9
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.9	0

Intersection							
Int Delay, s/veh	0.6						
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	24	1067	12	1271	14	11	9
Future Vol, veh/h	24	1067	12	1271	14	11	9
Conflicting Peds, #/hr	4	0	0	0	4	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	Stop
Storage Length	320	-	360	-	-	0	0
Veh in Median Storage, #	0	-	0	-	0	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	26	1160	13	1382	15	12	10
Major/Minor	Major1	Major2		Minor2			
Conflicting Flow All	1401	0	847	-	0	1936	703
Stage 1	-	-	-	-	-	1420	-
Stage 2	-	-	-	-	-	516	-
Critical Hdwy	5.34	-	5.64	-	-	5.74	7.14
Critical Hdwy Stg 1	-	-	-	-	-	6.64	-
Critical Hdwy Stg 2	-	-	-	-	-	6.04	-
Follow-up Hdwy	3.12	-	2.32	-	-	3.82	3.92
Pot Cap-1 Maneuver	249	-	534	-	-	101	326
Stage 1	-	-	-	-	-	133	-
Stage 2	-	-	-	-	-	515	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	248	-	534	-	-	88	325
Mov Cap-2 Maneuver	-	-	-	-	-	88	-
Stage 1	-	-	-	-	-	119	-
Stage 2	-	-	-	-	-	501	-
Approach	EB	WB		SB			
HCM Control Delay, s	0.5	0.1		36.1			
HCM LOS				E			
Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	248	-	534	-	-	88	325
HCM Lane V/C Ratio	0.105	-	0.024	-	-	0.136	0.03
HCM Control Delay (s)	21.2	-	11.9	-	-	52.2	16.4
HCM Lane LOS	C	-	B	-	-	F	C
HCM 95th %tile Q(veh)	0.3	-	0.1	-	-	0.4	0.1

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	16	1510	50	1661	14	4	16
Future Vol, veh/h	16	1510	50	1661	14	4	16
Conflicting Peds, #/hr	3	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	Stop
Storage Length	320	-	360	-	-	0	0
Veh in Median Storage, #	0	-	0	-	0	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	17	1641	54	1805	15	4	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1823	0 1198	- 0 2614 913
Stage 1	-	-	- - 1924 -
Stage 2	-	-	- - 690 -
Critical Hdwy	5.34	- 5.64	- - 5.74 7.14
Critical Hdwy Stg 1	-	-	- - 6.64 -
Critical Hdwy Stg 2	-	-	- - 6.04 -
Follow-up Hdwy	3.12	- 2.32	- - 3.82 3.92
Pot Cap-1 Maneuver	154	- 341	- - 43 237
Stage 1	-	-	- - 64 -
Stage 2	-	-	- - 418 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	154	- 341	- - 32 236
Mov Cap-2 Maneuver	-	-	- - 32 -
Stage 1	-	-	- - 57 -
Stage 2	-	-	- - 351 -

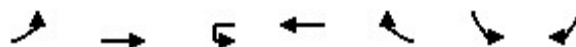
Approach	EB	WB	SB
HCM Control Delay, s	0.3	0.5	44.1
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBU	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	154	-	341	-	-	32	236
HCM Lane V/C Ratio	0.113	-	0.159	-	-	0.136	0.074
HCM Control Delay (s)	31.3	-	17.5	-	-	134.5	21.5
HCM Lane LOS	D	-	C	-	-	F	C
HCM 95th %tile Q(veh)	0.4	-	0.6	-	-	0.4	0.2

HCM Signalized Intersection Capacity Analysis

12: Old Milton Pkwy & Kingry St

06/07/2022

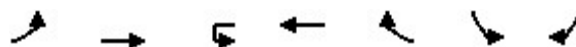


Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	40	1310	13	1425	21	19	15
Future Volume (vph)	40	1310	13	1425	21	19	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	0.91		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)	1768	5085	1770	5074		1770	1583
Flt Permitted	0.14	1.00	0.16	1.00		0.95	1.00
Satd. Flow (perm)	255	5085	304	5074		1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1424	14	1549	23	21	16
RTOR Reduction (vph)	0	0	0	1	0	0	14
Lane Group Flow (vph)	43	1424	14	1571	0	21	2
Confl. Peds. (#/hr)	4						
Turn Type	Perm	NA	Perm	NA		Prot	Perm
Protected Phases		6		2		3	
Permitted Phases	6		2				8
Actuated Green, G (s)	92.9	92.9	92.9	92.9		18.1	18.1
Effective Green, g (s)	92.9	92.9	92.9	92.9		18.1	18.1
Actuated g/C Ratio	0.77	0.77	0.77	0.77		0.15	0.15
Clearance Time (s)	4.5	4.5	4.5	4.5		4.5	4.5
Lane Grp Cap (vph)	197	3936	235	3928		266	238
v/s Ratio Prot		0.28		c0.31		c0.01	
v/s Ratio Perm	0.17		0.05				0.00
v/c Ratio	0.22	0.36	0.06	0.40		0.08	0.01
Uniform Delay, d1	3.7	4.3	3.2	4.4		43.8	43.3
Progression Factor	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	2.5	0.3	0.5	0.3		0.6	0.1
Delay (s)	6.2	4.5	3.7	4.7		44.4	43.4
Level of Service	A	A	A	A		D	D
Approach Delay (s)		4.6		4.7		44.0	
Approach LOS		A		A		D	
Intersection Summary							
HCM 2000 Control Delay		5.1		HCM 2000 Level of Service		A	
HCM 2000 Volume to Capacity ratio		0.35					
Actuated Cycle Length (s)		120.0		Sum of lost time (s)		9.0	
Intersection Capacity Utilization		44.9%		ICU Level of Service		A	
Analysis Period (min)		15					
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis

12: Old Milton Pkwy & Kingry St

06/07/2022

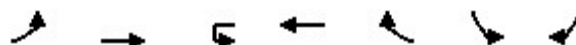


Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↰	↑↑↑		↰	↰
Traffic Volume (vph)	147	1491	13	1686	19	38	31
Future Volume (vph)	147	1491	13	1686	19	38	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	0.91		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)	1768	5085	1769	5075		1770	1546
Flt Permitted	0.10	1.00	0.13	1.00		0.95	1.00
Satd. Flow (perm)	179	5085	239	5075		1770	1546
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	160	1621	14	1833	21	41	34
RTOR Reduction (vph)	0	0	0	1	0	0	29
Lane Group Flow (vph)	160	1621	14	1853	0	41	5
Confl. Peds. (#/hr)	5		3		5	3	6
Turn Type	Perm	NA	Perm	NA		Prot	Perm
Protected Phases		6		2		3	
Permitted Phases	6		2				8
Actuated Green, G (s)	92.5	92.5	92.5	92.5		18.5	18.5
Effective Green, g (s)	92.5	92.5	92.5	92.5		18.5	18.5
Actuated g/C Ratio	0.77	0.77	0.77	0.77		0.15	0.15
Clearance Time (s)	4.5	4.5	4.5	4.5		4.5	4.5
Lane Grp Cap (vph)	137	3919	184	3911		272	238
v/s Ratio Prot		0.32		0.37		c0.02	
v/s Ratio Perm	c0.89		0.06				0.00
v/c Ratio	1.17	0.41	0.08	0.47		0.15	0.02
Uniform Delay, d1	13.7	4.6	3.3	5.0		43.9	43.1
Progression Factor	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	129.1	0.3	0.8	0.4		1.2	0.2
Delay (s)	142.8	4.9	4.2	5.4		45.1	43.2
Level of Service	F	A	A	A		D	D
Approach Delay (s)		17.3		5.4		44.3	
Approach LOS		B		A		D	
Intersection Summary							
HCM 2000 Control Delay		11.9		HCM 2000 Level of Service		B	
HCM 2000 Volume to Capacity ratio		0.99					
Actuated Cycle Length (s)		120.0		Sum of lost time (s)		9.0	
Intersection Capacity Utilization		67.4%		ICU Level of Service		C	
Analysis Period (min)		15					
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis

12: Old Milton Pkwy & Kingry St

06/07/2022



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	64	1355	13	1300	31	42	55
Future Volume (vph)	64	1355	13	1300	31	42	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	0.91	1.00	0.91		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00		0.95	1.00
Satd. Flow (prot)	1770	5085	1769	5067		1770	1557
Flt Permitted	0.15	1.00	0.15	1.00		0.95	1.00
Satd. Flow (perm)	286	5085	277	5067		1770	1557
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	1473	14	1413	34	46	60
RTOR Reduction (vph)	0	0	0	2	0	0	48
Lane Group Flow (vph)	70	1473	14	1445	0	46	12
Confl. Peds. (#/hr)			1			1	2
Turn Type	Perm	NA	Perm	NA		Prot	Perm
Protected Phases		6		2		3	
Permitted Phases	6		2				8
Actuated Green, G (s)	87.5	87.5	87.5	87.5		23.5	23.5
Effective Green, g (s)	87.5	87.5	87.5	87.5		23.5	23.5
Actuated g/C Ratio	0.73	0.73	0.73	0.73		0.20	0.20
Clearance Time (s)	4.5	4.5	4.5	4.5		4.5	4.5
Lane Grp Cap (vph)	208	3707	201	3694		346	304
v/s Ratio Prot		c0.29		0.29		c0.03	
v/s Ratio Perm	0.24		0.05				0.01
v/c Ratio	0.34	0.40	0.07	0.39		0.13	0.04
Uniform Delay, d1	5.8	6.2	4.6	6.2		39.8	39.1
Progression Factor	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	4.3	0.3	0.7	0.3		0.8	0.2
Delay (s)	10.2	6.5	5.3	6.5		40.6	39.3
Level of Service	B	A	A	A		D	D
Approach Delay (s)		6.7		6.5		39.9	
Approach LOS		A		A		D	

Intersection Summary

HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th Signalized Intersection Summary

7: Roswell St & Old Milton Pkwy

06/07/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1065	105	150	664	126	38	79	97	123	110	31
Future Volume (veh/h)	46	1065	105	150	664	126	38	79	97	123	110	31
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	0.99		0.99	1.00		0.99
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	1158	114	163	722	137	41	86	105	134	120	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	385	1620	721	362	1596	303	328	133	162	316	321	91
Arrive On Green	0.04	0.46	0.46	0.12	0.54	0.54	0.04	0.17	0.17	0.10	0.23	0.23
Sat Flow, veh/h	1781	3554	1582	1781	2979	565	1781	763	932	1781	1400	397
Grp Volume(v), veh/h	50	1158	114	163	430	429	41	0	191	134	0	154
Grp Sat Flow(s),veh/h/ln	1781	1777	1582	1781	1777	1767	1781	0	1695	1781	0	1797
Q Serve(g_s), s	1.7	31.6	5.1	4.9	17.8	17.8	2.2	0.0	12.6	6.9	0.0	8.7
Cycle Q Clear(g_c), s	1.7	31.6	5.1	4.9	17.8	17.8	2.2	0.0	12.6	6.9	0.0	8.7
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.55	1.00		0.22
Lane Grp Cap(c), veh/h	385	1620	721	362	952	947	328	0	295	316	0	412
V/C Ratio(X)	0.13	0.71	0.16	0.45	0.45	0.45	0.12	0.00	0.65	0.42	0.00	0.37
Avail Cap(c_a), veh/h	385	1620	721	362	952	947	328	0	295	316	0	412
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	26.4	19.1	18.3	17.1	17.1	37.7	0.0	46.1	33.9	0.0	39.0
Incr Delay (d2), s/veh	0.7	2.7	0.5	4.0	1.6	1.6	0.8	0.0	10.5	4.1	0.0	2.6
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(50%),veh/ln	0.8	13.5	2.0	2.3	7.4	7.4	1.1	0.0	6.2	3.4	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	29.1	19.6	22.3	18.6	18.6	38.5	0.0	56.6	38.0	0.0	41.6
LnGrp LOS	B	C	B	C	B	B	D	A	E	D	A	D
Approach Vol, veh/h	1322					1022		232		288		
Approach Delay, s/veh	27.8					19.2		53.4		39.9		
Approach LOS	C					B		D		D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	68.8	16.2	25.4	19.2	59.2	9.6	32.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax),s	51	64.3	11.7	20.9	14.7	54.7	5.1	27.5				
Max Q Clear Time (g_c+l1),s	7	19.8	8.9	14.6	6.9	33.6	4.2	10.7				
Green Ext Time (p_c), s	0.0	6.3	0.1	0.5	0.2	9.0	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			28.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

7: Roswell St & Old Milton Pkwy

06/07/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	977	68	93	1030	32	71	2	65	25	5	15
Future Volume (veh/h)	7	977	68	93	1030	32	71	2	65	25	5	15
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	0.98		0.98	0.98		0.98
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	1062	74	101	1120	35	77	2	71	27	5	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	337	1851	823	402	2008	63	381	7	259	326	59	190
Arrive On Green	0.05	0.52	0.52	0.10	0.57	0.57	0.07	0.17	0.17	0.05	0.15	0.15
Sat Flow, veh/h	1781	3554	1580	1781	3517	110	1781	43	1519	1781	385	1232
Grp Volume(v), veh/h	8	1062	74	101	566	589	77	0	73	27	0	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1580	1781	1777	1850	1781	0	1562	1781	0	1617
Q Serve(g_s), s	0.2	24.5	2.8	2.6	24.1	24.1	4.2	0.0	4.9	1.5	0.0	1.3
Cycle Q Clear(g_c), s	0.2	24.5	2.8	2.6	24.1	24.1	4.2	0.0	4.9	1.5	0.0	1.3
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.97	1.00		0.76
Lane Grp Cap(c), veh/h	337	1851	823	402	1014	1056	381	0	267	326	0	249
V/C Ratio(X)	0.02	0.57	0.09	0.25	0.56	0.56	0.20	0.00	0.27	0.08	0.00	0.08
Avail Cap(c_a), veh/h	337	1851	823	402	1014	1056	381	0	267	326	0	249
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.3	19.6	14.5	11.8	16.2	16.2	37.7	0.0	43.3	38.2	0.0	43.5
Incr Delay (d2), s/veh	0.1	1.3	0.2	1.5	2.2	2.1	1.2	0.0	2.5	0.5	0.0	0.7
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(50%),veh/ln	0.1	10.1	1.1	1.1	9.9	10.3	2.0	0.0	2.1	0.7	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	20.9	14.7	13.3	18.4	18.3	38.9	0.0	45.8	38.7	0.0	44.2
LnGrp LOS	B	C	B	B	B	B	D	A	D	D	A	D
Approach Vol, veh/h	1144					1256		150		48		
Approach Delay, s/veh	20.5					18.0		42.2		41.1		
Approach LOS	C					B		D		D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	73.0	11.0	25.0	17.0	67.0	13.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax),s	68.5	68.5	6.5	20.5	12.5	62.5	8.5	18.5				
Max Q Clear Time (g_c+1)2s	26.1	26.1	3.5	6.9	4.6	26.5	6.2	3.3				
Green Ext Time (p_c), s	0.0	9.6	0.0	0.3	0.1	9.6	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	20.9											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary

7: Roswell St & Old Milton Pkwy

06/07/2022

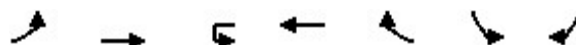
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	709	183	95	1542	0	87	1	115	50	34	30
Future Volume (veh/h)	0	709	183	95	1542	0	87	1	115	50	34	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.76		0.71	0.78		0.65
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	771	199	103	1676	0	95	1	125	54	37	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	2049	905	417	2082	0	294	2	199	212	107	96
Arrive On Green	0.00	0.58	0.58	0.05	0.59	0.00	0.07	0.18	0.18	0.04	0.15	0.15
Sat Flow, veh/h	1781	3554	1569	1781	3647	0	1781	9	1115	1781	715	638
Grp Volume(v), veh/h	0	771	199	103	1676	0	95	0	126	54	0	70
Grp Sat Flow(s),veh/h/ln	1781	1777	1569	1781	1777	0	1781	0	1124	1781	0	1353
Q Serve(g_s), s	0.0	14.1	7.4	2.7	44.4	0.0	5.2	0.0	12.4	3.0	0.0	5.6
Cycle Q Clear(g_c), s	0.0	14.1	7.4	2.7	44.4	0.0	5.2	0.0	12.4	3.0	0.0	5.6
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.99	1.00		0.47
Lane Grp Cap(c), veh/h	198	2049	905	417	2082	0	294	0	200	212	0	203
V/C Ratio(X)	0.00	0.38	0.22	0.25	0.81	0.00	0.32	0.00	0.63	0.25	0.00	0.34
Avail Cap(c_a), veh/h	198	2049	905	417	2082	0	294	0	200	212	0	203
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(l)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.7	12.3	9.8	19.5	0.0	37.8	0.0	45.6	40.5	0.0	45.7
Incr Delay (d2), s/veh	0.0	0.5	0.6	1.4	3.4	0.0	2.9	0.0	14.0	2.9	0.0	4.6
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(50%),veh/ln	0.0	5.6	2.7	1.2	17.9	0.0	2.5	0.0	4.3	1.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.3	12.9	11.3	22.9	0.0	40.7	0.0	59.6	43.4	0.0	50.3
LnGrp LOS	A	B	B	B	C	A	D	A	E	D	A	D
Approach Vol, veh/h	970		1779				221		124			
Approach Delay, s/veh	14.0		22.2				51.5		47.3			
Approach LOS	B		C				D		D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	74.8	9.8	25.9	10.6	73.7	13.2	22.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax),s	50	70.3	5.3	21.4	6.1	69.2	8.7	18.0				
Max Q Clear Time (g_c+1)0s	0	46.4	5.0	14.4	4.7	16.1	7.2	7.6				
Green Ext Time (p_c), s	0.0	14.4	0.0	0.4	0.0	7.1	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			22.7									
HCM 6th LOS			C									

Appendix C- Capacity Analysis Alternatives

HCM Signalized Intersection Capacity Analysis

12: Old Milton Pkwy & Kingry St

06/07/2022

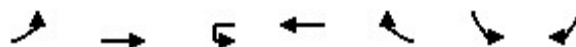


Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	40	1310	13	1425	21	19	15
Future Volume (vph)	40	1310	13	1425	21	19	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.91	1.00	0.91		1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00	1.00		0.94	
Flt Protected	0.95	1.00	0.95	1.00		0.97	
Satd. Flow (prot)	1768	5085	1770	5074		1706	
Flt Permitted	0.14	1.00	0.16	1.00		0.97	
Satd. Flow (perm)	255	5085	304	5074		1706	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1424	14	1549	23	21	16
RTOR Reduction (vph)	0	0	0	1	0	14	0
Lane Group Flow (vph)	43	1424	14	1571	0	23	0
Confl. Peds. (#/hr)	4						
Turn Type	Perm	NA	Perm	NA		Prot	
Protected Phases		6		2		3	
Permitted Phases	6		2				
Actuated Green, G (s)	92.9	92.9	92.9	92.9		18.1	
Effective Green, g (s)	92.9	92.9	92.9	92.9		18.1	
Actuated g/C Ratio	0.77	0.77	0.77	0.77		0.15	
Clearance Time (s)	4.5	4.5	4.5	4.5		4.5	
Lane Grp Cap (vph)	197	3936	235	3928		257	
v/s Ratio Prot		0.28		c0.31		c0.01	
v/s Ratio Perm	0.17		0.05				
v/c Ratio	0.22	0.36	0.06	0.40		0.09	
Uniform Delay, d1	3.7	4.3	3.2	4.4		43.9	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	2.5	0.3	0.5	0.3		0.7	
Delay (s)	6.2	4.5	3.7	4.7		44.6	
Level of Service	A	A	A	A		D	
Approach Delay (s)		4.6		4.7		44.6	
Approach LOS		A		A		D	
Intersection Summary							
HCM 2000 Control Delay		5.1		HCM 2000 Level of Service		A	
HCM 2000 Volume to Capacity ratio		0.35					
Actuated Cycle Length (s)		120.0		Sum of lost time (s)		9.0	
Intersection Capacity Utilization		44.9%		ICU Level of Service		A	
Analysis Period (min)		15					
c Critical Lane Group							

HCM Signalized Intersection Capacity Analysis

12: Old Milton Pkwy & Kingry St

06/07/2022



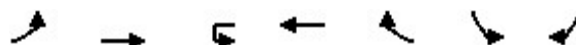
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	147	1491	13	1686	19	38	31
Future Volume (vph)	147	1491	13	1686	19	38	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.91	1.00	0.91		1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00	1.00		0.94	
Flt Protected	0.95	1.00	0.95	1.00		0.97	
Satd. Flow (prot)	1768	5085	1769	5075		1684	
Flt Permitted	0.10	1.00	0.13	1.00		0.97	
Satd. Flow (perm)	179	5085	239	5075		1684	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	160	1621	14	1833	21	41	34
RTOR Reduction (vph)	0	0	0	1	0	25	0
Lane Group Flow (vph)	160	1621	14	1853	0	50	0
Confl. Peds. (#/hr)	5		3		5	3	6
Turn Type	Perm	NA	Perm	NA		Prot	
Protected Phases		6		2		3	
Permitted Phases	6		2				
Actuated Green, G (s)	92.5	92.5	92.5	92.5		18.5	
Effective Green, g (s)	92.5	92.5	92.5	92.5		18.5	
Actuated g/C Ratio	0.77	0.77	0.77	0.77		0.15	
Clearance Time (s)	4.5	4.5	4.5	4.5		4.5	
Lane Grp Cap (vph)	137	3919	184	3911		259	
v/s Ratio Prot		0.32		0.37		c0.03	
v/s Ratio Perm	c0.89		0.06				
v/c Ratio	1.17	0.41	0.08	0.47		0.19	
Uniform Delay, d1	13.7	4.6	3.3	5.0		44.3	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	129.1	0.3	0.8	0.4		1.7	
Delay (s)	142.8	4.9	4.2	5.4		45.9	
Level of Service	F	A	A	A		D	
Approach Delay (s)		17.3		5.4		45.9	
Approach LOS		B		A		D	
Intersection Summary							
HCM 2000 Control Delay			11.9		HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio			1.00				
Actuated Cycle Length (s)			120.0		Sum of lost time (s)		9.0
Intersection Capacity Utilization			67.4%		ICU Level of Service		C
Analysis Period (min)			15				

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

12: Old Milton Pkwy & Kingry St

06/07/2022



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	64	1355	13	1300	31	42	55
Future Volume (vph)	64	1355	13	1300	31	42	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5		4.5	
Lane Util. Factor	1.00	0.91	1.00	0.91		1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00	1.00		0.92	
Flt Protected	0.95	1.00	0.95	1.00		0.98	
Satd. Flow (prot)	1770	5085	1769	5067		1668	
Flt Permitted	0.15	1.00	0.15	1.00		0.98	
Satd. Flow (perm)	286	5085	277	5067		1668	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	1473	14	1413	34	46	60
RTOR Reduction (vph)	0	0	0	2	0	39	0
Lane Group Flow (vph)	70	1473	14	1445	0	67	0
Confl. Peds. (#/hr)			1			1	2
Turn Type	Perm	NA	Perm	NA		Prot	
Protected Phases		6		2		3	
Permitted Phases	6		2				
Actuated Green, G (s)	87.5	87.5	87.5	87.5		23.5	
Effective Green, g (s)	87.5	87.5	87.5	87.5		23.5	
Actuated g/C Ratio	0.73	0.73	0.73	0.73		0.20	
Clearance Time (s)	4.5	4.5	4.5	4.5		4.5	
Lane Grp Cap (vph)	208	3707	201	3694		326	
v/s Ratio Prot		c0.29		0.29		c0.04	
v/s Ratio Perm	0.24		0.05				
v/c Ratio	0.34	0.40	0.07	0.39		0.20	
Uniform Delay, d1	5.8	6.2	4.6	6.2		40.4	
Progression Factor	1.00	1.00	1.00	1.00		1.00	
Incremental Delay, d2	4.3	0.3	0.7	0.3		1.4	
Delay (s)	10.2	6.5	5.3	6.5		41.8	
Level of Service	B	A	A	A		D	
Approach Delay (s)		6.7		6.5		41.8	
Approach LOS		A		A		D	

Intersection Summary

HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

7: Roswell St & Old Milton Pkwy

06/23/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	1065	105	150	664	126	38	79	97	123	110	31
Future Volume (vph)	46	1065	105	150	664	126	38	79	97	123	110	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.92		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1769	3539	1583	1770	3442		1763	1709		1770	1793	
Flt Permitted	0.21	1.00	1.00	0.07	1.00		0.60	1.00		0.20	1.00	
Satd. Flow (perm)	387	3539	1583	126	3442		1112	1709		379	1793	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	1158	114	163	722	137	41	86	105	134	120	34
RTOR Reduction (vph)	0	0	77	0	9	0	0	26	0	0	6	0
Lane Group Flow (vph)	50	1158	37	163	850	0	41	165	0	134	148	0
Confl. Peds. (#/hr)	2					2	4					4
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)	59.8	54.7	54.7	73.9	64.3		26.0	20.9		37.1	27.5	
Effective Green, g (s)	59.8	54.7	54.7	73.9	64.3		26.0	20.9		37.1	27.5	
Actuated g/C Ratio	0.36	0.33	0.33	0.44	0.39		0.16	0.13		0.22	0.17	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lane Grp Cap (vph)	181	1162	520	201	1329		193	214		182	296	
v/s Ratio Prot	0.01	c0.33		c0.07	0.25		0.01	0.10		c0.05	0.08	
v/s Ratio Perm	0.09		0.02	0.29			0.03			c0.11		
v/c Ratio	0.28	1.00	0.07	0.81	0.64		0.21	0.77		0.74	0.50	
Uniform Delay, d1	36.5	55.8	38.4	46.7	41.7		60.7	70.5		55.4	63.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.8	25.6	0.3	28.7	2.4		2.5	23.0		23.1	5.9	
Delay (s)	40.3	81.4	38.7	75.4	44.0		63.2	93.5		78.5	69.2	
Level of Service	D	F	D	E	D		E	F		E	E	
Approach Delay (s)		76.2			49.0			88.1			73.5	
Approach LOS		E			D			F			E	
Intersection Summary												
HCM 2000 Control Delay			67.2			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			166.5			Sum of lost time (s)			22.5			
Intersection Capacity Utilization			69.7%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

7: Roswell St & Old Milton Pkwy

06/23/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	709	183	95	1542	0	87	1	115	50	34	30
Future Volume (vph)	0	709	183	95	1542	0	87	1	115	50	34	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.96	1.00	1.00		1.00	0.97		1.00	0.82	
Flpb, ped/bikes		1.00	1.00	1.00	1.00		0.79	1.00		1.00	1.00	
Frt		1.00	0.85	1.00	1.00		1.00	0.85		1.00	0.93	
Flt Protected		1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3539	1526	1768	3539		1406	1544		1763	1425	
Flt Permitted		1.00	1.00	0.21	1.00		0.69	1.00		0.49	1.00	
Satd. Flow (perm)		3539	1526	382	3539		1016	1544		902	1425	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	771	199	103	1676	0	95	1	125	54	37	33
RTOR Reduction (vph)	0	0	79	0	0	0	0	109	0	0	22	0
Lane Group Flow (vph)	0	771	120	103	1676	0	95	17	0	54	48	0
Confl. Peds. (#/hr)	8		12	12		8	271		6	6		271
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Actuated Green, G (s)		52.4	52.4	57.6	52.5		23.0	18.0		23.0	18.0	
Effective Green, g (s)		52.4	52.4	57.6	52.5		23.0	18.0		23.0	18.0	
Actuated g/C Ratio		0.36	0.36	0.40	0.36		0.16	0.12		0.16	0.12	
Clearance Time (s)		4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Lane Grp Cap (vph)		1278	551	200	1281		174	191		172	176	
v/s Ratio Prot		0.22		c0.02	c0.47		c0.02	0.01		0.01	0.03	
v/s Ratio Perm			0.08	0.19			c0.07			0.04		
v/c Ratio		0.60	0.22	0.52	1.31		0.55	0.09		0.31	0.27	
Uniform Delay, d1		37.8	32.1	31.0	46.3		55.6	56.2		53.0	57.6	
Progression Factor		1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.1	0.9	9.2	144.5		11.8	0.9		4.7	3.8	
Delay (s)		39.9	33.0	40.1	190.7		67.3	57.1		57.8	61.4	
Level of Service		D	C	D	F		E	E		E	E	
Approach Delay (s)		38.5			182.0			61.5			59.8	
Approach LOS		D			F			E			E	
Intersection Summary												
HCM 2000 Control Delay			123.5			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			145.0			Sum of lost time (s)				22.5		
Intersection Capacity Utilization			69.5%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

Timing Report, Sorted By Phase
7: Roswell St & Old Milton Pkwy

06/23/2022



Phase Number	1	2	3	4	5	6	7	8	9
Movement	EBL	WBTL	SBL	NBTL	WBL	EBTL	NBL	SBTL	Ped
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize	Yes		Yes		Yes		Yes		
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max	Max
Maximum Split (s)	9.5	57	9.5	22.5	9.6	56.9	9.5	22.5	46.5
Maximum Split (%)	6.6%	39.3%	6.6%	15.5%	6.6%	39.2%	6.6%	15.5%	32.1%
Minimum Split (s)	9.5	56.5	9.5	22.5	9.5	56.5	9.5	22.5	46.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1	1	1	1	1	1	1	1	1
Minimum Initial (s)	5	5	5	5	5	5	5	5	7
Vehicle Extension (s)	3	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0	0
Walk Time (s)									7
Flash Dont Walk (s)									35
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes	No
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	135.4	144.9	56.9	66.4	135.4	0	56.9	66.4	88.9
End Time (s)	144.9	56.9	66.4	88.9	0	56.9	66.4	88.9	135.4
Yield/Force Off (s)	140.4	52.4	61.9	84.4	140.5	52.4	61.9	84.4	130.9
Yield/Force Off 170(s)	140.4	52.4	61.9	84.4	140.5	52.4	61.9	84.4	95.9
Local Start Time (s)	135.4	144.9	56.9	66.4	135.4	0	56.9	66.4	88.9
Local Yield (s)	140.4	52.4	61.9	84.4	140.5	52.4	61.9	84.4	130.9
Local Yield 170(s)	140.4	52.4	61.9	84.4	140.5	52.4	61.9	84.4	95.9

Intersection Summary

Cycle Length	145
Control Type	Pretimed
Natural Cycle	145
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green	

Splits and Phases: 7: Roswell St & Old Milton Pkwy

Ø1	Ø2 (R)	Ø3	Ø4	Ø9
9.5 s	57 s	9.5 s	22.5 s	46.5 s
Ø5	Ø6 (R)	Ø7	Ø8	
9.6 s	56.9 s	9.5 s	22.5 s	