

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 0012884 **OFFICE** Design Policy & Support
Gwinnett County
GDOT District 1 - Gainesville **DATE** 2/5/2016
Enhancement: CR 417/CR 560/Indian
Trail-Lilburn Road from SR 378 to Church
Street



FROM *for* Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Darryl VanMeter, State Innovative Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Eric Duff, State Environmental Administrator
Bill DuVall, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Lee Upkins, State Utilities Engineer
Richard Cobb, Statewide Location Bureau Chief
Brent Cook, District Engineer
Brandon Kirby, District Preconstruction Engineer
Robby Oliver, District Utilities Engineer
Charles Robinson, Project Manager
BOARD MEMBER - 4th and 7th Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT**

Project Type:	<u>Enhancement</u>	P.I. Number:	<u>0012884</u>
GDOT District:	<u>1</u>	County:	<u>Gwinnett</u>
Federal Route Number:	<u>N/A</u>	State Route Number:	<u>N/A</u>
	Project Number:		<u>N/A</u>

CR 417/CR 560/ Indian Trail – Lilburn Rd
From Willow Trail Pkwy to Burns Rd

Submitted for approval:

<u>Mark Daniels</u> Consultant Designer & Firm or GDOT Concept/Design Phase Office Head &	<u>Puro P Company</u> Date	<u>9-22-2015</u>
<u>[Signature]</u> Local Government Sponsor	<u>Gwinnett County DOT</u> Date	<u>9-23-2015</u>
<u>Albert V. Shelby III</u> State Program Delivery Engineer	Date	<u>10/6/15</u>
<u>[Signature]</u> GDOT Project Manager	Date	<u>9/24/15</u>

Recommendation for approval:

* <u>HIRAL PATEL</u> State Environmental Administrator	Date	<u>10/12/2015</u>
* <u>KEN WERTHO</u> State Traffic Engineer	Date	<u>10/19/2015</u>
* <u>LISA MYERS</u> Project Review Engineer	Date	<u>10/13/2015</u>
* <u>LEE WATKINS</u> State Utilities Engineer	Date	<u>10/13/2015</u>
* <u>DAVID OLSON</u> District Engineer	Date	<u>10/15/2015</u>
* <u>BEN RABUN</u> State Bridge Engineer	Date	<u>10/28/2015</u>

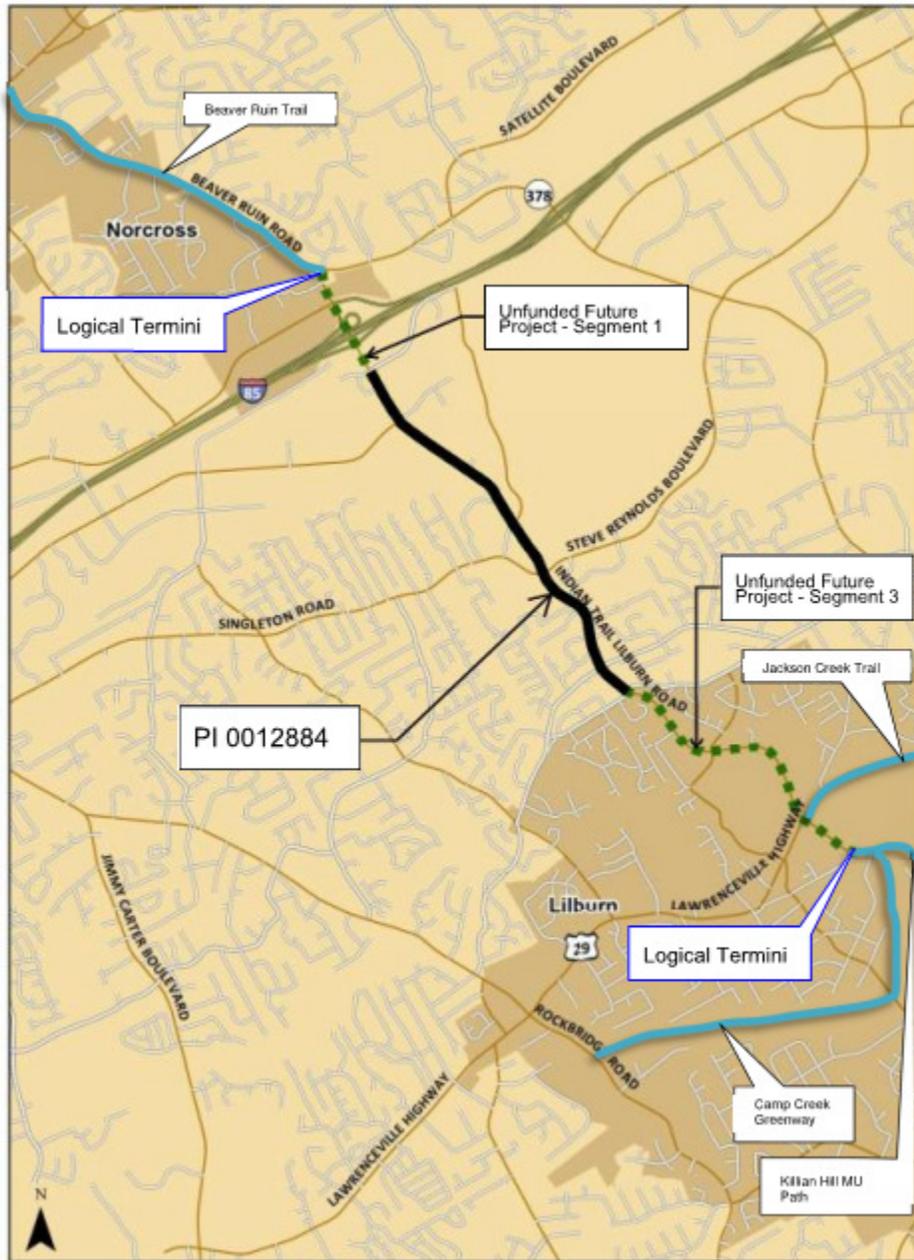
- MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (L RTP).
- Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

* <u>ANTHIA L. KANDYKE</u> State Transportation Planning Administrator	Date	<u>10/16/2015</u>
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* RECOMMENDATION ON FILE - 

County: Gwinnett County

PROJECT LOCATION MAP



*CR 417/CR 560/ Indian Trail – Lilburn Rd From
Willow Trail Pkwy to Burns Rd
PI 0012884
Gwinnett County, GA*

County: Gwinnett County

PLANNING AND BACKGROUND

Project Justification Statement (PI 0012884):

The project justification statement has been prepared by Pond & Company and the Gwinnett County DOT.

A shared use path connecting the City of Norcross to the City of Lilburn along Indian Trail Lilburn Rd has been identified in several planning documents. These include; the *Indian Trail Corridor LCI Study*, the Gwinnett Village CID *Indian Trail/Jimmy Carter Bike and Pedestrian Connectivity Plan*, the *Indian –Trail – Lilburn Road Multi-Use Path Scoping Study*, the *ARC Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan*, and the *Gwinnett County Comprehensive Transportation Plan*. Public outreach for this project was conducted during the *Indian Trail Road and Jimmy Carter Boulevard Pedestrian and Bicycle Connectivity Plan* public involvement stage, which including two public meetings. Additionally, the *Indian –Trail –Lilburn Road Multi-Use Path Scoping study* included a public informational open house (PIOH) to inform residents and provide a forum for voicing questions and concerns.

Along Indian Trail – Lilburn Rd there exist a clear need for pedestrian facilities on both sides of the road. Currently, the east side of Indian Trail – Lilburn Rd lacks sidewalk connectivity, and the corridor lacks bicycle facilities of any sort. The Indian Trail-Lilburn Rd shared use path will provide pedestrian and bicycle facilities along a key transportation corridor, which along with future phases, will connect the cities of Lilburn and Norcross as well as areas of unincorporated Gwinnett County. It will also provide a key route for access to Gwinnett County Transit, including local routes operating along Indian Trail-Lilburn Rd, as well as regional express routes operating from the I-85 Park and Ride lot, thus greatly improving mobility for countless residents. These improvements will enhance bicycle and sidewalk LOS and may mitigate accident frequency involving pedestrians. A secondary benefit of this project is it will provide many linkages to existing and proposed trails in Gwinnett County.

PI 0012884 will begin at Willow Trail Pkwy and end at Burns Rd. The design of PI 0012884 is funded by the FHWA Transportation Alternatives Program (TAP). The proposed shared use path will be approximately 2.00 miles in length and will extend along the east side of Indian Trail – Lilburn Rd. PI 0012884 is one of three connecting shared use path projects anticipated to be constructed along Indian Trail – Lilburn Rd. Together, these three projects have a logical termini at Beaver Ruin Road (SR 378) in the north, where connections to the proposed Beaver Ruin Trail will be made, and Shelley Ln in the south, where connections will be made to the Killian Hill MU Path (TEE-0010237).

PI 0012884 has been funded for design, unlike Segment 1 and Segment 3, so at this time it is the only project that is being designed and permitted. The only exception to this is that environmental documents will be prepared for PI 0012884 and Segment 1 and Segment 3. This is being done to ensure that PI 0012884 can be environmentally permitted through FHWA and USACE without the concern that this project has been segmented to avoid their permit requirements.

County: Gwinnett County

Existing conditions (PI 0012884):

Between Willow Trail Parkway and Burns Rd, Indian Trail – Lilburn Rd is an urban section and is classified as a minor arterial street. Indian Trail – Lilburn Rd generally consists of two lanes in both the northbound and southbound directions, as well as a two way left center lane. From Willow Trail Parkway to Oakbrook Pkwy the roadway transitions from two to three lanes in the southbound direction, and maintains three lanes in the northbound direction. Additionally, in this stretch of roadway, there is either a concrete or landscaped median, and no two way left center lane. From Oakbrook Pkwy to Georgia Belle Ct the roadway consists of 3 lanes in the northbound direction and 2 lanes in the southbound direction, with a two way left center lane.

An existing 5 foot wide sidewalk runs along almost the entire west side of Indian Trail – Lilburn Rd, from Willow Trail Parkway to Burns Rd (2.00 miles). The east side of the road also has an existing 5 foot wide sidewalk at several locations, but also has significant gaps. These gaps exist between Willow Trail Pkwy and Oakbrook Pkwy and between Tech Drive/Hillcrest Road and Burns Road (excluding a few small stretches of sidewalk. In total there is currently 0.90 miles of 5 foot wide sidewalk on the east side of Indian Trail – Lilburn Rd between Willow Trail Parkway and Burns Road.

There are several signalized intersections along the corridor including; Willow Trail Pkwy, Oakbrook Pkwy, Indian Brook Way, Georgia Belle Ct, Tech Dr, Steve Reynold Blvd, Wuthering Way, Dickens Rd, and Burns Rd. Due to the high volume of left turns from Indian Trail - Lilburn Rd, the intersection at Steve Reynolds Blvd has dual left turn lanes in both directions. Dual left turn lanes are also present at the Intersection with Oakbrook Pkwy in the northbound direction.

Existing structures that are located within PI 0012884 include the following:

- 135-0079-0 (Bridge over Beaver Ruin Creek)
- Pedestrian Bridge over Beaver Ruin Creek (West Side of Indian Trail – Lilburn Rd)

Other projects in the area of PI 0012884:

- PI 0012640 – SR 378 FM CS 1137/PRICE PL TO CR 560/ INDIAN TRAIL LILBURN RD
- PI 0010638 – JACKSON CREEK TRAIL IN LILBURN
- PI 0008904 – CS 910/MAIN ST & CS 738/FIRST ST – PEDESTRIAN IMPROVEMENTS LCI

MPO: Atlanta Regional Commission (ARC)**TIP #:** GW-385**Regional Commission:** Atlanta Regional Commission*RC Project ID* GW-385**Congressional District(s):** 4, 7**Federal Oversight:** PoDI Exempt State Funded Other**Projected Traffic:** AADT 24 HR T: 4.5 %Current Year (2013): 36,380 Open Year (2018): 38,380 Design Year (2038): 46,390

Traffic Projections Performed by: Pond & Company

Resource for traffic counts: Georgia's State Traffic and Report Statistics (STARS)

Functional Classification (Mainline): Urban Minor Arterial Street

County: Gwinnett County

Complete Streets - Bicycle, Pedestrian, and/or Transit Standard Warrants:Warrants met: None Bicycle Pedestrian Transit

Bicycle: Project is on a designated regional bike route. Project links to shared use paths at both termini. Bicycle travel generators and destinations (schools, commercial centers, parks, and transit stops) exist along the corridor.

Pedestrian: Pedestrian travel generators and destinations (schools, commercial centers, parks, and transit stops) exist along the corridor. Worn paths exist at locations where sidewalk is not present. Need has been identified through several planning studies.

Transit: Corridor is served by a fixed-route transit system.

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? No Yes

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required? No Yes

Preliminary Pavement Type Selection Report Required? No Yes

Feasible Pavement Alternatives: HMA PCC HMA & PCC

This is a shared use path project, and as such does not require a Pavement Evaluation.

DESIGN AND STRUCTURAL**Description of the proposed project:**

PI 0012884, which parallels Indian Trail – Lilburn Rd from Willow Trail Parkway to Burns Road, falls under the jurisdictions of unincorporated Gwinnett County and the Gwinnett Village CID. P.I. 0012884 intends to install bicycle and pedestrian accommodations along the east side of Indian Trail – Lilburn Rd in the form of a shared use path that is 10' in width. A single pedestrian bridge will be required in order to cross Beaver Ruin Creek. This section of shared use path is characterized as being adjacent to the road with a grass strip separating the shared use path from the back of the roadway curb. Throughout PI 0012884 there are locations where the existing right of way may provide opportunities to increase the width of the grass strip and pull away from Indian Trail – Lilburn Rd. Providing access from residential areas to commercial areas and transit routes is one of the primary goals of PI 0012884, and is one of the main reasons this segment will be designed and constructed first. PI 0012884 is approximately 2.0 miles in length.

PI 0012884 is one of three connecting shared use path projects anticipated to be constructed along Indian Trail – Lilburn Rd. Together, these three projects have a logical termini at Beaver Ruin Road (SR 378) in the north, where connections to the proposed Beaver Ruin Trail will be made, and Shelley Ln in the south, where connections will be made to the Killian Hill MU Path (TEE-0010237).

County: Gwinnett County

Major Structures:

Structure	Existing	Proposed
135-0079-0 (Bridge over Beaver Ruin Creek)	3-12 ft. lanes in both the northbound and southbound direction. Approximately 4 ft. concrete median. No curb or sidewalk. 83 ft. roadway width, 89 ft. deck width. 58 ft. structure length	Retain Existing Bridge
Pedestrian Bridge over Beaver Ruin Creek	Approximately 10' X 60' pedestrian bridge on west side of Indian Trail Lilburn Rd.	Maintain pedestrian bridge on the west side of Indian Trail – Lilburn Rd and install approximately 10' X 60' pedestrian bridge on east side of Indian Trail Lilburn Rd.
Gravity Walls	Walls are present throughout PI 0012884.	GDOT STD. 9031L Gravity Walls will be utilized throughout PI 0012884.
Boardwalk	No boardwalk is currently present.	Approximately 700 LF of wooden boardwalk is proposed.

Mainline Design Features: Indian Trail – Lilburn Rd (Urban Minor Arterial Street)

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4 to 6		4 to 6
- Lane Width(s)	11'-12'	Min. 11'	11'-12'
- Median Width & Type	14' flush two way left	14' flush two way left	14' flush two way left
- Outside Shoulder or Border Area Width	Varies	12'	17'
- Outside Shoulder Slope	6% max	4%	2%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks (East Side)	Intermittent 5' Sidewalks	5'	10' Multiuse Path
- Auxiliary Lanes	11'-12'	11'	11'-12'
- Bike Lanes	None	4'	None
Posted Speed	45 MPH		45 MPH
Design Speed	45 MPH	45 MPH	45 MPH
Min Horizontal Curve Radius	735 Ft	711 Ft	735 Ft
Maximum Superelevation Rate	Urban – 4% max	Urban – 4% max	Urban – 4% max
Maximum Grade	8%	8%	8%
Access Control	Permitted	Permitted	Permitted
Design Vehicle	WB-40 or Bus-40	WB-40 or Bus-40	WB-67
Pavement Type	Concrete	Concrete	Concrete

*According to current GDOT design policy if applicable

County: Gwinnett County

Major Interchanges/Intersections:

Major Intersections

Indian Trail - Lilburn Rd at Oakbrook Pkwy

Lighting required: No Yes

Off-site Detours Anticipated: No Yes Undetermined

Transportation Management Plan [TMP] Required: No Yes

If Yes: Project classified as: Non-Significant Significant

TMP Components Anticipated: TTC TO PI

Temporary Traffic Control (TTC) plan will be covered under Special Provision 150.

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	No	Undeter- mined	Yes	Appvl Date (if applicable)
1. Design Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Lane Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Shoulder Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Bridge Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Horizontal Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Superelevation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Vertical Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Grade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Stopping Sight Distance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Cross Slope	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Vertical Clearance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Lateral Offset to Obstruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Bridge Structural Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewing Office	No	Undeter- -mined	Yes	Appvl Date (if applicable)
1. Access Control/Median Openings	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Intersection Sight Distance	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Intersection Skew Angle	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Lateral Offset to Obstruction	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Rumble Strips	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Safety Edge	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Median Usage	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Roundabout Illumination Levels	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Complete Streets	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. ADA & PROWAG	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

County: Gwinnett County

11. GDOT Construction Standards	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. GDOT Drainage Manual	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. GDOT Bridge & Structural Manual	Bridges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

VE Study anticipated: No Yes Completed – Date:

UTILITY AND PROPERTY

Temporary State Route needed: No Yes Undetermined

Railroad Involvement:

No Railroad involvement is anticipated for this project.

Utility Involvements:

- Georgia Power - Electricity
- Gwinnett County - Water and Sewer
- Gwinnett County DOT - ITS
- Atlanta Gas and Light - Natural Gas
- AT&T - Telecommunications
- Comcast Cable - Telecommunications
- Level 3 - Telecommunications
- Plantation Pipeline Company - Natural Gas
- Transco Natural Gas Pipeline - Natural Gas
- Colonial Pipeline Company - Natural Gas
- Jackson EMC

SUE Required: No Yes Undetermined

Public Interest Determination Policy and Procedure recommended? No Yes

Right-of-Way: Existing width: 100-125 ft. Proposed width: 100-125 ft.

Required Right-of-Way anticipated: None Yes Undetermined

Easements anticipated: None Temporary Permanent Utility Other

Anticipated total number of impacted parcels:	43
Displacements anticipated:	Businesses: <u>0</u>
	Residences: <u>0</u>
	Other: <u>0</u>
Total Displacements:	<u>0</u>

Location and Design Approval: Not Required Required

County: Gwinnett County

CONTEXT SENSITIVE SOLUTIONS

Issue: Indian Trail – Lilburn Rd has limited pedestrian mobility on its east side due to large gaps in the existing sidewalk. Furthermore, many transit locations are located along the east side of Indian Trail – Lilburn Rd. Due to this issue there is a large amount of pedestrians who are still traveling the east side of Indian Trail- Lilburn Rd, despite the lack of existing infrastructure.

Solution: Adding a shared use path to the east side of Indian Trail – Lilburn Rd will not only fill in the gaps in the existing infrastructure, but will also enhance bicycle and sidewalk LOS and may mitigate accident frequency involving those who are reliant on transit.

Issue: Greater Atlanta Christian School has their main campus located on the west side of Indian Trail – Lilburn Rd. This campus features highly aesthetic landscaping and hardscaping. As they have recently expanded to have offices located on the east side of Indian Trail – Lilburn Rd they will likely wish to incorporate some of their existing landscaping and hardscaping around the project area.

Solution: Engage Greater Atlanta Christian School in the design of the area surrounding their campus. Make sure that the proposed shared use path will not conflict with any landscaping or hardscaping plans that they may currently have. By working together it may be possible to achieve a better design for both parties.

Issue: Minimize impacts to environmentally sensitive areas (ESAs) and to historically significant structures/areas (Section 4(f) Resources). Protect the natural systems by managing erosion, sedimentation, and stormwater runoff.

Solution: Efforts will be made to minimize project impacts to ESAs and Section 4(f) resources. Temporary structural and vegetative erosion measures and permanent infiltration trenches will be evaluated to help protect downstream areas from sedimentation and pollution. Enhanced swales and infiltration trenches will also be evaluated to provide water quality treatment and channel protection.

Issue: Preserve greenspace and create an interconnected greenspace program that provides connectivity to local path systems.

Solution: The proposed shared use path, along with two other unfunded shared use path projects, will connect to the proposed Beaver Ruin Trail on the north end and the Killian Hill MU Path (TEE-0010237) on the south end. Together, these projects will essentially connect paths in the City of Norcross to paths in the City of Lilburn and have the opportunity to tie into several other existing or proposed paths or parks including; the Camp Creek Greenway, the Jackson Creek Trail, and Bryson Park. This connection will help increase accessibility to natural resources throughout Gwinnett County.

ENVIRONMENTAL & PERMITS

Anticipated Environmental Document:

GEPA: NEPA: CE EA/FONSI EIS

MS4 Permit Compliance – Is the project located in a MS4 area?

 No Yes

County: Gwinnett County

A Post Construction Stormwater Report has been prepared for PI 0012884 and is included in the attachments. The conceptual project cost estimates, also included in the attachments, contain preliminary, estimated costs related to the impacts that MS4 post construction structures may have. In order to determine the right of way requirements and develop a more accurate overall project cost estimate, a rudimentary sizing of structures has been performed.

Environmental Permits/Variations/Commitments/Coordination anticipated (PI 0012884):

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
U.S. Coast Guard Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Forest Service/Corps Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
CWA Section 404 Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Tennessee Valley Authority Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Buffer Variance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
NPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
FEMA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None known
Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None known
Other Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None known

Is a PAR required? No Yes Completed – Date:

Environmental Comments and Information:

NEPA/GEPA: The level of NEPA documentation is expected to be a Categorical Exclusion (CE). There are no significant NEPA issues or risks anticipated.

Ecology: An ecology survey identified twelve (12) jurisdictional waters of the US including one wetland, seven perennial streams, one intermittent stream, and three ephemeral channels. Three non-buffered state waters were also identified. Minor impacts to jurisdictional waters are anticipated, however impacts are expected to fall within the thresholds of a US Army Corps of Engineers Nationwide 404 Permit 14. Impacts to buffered state waters may require a Stream Buffer Variance. No species were identified during protected species surveys.

History: Several properties 50 years old or older were identified however none are expected to be considered eligible for inclusion on the National Register.

Archeology: The archaeology survey has not been completed, however, given the highly developed and previously impacted nature of the corridor, no archaeological sites are anticipated.

Air Quality:

- Is the project located in a PM 2.5 Non-attainment area? No Yes
- Is the project located in an Ozone Non-attainment area? No Yes

County: Gwinnett County

Carbon Monoxide hotspot analysis: Required Not Required TBD

Given the project type, the project it is expected to be exempt from the PM2.5 hot spot requirements. Since the project is included in the conforming Regional Transportation Plan and FY 2014-2019 TIP, no further analysis of ozone is required.

Noise Effects: Since this is a shared use path project that will not lead to an increase in traffic or highway noise, the project will be cleared with Type III Noise Screening.

Public Involvement: A public information open house (PIOH) was previously held for this project. No further public involvement is expected.

Major stakeholders:

Stakeholders include the travelling public, Gwinnett County, Gwinnett Village CID, City of Norcross, City of Lilburn, GDOT, Greater Atlanta Christian School, Vulcan Materials Company (Quarry).

CONSTRUCTION

Issues potentially affecting constructability/construction schedule:

- Landscaping improvements have been made along Indian Trail-Lilburn Rd. Need to avoid extensive impacts.
- Need to avoid large utilities (vaults and stations).
- Need to make sure FHWA/USACE permitting is correct and in place prior to commencing construction.

Early Completion Incentives recommended for consideration: No Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Concept Meeting: July 10, 2015. See attachments for meeting minutes.

Other coordination to date:

GVCID Feasibility Study - Stakeholder Meeting #1 – September 11, 2013: The agenda for this meeting included discussing possible shared use path alignments, areas where design challenges are present, and other possible connections to existing infrastructure. Special consideration was given to the section of trail in the vicinity of the Greater Atlanta Christian School due to the number of students who would be on foot in the area. The campus exists on both sides of Indian Trail-Lilburn Road and the ability of students, faculty and parents to cross the road is important. This project provides an opportunity to improve pedestrian crossings and several solutions were discussed.

GVCID Feasibility Study - Stakeholder Meeting #2 – November 12, 2013: The agenda for this meeting included a presentation and discussion of preferred solutions within areas of concern identified in the first meeting. Stakeholders were encouraged to comment on the proposed solutions. Project cost estimates were also presented for discussion. Future steps to move forward with a public information open house meeting in mid-January was discussed. A draft design concept will be presented to the public at this time.

County: Gwinnett County

GVCID Feasibility Study – Stakeholder Meeting #3 – December 18, 2013: The agenda for this meeting included sharing information that was presented at the two previous stakeholder meetings with members of the Gwinnett County DOT. This meeting presented all the known design challenges associated with installing a shared use path along Indian Trail Lilburn Rd, as well as preliminary solutions and a suggested alignment. Two major discussion points from this meeting were the cost associated with the bridge over I-85 and the crossing of Indian Trail – Lilburn Rd near Church St.

GVCID Feasibility Study Public Informational Open House – April 17, 2014: The goal of this PIOH was to present a concept layout and typical section drawings to the general public. Discussion topics included the need and purpose of the shared use path, safety elements at road crossings, aesthetics of the pedestrian bridges, and user perception. The public was allowed to ask questions of the consultant and the various jurisdictions present. Attendees were also asked to fill out comment cards and were encouraged to be honest and descriptive in their responses. Based on these comments, the attendees were supportive of the project because it encourages recreation, community, and mobility. Some concerns that were mentioned on these cards include creating an aesthetically pleasing pedestrian bridge over I-85, adding more vegetation and landscaping whenever possible to improve the trail's desirability, and the possible opportunity for crime that a tunnel section could create.

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Gwinnett County DOT/ Pond & Company
Design	Gwinnett County DOT/ Pond & Company
Right-of-Way Acquisition	Gwinnett County DOT/ GDOT
Utility Relocation	Utility Companies/ Gwinnett County DOT
Letting to Contract	Gwinnett County DOT
Construction Supervision	Gwinnett County DOT
Providing Material Pits	Contractor
Providing Detours	N/A
Environmental Studies, Documents, & Permits	Gwinnett County DOT/ Pond & Company
Environmental Mitigation	Gwinnett County DOT
Construction Inspection & Materials Testing	Gwinnett County DOT

Project Cost Estimate Summary and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
Funded By	80% Federal 20% GCDOT	GCDOT**	GCDOT	GCDOT**	GCDOT**	
\$ Amount	\$355,933	\$2,015,000	\$471,000	\$2,707,857	\$0	\$5,549,790
Date of Estimate	N/A	05/11/2015	09/22/2015	11/02/2015	N/A	

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

**Gwinnett County will seek Federal and/or State funds to pay for a percentage of the right of way and construction costs.

County: Gwinnett County

ALTERNATIVES DISCUSSION

Alternative selection:

No-Build Alternative:			
Estimated Property Impacts:	0	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	0 months
Rationale: This alternative does not meet the project goal of providing pedestrian and bike access along the corridor.			

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection and Contingencies
 - b. Completed Liquid AC Cost Adjustment forms
 - c. Right-of-Way
 - d. Utilities
4. S I & A Report(s)
5. Concept Level Hydrology Study
6. Meeting Minutes
7. PIOH Documents
8. Scoping Study

APPROVALS

Concur: Phil Patel
 Director of Engineering

Approve: Margaret B. Pivko
 Chief Engineer

2/3/16
 Date

Attachment 1

Concept Layout



GWINNETT COUNTY – Norcross to Lilburn Trail
 PI 0012884 – Segment 2
 Concept Team Meeting
 July 10, 2015

LEGEND

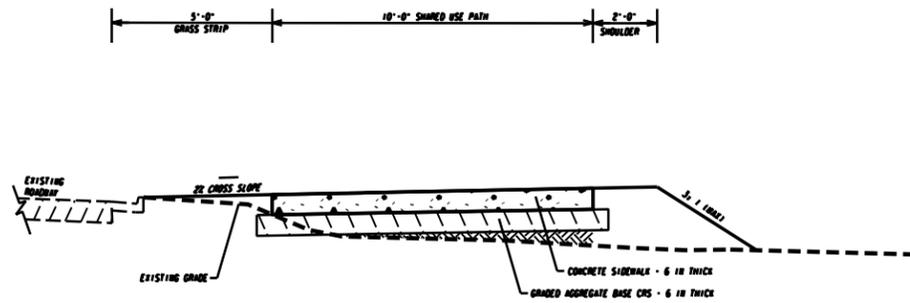
- EXISTING R/W – PROPERTY LINE
- PROPOSED MULTI-USE PATH
- - - CITY BOUNDARY
- ▭ PARK
- PB PEDESTRIAN BRIDGE
- W RETAINING WALL
- BW BOARDWALK SECTION

POND
 Architects/Engineers-Planners
 3500 Parkway Lane
 Suite 600
 Norcross, Ga. 30092
 Phone 678-336-7740
 Fax 678-336-7744
 Web www.pondco.com

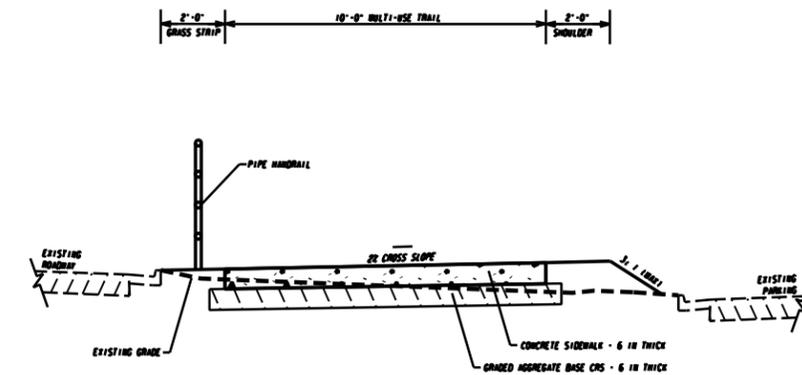


Attachment 2

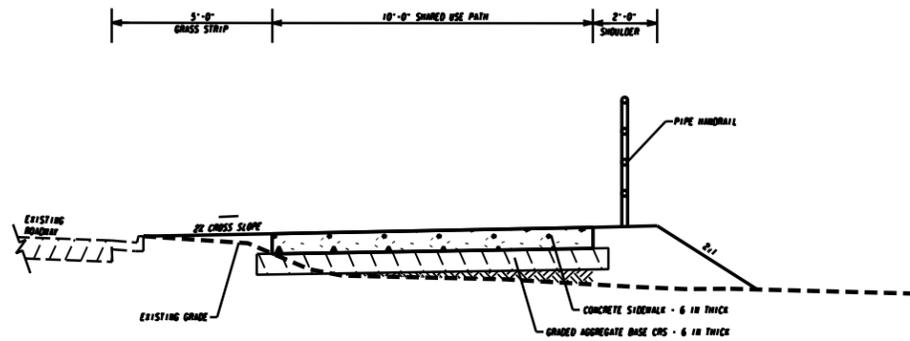
Typical Sections



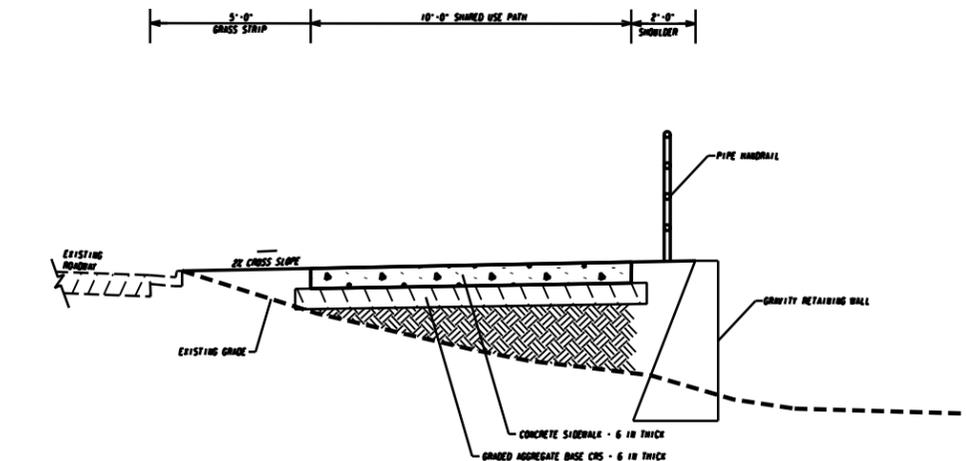
Typical Section
CONCRETE MULTI - USE TRAIL ADJACENT TO ROADWAY



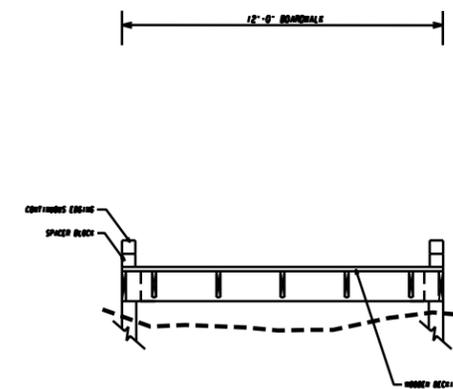
Typical Section
CONCRETE MULTI - USE TRAIL ADJACENT TO ROADWAY



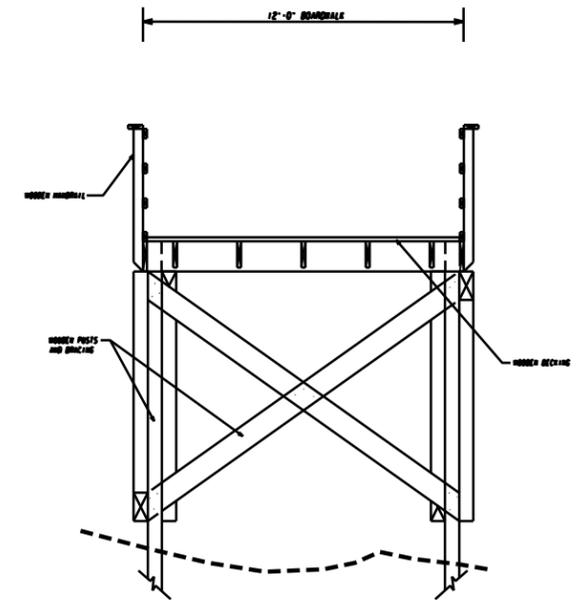
Typical Section
CONCRETE MULTI - USE TRAIL ADJACENT TO ROADWAY



Typical Section
CONCRETE MULTI - USE TRAIL ADJACENT TO ROADWAY
WALL SECTION



Typical Section
WOODEN BOARDWALK



Typical Section
ELEVATED WOODEN BOARDWALK WITH HANDRAILS

SEE PLAN FOR
LOCATION OF
HANDRAILS

SEE PLAN FOR
LOCATION OF
HANDRAILS

SEE PLAN FOR
LOCATION OF
HANDRAILS

POND
Architects-Engineers-Planners
3500 Parkway Lane
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Norcross, Ga. 30092
Phone 678-336-7740
Fax 678-336-7744
Web www.pondco.com

REVISION DATES	

GWINNETT VILLAGE
COMMUNITY IMPROVEMENT DISTRICT
OFFICE:
TYPICAL SECTIONS
INDIAN TRAIL MULTI-USE TRAIL

Attachment 3

Detailed Cost Estimates

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 0012884

OFFICE Program Delivery

PROJECT DESCRIPTION

CR 417/CR 560/INDIAN TRAIL-LILBURN RD FM SR 378 TO
CHURCH ST

DATE November 2, 2015

From: Albert V. Shelby, III, State Program Delivery Engineer *Albert V. Shelby, III*

To: Lisa L. Myers, State Project Review Engineer

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Charles A. Robinson *CR*

MGMT LET DATE 4/15/2018

MGMT ROW DATE 1/15/2017

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$ 5,000,000.00

DATE N/A

RIGHT OF WAY \$ 626,600.00

DATE N/A

UTILITIES \$ 0

DATE N/A

REVISED COST ESTIMATES

CONSTRUCTION* \$ 2,707,857.39

RIGHT OF WAY \$ 2,015,000.00

UTILITIES \$ 471,000.00

*Cost Contains 10 % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

The current cost estimates are based on the initial funds programmed for the project. The construction cost estimate is based on the completion of a concept layout. The Right of Way (ROW) cost increase is attributed to a preliminary ROW cost estimate based on a concept layout. There were some preliminary reimbursable utility costs identified during the concept phase. Additionally, a 10% contingency factor was used based on the the scope in the concept phase.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$	2,334,554.27	Base Estimate From CES	
B. ENGINEERING AND INSPECTION (E & I):	\$	116,727.71	Base Estimate (A) x	5 %
C. CONTINGENCY:	\$	245,128.20	Base Estimate (A) + E & I (B) x	10 %
			<u>See % Table in "Risk Based Cost Estimation" Memo</u>	
D. TOTAL LIQUID AC ADJUSTMENT:	\$	11,447.21	Total From Liquid AC Spreadsheet	
E. CONSTRUCTION TOTAL:	\$	2,707,857.39	(A + B + C + D = E)	

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
Gwinnett County Public Utilities Water	\$437,300
Gwinnett County Public Utilities Sewer	\$5,200
Gwinnett County DOT - ITS	\$28,500
TOTAL	\$ 471,000.00

ATTACHMENTS:

Detailed Cost Estimate Printout From TRAQS
 Liquid AC Adjustment Spreadsheet

DETAILED COST ESTIMATE



Job: 0012884

JOB NUMBER 0012884

FED/STATE PROJECT NUMBER

SPEC YEAR: 13

DESCRIPTION: INDIAN TRAIL - LILBURN RD FROM SR 378 TO CHURCH ST
FROM WILLOW TRAIL TO BURNS ROAD

ITEMS FOR JOB 0012884

0001 - ROADWAY ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0115	009-3000	1.000	LS	\$20,000.00000	MISCELLANEOUS CONSTRUCTION	\$20,000.00
0120	009-3000	1.000	LS	\$80,000.00000	MISCELLANEOUS CONSTRUCTION	\$80,000.00
0005	150-1000	1.000	LS	\$60,000.00000	TRAFFIC CONTROL - LS	\$60,000.00
0010	210-0100	1.000	LS	\$600,000.00000	GRADING COMPLETE - LS	\$600,000.00
0015	222-1002	400.000	TN	\$18.50000	AGGR DR CRS, TP 2	\$7,400.00
0020	310-1101	5300.000	TN	\$21.79989	GR AGGR BASE CRS, INCL MATL	\$115,539.42
0025	402-3121	440.000	TN	\$82.47575	RECYL AC 25MM SP,GP1/2,BM&HL	\$36,289.33
0030	402-3130	200.000	TN	\$115.39289	RECYL AC 12.5MM SP,GP2,BM&HL	\$23,078.58
0035	402-3190	240.000	TN	\$91.29530	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	\$21,910.87
0040	413-1000	110.000	GL	\$6.96485	BITUM TACK COAT	\$766.13
0045	441-0018	500.000	SY	\$50.43407	DRIVEWAY CONCRETE, 8 IN TK	\$25,217.04
0050	441-0106	9500.000	SY	\$35.34725	CONC SIDEWALK, 6 IN	\$335,798.88
0055	441-6012	4330.000	LF	\$12.88384	CONC CURB & GUTTER/ 6X24TP2	\$55,787.03
0060	500-3201	320.000	CY	\$385.00797	CL B CONC, RET WALL	\$123,202.55
0065	500-9999	8.000	CY	\$201.70813	CL B CONC,BASE OR PVMT WIDEN	\$1,613.67
0070	515-2020	1800.000	LF	\$25.60562	GALV STEEL PIPE HDRAIL,2,ROUD	\$46,090.12
0075	603-2048	80.000	SY	\$79.35000	STN DUMPED RIP RAP, TP 1, 48	\$6,348.00
0080	603-7000	80.000	SY	\$4.25116	PLASTIC FILTER FABRIC	\$340.09
0085	610-0110	2.000	EA	\$1,190.00000	REM BUS SHELTER	\$2,380.00
0090	611-4990	2.000	EA	\$969.00000	RESET BUS SHELTER	\$1,938.00
0110	643-1171	600.000	LF	\$59.50000	CH LK FEN, ZC COAT, 8', 9 GA	\$35,700.00
0095	700-9300	8000.000	SY	\$4.56715	SOD	\$36,537.20
0100	754-4000	3.000	EA	\$1,170.00000	WASTE RECEPTACLE UNIT	\$3,510.00
0105	754-5000	3.000	EA	\$2,600.00000	BENCH	\$7,800.00
SUBTOTAL FOR ROADWAY ITEMS:						\$1,647,246.91

0002 - DRAINAGE ITEMS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0125	550-1180	500.000	LF	\$38.83415	STM DR PIPE 18,H 1-10	\$19,417.08
0130	550-1240	200.000	LF	\$52.51775	STM DR PIPE 24,H 1-10	\$10,503.55
0135	550-1300	120.000	LF	\$57.55414	STM DR PIPE 30,H 1-10	\$6,906.50
0140	550-1360	40.000	LF	\$74.17989	STM DR PIPE 36,H 1-10	\$2,967.20
0145	550-4218	2.000	EA	\$607.11526	FLARED END SECT 18 IN, ST DR	\$1,214.23
0150	668-1100	5.000	EA	\$2,477.06083	CATCH BASIN, GP 1	\$12,385.30
0155	668-5000	1.000	EA	\$2,037.68231	JUNCTION BOX	\$2,037.68
0160	999-0065	8.000	EA	\$10,000.00000	BIORETENTION AREA	\$80,000.00
SUBTOTAL FOR DRAINAGE ITEMS:						\$135,431.54

DETAILED COST ESTIMATE



Job: 0012884

0003 - EROSION CONTROL - PERMANENT

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0165	603-2181	18.000	SY	\$43.49665	STN DUMPED RIP RAP, TP 3, 18	\$782.94
0170	603-7000	18.000	SY	\$4.52126	PLASTIC FILTER FABRIC	\$81.38
0175	700-7000	15.000	TN	\$118.54753	AGRICULTURAL LIME	\$1,778.21
0180	700-8000	4.000	TN	\$608.55942	FERTILIZER MIXED GRADE	\$2,434.24
0185	700-8100	250.000	LB	\$3.12683	FERTILIZER NITROGEN CONTENT	\$781.71
SUBTOTAL FOR EROSION CONTROL - PERMANENT:						\$5,858.48

0004 - EROSION CONTROL - TEMPORARY

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0190	163-0232	5.000	AC	\$287.30946	TEMPORARY GRASSING	\$1,436.55
0195	163-0240	80.000	TN	\$246.11360	MULCH	\$19,689.09
0200	163-0300	1.000	EA	\$1,313.28524	CONSTRUCTION EXIT	\$1,313.29
0205	163-0550	40.000	EA	\$108.65497	CONS & REM INLET SEDIMENT TRAP	\$4,346.20
0210	165-0030	2900.000	LF	\$0.68445	MAINT OF TEMP SILT FENCE, TP C	\$1,984.91
0215	165-0101	1.000	EA	\$649.16351	MAINT OF CONST EXIT	\$649.16
0220	165-0105	40.000	EA	\$30.10596	MAINT OF INLET SEDIMENT TRAP	\$1,204.24
0225	167-1000	2.000	EA	\$219.21351	WATER QUALITY MONITORING AND SAMPLING	\$438.43
0230	167-1500	12.000	MO	\$470.90780	WATER QUALITY INSPECTIONS	\$5,650.89
0235	171-0030	5800.000	LF	\$2.83649	TEMPORARY SILT FENCE, TYPE C	\$16,451.64
0240	643-8200	400.000	LF	\$1.36322	BARRIER FENCE (ORANGE), 4 FT	\$545.29
0245	716-1000	800.000	SY	\$2.31191	EROSION CONTROL MATS, WATERWAYS	\$1,849.53
SUBTOTAL FOR EROSION CONTROL - TEMPORARY:						\$55,559.22

0005 - SIGNING AND MARKING

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0250	636-1020	140.000	SF	\$14.69005	HWY SGN, TP1MAT, REFL SH TP3	\$2,056.61
0255	636-1033	100.000	SF	\$20.95975	HWY SIGNS, TP1MAT, REFL SH TP 9	\$2,095.98
0260	636-2070	300.000	LF	\$9.18225	GALV STEEL POSTS, TP 7	\$2,754.68
0265	652-5451	400.000	LF	\$0.41562	SOLID TRAF STRIPE, 5 IN, WHITE	\$166.25
0275	652-5701	120.000	LF	\$3.11200	SOLID TRAF STRIPE, 24, WHITE	\$373.44
0280	653-1804	7500.000	LF	\$2.25553	THERM SOLID TRAF STRIPE, 8, WH	\$16,916.48
0270	653-3500	10500.000	GLF	\$0.25000	THERMO SOLID TRAF ST, 4 IN, WH	\$2,625.00
0285	656-4001	250.000	SY	\$17.90000	REM EXIST TRAF MARKING, THERM	\$4,475.00
SUBTOTAL FOR SIGNING AND MARKING:						\$31,463.44

DETAILED COST ESTIMATE



Job: 0012884

0006 - SIGNALS

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0290	639-2002	830.000	LF	\$3.60693	STEEL WIRE STRAND CABLE, 3/8	\$2,993.75
0295	639-3004	2.000	EA	\$9,471.19685	STEEL STRAIN POLE, TP IV	\$18,942.39
0300	639-3004	2.000	EA	\$9,471.19685	STEEL STRAIN POLE, TP IV	\$18,942.39
0305	639-5000	4.000	EA	\$6,857.25407	PRESTRESSED CONC STR POLE, TP- TP IV W/60 FT MAST ARM	\$27,429.02
0310	647-1000	1.000	LS	\$12,500.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT WILLOW TRAIL PKWY	\$12,500.00
0315	647-1000	1.000	LS	\$19,875.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT OAKBROOK PKWY	\$19,875.00
0320	647-1000	1.000	LS	\$10,000.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT INDIAN BROOK WAY	\$10,000.00
0325	647-1000	1.000	LS	\$52,375.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT GEORGIA BELLE CT	\$52,375.00
0330	647-1000	1.000	LS	\$16,250.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT HILLCREST RD	\$16,250.00
0335	647-1000	1.000	LS	\$9,750.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT SINGLETON RD	\$9,750.00
0340	647-1000	1.000	LS	\$16,375.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT WUTHERING WAY	\$16,375.00
0345	647-1000	1.000	LS	\$10,625.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT DICKENS RD	\$10,625.00
0350	647-1000	1.000	LS	\$6,000.00000	TRAF SIGNAL INSTALLATION NO - INDIAN TRAIL RD AT BURNS RD	\$6,000.00
0355	682-6222	3770.000	LF	\$5.06197	CONDUIT, NONMETL, TP 2, 2 IN	\$19,083.63
0360	682-6233	1540.000	LF	\$5.24000	CONDUIT, NONMETL, TP 3, 2 IN	\$8,069.60
0365	682-9950	630.000	LF	\$15.53000	DIRECTIONAL BORE - LS	\$9,783.90
SUBTOTAL FOR SIGNALS:						\$258,994.68

0007 - PEDESTRIAN BRIDGES

Line Number	ITEM	QUANTITY	UNITS	PRICE	DESCRIPTION	AMOUNT
0370	534-1000	1.000	LS	\$200,000.00000	PEDESTRIAN OVERPASS BRIDGE, STA BWN WILLOW TRAIL PKWY & OAKBROOK PKWY	\$200,000.00
SUBTOTAL FOR PEDESTRIAN BRIDGES:						\$200,000.00

TOTALS FOR JOB 0012884

ITEMS COST:	\$2,334,554.27
COST GROUP COST:	\$0.00
ESTIMATED COST:	\$2,334,554.27
CONTINGENCY PERCENT:	0.00
ENGINEERING AND INSPECTION:	0.00
ESTIMATED COST WITH CONTINGENCY AND E&I:	\$2,334,554.27

PROJ. NO.
 P.I. NO. 0012884
 DATE 10/31/2015

CALL NO. 7/22/2014

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Oct-15	\$ 2.155
DIESEL		\$ 2.485
LIQUID AC		\$ 429.00

Link to Fuel and AC Index:
<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				11325.6	\$	11,325.60
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	686.40		
Monthly Asphalt Cement Price month project let (APL)			\$	429.00		
Total Monthly Tonnage of asphalt cement (TMT)				44		

ASPHALT	Tons	%AC	AC ton
Leveling	0	5.0%	0
12.5 OGFC	0	5.0%	0
12.5 mm	200	5.0%	10
9.5 mm SP		5.0%	0
25 mm SP	440	5.0%	22
19 mm SP	240	5.0%	12
	880		44

BITUMINOUS TACK COAT

Price Adjustment (PA)			\$	121.61	\$	121.61
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	686.40		
Monthly Asphalt Cement Price month project let (APL)			\$	429.00		
Total Monthly Tonnage of asphalt cement (TMT)				0.472461101		

Bitum Tack

Gals	gals/ton	tons
110	232.8234	0.4724611

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				0	\$	-
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	686.40		
Monthly Asphalt Cement Price month project let (APL)			\$	429.00		
Total Monthly Tonnage of asphalt cement (TMT)				0		

Bitum Tack

	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf. Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt.		0.71	0	232.8234	0

TOTAL LIQUID AC ADJUSTMENT \$ **11,447.21**

**GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 5/11/2015 Project: GW-385
 Revised: County: Gwinnett
 PI: 0012884

Description: CR 417/CR 560/INDIAN TRAIL-LILBURN RD
 Project Termini: Segment 2: Willow Trail PKWY to Burns Rd

Existing ROW: Varies
 Required ROW: Varies
 Parcels: 43

Land and Improvements _____ \$1,044,967.05

Proximity Damage	\$0.00
Consequential Damage	\$274,000.00
Cost to Cures	\$20,000.00
Trade Fixtures	\$88,000.00
Improvements	\$29,000.00

Valuation Services _____ \$228,125.00

Legal Services _____ \$291,525.00

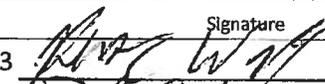
Relocation _____ \$86,000.00

Demolition _____ \$0.00

Administrative _____ \$363,500.00

TOTAL ESTIMATED COSTS _____ \$2,014,117.05

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$2,015,000.00

Preparation Credits	Hours	Signature
Robert C Wade	33	
Benjamin M. Garland Jr.	5	

Prepared By:  CG#: GA# 270880 6/26/2015 (DATE)
 Approved By: Sarahone Alexander CG#: 286999 06/26/2015 (DATE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

Indian Trail-Lilburn Road, Segment 2, Willow Trail Pkwy to Burns Road

Project # P.I. 0012884

May 5, 2015

Utility (Non-Reimbursable)	Quantity	Unit	Cost per unit	Cost
Plantation Pipeline (Inspection)	1	Each	\$15,000.00	\$15,000.00
Jackson EMC Power Distribution	24	Pole	\$28,000.00	\$672,000.00
Jackson EMC Lighting	3	pole	\$2,850.00	\$8,550.00
CATV (Aerial) 1 Coax & 1 Fiber	0	Feet	\$8.00	\$0.00
AT&T Distribution				
Underground Duct	0	Feet	\$235.00	\$0.00
Underground Cable	0	Feet	\$55.00	\$0.00
Direct Bury				
Overhead 3 wires	0	Feet	\$65.00	<u>\$0.00</u>
2 Attachments				\$0.00
Atlanta Gas Light				
6 in HP STL	0	Feet	\$60.00	\$0.00
4 in MP HDPE	0	Feet	\$24.00	\$0.00
Stopples valves	0	Ea	\$7,500.00	\$0.00
Gas Service conn	0	Ea	\$2,000.00	<u>\$0.00</u>
				\$0.00
Utility (Reimbursable)	Quantity	Unit	Cost per unit	Cost
Water				
12 in DIP	100	Feet	\$85.00	\$8,500.00
All other size DIP w/ fittings (30")	400	Feet	\$800.00	\$320,000.00
Long side feeds	6	Ea	\$1,500.00	\$9,000.00
Short side feeds	6	Ea	\$750.00	\$4,500.00
vaults relo or new	2	Ea	\$6,500.00	\$13,000.00
wet cut ins	0	Ea	\$4,000.00	\$0.00
tapping sleeve	0	Ea	\$6,500.00	\$0.00
fire hydrants	8	Ea	\$5,600.00	\$44,800.00
Relo Fire Hyd	3	Ea	\$2,100.00	\$6,300.00

adjust valve boxes	41	Ea	\$600.00	\$24,600.00
adjust Manholes	0	Ea	\$3,250.00	\$0.00
Class "B" Concrete	24	Cyd	\$275.00	<u>\$6,600.00</u>
				\$437,300.00

Sanitary Sewer

24 in DIP Force Main	0	Feet	\$150.00	\$0.00
Sanitary Sewer MH	0	Ea	\$10,300.00	\$0.00
Abandon Exist SS MH	0	Ea	\$850.00	\$0.00
Adjust SS MH	8	Ea	\$650.00	<u>\$5,200.00</u>
				\$5,200.00

Traffic/ATMS/ITS

Raise/Adjust - Type 7 Pullbox	19	Ea	\$1,500.00	\$28,500.00
Raise/Adjust - Type 5 Pullbox	0	Ea	\$2,150.00	<u>\$0.00</u>
				\$28,500.00

Total \$1,166,550.00

Attachment 4

S I & A Reports



Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID: 135-0079-0

Gwinnett

SUFF. RATING: 73.80

Location & Geography

Structure ID: 135-0079-0
200 Bridge Information: 02
***6A Feature Int:** BEAVER RUIN CREEK
***6B Critical Bridge:** CR00560
***7A Route No Carried:** INDIAN TRAIL ROAD
***7B Facility Carried:** 2.6 MI E OF NORCROSS
9 Location: 4841100000 - D1 DISTRICT ONE
2 Dot District: GAINESVILLE
207 Year Photo: 2014
***91 Inspection Frequency:** 24 Date: 01/02/2014
92A Fract Crit Insp Freq: 0 Date: 02/01/1901
92B Underwater Insp Freq: 00 Date: 02/01/1901
92C Other Spc. Insp Freq: 00 Date: 02/01/1901
***4 Place Code:** 00000
***5 Inventory Route(O/U):** 1
Type: 5 - City Street
Designation: 1- Mainline
Number: 09317
Direction: 0: Not applicable
***16 Latitude:** 33.0000- 55.4562 HMMS Prefix:
***17 Longitude:** 84.0000- 10.4034 HMMS Suffix:
MP: 0:00

Signs & Attachments

225 Expansion Joint Type: 02- Open or sealed concrete joint (silicone sealant)
242 Deck Drains: 1- Open Scuppers.
243 Parapet Location: 0- None present.
Height: 0.00
Width: 0.00
238 Curb Height: 0
Curb Material: 0- None.
239 Handrail: 9- Concrete New
***240 Median Barrier Rail:** Inseav Type Barrier New Inseav
241 Bridge Median Height: 0- None.
*** Bridge Median Width:** 0
230 Guardrail Loc. Dir. Rear: 6- Both sides, approach and continuous.
Fwd: 6- Both sides, approach and continuous.
Oppo. Dir. Rear: 0- None.
Oppo. Fwd: 0- None.
244 Approach Slab: 3- Forward and Rear.
224 Retaining Wall: 0- None.
233 Posted Speed Limit: 55
236 Warning Sign: 0.00
234 Delineator: 0.00
235 Hazard Boards: 0
237 Utilities Gas: 31- Side Left.
Water: 00- Not Applicable
Electric: 00- Not Applicable
Telephone: 00- Not Applicable
Sewer: 00- Not Applicable
247 Lighting Street: 0
Navigation: 0
Aerial: 0- Not :
***248 County Continuity No.:** 00

***104 Highway System:** 0- Inventory Route is not on the NHS

***26 Functional Classification:** 16- Urban - Minor Arterial
***204 Federal Route Type:** M - Urban. No: 09317

105 Federal Lands Highway: 0: Not applicable
***110 Truck Route:** 0

206 School Bus Route: 1
217 Benchmark Elevation: 0000.00
218 Datum: 0- Not Applicable

***19 Bypass Length:** 2
***20 Toll:** 3- On a Free Road or Non-Highway
***21 Maintenance:** 02-County Highway Agency.
***22 Owner:** 02-County Highway Agency.

***31 Design Load:** 6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
37 Historical Significance: 5- Not eligible for the National Register of Historic Places

205 Congressional District: 7 - SEVEN

27 Year Constructed: 1985

106 Year Reconstructed: 0

33 Bridge Median: 0-None

34 Skew: 0

35 Structure Flared: No

38 Navigation Control: 0- Navigation is not controlled by an Agency

213 Special Steel Design: 0- Not applicable or other

267 Type of Paint: 0- Not Applicable.

***42 Type of Service On:** 1-Highway
 5-Waterway

214 Movable Bridge: 0

203 Type Bridge: H - Concr - O. Concret O. Concret- O. Concrete

259 Pile Encasement: 3

***43 Structure Type Main:** 5- Prestressed Concrete 2- Stringer/Multi-Beam or Girder

45 No.Spans Main: 1

44 Structure Type Appr: 0- Other 0- Other

46 No Spans Appr: 0

226 Bridge Curve Horz: 0 Vert: 0.00

111 Pier Protection: N - Navigation Control item coded 0, or Feature not a waterway

107 Deck Structure Type:

108 Wearing Structure Type:

Membrane Type:

Deck Protection:



Bridge Inventory Data Listing

Processed Date: 7/9/2015

Parameters: Bridge Serial Num

Structure ID: 135-0079-0

Programming Data

201 Project No: AC1-B-85-2 (98) CT 3
 202 Plans Available: 4 - Plans in Infomage.
 249 Prop Proj No: 00000000000000000000000000000000
 250 Approval Status: 0000
 251 PI Number: 00000000
 252 Contract Date: 02/01/1901
 260 Seismic No: 000000
 75 Type Work: 0 - Not Applicable 0 - Initial Inventory
 94 Bridge Imp. Cost: \$536
 95 Roadway Imp. Cost: \$54
 96 Total Imp Cost: \$803
 76 Imp Length: 0
 97 Imp Year: 2013
 114 Future ADT: 57465 Year: 2032

Hydraulic Data

215 Waterway Data:
 High Water Elev: 0000.0 Year: 1900
 Flood Elev: 0000.0 Freq: 00
 Avg Streambed Elev: 0000.0
 Drainage Area: 00000
 Area of Opening: 000000
 113 Scour Critical U. No Load Rating; no scour critical data entered.
 216 Water Depth: 19 Br. Height: 10.5
 222 Slope Protection: 1
 221 Spur Dikes Rear 0 Fwd: 0
 219 Fender System 0 - None.
 220 Dolphin:
 223 Culvert Cover: 000

Measurements:

*29 ADT 38310 Year: 2012
 109 % Trucks: 1
 * 28 Lanes On: 7 Under: 0
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length 58
 * 49 Structure Length: 58
 51 Br. Rwdy. Width 82.80
 52 Deck Width: 88.70
 * 47 Tot. Horiz. Cl: 83
 50 Curb / Sidewalk Width 0.00 / 0.00
 32 Approach Rdwy. Width 86
 *229 Shoulder Width:
 Rear Lt: 2.00 Type: 1 - Rt: 3
 Fwd. Lt: 2.00 Type: 3 - Rt: 2
 Pavement Width:
 Rear: 86.70 Type: 2 - Asphalt.
 81.70 Type: 2 - Asphalt.
 Intersection Rear: 0 Fwd: 1
 36 Safety Features Br. Rail: 1 - Meets current standards
 Transition: 1 - Meets current standards
 App. G. Rail: 1 - Meets current standards
 App. Rail End: 1 - Meets current standards
 53 Minimum Cl. Over: 99'99"
 Under: N - Feature not a highway or railroad. 0.00/0.00"
 *228 Minimum Vertical Cl
 Act. Odm Dir: 99' 99"
 Oppo. Dir: 99' 99"
 Posted Odm. Dir: 00' 00"
 Oppo. Dir: 00'00 "
 55 Lateral Undercl. Rt: N - Feature not a highway or railroad. 0.00
 56 Lateral Undercl. Lt: 0.00
 *10 Max Min Vert Cl: 99' 99" Dir: 0
 39 Nav Vert Cl: 000 Horiz: 0
 116 Nav Vert Cl Closed: 000
 245 Deck Thickness Main 11.00
 Deck Thick Approach: 0.00
 246 Overlay Thickness: 3.50
 212 Year Last Painted: Sup: 0000 Sub: 0000

Posting Data

70 Bridge Posting Required 5. Equal to or above legal loads
 41 Struct Open, Posted, CL: A. Open, no restriction
 * 103 Temporary Structure: 0
 232 Posted Loads
 H-Modified: 00
 HS-Modified: 00
 Type 3: 00
 Type 3s2: 00
 Timber: 00
 Piggyback 00
 253 Notification Date: 02/01/1901
 258 Fed Notify Date: 02/01/1901



Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID: 135-0080-0

Gwinnett

SUFF. RATING: 83.20

Location & Geography

Structure ID: 135-0080-0
200 Bridge Information: 06
***6A Feature Int:** I-85-M-9317 RAMP
***6B Critical Bridge:** CR00560
***7A Route No Carried:** INDIAN TRAIL ROAD
***7B Facility Carried:** 2 MILE OF NORCROSS
9 Location: 4841100000 - D1 DISTRICT ONE GAINESVILLE
2 Dot District: 2014

207 Year Photo: 24 Date: 09/11/2014
***91 Inspection Frequency:** 0 Date: 02/01/1901
92A Fract Crit Insp Freq: 00 Date: 02/01/1901
92B Underwater Insp Freq: 00 Date: 02/01/1901
92C Other Spc. Insp Freq: 00000

***4 Place Code:** 1
***5 Inventory Route(O/U):** 5 - City Street
Type: 1 - Mainline
Designation: 09317
Number: 0 - Not applicable
Direction: 33.0000 - 55.7027 HMMS Prefix:
***16 Latitude:** 84.0000 - 10.5687 HMMS Suffix:
***17 Longitude:** MP: 0.00
98 Border Bridge: % Shared: 00
99 ID Number: 0000000000000000

***100 STRAHNET:** 1 - The Feature is on an interstate STRAHNET route
12 Base Highway Network: 1352056000
13A LRS Inventory Route: 0.00
13B Sub Inventory Route: N. No parallel structure exists
***101 Parallel Structure:** 2 - Two Way
***102 Direction of Traffic:** 003.25
***264 Road Inventory Mile Post:** Area 07 Initials: JPD
***208 Inspection Area:** jpd
Engineer's Initials: 135-09317M-009.42N
*** Location ID No:**

Signs & Attachments

***104 Highway System:** 1 - Inventory Route is on the NHS
***26 Functional Classification:** 16 - Urban - Minor Arterial
***204 Federal Route Type:** M - Urban. No: 09317
105 Federal Lands Highway: 0 - Not applicable
***110 Truck Route:** 0
206 School Bus Route: 1
217 Benchmark Elevation: 0000.00
218 Datum: 0 - Not Applicable
***19 Bypass Length:** 3
***20 Toll:** 3 - On a Free Road or Non-Highway
***21 Maintenance:** 01 - State Highway Agency.
***22 Owner:** 01 - State Highway Agency.
***31 Design Load:** 6 - HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
37 Historical Significance: 5 - Not eligible for the National Register of Historic Places
205 Congressional District: 7 - SEVEN
27 Year Constructed: 1983
106 Year Reconstructed: 0
33 Bridge Median: 2 - Closed (no barrier)
34 Skew: 0
35 Structure Flared: No
38 Navigation Control: N - Bridge is not over water
213 Special Steel Design: 1 - A588 weathering steel/multi-beam. A588 weathering steel/multi-beam
267 Type of Paint: 6 - No Paint present.
***42 Type of Service On:** 5 - Highway-Pedestrian
Type of Service Under: 1 - Highway (with or without pedestrians)
214 Movable Bridge: 0
203 Type Bridge: 0 - Multipl - O. Concrete M. Steel - O. Concrete
259 Pile Encasement: 3
***43 Structure Type Main:** 4 - Steel (Continuous) 2 - Stringer/Multi-Beam or Girder
45 No Spans Main: 2
44 Structure Type Appr: 0 - Other 0 - Other
46 No Spans Appr: 0
226 Bridge Curve Horz: 0 Vert: 1.00
111 Pier Protection: N - Navigation Control item coded 0, or Feature not a waterway
107 Deck Structure Type:
108 Wearing Structure Type:
Membrane Type:
Deck Protection:

***106- Strip seal type I. (Onflex)**
0 - None.
3 - Both sides.
Height: 1.80
Width: 1.10
238 Curb Height: 1
Curb Material: 1 - Concrete.
239 Handrail: 7 - Aluminum.
***240 Median Barrier Rail:** 7 - Aluminum.
241 Bridge Median Height: 0 - None.
*** Bridge Median Width:** 4
230 Guardrail Loc. Dir. Rear: 5 - Right side only, approach and continuous.
Fwd: 0 - None.
Oppo. Dir. Rear: 5 - Right side only, approach and continuous
Oppo. Fwd: 0 - None.
244 Approach Slab: 3 - Forward and Rear.
224 Retaining Wall: 8 - Precast Concrete
233 Posted Speed Limit: 45
236 Warning Sign: 0.00
234 Delineator: 0.00
235 Hazard Boards: 0
237 Utilities Gas: 00 - Not Applicable
Water: 00 - Not Applicable
Electric: 00 - Not Applicable
Telephone: 21 - Bottom Left.
Sewer: 00 - Not Applicable
247 Lighting Street: 0
Navigation: 0
Aerial: 1 - A581
***248 County Continuity No.:** 00



Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID: 135-0080-0

Programming Data

201 Project No: ACI-B-85-2 (98)
 202 Plans Available: 4 - Plans in Infomage.
 249 Prop Proj No: 00000000000000000000000000000000
 250 Approval Status: 0000
 251 PI Number: 00000000
 252 Contract Date: 02/01/1901
 260 Seismic No: 000000
 75 Type Work: 0 - Not Applicable 0 - Initial Inventory
 94 Bridge Imp. Cost: \$2,149
 95 Roadway Imp. Cost: \$215
 96 Total Imp Cost: \$3223
 76 Imp Length: 0
 97 Imp Year: 2013
 114 Future ADT: 50655 Year: 2032

Hydraulic Data

215 Waterway Data:
 High Water Elev: 0000.0 Year: 1900
 Flood Elev: 0000.0 Freq: 00
 Avg Streambed Elev: 0000.0
 Drainage Area: 00000
 Area of Opening: 000000
 113 Scour Critical N. Bridge not over waterway.
 216 Water Depth: Br. Height:
 222 Slope Protection:
 221 Spur Dikes Rear 0 Fwd: 0
 219 Fender System 0 - None.
 220 Dolphin:
 223 Culvert Cover: 000

Measurements:

*29 ADT 33770 Year: 2012
 109 % Trucks: 1
 * 28 Lanes On: 6 Under: 13
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length 141
 * 49 Structure Length: 263
 51 Br. Rwdy. Width 75.80
 52 Deck Width: 94.40
 * 47 Tot. Horiz. Cl: 76
 50 Curb / Sidewalk Width 6.00 / 6.00
 32 Approach Rdwy. Width 150
 *29 Shoulder Width:
 Rear Lt: 2.00 Type: 1 - Rt: 2
 Fwd. Lt: 2.00 Type: 1 - Rt: 2
 Pavement Width:
 Rear: 81.70 Type: 2 - Asphalt.
 60.70 Type: 2 - Asphalt.
 Intersection Rear: 1 Fwd: 1
 36 Safety Features Br. Rail: 1 - Meets current standards
 Transition: 1 - Meets current standards
 App. G. Rail: 1 - Meets current standards
 App. Rail End: 1 - Meets current standards
 53 Minimum Cl. Over: 99'99"
 Under: H - Highway beneath structure. 16.00'3.00"
 *228 Minimum Vertical Cl
 Act. Odm Dir: 99' 99"
 Oppo. Dir: 99' 99"
 Posted Odm. Dir: 00' 00"
 Oppo. Dir: 00'00 "
 55 Lateral Undercl. Rt: H - Highway beneath structure. 11.40
 56 Lateral Undercl. Lt: 9.00
 *10 Max Min Vert Cl: 99' 99" Dir: 0
 39 Nav Vert Cl: 000 Horiz: 0
 116 Nav Vert Cl Closed: 000
 245 Deck Thickness Main 8.30
 Deck Thick Approach: 0.00
 246 Overlay Thickness: 0.00
 212 Year Last Painted: Sup: 0000 Sub: 0000

65 Inventory Rating Method: 1 - Load Factor (LF)
 63 Operating Rating Method: 1 - Load Factor (LF)
 66 Inventory Type: 2 - HS loading. Rating: 34
 64 Operating Type: 2 - HS loading. Rating: 56
 231 Calculated Loads:
 H-Modified: 21 0
 HS-Modified: 30 0
 Type 3: 33 0
 Type 3s2: 40 0
 Timber: 37 0
 Piggyback: 00 0
 261 H Inventory Rating: 26
 262 H Operating Rating: 44
 67 Structural Evaluation: 7
 58 Deck Condition: 7 - Good Condition
 59 Superstructure Condition: 7 - Good Condition
 * 227 Collision Damage:
 60A Substructure Condition: 7 - Good Condition
 60B Scour Condition: N - Not Applicable
 60C Underwater Condition: N - Not Applicable
 71 Waterway Adequacy: Not Applicable.
 61 Channel Protection Cond.: 10
 68 Deck Geometry: 4
 69 UnderClr. HorzVert: N
 72 Appr. Alignment: 8 - No reduction of vehicle operating speed required.
 62 Culvert: N - Not Applicable
 Posting Data
 70 Bridge Posting Required 5. Equal to or above legal loads
 41 Struct Open, Posted, CL: A. Open, no restriction
 * 103 Temporary Structure: 0
 232 Posted Loads
 H-Modified: 00
 HS-Modified: 00
 Type 3: 00
 Type 3s2: 00
 Timber: 00
 Piggyback 00
 253 Notification Date: 02/01/1901
 258 Fed Notify Date: 02/01/1901



Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID: 135-5230-0

Gwinnett

SUFF. RATING: 97.20

Location & Geography

Structure ID: 135-5230-0
200 Bridge Information: 02
***6A Feature Int:** JACKSON CREEK
***6B Critical Bridge:** CR00560
***7A Route No Carried:** INDIAN TRAIL ROAD
***7B Facility Carried:** IN LILBURN
9 Location: 4841100000 - D1 DISTRICT ONE
2 Dot District: GAINESVILLE
2014

207 Year Photo:
***91 Inspection Frequency:** 24 Date: 02/14/2014
92A Fract Crit Insp Freq: 0 Date: 02/01/1901
92B Underwater Insp Freq: 00 Date: 02/01/1901
92C Other Spc. Insp Freq: 00 Date: 02/01/1901

***4 Place Code:** 46356
***5 Inventory Route(O/U):** 1
Type: 5 - City Street
Designation: 1- Mainline
Number: 09317
Direction: 0: Not applicable
***16 Latitude:** 33.0000- 53.8865 HMMS Prefix:00
***17 Longitude:** 84.0000- 8.4481 HMMS Suffix:000
MP: 0.00

98 Border Bridge: % Shared:00
99 ID Number: 0000000000000000

***100 STRAHNET:** 0- The Feature is not a STRAHNET route.
12 Base Highway Network: 1
13A LRS Inventory Route: 1352056000
13B Sub Inventory Route: 0.00
***101 Parallel Structure:** N. No parallel structure exists
***102 Direction of Traffic:** 2- Two Way

***264 Road Inventory Mile Post:** 000.15
***208 Inspection Area:** Area 07 Initials: JPD
Engineer's Initials: jpd
*** Location ID No:** 135-09317-006.32N

Signs & Attachments

225 Expansion Joint Type: 02- Open or sealed concrete joint (silicone sealant)
242 Deck Drains: 1- Open Scuppers.
243 Parapet Location: 0- None present.
Height: 0.00
Width: 0.00
238 Curb Height: 0
Curb Material: 0- None. 1- Concrete. 1- Concrete.

239 Handrail: 0- None. 1- Concrete.
***240 Median Barrier Rail:** 0- None.
241 Bridge Median Height: 0
*** Bridge Median Width:** 0
230 Guardrail Loc. Dir. Rear: 6- Both sides, approach and continuous.
Fwd: 6- Both sides, approach and continuous.
Oppo. Dir. Rear: 0- None.
Oppo. Fwd: 0- None.
244 Approach Slab: 3- Forward and Rear.
224 Retaining Wall: 0- None.
233 Posted Speed Limit: 45
236 Warning Sign: 0.00
234 Delineator: 0.00
235 Hazard Boards: 0
237 Utilities Gas: 00- Not Applicable
Water: 00- Not Applicable
Electric: 00- Not Applicable
Telephone: 00- Not Applicable
Sewer: 00- Not Applicable

247 Lighting Street: 0
Navigation: 0
Aerial: 0- Not :
***248 County Continuity No.:** 00

***104 Highway System:** 0- Inventory Route is not on the NHS

***26 Functional Classification:** 16- Urban - Minor Arterial
***204 Federal Route Type:** M - Urban. No: 09317
105 Federal Lands Highway: 0, Not applicable
***110 Truck Route:** 0
206 School Bus Route: 1
217 Benchmark Elevation: 0000.00
218 Datum: 0- Not Applicable

***19 Bypass Length:** 2
***20 Toll:** 3- On a Free Road or Non-Highway
***21 Maintenance:** 04-City or Municipal Highway Agency.
***22 Owner:** 04-City or Municipal Highway Agency.
***31 Design Load:** 6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
37 Historical Significance: 5- Not eligible for the National Register of Historic Places
205 Congressional District: 7 - SEVEN
27 Year Constructed: 2011
106 Year Reconstructed: 0
33 Bridge Median: 0-None
34 Skew: 26
35 Structure Flared: No
38 Navigation Control: 0- Navigation is not controlled by an Agency
213 Special Steel Design: 0- Not applicable or other
267 Type of Paint: 0- Not Applicable.
***42 Type of Service On:** 5-Highway-Pedestrian
Type of Service Under: 5-Waterway

214 Movable Bridge: 0
203 Type Bridge: E - Steel f -M. Steel - O. Concret- O. Concrete
259 Pile Encasement: 2
***43 Structure Type Main:** 5-Prestressed Concrete 2-Stringer/Multi-Beam or Girder
45 No.Spans Main: 3
44 Structure Type Appr: 0- Other 1- Concrete
46 No Spans Appr: 0
226 Bridge Curve Horz: 0 Vert: 0.00
111 Pier Protection: N - Navigation Control item coded 0, or Feature not a waterway
107 Deck Structure Type:

108 Wearing Structure Type:
Membrane Type:
Deck Protection:



Bridge Inventory Data Listing

Processed Date: 7/9/2015

Parameters: Bridge Serial Num

Structure ID: 135-5230-0

Programming Data

COUNTY DESIGN
 201 Project No: 19650 Year: 2012
 202 Plans Available: 1 - Plans at General Office.
 249 Prop Proj No: 00000000000000000000000000000000
 250 Approval Status: 0000
 251 PI Number: 00000000
 252 Contract Date: 02/01/1901
 260 Seismic No: 000000
 75 Type Work: 0 - Not Applicable 0 - Initial Inventory
 94 Bridge Imp. Cost: \$995
 95 Roadway Imp. Cost: \$99
 96 Total Imp Cost: \$1492
 76 Imp Length: 0
 97 Imp Year: 2013
 114 Future ADT: 29475 Year: 2032

Hydraulic Data

215 Waterway Data:
 High Water Elev: 0000.0 Year: 1900
 Flood Elev: 0000.0 Freq: 000
 Avg Streambed Elev: 0000.0
 Drainage Area: 00000
 Area of Opening: 000000
 113 Scour Critical U. No Load Rating; no scour critical data entered.
 216 Water Depth: 2.3 Br. Height: 22.1
 222 Slope Protection: 3
 221 Spur Dikes Rear 0 Fwd: 0
 219 Fender System 0 - None.
 220 Dolphin:
 223 Culvert Cover: 000

Measurements:

*29 ADT 19650 Year: 2012
 109 % Trucks: 1
 * 28 Lanes On: 5 Under: 0
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length 50
 * 49 Structure Length: 140
 51 Br. Rwdy. Width 73.00
 52 Deck Width: 87.50
 * 47 Tot. Horiz. Cl: 73
 50 Curb / Sidewalk Width 6.00 / 6.00
 32 Approach Rdwy. Width 64
 *229 Shoulder Width:
 Rear Lt: 2.00 Type: 1 - Rt: 2
 Fwd. Lt: 2.00 Type: 1 - Rt: 2
 Pavement Width:
 Rear: 84.00 Type: 2 - Asphalt.
 60.00 Type: 2 - Asphalt.
 Intersection Rear: 1 Fwd: 0
 36 Safety Features Br. Rail: 1 - Meets current standards
 Transition: 1 - Meets current standards
 App. G. Rail: 1 - Meets current standards
 App. Rail End: 1 - Meets current standards
 53 Minimum Cl. Over: 99'99"
 Under: N - Feature not a highway or railroad. 0.0000.00"
 *228 Minimum Vertical Cl
 Act. Odm Dir: 99' 99"
 Oppo. Dir: 99' 99"
 Posted Odm. Dir: 00' 00"
 Oppo. Dir: 00'00 "
 55 Lateral Undercl. Rt: N - Feature not a highway or railroad. 0.00
 56 Lateral Undercl. Lt: 0.00
 *10 Max Min Vert Cl: 99' 99" Dir: 0
 39 Nav Vert Cl: 000 Horiz: 0
 116 Nav Vert Cl Closed: 000
 245 Deck Thickness Main 8.10
 Deck Thick Approach: 0.00
 246 Overlay Thickness: 0.00
 212 Year Last Painted: Sup: 0000 Sub: 0000

65 Inventory Rating Method: 1 - Load Factor (LF)
 63 Operating Rating Method: 1 - Load Factor (LF)
 66 Inventory Type: 2 - HS loading. Rating: 37
 64 Operating Type: 2 - HS loading. Rating: 71
 231 Calculated Loads:
 H-Modified: 21 0
 HS-Modified: 30 0
 Type 3: 33 0
 Type 3s2: 40 0
 Timber: 37 0
 Piggyback: 00 0
 261 H Inventory Rating: 28
 262 H Operating Rating: 55
 67 Structural Evaluation: 8
 58 Deck Condition: 7 - Good Condition
 59 Superstructure Condition: 8 - Very Good Condition
 * 227 Collision Damage: 0
 60A Substructure Condition: 8 - Very Good Condition
 60B Scour Condition: 9 - Excellent Condition
 60C Underwater Condition: 8 - Very Good Condition
 71 Waterway Adequacy: 8 - Equal to present desirable criteria.
 61 Channel Protection Cond.: 8
 68 Deck Geometry: 6
 69 UnderCir. HorzVert: N
 72 Appr. Alignment: 8 - No reduction of vehicle operating speed required.
 62 Culvert: N - Not Applicable
Posting Data
 70 Bridge Posting Required 5. Equal to or above legal loads
 41 Struct Open, Posted, CL: A. Open, no restriction
 * 103 Temporary Structure: 0
 232 Posted Loads
 H-Modified: 00
 HS-Modified: 00
 Type 3: 00
 Type 3s2: 00
 Timber: 00
 Piggyback 00
 253 Notification Date: 02/01/1901
 258 Fed Notify Date: 02/01/1901

Attachment 5

Concept Level Hydrology Study

Concept Level Hydrology Study Summary

This analysis comprises of the Norcross to Lilburn Multi-Use Trail from Willow Trail Parkway to Burns Road in Gwinnett County for the purpose of determining the extent to meet the MS4 permit requirements.

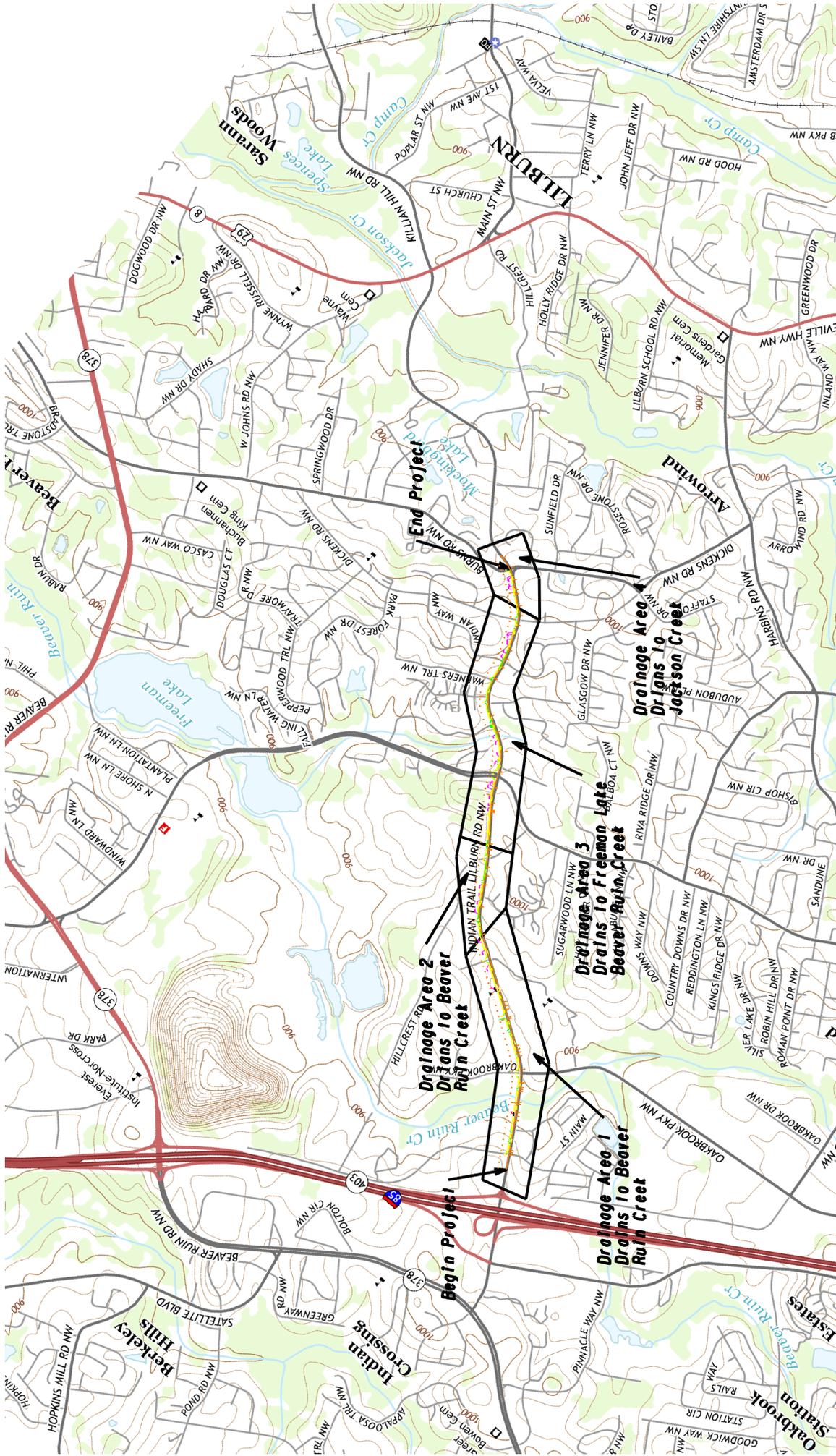
When designing a project that will only be reconstructing the shoulder (addition of impervious area in the form of a trail) of an existing roadway for most sections, certain MS4 requirements should be kept in mind. The only water that will have to be treated for Water Quality (WQv) is the runoff from the added impervious area (the area of the trail itself). This can become an issue if the runoff from the existing roadway mixes with the runoff from the proposed impervious area. One way to solve this issue is to bypass the roadway runoff with a separate drainage system or a bypass structure. Another possible solution would be to reverse the flow of the runoff from the shoulder away from the curb and gutter. Runoff from the roadway cannot be ignored, and the drainage system should include protection from flooding and increasing existing flows, if feasible. The addition of curb and gutter will only add concentrated flow and make flooding and erosion more of an issue.

Due to the highly urbanized and dense construction along most of the corridor, there will be multiple design challenges to meet MS4 permit requirements. Many locations along the corridor have tight existing right of way with parking lots just behind the proposed multi-use trail. This will make the installation and cost of BMPs difficult and expensive. Most BMPs will likely be infeasible along the corridor.

No Project Level Exemptions apply for this project. Possible Outfall Level Exemptions may apply if sheet flow can be shown for a drainage area. Infeasibility requirements will be reviewed during the design process and documented.

The major waters in the area are: Beaver Ruin Creek, and headwaters to Freeman Lake (ultimately Beaver Ruin Creek).

The following sheets show potential drainage areas to be accounted for and their resulting drainage basins/waters.



Attachment 6

Meeting Minutes

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013**



MEETING MINUTES

Project: Indian Trail Multi-Use Trail Feasibility Study

Meeting Location: Gwinnett Village CID Office

Meeting Date: Sept. 11, 2013

Minutes Prepared By: Mark Edwards

Minutes Prepared On: Sept. 11, 2013

ATTENDEES:

<u>Name</u>	<u>Company /Dept/Branch</u>	<u>Email Address</u>
Ashley Rivera	ARC	arivera@atlantaregional.com
Chris McCrary	Norcross	cmccrary@norcrossga.net
Jeff Mueller	Norcross	JMueller@norcrossga.net
Alyssa Sinclair	GVCID	alyssa@gwinnettville.com
Chuck Warbington	GVCID	chuck@gwinnettville.com
Doug Stacks	Lilburn	dstacks@cityoflilburn.com
Vince Edwards	Gwinnett County	Vince.Edwards@gwinnettcounty.com
Gerald McDowell	Lilburn CID	GMcDowell@LilburnCID.com
David Fincher	GACS	dfincher@greateratlantachristian.org
Jill Morris	GACS	jmorris@greateratlantachristian.org
Kevin Skinner	Pond & Company	SkinnerK@pondco.com
Ron Osterloh	Pond & Company	OsterlohR@pondco.com
Richard Fangmann	Pond & Company	FangmannR@pondco.com
Mark Edwards	Pond & Company	EdwardsM@pondco.com
William Hunter	GDOT – District 1	wihunter@dot.ga.gov

PURPOSE OF MEETING:

Stakeholder Meeting to discuss possible alignments, areas of concern, and linkages to surrounding infrastructure for a multi-use trail connecting the proposed greenway trail, along Beaver Ruin Rd in Norcross, to the Camp Creek Greenway in Lilburn.



**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013**

The Following is a summary of what was discussed at the Concept Team Meeting:

PROJECT BACKGROUND

- Project has been included in the following reports;
 - Indian Trail Corridor LCI -2007
 - ARC Bike and Pedestrian Plan -2007
 - Gwinnett County Comprehensive Transportation Plan – 2008
 - GVCID Indian Trail/Jimmy Carter Bike & Pedestrian Connectivity Study - 2012

PROJECT STATUS

- Feasibility of a multi-use trail is being determined.
- GVCID has been awarded \$300,000 in Transportation Alternatives Funding for PE in FY 2014 for this project.

PROJECT PRESENTATION

- Proposed trail would be a 10' concrete trail with a 4' grass strip between the trail and curb and gutter.
- Proposed trail would tie into the existing Camp Creek Greenway at the intersection of Killian Hill Rd. and Poplar St.
- Proposed trail would run along the south side of Killian Hill Rd for approximately 250' before making use of a midblock crossing in order to cross to the north side of Killian Hill Rd.
- Midblock crossing could be a Flashing Hybrid Beacon System or a HAWK system. Would need to do a traffic study to determine which one would be best for this crossing.
- The reason the road crosses to the north side of Killian Hill Rd is to avoid the large amount of driveways on the south side of the road.
- The stretch of Killian Rd in front of the Killian Hill Crossing Shopping Center has substantial walls that make it an area of concern. Pond & Company believe that there is extra width in the roadway that could be used so that the walls would not be disturbed. This would require at a minimum moving the curb and gutter and existing drainage structures to the edge of the existing travel lane.
- Lawrenceville Highway is a well-traveled roadway. Special consideration will be given to make sure that a safe crossing is provided here.
- Bridge over Jackson Creek appears to have extra width that could be used to run the trail along the existing bridge. This may require some reconfiguration of the existing striping.
- Before the alignment reaches Hillcrest Rd. there is a significant stretch of the shoulder that has very steep slopes. In this area it is likely that some combination of extensive grading, wall installation, additional right of way acquisition, and boardwalk installation will be necessary.
- At the Merchants Crossing Shopping Center steep slopes and walls, as well as a parking lot that is very close to the roadway will make the installation of the trail difficult. It was recommended by Pond & Company that the deceleration and acceleration lanes be removed, and that additional width be used for the installation of the trail. In this area it is

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013**

- still likely that some combination of extensive grading, wall installation, additional right of way acquisition, and boardwalk installation will be necessary.
- There is potential to install a spur that connects Bryson Park to Hopkins Elementary School. A greenway could be installed from Bryson Park to Old Manor Ct., and then “sharrows” or a pathway could continue along Hillcrest Rd to Hopkins Elementary School.
 - Immediately to the west of the Indian Trail Apartment homes is a low point and creek that could lead to some difficulties in construction. Pond & Company believes that the trail can be installed by removing the acceleration lane and installing the greenway in that additional width.
 - Singleton Rd., Hillcrest Rd, Oakbrook Parkway, and the On-ramps for I-85 are all well-traveled roadways. Special consideration will be given to make sure that safe crossings are provided at these locations.
 - There are significant slopes where the quarry property runs along Indian Trail Lilburn Rd, between Singleton Rd and Hillcrest Rd. In this area it is likely that some combination of extensive grading, wall installation, additional right of way acquisition, and boardwalk installation will be necessary.
 - At the shopping center immediately to the west of Hillcrest Rd steep slopes and a parking lot that is very close to the roadway will make the installation of the trail difficult. It was recommended by Pond & Company that the deceleration lane be removed, and that additional width be used for the installation of the trail.
 - At the creek crossing between Willow Trail Parkway and Oakbrook Parkway a pedestrian bridge will need to be installed on the north side of Indian Trail Lilburn Rd. Currently many pedestrians walk on the small 1’ concrete edge on the backside of the bridge. The proposed bridge can match the existing bridge on the south side of Indian Trail Lilburn Rd.
 - Installing a 10’ pathway immediately to the west of Willow Trail Parkway will likely require the existing walls to be reconstructed.
 - Four options were discussed to cross I-85 with a pedestrian bridge. These included;
 - A pedestrian bridge located right next to the existing Indian Trail Lilburn Rd bridge,
 - A pedestrian bridge that crosses about 500 ‘ north of the existing Indian Trail Lilburn Rd bridge and connects to the park and ride.
 - An alignment that breaks off of Indian Trail Lilburn Rd and follows Hillcrest Rd and then uses a pedestrian bridge to cross I-85.
 - An alignment that breaks off of Indian Trail Lilburn Rd and follows Willow Trail Parkway and then uses a pedestrian bridge to cross I-85 at Hillcrest Rd.

PROJECT DISCUSSION

- Things to Consider in the project area
 - 1 mile of trail is being designed along US29 from Indian Trail Northbound – Fully funded TE.
 - Jackson Creek Trail – Lilburn CID led.
 - Multi-Use Trail Proposed on Killian Hill from Camp Creek Greenway Trailhead Eastbound.

**Indian Trail Multi-Use Trail Feasibility Study
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Stakeholders Meeting – Sept. 11, 2013**

- Discussed the need for safer more attractive crossings at the 1500 building for GAC students. Discussed the need for countdown timers.
- Discussed revisiting the signal issue and looking at the spike in demand presented by additional use between the main campus and 1500 building. It could help to meet the warrant for a pedestrian bridge or some other type of crossing.
- Scope of the trail project could be extended to include better crossings of Indian Trail Lilburn Rd.
- Discussed incorporating landscaping features that will help to guide pedestrians to crossings.
- Lilburn already has 16 miles of trails. This project will cause some shuffling in the priorities of future trail projects.
- Lilburn has plans to reroute Church St to connect to Poplar St. This will increase the ADT of Poplar St. and could warrant a signal at the intersection of Poplar St. and Killian Hill Rd.
- Lilburn is installing 10' sidewalks around the City Hall as part of their Main St realignment project.
- Discussed extending the limits of this project to Arcado Rd.
- Discussed setting a threshold ADT to determine whether crossings should be made at grade, or should be grade separated.
- Project will not include lighting, furniture, etc.
- Need to let stakeholders in the area know of the project so they do not make improvements that could then be nullified by this project.
- Discussed the idea of Pond & Company Landscape Architect meeting with the GAC project manager.
- A greater need for sidewalks and city owned properties are some of the reasons for the alignment being on the north side of Indian Trail.
- Expect to know about Satellite extension feasibility within 6 months.
- Lilburn side of the project should be the first priority.
- Kickoff for the PE would be 2014. Design, including ROW would last 2-3 years.
- Project would be ready for the 2016 SPLOST, could get Federal funds beforehand.
- Brought up the idea of all 4 partners trying to appeal for SRTA funds.
- The pedestrian bridge alongside the existing bridge would be similar to the silver comet trail.
- GDOT would be most concerned with the crossings of the ramps to I-85.
- Connection to transit could help to get funding through last mile connectivity.

ACTION ITEMS

- Advance ARC scoping Document.
- Hold second stakeholder meeting before PIOH meetings. Second meeting will be held in 6-8 weeks.
- Include preliminary cost estimate with the next batch of information.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013**



- Move photo on the schematic that is currently covering the Lilburn City Hall and Main St areas.
- Provide additional and/or more detailed information about the crossing of I-85 and other highly discussed areas.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013**



MEETING MINUTES

Project: Indian Trail Multi-Use Trail Feasibility Study

Meeting Location: Gwinnett Village CID Office

Meeting Date: Nov. 12, 2013

Minutes Prepared By: Mark Edwards

Minutes Prepared On: Nov. 13, 2013

ATTENDEES:

<u>Name</u>	<u>Company /Dept/Branch</u>	<u>Email Address</u>
Jeff Mueller	Norcross	JMueller@norcrossga.net
Alyssa Sinclair	GVCID	alyssa@gwinnettville.com
Chuck Warbington	GVCID	chuck@gwinnettville.com
Doug Stacks	Lilburn	dstacks@cityoflilburn.com
Ed O'Connor	Lilburn CID	eoconnor@lavista.com
Vince Edwards	Gwinnett County	Vince.Edwards@gwinnettcounty.com
Brett Harte	GACS	bharte@greateratlantachristian.org
Kevin Skinner	Pond & Company	SkinnerK@pondco.com
Ron Osterloh	Pond & Company	OsterlohR@pondco.com
Richard Fangmann	Pond & Company	FangmannR@pondco.com
Mark Edwards	Pond & Company	EdwardsM@pondco.com
Graham Malone	Pond & Company	MaloneG@pondco.com

PURPOSE OF MEETING:

The second stakeholder meeting to discuss challenges and solutions along the suggested alignment, linkages to surrounding infrastructure and future trail projects, and preliminary cost estimates for a multi-use trail connecting the proposed greenway trail, along Beaver Ruin Rd in Norcross, to the Camp Creek Greenway in Lilburn.

The Following is a summary of what was discussed at the Second Concept Team Meeting:



**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013**

PROJECT STATUS

- Feasibility of a multi-use trail is being determined.
- GVCID has been awarded \$300,000 in Transportation Alternatives Funding for PE in FY 2014 for this project.

PROJECT PRESENTATION

- At the first stakeholders meeting the idea of grade separated crossings at major intersections was discussed to separate bike riders from motorist. This idea was deemed to be cost-prohibitive, and too difficult to construct given the existing constraints.
- An idea to install 10'-12' wide custom crosswalks (green lane with a bike symbol) along the corridor was presented as a solution to bring more attention to bicyclist at crossings.
- All routes that were contingent on the Hillcrest/Satellite Connector were removed from the discussion since the first stakeholder meeting. The Hillcrest/Satellite Connector project is viewed as a low priority long term project by Gwinnett County, so the focus was shifted to the route along Indian Trail Lilburn Rd.
- Proposed trail would be a 10' concrete trail with a separation between the trail and the curb and gutter.
- In areas where constraints are present the trail could be moved closer to the back of the curb.
- The proposed trail would tie into the planned greenway along Beaver Ruin Rd at the southeast intersection of Indian Trail Lilburn Rd and Beaver Ruin Rd.
- It is recommended for the trail to cross the I-85 South on-ramp perpendicularly. In order to accomplish this, the proposed trail would need to swing out before it crosses the proposed pedestrian bridge, which would require additional grading. This would make motorist and pedestrians more aware of each other at this critical location. Additionally, a pole mounted Rapid Flashing Beacon is suggested at this location.
- The crossing of I-85 would be accomplished with a 300' single-span pedestrian bridge. This pedestrian bridge would be located next to the existing Indian Trail Lilburn Rd. bridge, and is estimated to have a construction cost of \$1.8 million. A two-span pedestrian bridge could save approximately \$200,000, but would require a pier to be constructed in the median of I-85.
- Installing a 10' pathway in front of the office park immediately to the north of Willow Trail Parkway will require the installation of additional retaining walls, and the reconstruction of existing retaining walls.
- The idea of repurposing the existing right turn lane into the office park at this location as usable space for the trail was suggested. This could have an effect on the traffic accessing the I-85 northbound ramp. Further analysis would be necessary during later stages of engineering design.
- At the Beaver Ruin Creek crossing between Willow Trail Parkway and Oakbrook Parkway a pedestrian bridge will need to be installed on the east side of Indian Trail Lilburn Rd. Currently many pedestrians walk on the small 1' concrete edge on the backside of the

Indian Trail Multi-Use Trail Feasibility Study
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- bridge. The proposed bridge can match the existing bridge on the south side of Indian Trail Lilburn Rd.
- At the Greater Atlanta Christian School, signal retiming to split the minor street phases could help to increase the safety of pedestrians at both intersections along Indian Trail Lilburn Rd. A pedestrian bridge could still be part of a long-term plan at this location and may be considered as a bid alternate in this project.
 - At the Indian Trail Plaza Shopping Center, steep slopes and a parking lot that is very close to the roadway will make the installation of the trail difficult. It is suggested that the deceleration lane be removed, and that area be repurposed for the installation of the trail.
 - There are significant slopes where the quarry property runs along Indian Trail Lilburn Rd, between Singleton Rd and Hillcrest Rd. In this area it is suggested that right of way and easement are acquired from the quarry so the trail can follow along the existing grade. As the necessary property is likely in an unusable buffer it could be possible to get a property donation from the quarry.
 - At the CVS on the corner of Steve Reynolds Blvd and Indian Trail Lilburn Rd steep slopes and a parking lot that is very close to the roadway will make the installation of the trail difficult. It is likely that a gravity wall will need to be installed at this location to protect the existing parking lot.
 - Immediately to the west of the Indian Trail Apartment homes is a low point and creek that could lead to some difficulties in construction. It is suggested that the trail can be installed by removing the acceleration lane and installing the greenway in that additional width.
 - Just east of Burns Rd is an undeveloped property with steep slopes and limited right of way. It is likely that a substantial amount of easement will need to be acquired at this location or that the installation of a retaining wall will be necessary.
 - At the Merchants Crossing Shopping Center steep slopes and walls, as well as a parking lot that is very close to the roadway will make the installation of the trail difficult. It was suggested that the deceleration and acceleration lanes be removed, and that additional width be used for the installation of the trail. In this area it is still likely that a retaining wall will need to be installed.
 - In front of the City Harvest Worship Center steep grade changes will likely require the installation of a retaining wall in order to accommodate the 10' trail.
 - East of Hillcrest Rd. there is a significant stretch of the shoulder that has very steep slopes. In this area it is suggested that approximately 600 LF of boardwalk is installed. The boardwalk in this area will not be shaded by trees year round, so it will be able to dry out and should not be a concern for slipping.
 - Just after the suggested boardwalk section there is an opportunity to repurpose the existing acceleration lane from Exchange Place NW to provide additional space to construct the trail.
 - Two options were presented for the section between Jackson Creek and the existing Camp Creek Greenway. Option 1 consists of continuing along Indian Trail Lilburn Rd/ Killian Hill Rd. Option 2 would run parallel to Jackson Creek, pass under the Lawrenceville Hwy Bridge, make use of a small pedestrian bridge to cross over Jackson Creek, and then run along the backside of the properties that make up the Killian Hill Crossing Shopping Center and then continue to travel along Killian Hill Rd.

**Indian Trail Multi-Use Trail Feasibility Study
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- Option 2 could tie into the 1 mile of trail is being designed along US29 from Indian Trail Northbound – Fully funded TE.
- As discussed in previous meetings there are many limiting factors along the option 1 route. While there is additional roadway width to borrow from in this area it would require extensive reconstruction of an area that was recently constructed. Substantial walls and the bridge over Jackson Creek make this an area for concern. Also, in traveling the option 1 route, pedestrians would need to cross the Lawrenceville Hwy intersection.
- Option 2 would be a mix of concrete trail and boardwalk. It would provide pedestrians a chance to get away from the side of Indian Trail Lilburn Rd and increase the overall aesthetics of the greenway. Option 2 could require additional environmental coordination as it goes through some areas that appear to be wetlands. **(WILL MOVE FORWARD WITH OPTION 2)**
- A midblock crossing is recommended to get the trail back to the south side of Killian Hill Rd. This crossing would likely require a HAWK system, but a traffic study would need to be performed for verification.
- The proposed trail would tie into the existing Camp Creek Greenway at the intersection of Killian Hill Rd. and Poplar St.
- Pond & Company evaluated continuing the trail on the north side of Killian Hill Rd. until it reaches Trickum Middle school. This area is very constructible, but would require curb and gutter, and drainage installation. Additionally, a pedestrian bridge would need to be installed to span the CSX railroad.

PROJECT DISCUSSION

- Would like for our project to tie into the 1 mile of trail is being designed along US29 from Indian Trail Northbound – Fully funded TE.
- Discussed removing the section of the trail that extends from the Camp Creek Greenway to Trickum Middle School on the north side of Killian Hill Rd, and instead installing the trail on the south side from the Camp Creek Greenway up to the next section of the Camp Creek Greenway right before the CSX railroad. **(WILL MOVE FORWARD WITH THIS IDEA)**
- Need to talk to the Gwinnett County Parks and Rec department about a connection to Bryson Park.
- Should finalize the draft scoping document in the next two weeks for comment and review.
- Discussed the idea of moving the trail to the south side of Indian Trail Rd, where more existing infrastructure exists, and using grade separated crossings to link back to the north side.
- A greater need for sidewalks and city owned properties are some of the reasons for the alignment being on the north side of Indian Trail.
- East of Burns Rd the project is out of the GVCID area. Would like the City of Lilburn and the Lilburn CID to coordinate their preferences after that section.
- Will need to look at ways to prioritize, use bid alts, and break the project into segments, so that it can be constructed in a reasonable sequence and within funding limitations. It was noted that constructing all \$8M in one project is unlikely.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013**

- Break the project into 3 segments (Segment 1 – Beaver Ruin to Willow Trail, Segment 2 – Willow Trail to Burns Road, Segment 3 – Burns Road to Tie In with proposed Lilburn Trail) with priority being place on the middle segment.
- Would like to talk to Pam Ledbetter with Accent Atlanta to try to give the trail a better name.
- Excited to have multijurisdictional support. It should go a long way when trying to get funding.

ACTION ITEMS

- Finalize ARC scoping Document.
- Set a date for PIOH meeting (January/February) and update drawings for presentation to the public.
- Separate preliminary cost estimate into 3 Segments. (Segment 1 – Beaver Ruin to Willow Trail, Segment 2 – Willow Trail to Burns Road, Segment 3 – Burns Road to Tie In with proposed Lilburn Trail).
- Pond to Share concept with Pam Ledbetter, and connect the jurisdictions to brainstorm naming the trail.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Gwinnett County DOT Meeting – Dec. 18, 2013**



MEETING MINUTES

Project: Indian Trail Multi-Use Trail Feasibility Study

Meeting Location: Gwinnett County DOT, 75 Langley Drive, Lawrenceville GA – Conference Room B

Meeting Date: Dec. 18, 2013

Minutes Prepared By: Mark Edwards

Minutes Prepared On: Dec. 20, 2013

ATTENDEES:

<u>Name</u>	<u>Company /Dept/Branch</u>	<u>Email Address</u>
Alyssa Sinclair	GVCID	alyssa@gwinnettville.com
Chuck Warbington	GVCID	chuck@gwinnettville.com
Vince Edwards	Gwinnett County	Vince.Edwards@gwinnettcountry.com
John Ray	Gwinnett County	John.Ray@gwinnettcountry.com
Kim Conroy	Gwinnett County	Kim.Conroy@gwinnettcountry.com
David Tucker	Gwinnett County	David.Tucker@gwinnettcountry.com
Lewis Cooksey	Gwinnett County	Lewis.Cooksey@gwinnettcountry.com
Kevin Skinner	Pond & Company	SkinnerK@pondco.com
Richard Fangmann	Pond & Company	FangmannR@pondco.com
Mark Edwards	Pond & Company	EdwardsM@pondco.com

PURPOSE OF MEETING:

The meeting was held to share information that was presented at the previous two stakeholder meetings with the Gwinnett County DOT. This meeting would present challenges and solutions along the suggested alignment, linkages to surrounding infrastructure and future trail projects, and preliminary cost estimates for a multi-use trail connecting the proposed greenway trail, along Beaver Ruin Rd in Norcross, to the Camp Creek Greenway in Lilburn.

The Following is a summary of what was discussed at the Meeting:



**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Gwinnett County DOT Meeting – Dec. 18, 2013**

PROJECT HISTORY

- Indian Trail Corridor LCI -2007
- ARC Bike and Pedestrian Plan -2007
- Gwinnett County Comprehensive Transportation Plan – 2008
- GVCID Indian Trail/Jimmy Carter Bike & Pedestrian Connectivity Study – 2012

REVIEW OF FEASIBILITY STUDY

- Two prior stakeholder meetings.
- First meeting addressed problems and potential alignments.
- Second meeting addressed solutions for the preferred alignment.
- Scoping document is nearing completion. There was a need to listen to the input of Gwinnett County DOT before finalization.

PROJECT PRESENTATION

- Proposed trail would be a 10' concrete trail with a separation of up to 5 feet between the trail and the curb and gutter.
- In areas where constraints are present the trail could be moved closer to the back of the curb.
- The proposed trail would tie into the planned greenway along Beaver Ruin Rd at the southeast intersection of Indian Trail Lilburn Rd and Beaver Ruin Rd.
- The possibility of crossing the I-85 South ramp with a pedestrian underpass was presented. This area could also be a good location for some sort of signalization. It will be very important to separate motorist and pedestrians completely, or make them fully aware of each other.
- The crossing of I-85 could be accomplished with a 300' single-span pedestrian bridge. This pedestrian bridge would be located next to the existing Indian Trail Lilburn Rd. bridge, and is estimated to have a construction cost of \$1.8 million. A two-span pedestrian bridge could provide a small cost savings, but would require a pier to be constructed in the median of I-85.
- Installing a 10' pathway in front of the office park immediately to the north of Willow Trail Parkway will require the installation of additional retaining walls, and the reconstruction of existing retaining walls.
- The idea of repurposing the existing right turn lane into the office park at this location had been previously suggested. This could have an effect on the traffic accessing the I-85 northbound ramp and no longer seems like a feasible idea.
- At the Beaver Ruin Creek crossing between Willow Trail Parkway and Oakbrook Parkway a pedestrian bridge will need to be installed on the east side of Indian Trail Lilburn Rd. Currently many pedestrians walk on the small 1' concrete edge on the backside of the bridge. The proposed bridge can match the existing bridge on the south side of Indian Trail Lilburn Rd.



**Indian Trail Multi-Use Trail Feasibility Study
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- At GACS, we previously discussed signal retiming to split the minor street phases which may help to increase the safety of pedestrians at both intersections along Indian Trail Lilburn Rd. Need to make sure Gwinnett County DOT is involved in decision making for suggestions like this one. Currently Gwinnett County is trying to do away with split phases.
- At the Indian Trail Plaza Shopping Center, steep slopes and a parking lot that is very close to the roadway will make the installation of the trail difficult. It is suggested that the deceleration lane be removed, and that area be repurposed for the installation of the trail.
- There are significant slopes where the quarry property runs along Indian Trail Lilburn Rd, between Singleton Rd and Hillcrest Rd. In this area it is suggested that right of way and easement are acquired from the quarry so the trail can follow along the existing grade. As the necessary property is likely in an unusable buffer it could be possible to get a property donation from the quarry.
- At the CVS on the corner of Steve Reynolds Blvd and Indian Trail Lilburn Rd steep slopes and a parking lot that is very close to the roadway will make the installation of the trail difficult. It is likely that a gravity wall will need to be installed at this location to protect the existing parking lot.
- Immediately to the west of the Indian Trail Apartment homes is a low point and creek that could lead to some difficulties in construction. It is suggested that the trail can be installed by removing the acceleration lane and installing the greenway in that additional width.
- Just east of Burns Rd is an undeveloped property with steep slopes and limited right of way. It is likely that a substantial amount of easement will need to be acquired at this location or that the installation of a retaining wall will be necessary.
- At the Merchants Crossing Shopping Center steep slopes and walls, as well as a parking lot that is very close to the roadway will make the installation of the trail difficult. It was suggested that the deceleration and acceleration lanes be removed, and that additional width be used for the installation of the trail. In this area it is still likely that a retaining wall will need to be installed.
- In front of the City Harvest Worship Center steep grade changes will likely require the installation of a retaining wall in order to accommodate the 10' trail.
- East of Hillcrest Rd. there is a significant stretch of the shoulder that has very steep slopes. In this area it is suggested that approximately 600 LF of boardwalk is installed. The boardwalk in this area will not be shaded by trees year round, so it will be able to dry out and should not be a concern for slipping.
- Just after the suggested boardwalk section there is an opportunity to repurpose the existing acceleration lane from Exchange Place NW to provide additional space to construct the trail.
- In the prior stakeholder meetings a route continuing along the bridge over Jackson Creek and then along Indian Trail Lilburn Rd/ Killian Hill Rd in front of the Killian Hill Crossing Shopping Center had been discussed.
- Preferred route would run parallel to Jackson Creek, pass under the Lawrenceville Hwy Bridge, make use of a small pedestrian bridge to cross over Jackson Creek, and then run along the backside of the properties that make up the Killian Hill Crossing Shopping Center and then continue to travel along Killian Hill Rd.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
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- Potential to tie into the 1 mile of trail that is being designed along US29 from Indian Trail Northbound – Fully funded TE.
- Trail along Jackson Creek and behind the existing businesses would be a mix of concrete trail and boardwalk. It would provide pedestrians a chance to get away from the side of Indian Trail Rd and increase the overall aesthetics of the greenway. This route could require additional environmental coordination as it goes through some areas that appear to be wetlands.
- A midblock crossing was discussed in order to get the trail back to the south side of Killian Hill Rd. This crossing was presented as a HAWK system, but a traffic study would need to be performed for verification. Additional coordination with the Gwinnett County DOT will be required for this crossing. County has some general concerns regarding HAWK signals in general.
- The proposed trail would tie into the existing Camp Creek Greenway at the intersection of Killian Hill Rd. and Poplar St.
- The proposed trail would then continue along Killian Hill Rd. before ending at the City of Lilburn's proposed Killian Hill Trail project.

PROJECT DISCUSSION

- This project has the opportunity to link 2 downtown areas.
- Discussed why the alignment was placed on the north side of Indian Trail Rd. rather than the south side. The south side of Indian Trail Rd. already has a significant amount of sidewalk and bridges to aide pedestrian mobility. The trail on the north side would provide access to public buildings, such as Meadow Creek Elementary School and the Norcross Human Services Center. Trail on the north side would also significantly increase mobility for pedestrians and bus riders.
- Discussed who would maintain the pedestrian underpass. Would most likely be Gwinnett County.
- Discussed the cost of the pedestrian bridge. Almost ¼ of the entire project cost.
- Community Services was involved in the original plan.
- Need to look further at the location of the crossing near the tie in with Camp Creek Greenway. This area is in a curve, and also where lanes are merging together.
- Need to make sure this project has multijurisdictional support.
- Utility relocation is turning out to require significant costs in projects like this. Need to look into ways to minimize costs associated with utilities.
- Indian Trail from Beaver Run to Burns Rd already has a sidewalk and 10' graded shoulder on the South side.
- Need to update wording of scoping document and presentation to be less specific. Say things like "crossing" rather than call out type of crossing.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Gwinnett County DOT Meeting – Dec. 18, 2013**



ACTION ITEMS

- Finalize ARC scoping Document.
- Set a date for PIOH meeting (January/February) and update drawings for presentation to the public.

**CR 417/CR 560/INDIAN TRAIL-LILBURN RD FM SR 378 TO CHURCH ST
P.I. No. 0012884 - Gwinnett County
Concept Team Meeting – July 10, 2015**

Project: CR 417/CR 560/INDIAN TRAIL-LILBURN RD FM SR 378 TO CHURCH ST

Meeting Location: District 1 Office Large Conference Room (2505 Athens Highway, Gainesville, GA 30507)

Meeting Date: July 10, 2015

Minutes Prepared By: Mark Edwards

Minutes Prepared On: July 17, 2015

ATTENDEES:

<u>Name</u>	<u>Company /Dept/Branch</u>	<u>Email Address</u>
Charles Robinson	GDOT	chrobinson@dot.ga.gov
Alyssa Davis	GVCID	alyssa@gwinnettville.com
Andres Restrepo	Pond & Company	restrepa@pondco.com
Mark Edwards	Pond & Company	edwardsm@pondco.com
Pat Smeeton	GT Hill Planners	psmeeton@gthillplanners.com
Brittney Bulfinch	GCDOT	brittney.bulfinch@gwinnettcountry.com
John Ray	GCDOT	john.ray@gwinnettcountry.com
Derrick Kemp	GC-DWR	derrick.kemp@gwinnettcountry.com
Daniel Phillips	Jackson EMS	dphillis@jacksonemc.com
Kim Byers	GDOT	kbyers@dot.ga.gov
Brandon Kirby	GDOT	bkirby@dot.ga.gov
Joel Cantoran	GDOT	jcantoran@dot.ga.gov
Jason Dykes	GDOT	jdykes@dot.ga.gov
Kevin Skinner	Pond & Company	skinnerk@pondco.com
Richard Fangmann	Pond & Company	fangmannr@pondco.com
Elliot Robertson	GDOT	esrobertson@dot.ga.gov

PURPOSE OF MEETING:

The Concept Team Meeting was held to discuss the concept report that was prepared for the CR 417/CR 560/INDIAN TRAIL-LILBURN RD FM SR 378 TO CHURCH ST project. This meeting is the first opportunity for representatives from GDOT, Gwinnett County, GVCID, Pond & Company, and utility companies to discuss this multi-use trail installation project together.

The Following is a summary of what was discussed at the Concept Coordination Meeting:

PROJECT DESCRIPTION

P.I. 0012884 intends to install a multi-use trail along the east side of Indian Trail – Lilburn Rd from Beaver Ruin Rd (SR 378) in the north, where connections to the proposed Beaver Ruin Trail will be made, to Shelley Lane in the south, where connections will be made to the Killian Hill MU Path (TEE-0010237) in Lilburn. The estimated total length of the trail is 4.45 miles

Segment 2 begins at Willow Trail Parkway and ends at Burns Road. Segment 2 falls under the jurisdictions of unincorporated Gwinnett County and the Gwinnett Village CID.

PROJECT SCHEDULE

- November 2016 – Environmental Certification
- January 2017 – ROW authorization
- April 2018 – Let Contract

CONCEPT REPORT DISCUSSION

- Environmental studies are underway – currently working on the CE.
- Environmental documents will cover the entirety of PI 0012884 (all three segments)
 - Funding is only in place to design Segment 2.
- The bulk of the environmental concerns are in Segment 3 (from Burns Rd to Shelley Lane).
 - There are wetlands and streams along Segment 3, so it will be important for the designer to estimate impacts in these areas in order to advance the environmental process.
- Segment 1 (Beaver Ruin Rd to Willow Trail Pkwy) and Segment 3 (from Burns Rd to Shelley Lane) currently have no funding in place.
 - Only impacts associated with Segment 2 will be permitted through USACE.
 - If the other unfunded sections are permitted now it would be possible for the permits to expire.
 - Need to show that PI 0012884 is not being unnecessarily segmented to avoid permitting requirements.
- Resource identification is on track to be completed by the end of the year.
- Ecology Report and Assessment of effects is on track to be completed well before the end of the year.
- CE is on track to be submitted in early 2016.
- Need to start communication regarding the environmental aspects with FHWA early to get their buyoff on the proposed approach.
- Concept report needs to be updated to further clarify that the environmental documents will cover all 3 segments, but the permitting and design will only be for Segment 2.

- Some concerns from past GDOT projects that full survey, design and right-of-way acquisition will be required for all 3 Segments to meet FHWA/USACE requirements.
- Anticipated to be a Gwinnett County let project.
 - Need to complete local let approval form in the future.
- Following the Federal process for this project in order to set it up for funding.
- Project has been identified in several planning documents.
 - *Indian Trail Corridor LCI Study*
 - *Indian Trail/Jimmy Carter Bike and Pedestrian Connectivity Plan*
 - *Indian –Trail –Lilburn Road Multi-Use Path Scoping Study*
 - *Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan*
 - *Gwinnett County Comprehensive Transportation Plan*
- Project is justified by the lack of sidewalk connectivity on the east side of Indian Trail- Lilburn Rd, and the lack of bicycle facilities along the entire corridor.
- Key route for transit users. Multiple bus stops along the corridor, as well as a connection to the regional express routes that operate from the I-85 Park and ride lot.
- Project will connect to proposed trails at the northern and southern termini.
- The design of Segment 2 is funded by the FHWA Transportation Alternative Program.
- Existing conditions along Indian Trail-Lilburn Rd consist of both a rural section and an urban section.
 - Generally two lanes in both directions with a two-way left center lane.
 - 5 ft. sidewalk along the entire west side. East side has some existing 5 ft. sidewalk, but also several significant gaps.
- Indian Trail-Lilburn Rd is classified as minor arterial street.
- 14 signalized intersections along the corridor.
- 4 existing bridges are located along the corridor.
 - 135-0080-0 (Bridge over I-85)
 - 135-0079-0 (Bridge over Beaver Ruin Creek)
 - Pedestrian Bridge Over Beaver Ruin Creek (West Side of Indian Trail – Lilburn Rd)
 - 135-5230-0 (Bridge over Jackson Creek)
- Project meets complete street warrants for bicycle, transit, and pedestrian.
- Project will be funded and constructed in segments. The only funded segment is Segment 2.
 - Segment 1 - Beaver Ruin Road (SR 378) to Willow Trail Parkway
 - Segment 2 - Willow Trail Parkway to Burns Road
 - Segment 3 - Burns Road to Shelley Lane/Camp Creek Trailhead.
- Project consists of the installation of a 10 ft. multi-use path which will extend along the east side of Indian Trail-Lilburn Road.
 - A pedestrian bridge will be required in order to cross Beaver Ruin Creek.
 - Project will also include the installation of 30" curb and gutter in areas where it is not currently installed.
 - A 2 ft. to 5 ft. grass strip will be present between the back of the curb and the proposed trail.
- Segment 2 is 1.95 miles in length.
- No anticipated design exceptions or design variances.
- Utilities are not expected to be reimbursable.
- Gwinnett County Water has a 30" water main on the NE side of Indian Trail-Lilburn Rd.
- It is anticipated that right-of-way, permanent easement, and temporary easement will need to be acquired for this project.
 - It is anticipated that 43 parcels will be impacted.
- Project is in a MS4 area. Due to the close proximity of the existing parking lots, it will be very expensive to meet MS4 requirements on Segment 2. Likely meet infeasibility requirements.

- Project will impact greater than 1 acre, so NPDES will be required.
- GVCID sponsored a feasibility report for this project, which was produced by Pond & Company.
 - During this process several stakeholder meetings were held with representatives from Gwinnett County, GVCID, City of Lilburn, City of Norcross, and the Lilburn CID.
 - A PIOH was held on April 17, 2014 to present this project to the public.
- The only alternative to this project is a no-build alternate.
- Typical Section – 30" Curb and gutter, 5 ft. grass strip, 10' path. 17' total shoulder.
 - Will also have wall sections and a boardwalk section.
 - A section with a reduced grass strip (2') and 8' path will likely be used at "pinch points".
 - Section will have a handrail between traffic and path.

OTHER DISCUSSION

- Remove the section from the concept report that shows projected traffic. Show this as N/A.
- The preliminary bridge layout will need to be approved prior to the PFPR.
 - Coordinate with Susan Beck for Hydrology requirements.
- Greater Atlanta Christian School has facilities on both sides of Indian Trail-Lilburn Rd. They have invested heavily in landscaping, so coordination with them will be necessary.
- May need to make accommodations to allow pedestrians to use sidewalk/transit while project is under construction.
 - Considering using pedestrian detours.
- Need to make sure that GDOT PM has a copy of the initial utility location request that was sent a couple of months prior to CTM.
- Need to make sure to coordinate boardwalk design with the bridge office.
- Remove the schedule from the attachments.
- Update the aerial drawing to reflect the concept meeting and date.
- Make sure that items that are shown in the typical match what is shown on cost estimate, it appears the concrete thickness does not match.
- Saw cutting joints is the preferred method.
- Need to accommodate for the temporary impacts of the bridge installation. This should be used to determine easements and included in environmental documents.
- Gwinnett Village CID has asked for right-of-way donations on other similar projects in the area. Plan to do this **following the necessary steps and at the appropriate time** on this project.

CONCEPT LAYOUT DISCUSSION

- Aerial shows the proposed layout for Segment 2.
- There are several locations that have been identified where walls will need to be installed.
 - Walls will likely be GDOT standard retaining walls (max height of 4-5 ft.)
- Pedestrian Bridge over Beaver Ruin Creek will match the pedestrian bridge on the west side of Indian Trail-Lilburn Rd.
- No plans to impact auxiliary lanes to construct trail. At some locations plan to reduce trail width to 8 ft. and reduce grass strip to 2 ft.
- At Hillcrest Rd intersection the pavement has been torn up by trucks leaving the quarry. Plan to replace pavement with a more substantial pavement design at this location.
 - Needed to meet ADA requirements for the crossing.
- In front of the Quarry there is an opportunity to install boardwalk and pull away from the road a little bit.
 - This could add a more natural section to the project.
 - Boardwalk will be more costly to maintain.

RISK PLAN DISCUSSION

- Environmental – potential risks include the possibility that FHWA has an issue with the PI being funded and constructed in segments, as well as the USACE having an issue with only permitting one segment of the entire project.
- Roadway Design – potential risks include MS4 requirements for the project, making sure pedestrian bridge and boardwalk are coordinated with the bridge department, right of way and utility costs.
- Utilities – Impacts to utilities can cause construction delays and increased cost. Need to design around utilities as much as possible.
- Construction – potential risks include avoidance of large utilities (vaults and stations) and making sure the environmental permitting is correct and in place before construction begins.

SITE VISIT DISCUSSION

- At the lawnmower repair shop it is proposed that the substandard turning lane will be removed and the driveway widened.
- A handrail will be installed at locations with a 2 ft. grass strip between the path and the roadway. This is to keep users on the path (not intended to act like guardrail).
- Any walls that are placed adjacent to parking areas need to be located so that they can be constructed and maintained without impacting the existing parking spots. Try to avoid impacting all aspects of parking spots including curb and gutter.
 - Soldier Pile Walls were suggested to meet this requirement in some locations.
- Consider replacing the guardrail that will be in front of the proposed boardwalk. Observed to be low while walking the site.
- Proposed boardwalk in front of the quarry would follow the existing terrain. Intent is to keep it elevated less than 30" above existing terrain.
 - Follow up with GVCID and make sure they want to proceed with boardwalk.
- Check gutter spreads and existing pipe sizes between Indian Way and Warners Trail.
 - Rip rap has recently been installed to help with erosion.
 - No catch basins along Indian Way. All the water spills onto Indian Trail-Lilburn Rd.
 - Replace existing flumes and install closed drainage system and catch basins.
 - Make sure curb is not spilling water.
- Make sure proposed bus shelters/relocations will not create sight distance issues.
- Transystems designed the existing pedestrian bridge on the west side of Indian Trail-Lilburn Rd. Gwinnett County will provide designer with plans for review.

ACTION ITEMS

- Coordinate with FHWA/ACOE regarding the environmental approach, due to the project only having one funded segment.
- Incorporate comments from the Concept Team Meeting into the Concept Report and resubmit to GDOT.
- Submit copy of Initial Utility request to GDOT.
- Coordinate with Transystems regarding existing Pedestrian Bridge.



Thursday, July 10, 2015

10:00 a.m.

**Meeting Location: District 1 Office large conference room located at 2505 Athens Highway,
Gainesville, GA 30507**

1. Welcome – Charles A. Robinson, GDOT Project Manager
2. Sign-in sheet
3. Attendee (self) Introduction
4. Project Identification – Georgia Department of Transportation (GDOT) and Gwinnett County Department of Transportation (GCDOT)
 - a. Project Name: CR 417/CR 560/INDIAN TRAIL-LILBURN RD FM SR 378 TO CHURCH ST
 - b. Project Type - Enhancement
 - c. Project County: Gwinnett County
 - d. Project Identification Number: 0012884
5. Schedule – Charles A. Robinson, GDOT Project Manager
6. Review Concept Report – Design Team
7. Review Concept Layout – Design Team
8. Assess Project Risks – Project Team
9. Review Public Involvement Plan (if applicable) – Project Team
10. Comments/questions (from attendees in the following order)
 - a. Local Government Officials
 - State
 - County
 - City
 - b. Office of Roadway Design
 - c. Office of Design Policy and Support
 - d. Office of Planning
 - e. Office of Financial Management
 - f. Office of Engineering Services
 - g. Office of Traffic Operations
 - h. Office of Environmental Services
 - i. District Preconstruction
 - j. Office of Right of Way
 - k. Office of Construction
 - l. GDOT Office of Utilities
 - m. Individual Utility Companies (in attendance)
 - n. Other attendees

Note: Project Site Visit to follow concept team meeting

P.I. No. 0012884 Concept Team Meeting - Sign In Sheet

Meeting Date: 7/10/15 Location: GDOT District 2 Office

Name	Organization	Phone	Email
Charles A. Robinson	GDOT-Program Delivery	404-631-1439	chrabinone@dot.ga.gov
Alyssa Davis	Gwinnett Village CID	770-449-6542	alyssa@gwinnettville.com
Andres Restrepo	Pond & Co	678-336-7740	restrepoa@pondco.com
Mark Edwards	Pond & Co	678-336-7740	edwardsm@pondco.com
Pat Smeeton	GTHill Planners	678-205-6446	psmeeton@gthillplanners.com
Brian Bulfinch	GC DOT	770-822-7489	brianbulfinch@gwinnettcountry.com
John Ray	GC DOT	770-822-7464	john.ray@gwinnettcountry.com
Derrick Kemp	GC DWR	678-376-7123	derrick.kemp@gwinnettcountry.com
DANICE PHILLIPS	JACKSON EMC	770-822-3265	DPHILLIPS@JACKSONEMC.COM
Kim Byers	GDOT Loc. Govt. RW	770-531-5786	kbyers@dot.ga.gov
Brandon Kirby	GDOT DL	678-343-0816	bkirby...
Joel Cantorau	GDOT (ES)	678-209-9603	jcantorau@dot.ga.gov
JASON DYKES	GDOT Construction	678-332-8305	JDYKES@DOT.GA.GOV
KEVIN SKINNER	POND	678-336-7740	skinnerk@pondco.com
Richard Fargman	POND	678-336-7740	FargmanR@pondco.com
Elbert Robertson	GDOT OES	404-631-1109	esrobertson@dot.ga.gov

Attachment 7

PIOH Documents



Indian Trail Multi-Use Path
Gwinnett Village CID
Public Information Open House – April 17, 2014

SIGN IN SHEET

ATTENDEES:

Name	Address	Email Address
Louis Young	2763 Meadow Church Rd Noyac	columbia-engineering.com
Christina Nguyen	155 Selma Creek Ln Norcross 30093	KYANCHRISTINAYENHONG@GMAIL.COM
John Harden	5935 Singleton Rd Norcross - 30093	N/A
Edward Bienkowski	1974 Miller Ridge Lane Duluth, GA 30096 CITY OF NORCROSS	ejb15206@hotmail.com
Jon M. Davis	65 Lawrenceville St, Norcross, GA 30071	jon.davis@norcrossga.net
Dan Beran	2343 Gwinn Dr Norcross, GA	danberan@comcast.net
Patrick Barber	4575 Woodland Cir NE Roswell, GA	pbarber@quantumspatial.com
Jerry Brown	76 Jones St Norcross 30071	jicb@1ehotmail.com
Connie Weathers		c-weathers@comcast.net
Mike Tuller	3915 River Hills Run Duluth	mtuller@windspring.com
Dominic Perello	5826 Hammond Dr Norc 71	dperello@cotso.net
Kend Belinda Owenby	2275 Anamanda Close 30071	Kerowenby@comcast.net
Steve Hansen	1360 Indian Trail Rd Norcross 30093	stephenahansen.1@gmail.com
Pam Alston	2265 Anamanda Close Norcross Ga 30071	ppalston@bell.net
JEFF THOMAS	6380 Glenbrook Dr Tucker 30084	net
JAY MEWARI	6110 Lophary Dr Norcross 30093	
Camille Segers	2049 Pinnacle Pointe Dr. Norcross 30071	
Ted Cui	947 INDIAN WAY LIBURN 30047	
CREAT RAMSAY	340 CHASTANY MANOR NORCROSS 30071	





CONCEPT PLAN - APRIL 2014
 GWINNETT VILLAGE CID
 FEASIBILITY STUDY - INDIAN TRAIL MULTI-USE PATH
 SHEET 1 OF 2

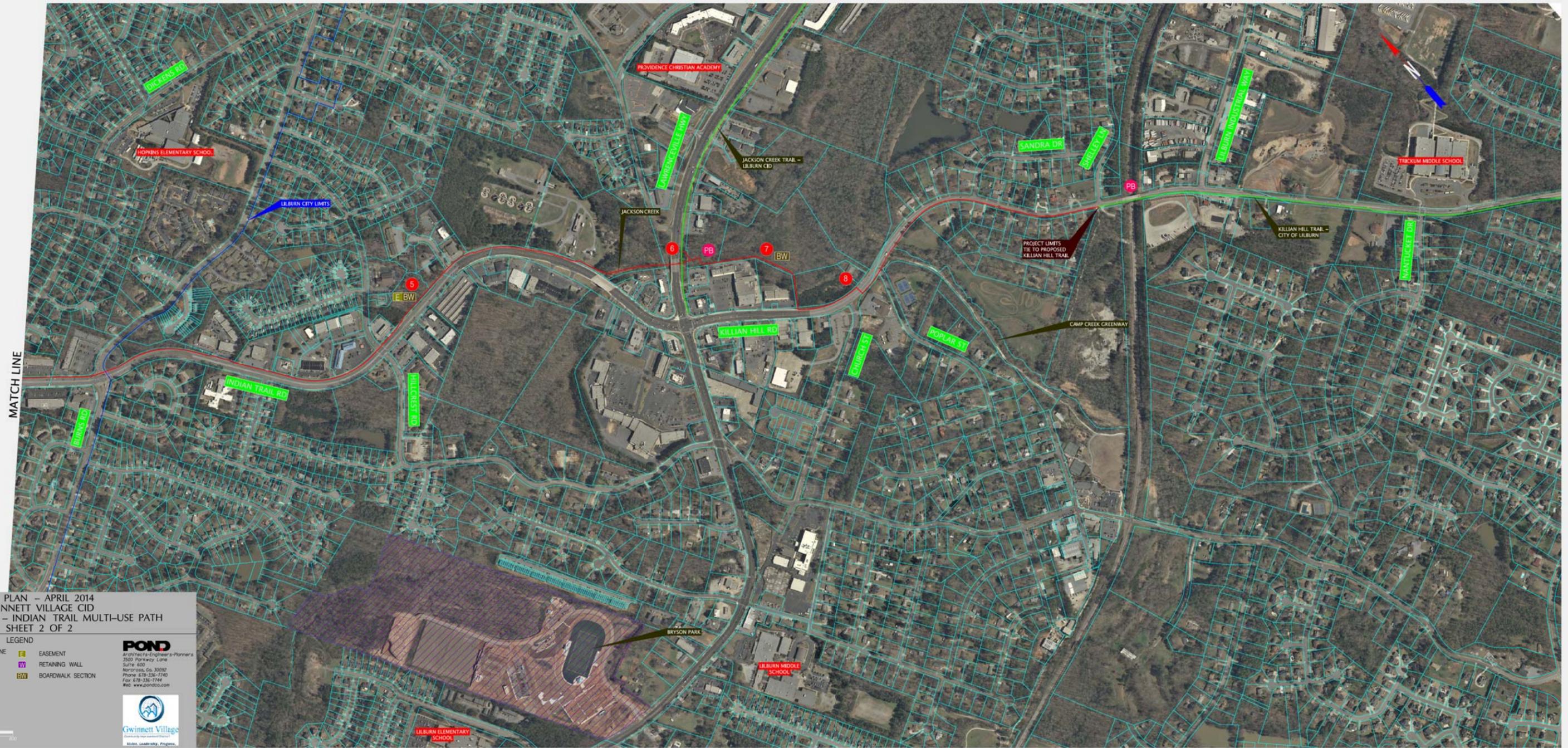
LEGEND

	EXISTING R/W - PROPERTY LINE		EASEMENT
	PROPOSED TRAIL		RETAINING WALL
	EXISTING PROJECT		BOARDWALK SECTION
	CITY BOUNDARY		
	PARK		
	DISCUSSION AREA		
	PEDESTRIAN BRIDGE		

POND
 Architects-Engineers-Planners
 3500 Parkway Lane
 Suite 600
 Norcross, GA 30092
 Phone: 678-336-7740
 Fax: 678-336-7744
 Web: www.pondinc.com

Gwinnett Village
 Gwinnett County, Georgia
 Vision. Leadership. Progress.

SCALE: 1" = 100 FEET



CONCEPT PLAN – APRIL 2014
 GWINNETT VILLAGE CID
 FEASIBILITY STUDY – INDIAN TRAIL MULTI-USE PATH
 SHEET 2 OF 2

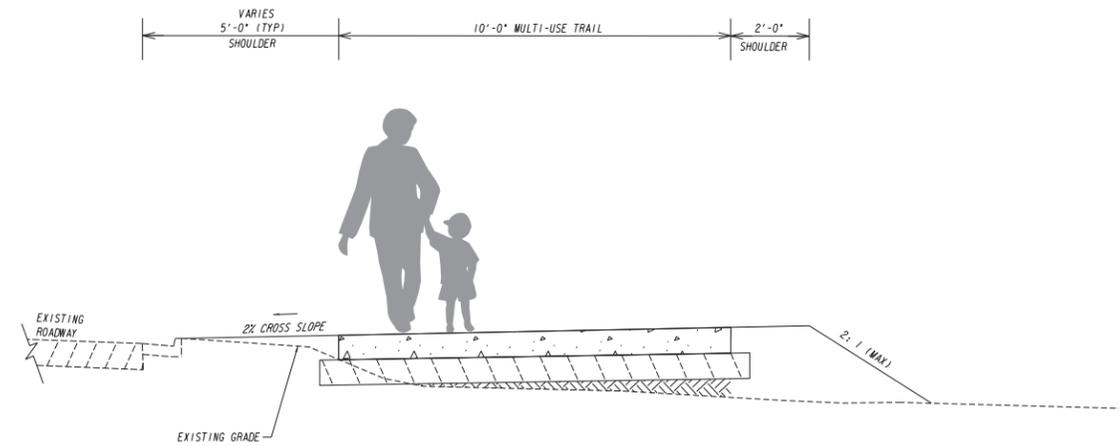
LEGEND

EXISTING R/W – PROPERTY LINE	PROPOSED TRAIL	EXISTING PROJECT	CITY BOUNDARY	PARK	DISCUSSION AREA	PEDESTRIAN BRIDGE
EASEMENT	RETAINING WALL	BOARDWALK SECTION				

POND
 Architects-Engineers-Planners
 3500 Parkway Lane
 Suite 600
 Marietta, GA 30067
 Phone: 678-336-7740
 Fax: 678-336-7744
 Web: www.pondinc.com

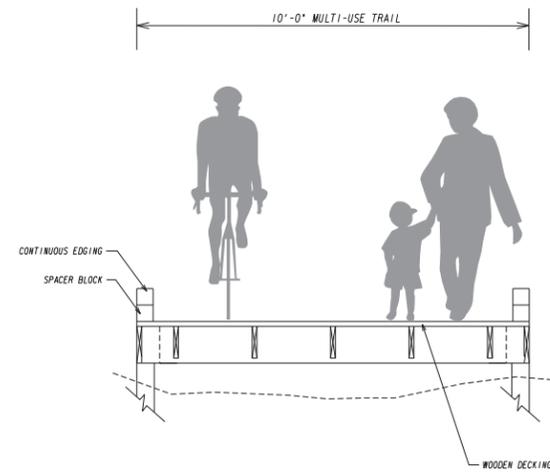
Gwinnett Village
 Georgia's Most Awarded District
 Since Leadership. Progress.





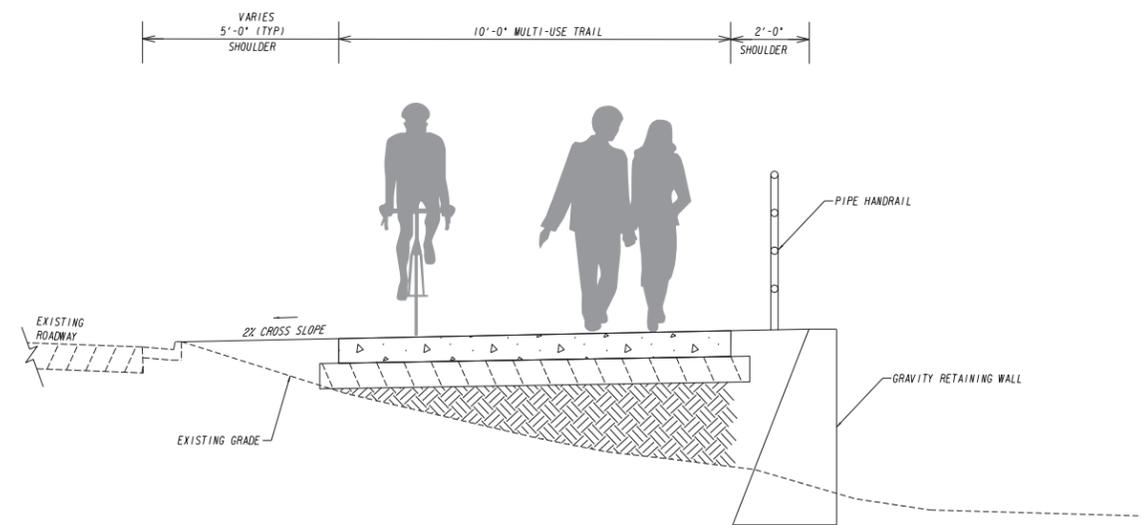
Typical Section

CONCRETE MULTI - USE TRAIL ADJACENT TO ROADWAY



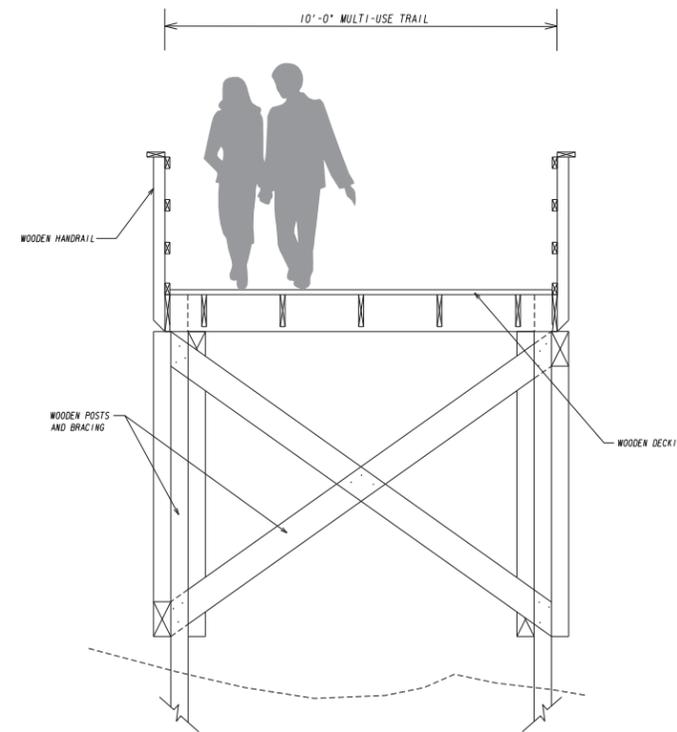
Typical Section

WOODEN BOARDWALK



Typical Section

CONCRETE MULTI - USE TRAIL ADJACENT TO ROADWAY
WALL SECTION



Typical Section

ELEVATED WOODEN BOARDWALK WITH HANDRAILS

\$PRF\$
 \$PENTABLE\$
 \$DGN\$

\$PRF\$
 \$PENTABLE\$
 \$DGN\$

\$PRF\$
 \$PENTABLE\$
 \$DGN\$

REVISION DATES	

Gwinnett Village CID
Public Information Open House Comment Card
Indian Trail Multi-Use Path
April 17, 2014 – 5:00 -7:00 pm

Name

JAY TREVARI

Address

6110 Zachary Dr 30093

Email

JTREVARI@BellSouth.net

Were your questions answered by the staff?

Yes No

Do you understand the project after attending this meeting?

Yes No

Do you support the project?

Yes No

Additional Comments:

Another benefit would be
fostering a sense of community
among folks using the trail

Was the location of the meeting convenient for you to attend?

Yes No

If no, please suggest an alternate general location:

Was the time of the meeting convenient for you to attend?

Yes No

If no, please suggest a time frame that is more convenient for you:

This comment form can be mailed to the following address prior to May 2, 2014:

ATTN: Alyssa Sinclair, Program Director
Gwinnett Village Community Improvement District
5855 Jimmy Carter Blvd, Suite 122
Norcross, GA 30071

Gwinnett Village CID
Public Information Open House Comment Card
Indian Trail Multi-Use Path
April 17, 2014 – 5:00 -7:00 pm

Name

Jeff Thomas

Address

6380 Glenbrook Drive Tucker 30084

Email

Jeffreysthomas@gmail.com

Were your questions answered by the staff?

Yes No

Do you understand the project after attending this meeting?

Yes No

Do you support the project?

Yes No

Additional Comments:

Looks good, work live, play.

Was the location of the meeting convenient for you to attend?

Yes No

If no, please suggest an alternate general location:

Was the time of the meeting convenient for you to attend?

Yes No

If no, please suggest a time frame that is more convenient for you:

This comment form can be mailed to the following address prior to May 2, 2014:

ATTN: Alyssa Sinclair, Program Director
Gwinnett Village Community Improvement District
5855 Jimmy Carter Blvd, Suite 122
Norcross, GA 30071

Gwinnett Village CID
Public Information Open House Comment Card
Indian Trail Multi-Use Path
April 17, 2014 – 5:00 -7:00 pm

Name

TED CIO

Address

947 INDIAN WAY

Email

TCIO@bellsouth.net

Were your questions answered by the staff?

Yes No

Do you understand the project after attending this meeting?

Yes No

Do you support the project?

Yes No

Additional Comments:

add landscaping, as much as you can

Was the location of the meeting convenient for you to attend?

Yes No

If no, please suggest an alternate general location:

Was the time of the meeting convenient for you to attend?

Yes No

If no, please suggest a time frame that is more convenient for you:

This comment form can be mailed to the following address prior to May 2, 2014:

ATTN: Alyssa Sinclair, Program Director
Gwinnett Village Community Improvement District
5855 Jimmy Carter Blvd, Suite 122
Norcross, GA 30071

Gwinnett Village CID
Public Information Open House Comment Card
Indian Trail Multi-Use Path
April 17, 2014 – 5:00 -7:00 pm

Name

Edward Bienkowski

Address

1974 Valley Ridgehane, Duluth, GA 30096

Email

ejb1520@hotmail.com

Were your questions answered by the staff?

Yes No

Do you understand the project after attending this meeting?

Yes No

Do you support the project?

Yes No

Additional Comments:

Hopefully any design element for the I-85 Crossover bridge will be outstanding. Not just a standard ugly concrete overpass. Look at elements of beautiful bridges from around the world for

Was the location of the meeting convenient for you to attend?

Yes No

inspiration.

If no, please suggest an alternate general location:

Was the time of the meeting convenient for you to attend?

Yes No

If no, please suggest a time frame that is more convenient for you:

This comment form can be mailed to the following address prior to May 2, 2014:

ATTN: Alyssa Sinclair, Program Director
Gwinnett Village Community Improvement District
5855 Jimmy Carter Blvd, Suite 122
Norcross, GA 30071

Gwinnett Village CID
Public Information Open House Comment Card
Indian Trail Multi-Use Path
April 17, 2014 – 5:00 -7:00 pm

Name

Jerry C. Brown

Address

76 Jones St Norcross, GA 30071

Email

jcb@12hotmail.com

Were your questions answered by the staff?

Yes No

Do you understand the project after attending this meeting?

Yes No

Do you support the project?

Yes No

Additional Comments:

Notice of meeting timely, layout of materials good/accessible
It might be prudent to have rules for etiquette/safety as to lanes
or groupings of bikers versus runners/walkers.

Was the location of the meeting convenient for you to attend?

Yes No

If no, please suggest an alternate general location:

Was the time of the meeting convenient for you to attend?

Yes No

If no, please suggest a time frame that is more convenient for you:

This comment form can be mailed to the following address prior to May 2, 2014:

ATTN: Alyssa Sinclair, Program Director
Gwinnett Village Community Improvement District
5855 Jimmy Carter Blvd, Suite 122
Norcross, GA 30071

Gwinnett Village CID
Public Information Open House Comment Card
Indian Trail Multi-Use Path
April 17, 2014 – 5:00 -7:00 pm

Name

Pamela Abston

Address

2265 Anamanda Close

Email

PPAbston@bellsouth.net

Were your questions answered by the staff?

Yes No

Do you understand the project after attending this meeting?

Yes No

Do you support the project?

Yes No

Additional Comments:

Was the location of the meeting convenient for you to attend?

Yes No

If no, please suggest an alternate general location:

Was the time of the meeting convenient for you to attend?

Yes No

If no, please suggest a time frame that is more convenient for you:

This comment form can be mailed to the following address prior to May 2, 2014:

ATTN: Alyssa Sinclair, Program Director
Gwinnett Village Community Improvement District
5855 Jimmy Carter Blvd, Suite 122
Norcross, GA 30071

Gwinnett Village CID
Public Information Open House Comment Card
Indian Trail Multi-Use Path
April 17, 2014 – 5:00 -7:00 pm

Name

Michael Tuller

Address

3915 River Hollow Turn Duluth 30096

Email

mtuller@mindspring.com

Were your questions answered by the staff?

Yes No

Do you understand the project after attending this meeting?

Yes No

Do you support the project?

Yes No

Additional Comments:

Well thought-out plan for a sidewalk/soil retrofit, looking at both on-road and off road segments, based on existing conditions that prevail in a built-out environment

Was the location of the meeting convenient for you to attend?

Yes No

If no, please suggest an alternate general location:

Was the time of the meeting convenient for you to attend?

Yes No

If no, please suggest a time frame that is more convenient for you:

This comment form can be mailed to the following address prior to May 2, 2014:

ATTN: Alyssa Sinclair, Program Director
Gwinnett Village Community Improvement District
5855 Jimmy Carter Blvd, Suite 122
Norcross, GA 30071

Gwinnett Village CID
Public Information Open House Comment Card
Indian Trail Multi-Use Path
April 17, 2014 – 5:00 -7:00 pm

Name

Rick Strawn

Address

5555 Oakbrook Drwy Suite 360, Norcross, GA 30093

Email

rick@paradigmsecurity.net

Were your questions answered by the staff?

Yes No

Do you understand the project after attending this meeting?

Yes No

Do you support the project?

Yes No

Additional Comments:

Pound was well represented and quick to answer any questions. Good open area for the charts.

With the 85 (PB) - Careful thought suggested before using the tunnel idea. Provides opportunity for crime element. Interesting problem to address in the crossing of the vehicle ramp (circular) (1)

Was the location of the meeting convenient for you to attend? Yes No

If no, please suggest an alternate general location:

Was the time of the meeting convenient for you to attend? Yes No

If no, please suggest a time frame that is more convenient for you:

This comment form can be mailed to the following address prior to May 2, 2014:

ATTN: Alyssa Sinclair, Program Director
Gwinnett Village Community Improvement District
5855 Jimmy Carter Blvd, Suite 122
Norcross, GA 30071

Attachment 8

Scoping Study

SCOPING STUDY FOR INDIAN TRAIL- LILBURN ROAD MULTI-USE PATH

PREPARED FOR:

GWINNETT VILLAGE CID

MAY 20, 2014



Architects ■ Engineers ■ Planners

3500 Parkway Lane, Suite 600 | Norcross, GA 30092

www.pondco.com | p 678.336.7740 | f 678.336.7744

Table of Contents

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Planning and Programming Information	8
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1. Project Identification Information

Project Name:

Indian Trail-Lilburn Road Multi-Use Path

Project Location and Termini:

Indian Trail Road from Beaver Ruin Road to Camp Creek Greenway Trailhead (Shelley Lane) - 4.45 miles

Project Sponsor:

Gwinnett Village CID

Contact Information:

Chuck Warbington, P.E. – Gwinnett Village CID, Executive Director

5855 Jimmy Carter Boulevard

Norcross, GA 30071

770.449.6515

chuck@gwinnettville.com

2. Impact Analysis

Alternatives Considered:

No Build: Current pedestrian conditions along the corridor provide moderate sidewalk coverage on at least one side of Indian Trail-Lilburn Road for a majority of the 4.45-mile study section. The western side of the road has continuous sidewalk coverage from Beaver Ruin Road to Church Street, which is east of US 29. Sections of crosswalk need restriping or are missing entirely and several intersections lack concrete pedestrian refuge islands.

One location of importance is the crossing of the southbound I-85 freeflow ramp where ramps suggest a crossing location, but striping does not exist. Another important area is at the bridge crossing at Beaver Ruin Creek, where pedestrians currently walk along the outside northern edge of the bridge structure. This was not designed for foot traffic and no hand rails or other precautions are in place to prevent injury. The area between Tech Drive and Singleton Road is frequently used by pedestrians making a mid-block crossing without the aid of crosswalks and signalization due to limited walking space on the north side of the road. Another challenging section is along the northern side of the I-85 overpass where there is no buffer area to safeguard pedestrians against vehicles in the right-hand travel lane.

The typical lane width along Indian Trail-Lilburn Road is 11' and wide curbs are not present, therefore travel along the corridor by bicycle is challenging along the entire length. There are currently no markings or signage to alert drivers to the presence of cyclists, and on-street cycling volumes are low.

Build: Review of existing conditions such as topography, right-of-way constraints, existing sidewalk conditions and pedestrian destinations has led to the determination that the northern side of Indian Trail-Lilburn Road is the preferred side for the proposed multi-use trail. A trail on the north side successfully fills in gaps in sidewalk coverage for pedestrians who use the corridor for access to transit and community facilities, while also providing cyclists with the means to traverse the corridor. The corridor was divided into 3 sections to aid in coordination between jurisdictions. The following section outlines specific design challenges within each section and describes alternatives which could address these challenges. It has been determined that the trail could feasibly be constructed with design elements outlined in this section. Please refer to the concept layout located in the *Attachments* section of this scoping document for further information on alternatives and other trail alignments.

Section 1 – Beaver Ruin Road to Willow Trail Parkway

- Crossing I-85
 - It is recommended that a separate pedestrian/cyclist bridge span on the eastern side of the I-85 overpass. To cross the southbound freeflow loop, one recommendation is to construct the trail so that it follows the grade down into the hollow area within the loop ramp. A short tunnel section would pass underneath the road, exiting on the northern side of the ramp where the trail would resume the road-adjacent alignment. This alternative is what is considered in this document's cost estimate.
 - A second alternative for crossing the loop ramp is to construct the trail from the pedestrian/cyclist bridge so that it ties into the existing crosswalk at the freeflow ramp onto I-85 SB. The trail design should incorporate curvature to require cyclists to slow down upon approach to the freeflow ramp crossing. This curvature should also be designed to bring the trail traffic to a perpendicular crossing of the right turn ramp. This design would place motorists as well as trail users in a location where each is most visible to the other. The curvature of the bridge limits the sight distance for drivers and pedestrians, therefore, implementation of active crossing assistance such as a Rectangular Rapid Flashing Beacon (RRFB) or a Pedestrian Hybrid Beacon should be considered at the crossing to alert drivers to the presence of pedestrians. A Pedestrian Hybrid Beacon could be coordinated with the southeastern ramp signal to limit the number of vehicles in the righthand lane that would be required to stop.
 - Additionally, a third alternative was considered which consisted of a bridge section over I-85, following a second bridge section over the freeflow ramp into the Park-and-Ride lot located within the northern corner of the interchange. This alternative is not preferred considering the bridging cost and the indirect route that it takes.
- Northbound I-85 Ramp to Willow Trail Parkway
 - This section is dominated by a right turn lane which extends the entire length of the section. The lane is necessary due to the high volumes of northbound traffic onto the freeway at peak times. Initially, consideration was given to repurposing the right turn lane into additional space for the 10' path, but after observations of PM peak hour traffic operations at the I-85 northbound on-ramp, it was determined to be unfeasible.
 - A second, more feasible, alternative requires constructing retaining walls in this section because of the elevation of the Oakbrook Plaza office complex and its parking lot relative to the road. This alternative would preserve the right turn lane and existing drainage structures. Typical cross sections are illustrated in the appendix of this document.

Section 2 – Willow Trail Parkway to Burns Drive

- Beaver Ruin Creek Crossing
 - Currently, pedestrians are crossing on the outer edge of the roadway bridge. A separate 10' wide pedestrian/cyclist bridge on the northeast side of Indian Trail-Lilburn Road to span the creek is recommended at this location. The design of the pedestrian bridge should match the existing bridge on the southwest side.
- Greater Atlanta Christian School (GACS) Pedestrian Crossing
 - To accommodate the high volume of pedestrian crossings at the Greater Atlanta Christian School, modifications to enhance the existing crossings are important.
 - Alternatively, a grade-separated pedestrian bridge over Indian Trail-Lilburn Road could be constructed to accommodate increased pedestrian traffic. This option would primarily serve GACS users, and is therefore more appropriate for implementation by the school.

- Hillcrest Road/Tech Drive to Burns Road
 - This section of Indian Trail-Lilburn Road is characterized by limited right of way and steep shoulder slopes. Northwest of the intersection with Hillcrest Road/Tech Drive, a right turn lane into Indian Trail Plaza provides additional width for the trail section. Conversion of a lane of travel into a multi-use trail section would require a detailed study to determine traffic impacts.

Right-of-way in this section is limited due to a steep downward sloping shoulder along the entire length of the quarry property. These conditions would offer an opportunity to pull the trail away from the side of the road for 750-800 feet and follow the existing terrain. Coordination with the quarry to obtain an easement and right-of-way would likely be required.

Section 3 – Burns Road to Camp Creek Trailhead/Shelley Lane

- Limited right-of-way east of Burns Road with steep drop-off and grade changes
 - Steep grades north of the edge of pavement may require either obtaining an easement and right-of-way to construct the trail section with a typical section along existing terrain or use of a retaining wall to construct the trail at road grade with a hand rail installed for safety. This section would span approximately 500'-550' along the curve east of Burns Road. Additional retaining wall sections would likely be needed in front of Merchant's Crossing and the City Harvest Worship Center as a result of the grade changes in this section. In front of Merchant's Crossing, the embankment drops down into the center's parking lot and a retaining wall with hand rail would be needed here to avoid impacting the lot. The deceleration lane into Merchant's Crossing could potentially be reclaimed and used for trail space, pending a more detailed study of traffic impacts incurred by removing the lane. The embankment in front of the City Harvest Worship Center slopes up at a steep grade and would require construction of a retaining wall combined with a hand rail to buffer trail users from vehicular traffic.
- Limited right-of-way east of Hillcrest Road NW with steep drop-offs
 - Steep grades north of the edge of pavement in this location may require obtaining an easement and right-of-way for construction at-grade. In this section, the preferred alternative would be to install a boardwalk. The boardwalk would provide additional aesthetic appeal and added variety for trail users and would be relatively easy to maintain. The boardwalk would span approximately 500 feet. Typical sections for a grade-level boardwalk and an elevated boardwalk are provided in the attachments.
- Trail Alignment at US 29/Lawrenceville Highway
 - The intersection of Indian Trail-Lilburn Road and US 29 is a major crossing. Existing sidewalk facilities are relatively new, and retaining walls exist in certain sections which limit the amount of available right-of-way. The favored alternative to address the challenges present in this area is to create an off-street trail alignment north of the intersection along Jackson Creek. The trail would leave the side of the road just north of the bridge over Jackson Creek and descend down to the creekbed. The trail would turn east following the creek and would pass under the Lawrenceville Highway bridge. It would continue along the back of the developments located around the Killian Hill Road and Lawrenceville Highway intersection and would rejoin the roadway right-of-way east of the intersection. This solution avoids modifying the narrow bridge structure over Jackson Creek and replacement of newly constructed facilities. The trail would be a mix of concrete and boardwalk through wetland areas. The off-street trail also provides users with a scenic section of the primarily street-adjacent trail. Existing sidewalk coverage will still provide pedestrian access to businesses located at the intersection of Killian Hill

Road and Lawrenceville Highway. A separate trail approximately 1 mile in length is being designed along US 29 north from Indian Trail-Lilburn Road. This project is fully funded with Transportation Enhancement (TE) dollars and is being coordinated by the Lilburn CID. The opportunity exists to connect to this trail at US 29.

- A second alternative involves continuing the trail along Killian Hill Road/Indian Trail-Lilburn Road along the north side of the highway. Width for the trail could be obtained by borrowing from existing lanes however recently constructed curb and gutter, retaining walls and sidewalks would need to be relocated or removed. Also, along the Jackson Creek bridge, travel lane width and two way left turn lane width could be reduced to accommodate a 10' path, however buffer space would be minimal.
- Connecting to Camp Creek Greenway Trailhead
 - A mid-block crossing is required to reach the trailhead from the north side of Killian Hill Road. Further studies are recommended to determine the type of crossing that is warranted.
- Camp Creek Greenway Trailhead to Shelley Lane
 - Upon crossing Killian Hill Road via a mid-block crossing, the trail would continue for an additional 0.45 miles on the southern side of the road. The project's logical termini is the second trailhead at Shelley Lane. A City of Lilburn project to construct a multi-use path from Shelley Lane to Trickum Middle School offers a logical endpoint for the Norcross to Lilburn trail. This section of road is 2-lane rural section with single family residences on either side. Houses are set back far enough from the road that no impacts to residences would take place. The shoulder is relatively steep in this section, and fill material would need to be brought in to widen the shoulder, and construction of a retaining wall may be necessary along portions of this section.

Section 4 – Alternative Bryson Park Spur Trail

- Bryson Park Spur:

This spur is a proposed alternative to the main trail system along the Indian Trail corridor. The new Bryson Park in the city of Lilburn is an important destination for recreation. The 2011 LCI study *Highway 29 Boulevard of Opportunity Corridor* identifies the park's importance and recommends several trails in the vicinity which could connect the park to neighborhoods and downtown Lilburn. The proposed Jackson Creek Greenway could tie into this spur and provide access to the park from neighborhoods on Killian Hill Road. The proposed Lilburn Town Center/Main Street trail in the same LCI study would also provide an essential connection to downtown Lilburn and Main Street.

The spur identified in this feasibility study and concept provide another alternative for connection extending south along Hillcrest Road. A trail crossing would be required at the intersection of Indian Trail-Lilburn Road and Hillcrest Road to access the spur. Sidewalks along Hillcrest Road are currently being planned by the city of Lilburn, and sharrows could be implemented to complete the bicycle component. These facilities would extend for approximately 0.25 miles and end at a trailhead. The location of the trailhead is defined in the 2008 *Bryson Park Master Plan* as being at the end of Old Manor Court. A multi-use trail would extend an additional 0.25 miles to Bryson Park and would need to span Jackson Creek. Coordination with the parks department would be required to determine the feasibility of connecting to the park via a bridge over Jackson Creek. The Gwinnett County Parks and Recreation department has already studied the proposed connection and has determined the optimal location of the bridge to avoid floodplain impacts.

Bicycle, Pedestrian, Access Control Opportunities:

Bicycle and pedestrian facilities are the primary facility type of this project.

Programmed Projects in Study Area:

- Transportation Investment Act (TIA):
 - TIA-GW-030: Multi-use Trail and Pedestrian Improvements; US 29 – Hood Road to Hillcrest Road
- Transportation Improvement Plan (TIP):
 - GW-339: Downtown Lilburn Pedestrian Facilities; Poplar Street/Lula Street/Main Street
 - GW-382: Last Mile Connectivity; Beaver Run Road -Buford Highway to Indian Trail-Lilburn Road

Real Estate Development in Study Area:

The only major development planned within the study area is the construction of a new facility at the Greater Atlanta Christian School.

Safety Considerations:

Crash records as provided by the Gwinnett County Department of Transportation indicate a declining trend in crashes along Indian Trail-Lilburn Road in the most recent 3-year period. Between 2010 and 2012, total crashes decreased by over 50%, as evidenced in Table 1. In 2010, injury rates per crash were 1 in every 3.4 crashes. By 2012, injuries were only occurring at a rate of 1 in 37 crashes. In a three year period, one crash resulted in a fatality, and one crash involved a pedestrian. Trends indicate an overall increase in driver and pedestrian safety. However, the design of safe, well-marked pedestrian and bike facilities along the Indian Trail-Lilburn Road corridor should be considered as facility use is expected to increase upon project completion. Striped crosswalks, proper signage, use of pedestrian refuges, pedestrian crosswalk signals and other considerations should be included in concepts.

Table 1: Crash Records Along Indian Trail-Lilburn Road

Year	Total Crashes	No. of Injuries	No. of Fatalities	No. Involving Pedestrians
2010	338	101	1	1
2011	260	17	0	0
2012	148	4	0	0

Source: GCDOT

Factors such as sidewalk gaps, location of transit stops, and lack of crossings could be contributing to a reduction in pedestrian and cyclist activity. Therefore, improvements should be made to the corridor to continue providing safer passage for pedestrians and cyclists, while also considering changing patterns and increases in volume upon completion. Opportunities to improve the crossing of Indian Trail-Lilburn Road should be considered since crossing movements are typically correlated with pedestrian crashes. Additional recommendations from the *Indian Trail/Jimmy Carter Pedestrian and Bike Connectivity* study, such as the relocation of Gwinnett County Transit bus stops, construction of concrete pedestrian refuge islands at major intersections, and installation of pedestrian countdown signals are all viable ways to improve safety along the corridor in conjunction with the construction of the multi-use trail.

Railroad Involvement:

The proposed trail does not require coordination with railroad organizations.

Interjurisdictional Coordination Needs:

The project lies in Gwinnett County and crosses the boundaries of the Gwinnett Village CID and the Lilburn CID. The project also crosses the Norcross and Lilburn city limits. Coordination between these jurisdictional entities will be important. Several stakeholder meetings have already been held to facilitate this interjurisdictional coordination and are outlined in the *Coordination Summary* section.

Approval of concept designs should be shared among jurisdictions to involve all parties in the process. Funding of the project will require coordination as well. Shared funding will allow each jurisdiction to contribute to the overall construction of the trail. Consideration will also need to be given to the fact that CID funding is limited to projects that fall within the districts' boundaries. The trail has been divided into three sections based on design considerations as well as jurisdictional boundaries to aid in this coordination. Maintenance of the trail will also need to be a shared responsibility.

Potential Environmental Impacts/Concerns:

Environmental considerations of this project include work in proximity to Jackson Creek and right-of-way acquisitions. The proposed trail alignment alternative in section 3 (as outlined in the *Impact Analysis* section of this document) along the Jackson Creek bed has the potential to affect the perennial stream. Construction of the trail would occur near the stream bed and would require bridging the creek at one point via a boardwalk.

Level of Environmental Analysis:

The project is expected to receive a Categorical Exclusion (CE) under CFR 771.117(c) pertaining to actions which do not require further NEPA approvals by the FHWA. The exception to this may be the phase of work adjacent to Jackson Creek which may require an Environmental Assessment (EA).

Utility Involvement/Impacts:

Impacted utilities could potentially include the following:

- Georgia Power
- Gwinnett County Water and Sewer
- Gwinnett County DOT
- Atlanta Gas and Light
- AT&T Telecommunications
- Comcast Cable
- Level 3 Communications
- Plantation Pipe Line Company
- Transco Natural Gas Pipeline – Williams
- Colonial Pipeline Company

Right-of-Way Impacts:

An estimated 80 parcels exist along the project limits. Preliminary estimates for ROW acquisition needs are based on design constraints at several areas listed in the *Impact Analysis* section of this document. These numbers are considered preliminary at this time and are subject to change in the PE stage. This study estimates that additional right-of-way will be needed along approximately 1/3 of the total trail length. As the project moves into the preliminary design phase, a more detailed parcel count can be obtained. No displacements are expected to occur with this project.

Coordination Summary

Coordination is currently taking place among project stakeholders. The major stakeholders invested in the trail include Gwinnett Village CID (GVCID), Lilburn CID, the cities of Norcross and Lilburn, the Greater

Atlanta Christian School, Georgia DOT and Gwinnett County. Two stakeholder meetings were held to discuss the proposed concept:

Stakeholder Meeting #1 – September 11, 2013: The agenda for this meeting included discussing possible trail alignments, areas where design challenges are present, and other possible connections to existing infrastructure. Special consideration was given to the section of trail in the vicinity of the Greater Atlanta Christian School due to the number of students who would be on foot in the area. The campus exists on both sides of Indian Trail-Lilburn Road and the ability of students, faculty and parents to cross the road is important. This project provides an opportunity to improve pedestrian crossings and several solutions were discussed.

Attendees:

Ashley Rivera – Atlanta Regional Commission
Chris McCrary – City of Norcross
Jeff Mueller – City of Norcross
Alyssa Sinclair – GVCID
Chuck Warbington – GVCID
Doug Stacks – City of Lilburn
Vince Edwards – Gwinnett County
Gerald McDowell – Lilburn CID
David Fincher – GACS
Jill Morris – GACS
Kevin Skinner – Pond & Company
Ron Osterloh – Pond & Company
Richard Fangmann – Pond & Company
Mark Edwards – Pond & Company
William Hunter – GDOT District 1

Stakeholder Meeting #2 – November 12, 2013: The agenda for this meeting included a presentation and discussion of preferred solutions within areas of concern identified in the first meeting. Stakeholders were encouraged to comment on the proposed solutions. Project cost estimates were also presented for discussion. Future steps to move forward with a public information open house meeting in mid-January was discussed. A draft design concept will be presented to the public at this time.

Attendees:

Jeff Mueller – City of Norcross
Alyssa Sinclair – GVCID
Chuck Warbington – GVCID
Doug Stacks – City of Lilburn
Ed O'Connor – Lilburn CID
Vince Edwards – Gwinnett County
Brett Harte – GACS
Kevin Skinner – Pond & Company
Ron Osterloh – Pond & Company
Richard Fangmann – Pond & Company
Mark Edwards – Pond & Company
Graham Malone – Pond & Company

Public Involvement:

This project has been included in several plans for the area including the *Indian Trail Corridor LCI Study*, the Gwinnett Village CID *Indian Trail/Jimmy Carter Bike and Pedestrian Connectivity* plan, and the

Gwinnett County Comprehensive Transportation Plan. Public outreach for this project was conducted during the *Indian Trail Road and Jimmy Carter Boulevard Pedestrian and Bicycle Connectivity Plan* public involvement stage. Two public meetings were held:

Public Meeting #1 – August 2, 2012: Topics included initial findings, previously planned projects, challenges and existing conditions. A question and answer session was held to determine community origins and destinations and desired facility types.

Public Meeting #2 – September 20, 2012: Draft recommendations were presented, and the community was encouraged to prioritize projects and generally comment on their opinions about the recommendations.

During the scoping phase of the multi-use path, a public informational open house (PIOH) was conducted to inform residents and provide a forum for voicing questions and concerns.

Public Informational Open House – April 17, 2014: The goal of this PIOH was to present a concept layout and typical section drawings to the general public. Discussion topics included the need and purpose of the trail, safety elements at road crossings, aesthetics of the pedestrian bridges, and user perception. The public was allowed to ask questions of the consultant and the various jurisdictions present. Attendees were also asked to fill out comment cards and were encouraged to be honest and descriptive in their responses. Based on these comments, the attendees were supportive of the project because it encourages recreation, community, and mobility. Some concerns that were mentioned on these cards include creating an aesthetically pleasing pedestrian bridge over I-85, adding more vegetation and landscaping whenever possible to improve the trail's desirability, and the possible opportunity for crime that a tunnel section could create.

Stakeholders for this project include the Gwinnett Village Community Improvement District (GVCID), the Lilburn CID, the cities of Norcross and Lilburn, the Greater Atlanta Christian School, Georgia DOT and Gwinnett County.

Additional Comments:

3. Planning & Programming Information

Need and Purpose:

The Indian Trail-Lilburn Road multi-use path will provide pedestrian and bicycle facilities along a key transportation corridor, which connects the cities of Lilburn and Norcross as well as areas of unincorporated Gwinnett County. The multi-use trail will also provide access to Lilburn City Park and Bryson Park. It provides a key route for access to Gwinnett County Transit, including local routes operating along Indian Trail-Lilburn Road as well as regional express routes operating from the I-85 Park and Ride lot. The need for a multi-modal facility along this corridor was identified in several LCI studies, the *Gwinnett County Comprehensive Transportation Plan*, and the *ARC Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan*.

Due to its proximity to I-85, the corridor serves as an economic gateway to Gwinnett County. As such, the Gwinnett Village CID and the Lilburn CID were formed to provide improvements to infrastructure and public services within their boundaries that enhance the economic viability of the area.

The Gwinnett Village CID has conducted two LCI studies along the Indian Trail-Lilburn Road corridor. The first study was completed in 2007 and identified the need to create bicycle facilities, promote transit ridership and to increase connectivity of sidewalks. Pedestrian facilities such as these serve to promote the redevelopment goals outlined in this corridor study, therefore a supplemental study was initiated by the GVCID in 2012 to identify these alternative mode needs and to provide recommendations for improvements. Several improvements are recommended in the *Indian Trail/Jimmy Carter Pedestrian &*

Bike Connectivity plan, including a crossing at Beaver Ruin Creek, where pedestrians currently make the crossing by walking along the outside edge of the roadway bridge structure.

Additional benefits noted in these corridor studies are the indirect improvement in community health and the improvements in access to Gwinnett County Transit routes. By providing continuous walking and riding routes, especially to green spaces and parks, the overall health of the community is improved. Removing vehicular trips from roads also improves air quality. Transit ridership is expected to indirectly increase as well, since a continuous network of sidewalks and paths allows for transit users to easily reach GCT bus stops. This connectivity benefits users who don't own a vehicle, users who choose to ride transit over driving, and users who are unable to operate a personal vehicle, such as the elderly and disabled.

The Lilburn CID also conducted an LCI study along Highway 29/Lawrenceville Highway. This study developed a plan to redevelop Highway 29 in order to promote economic growth along the corridor, and to encourage travel to the activity center of downtown Lilburn. An important planned project relating to greenway trails and other pedestrian/cyclist facilities is the Jackson Creek Greenway Trail which includes a crossing of Indian Trail-Lilburn Road via a pedestrian tunnel along Jackson Creek, and other connections to greenway spaces in the Town Center area. The possibility exists to eventually tie the Indian Trail-Lilburn Road multi-use trail into the Jackson Creek Greenway Trail via an additional sidepath south along Hillcrest Road NW. This connection would also provide access to Bryson Park in the Lilburn town center area.

To the west of Indian Trail-Lilburn Road is the city of Norcross, which provides several trail connections and opportunities as well. Currently, a programmed project to install bicycle and pedestrian facilities along Beaver Ruin Road between Buford Highway and Indian Trail-Lilburn Road is listed as part of the short-range Transportation Improvement Plan (TIP). Connection to this project provides a western logical termini for the multi-use trail. The Norcross Activity Center LCI study conducted in 2008 also recommends the development of a greenway space along an existing power line easement which bisects the city. This planned greenway would provide access to much of the city, including the heavily used Best Friend Park on Jimmy Carter Boulevard, and would be connected to the Indian Trail-Lilburn Road trail via the TIP project GW-382.

Implementation of the Indian Trail-Lilburn Road multi-use trail project will achieve several goals set forth in three LCI plans, and in doing so, will also aid in achieving goals included in previous plans such as the City of Lilburn Comprehensive Plan. The activity centers of Norcross and Lilburn will be connected with a safer route designed for cyclists and pedestrians, the cities of Lilburn and Norcross will grow their planned greenway trail systems with certain trail connections, and transit use along the corridor will increase as access to bus stops is improved.

Project Description:

The proposed project is a multi-use trail approximately 10' in width which will extend the length of Indian Trail-Lilburn Road. The logical termini for this project are at Beaver Ruin Creek Road in the west, where connections to a programmed trail in Norcross may be made, and Shelley Lane in the east, where connections will be made to the Camp Creek Trailhead and a future multi-use trail leading to Trickum Middle School. The trail would be approximately 4.45 miles in length and would extend primarily along the northern side of the road. The easternmost section from the first Camp Creek Greenway trailhead to the project terminus (approximately 0.45 miles) would be constructed on the southern side of Killian Hill Road. Coordination between multiple jurisdictions is required, as the project would pass through the City of Lilburn, unincorporated Gwinnett County and the City of Norcross. Additionally, the project extents lie within the Lilburn CID and the Gwinnett Village CID.

The project is proposed to include three phases:

1. Beaver Ruin Creek Road to Willow Trail Parkway – this section includes the crossing at I-85. The section falls into the jurisdictions of the city of Norcross, the Gwinnett Village CID and unincorporated Gwinnett County. This is a separate section due to the higher costs associated with structures needed to span I-85 and the southbound free-flow on-ramp loop.
2. Willow Trail Parkway to Burns Road – this section falls under the jurisdictions of unincorporated Gwinnett County and the Gwinnett Village CID. A single pedestrian bridge will be required over Beaver Ruin Creek. This section of trail is characterized as being adjacent to the road, with brief opportunities to pull away from the edge of the road at times. Providing access from residential areas to commercial areas and transit routes is the primary goal in this section.
3. Burns Road to Shelley Lane/Camp Creek Trailhead – this section falls under the jurisdiction of the city of Lilburn and the Lilburn CID. The Gwinnett Village CID boundaries do not extend east of Burns Road. This section begins to transition into a 2 lane, rural section. Residences are predominant, with the exception of the commercial area around the intersection of Indian Trail-Lilburn Road and US 29. This section also provides several opportunities to create scenic, recreational connections by way of the Bryson Park Alternate spur, and the proposed short boardwalk section along Jackson Creek.

The extents of each phase can also be found on the concept layout in the attachments section.

ARC Model Impacts

The project does not impact the ARC model.

Functional Classification:

Indian Trail Road is an Urban Minor Arterial Street

U.S. Route Number: N/A

State Route Number: N/A

Traffic (AADT):

Current Year: (2012) 38,310

Design Year: (2032) 46,745

Resources for traffic counts: Georgia's State Traffic and Report Statistics (STARS)

4. Design Information

Existing design features:

- **Typical Section:** Indian Trail-Lilburn Road is a 5 lane road with sections of urban and rural shoulders. Typical lane width varies between 11' and 12'. Center lane width varies between 12' and 13'. Auxiliary left and right turn lanes are present throughout the corridor. East of the intersection with US 29, the road (Killian Hill Road) becomes a 2 lane road with rural shoulders. Sidewalk sections with a typical width of 5' exist on the western side of the road from the I-85 overpass to Church Street NW in Lilburn. Sidewalk coverage is periodic on the eastern side of the road. Typical sidewalk width is 5'. Where curb and gutter are present, the width varies from 1.5' to 3'.
- **Posted speed Indian Trail:** 45 mph **Design speed Indian Trail:** 45 mph
- **Posted speed Multi-Use Path:** 15 mph **Design speed Multi-Use Path:** 15 mph
- **Width of right of way:** Varies 100 -125' on Indian Trail
- **Major Structures:** I-85 overpass - 425'
- **Controlled Intersections and Interchanges:**

Indian Trail Road at:

Beaver Ruin Road	signalized
Brook Hollow Pkwy	signalized
Interstate 85	interchange
I-85 NB ramps	signalized
Willow Trail Pkwy	signalized
Oakbrook Pkwy	signalized
GACS West access	signalized
GACS East access	signalized
Tech Dr./Hillcrest Rd.	signalized
Steve Reynolds Blvd.	signalized
Wuthering Way	signalized
Dickens Rd.	signalized
Burns Rd.	signalized
Hillcrest Rd. NW	signalized
Lawrenceville Hwy.	signalized

- **Length of roadway segment:** Beaver Ruin to Shelley Lane/Camp Creek Greenway: 4.45 miles

Proposed Design Features:

- **Proposed Typical Section:** Proposed trail is a 10' wide concrete multi-use trail, with a typical buffer of 5' from edge of pavement, and 2' shoulder with a max 2:1 slope (see attachments for section drawings).
- **Right of Way:**
 - Width: Typical width of trail right of way is 17' (varies)
 - Easements: Temporary (0), Permanent (2), Utility (0), Other (0)
 - Number of impacted parcels: 17 Number of displacements: 0
- **Major Structures (Proposed):** 2 pedestrian bridges spanning 400' and 80'; 1 proposed tunnel section approximately 80' in length; 1 boardwalk section spanning approximately 500'. Additionally, certain trail sections may facilitate use of a retaining walls and guard rails where shoulder slopes are steep.

Design Exceptions to FHWA/AASHTO controlling criteria:

FHWA/AASHTO Controlling Criteria	YES	NO	Undetermined
1. Design Speed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Lane Width	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Shoulder Width	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Bridge Width	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Horizontal Alignment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Superelevation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Vertical Alignment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Grade	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Stopping Sight Distance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Cross Slope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Vertical Clearance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

12. Lateral Offset to Obstruction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Bridge Structural Capacity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GDOT Variances to GDOT Standard Criteria:

GDOT Standard Criteria	YES	NO	Undetermined
1. Access Control - <i>Median Opening Spacing</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Median Usage & Width	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Intersection Skew Angle	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Lateral Offset to Obstruction	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Intersection Sight Distance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Bike & Pedestrian Accommodations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. GDOT Drainage Manual	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Georgia Standard Drawings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. GDOT Bridge & Structural Manual	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Roundabout Illumination (<i>if applicable</i>)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Rumble Strips/Safety Edge (<i>if applicable</i>)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

In rare cases, the trail may be closer than the guidelines require for lateral offset. Utility poles, traffic control cabinets and electrical equipment may be immediately adjacent to the trail. If unavoidable, a design variance will be obtained.

5. Budget and Schedule

	Fiscal Year Proposed (FY begins July 1)	Federal Funds (Max. 80%)	Local Funds (Min. 20%)	Total Cost
PE	2015	768,000	192,000	960,000
ROW-Section 1	2016	75,780	18,950	94,730
ROW-Section 2	2016	311,730	77,930	389,660
ROW-Section 3	2016	547,840	136,960	684,800
ROW-Total	2016	935,350	233,840	1,169,190
CST-Section 1	2017	2,532,190	633,050	3,165,240
CST-Section 2	2017	1,691,470	422,870	2,114,340
CST-Section 3	2017	2,758,300	689,570	3,447,870
CST-Total	2017	6,981,960	1,745,490	8,727,450
Utilities	N/A	420,000	105,000	525,000
Environmental Mitigation	N/A	0	0	0
CST Oversight	2017	418,920	104,730	523,650

6. Attachments

a) Proposed Project Schedule:

Please attach a project schedule in Gantt Chart (i.e. timeline) format, including scoping phase, concept phase, concept report approval, environmental process and approval, design variance/exception approvals, right-of-way plans, right-of-way acquisition and certification, PFPR, FFPR, utility certification, final bid documents, bidding and construction phases.

b) Project Location Map

Include a project location sketch or map sufficient to locate the project and its beginning and ending points.

c) Typical Cross Sections:

This does need to be drawn to scale. Sponsors can also use examples from LCI master plans or other example documents, and can specify changes.

d) Concept Layout:

This does need to be drawn to scale. Sponsors can also use examples from LCI master plans or other example documents, and can specify changes.

e) Attach sign-in sheet and meeting summary from Project Scoping Meeting

Prepared by:

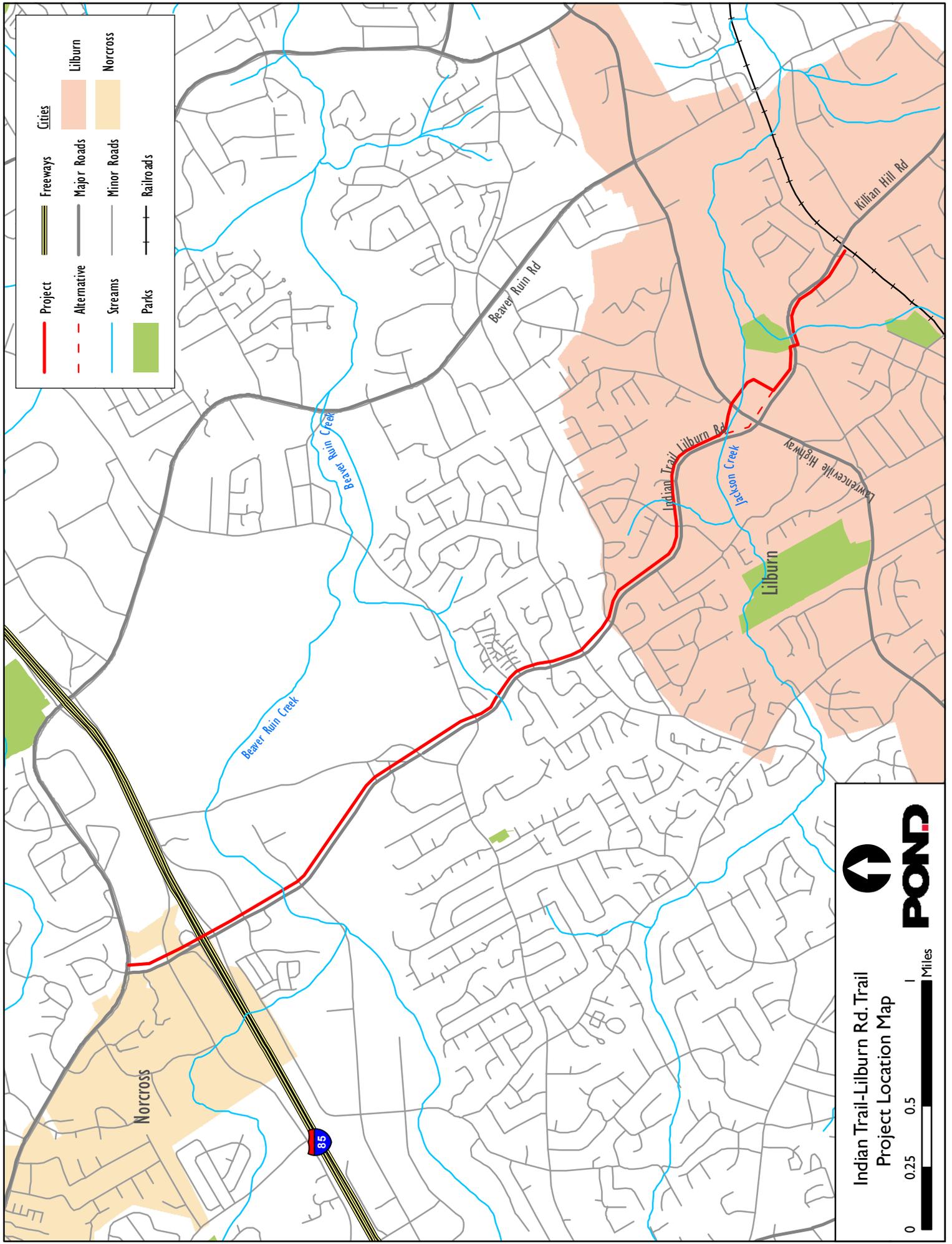
Print Name: _____ Agency/Firm: _____

Signature: _____ Date _____

Approved by (Local Government Sponsor):

Print Name: _____ City/County: _____

Signature: _____ Date _____



	Project		Freeways		Liburn
	Alternative		Major Roads		Norcross
	Streams		Minor Roads		
	Parks		Railroads		

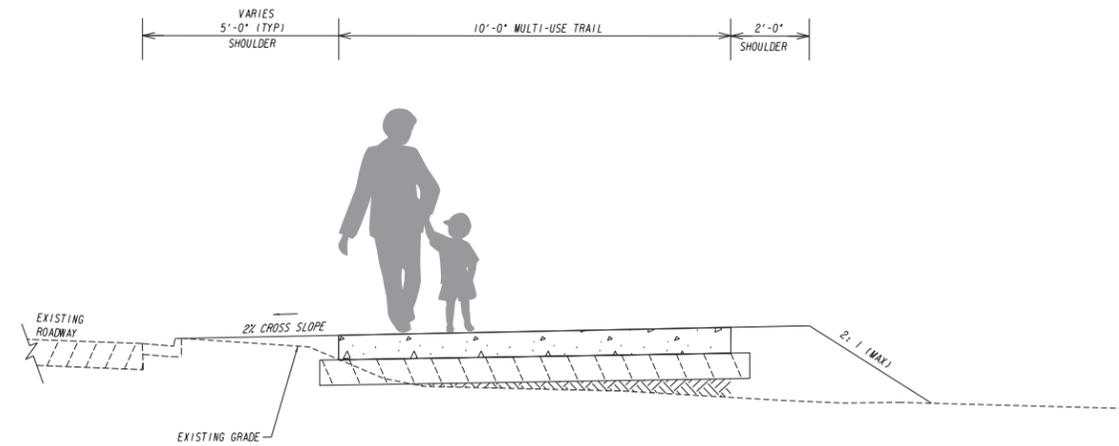


Indian Trail-Lilburn Rd. Trail
Project Location Map



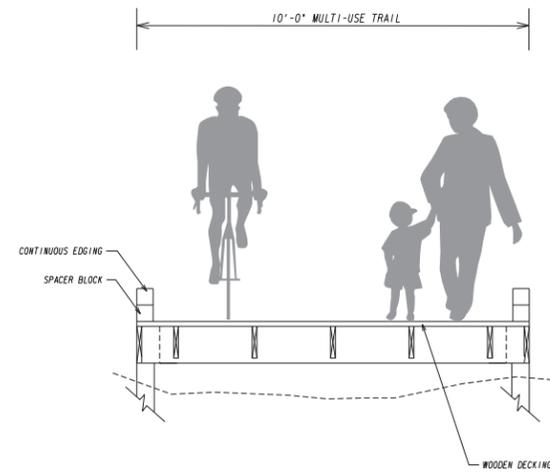
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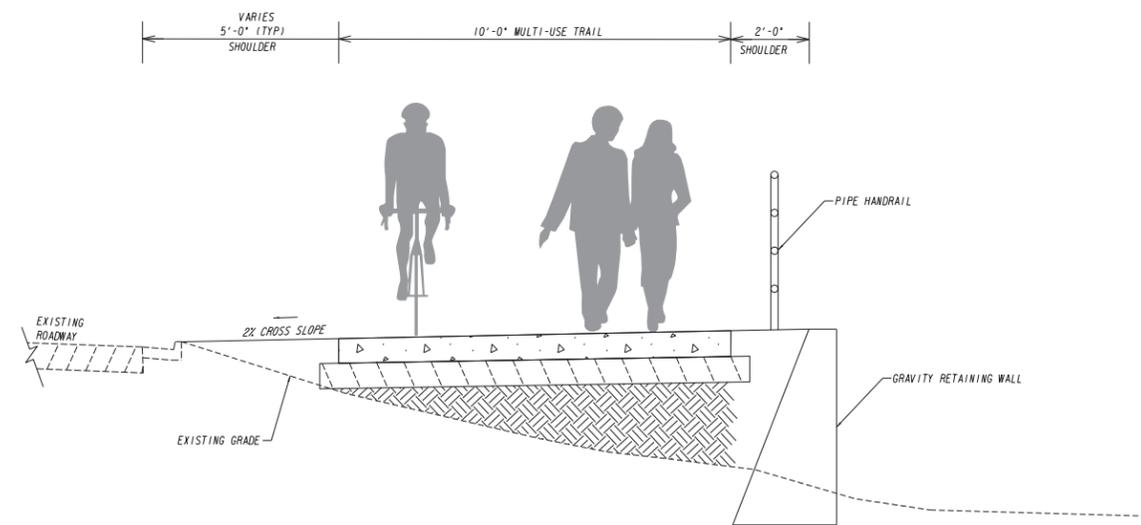
Typical Section

CONCRETE MULTI - USE TRAIL ADJACENT TO ROADWAY



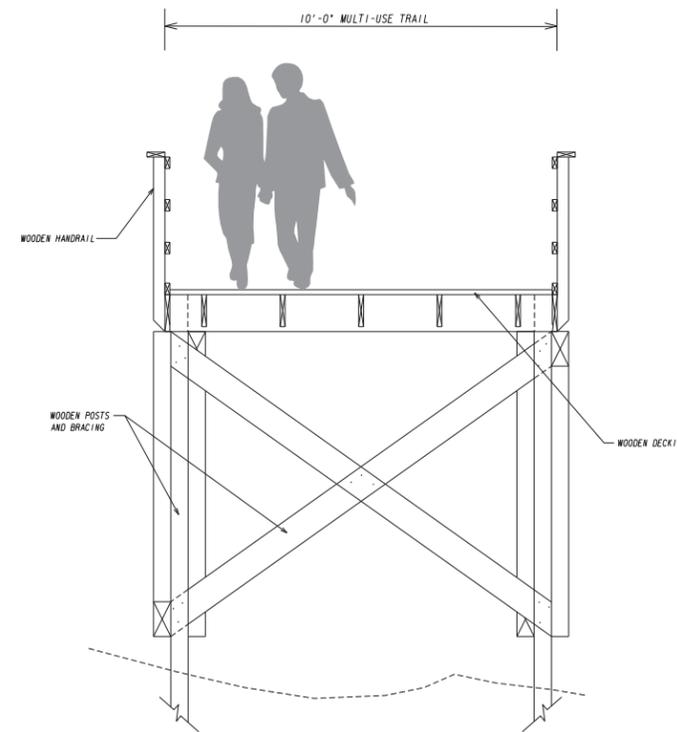
Typical Section

WOODEN BOARDWALK



Typical Section

CONCRETE MULTI - USE TRAIL ADJACENT TO ROADWAY WALL SECTION



Typical Section

ELEVATED WOODEN BOARDWALK WITH HANDRAILS

GWINNETT VILLAGE
 COMMUNITY IMPROVEMENT DISTRICT
 1/5/2009

GWINNETT VILLAGE
 COMMUNITY IMPROVEMENT DISTRICT
 1/5/2009

GWINNETT VILLAGE
 COMMUNITY IMPROVEMENT DISTRICT
 1/5/2009

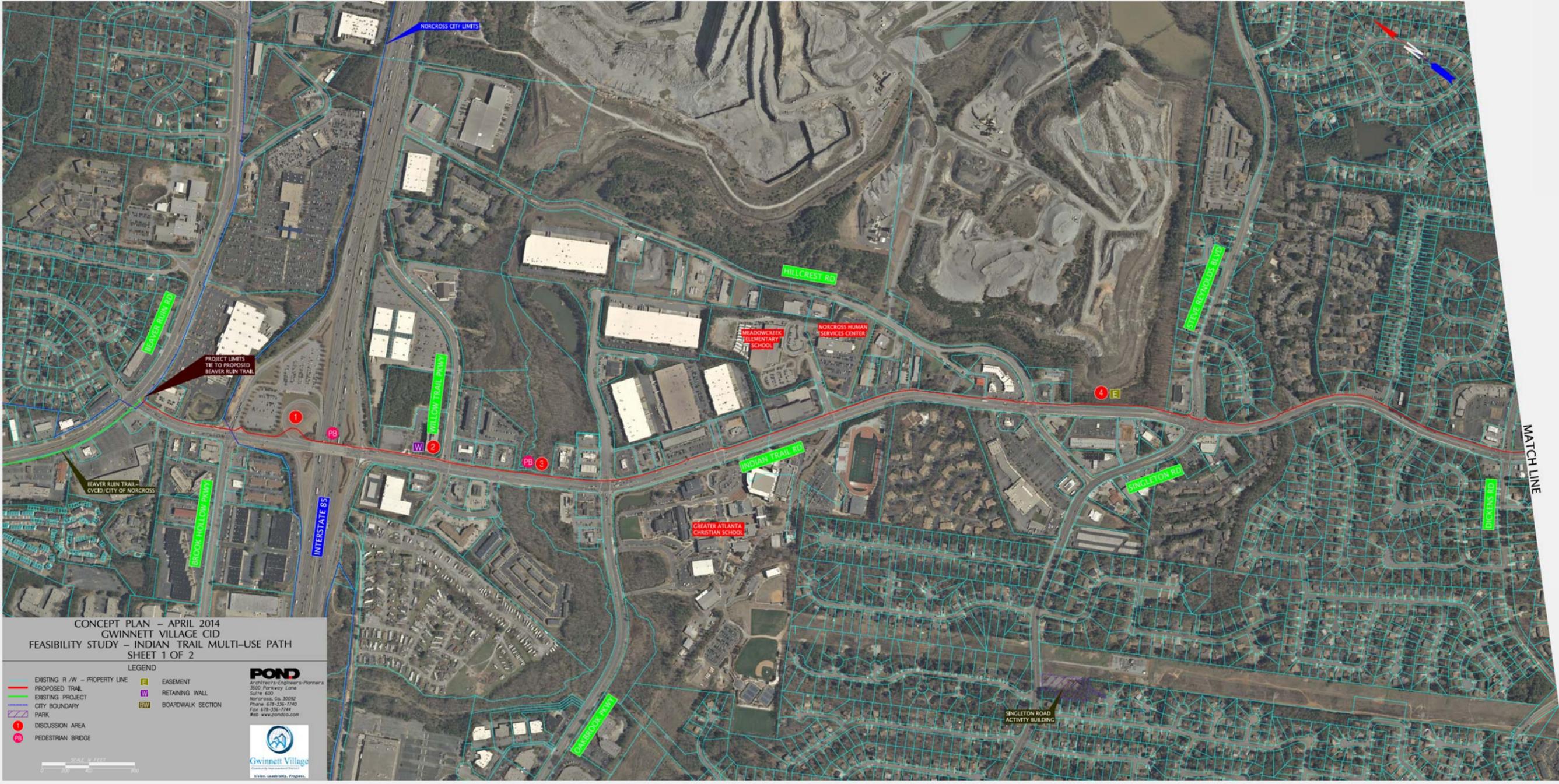
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 Suite 600 •
 Norcross, Ga. 30092
 Phone 678-336-7740
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REVISION DATES	

GWINNETT VILLAGE
 COMMUNITY IMPROVEMENT DISTRICT

OFFICE:
 TYPICAL SECTIONS

INDIAN TRAIL MULTI-USE TRAIL



CONCEPT PLAN – APRIL 2014
 GWINNETT VILLAGE CID
 FEASIBILITY STUDY – INDIAN TRAIL MULTI-USE PATH
 SHEET 1 OF 2

LEGEND

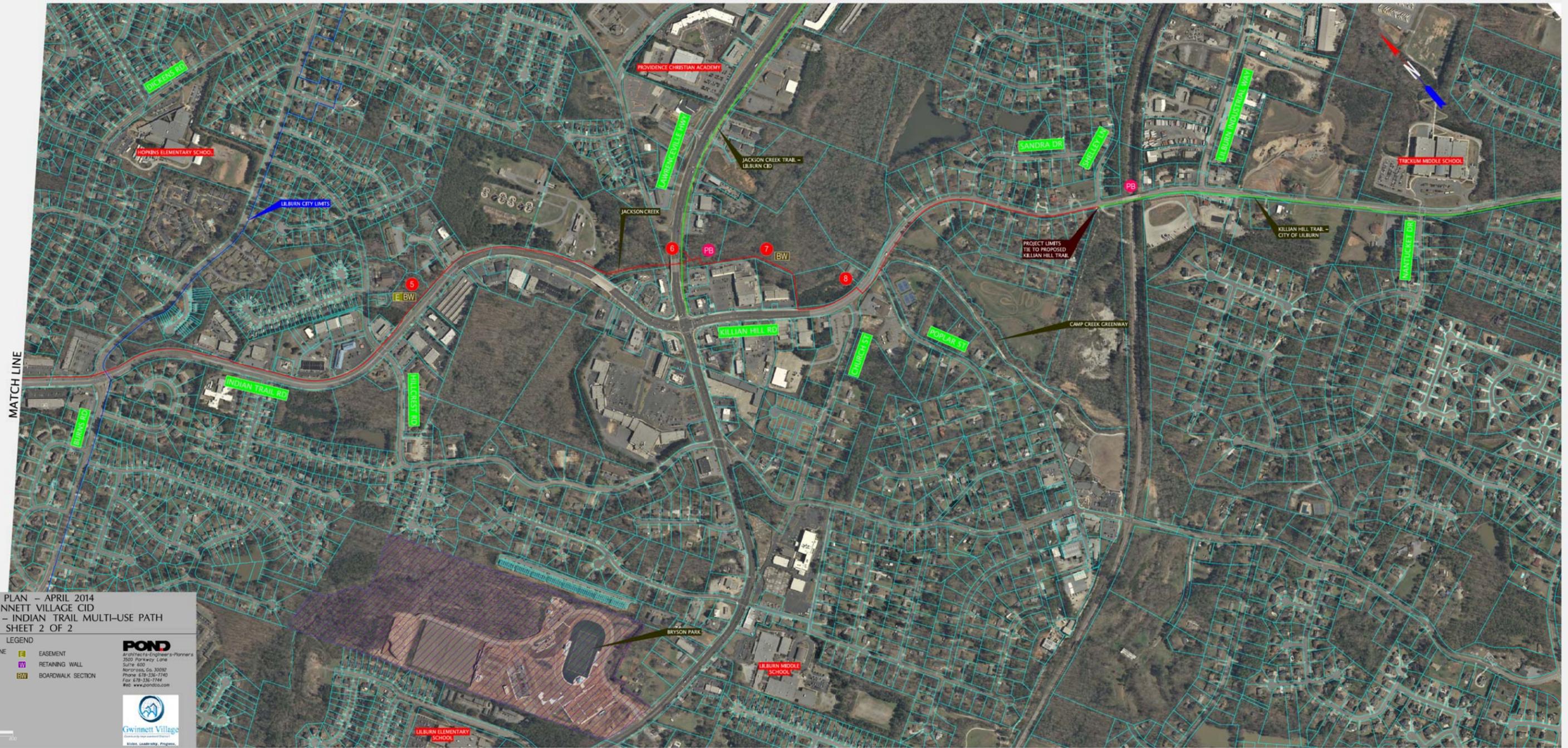
EXISTING R/W – PROPERTY LINE	EASEMENT
PROPOSED TRAIL	RETAINING WALL
EXISTING PROJECT	BOARDWALK SECTION
CITY BOUNDARY	PARK
DISCUSSION AREA	PEDESTRIAN BRIDGE

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 Architects-Engineers-Planners
 3500 Parkway Lane
 Suite 600
 Norcross, GA 30092
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SCALE: 1" = 100 FEET

MATCH LINE



CONCEPT PLAN – APRIL 2014
 GWINNETT VILLAGE CID
 FEASIBILITY STUDY – INDIAN TRAIL MULTI-USE PATH
 SHEET 2 OF 2

LEGEND

	EXISTING R/W – PROPERTY LINE		EASEMENT
	PROPOSED TRAIL		RETAINING WALL
	EXISTING PROJECT		BOARDWALK SECTION
	CITY BOUNDARY		
	PARK		
	DISCUSSION AREA		
	PEDESTRIAN BRIDGE		

SCALE: 1" = 100 FEET

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 Architects-Engineers-Planners
 3500 Parkway Lane
 Suite 600
 Marietta, GA 30067
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Norcross to Lilburn Multi-Use Trail Feasibility Study

September 11, 2013 10:30 am

Please add or check off your name and provide phone number

- | | | |
|--------------------|--------------|--------------|
| Ashley Rivera | ARC | |
| ✓ Chris McCrary | Norcross | |
| Jeff Mueller | Norcross | |
| ✓ Alyssa Sinclair | GVCID | |
| ✓ Chuck Warbington | GVCID | |
| ✓ Doug Stacks | Lilburn | |
| ✓ Vince Edwards | Gwinnett Co. | |
| ✓ Gerald McDowell | Lilburn CID | |
| ✓ David Fincher | GACS | |
| Kevin Skinner | Pond | 678 336 7740 |
| ✓ Ron Osterloh | Pond | |
| ✓ Mark Edwards | Pond | |
| Richard Fangmann | Pond | |
| Steve Kelly | GDOT-D1 | |
| ✓ Jill Morris | GAC | |
| ✓ David Fincher | GAC | |
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**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013**



MEETING MINUTES

Project: Indian Trail Multi-Use Trail Feasibility Study

Meeting Location: Gwinnett Village CID Office

Meeting Date: Sept. 11, 2013

Minutes Prepared By: Mark Edwards

Minutes Prepared On: Sept. 11, 2013

ATTENDEES:

<u>Name</u>	<u>Company /Dept/Branch</u>	<u>Email Address</u>
Ashley Rivera	ARC	arivera@atlantaregional.com
Chris McCrary	Norcross	cmccrary@norcrossga.net
Jeff Mueller	Norcross	JMueller@norcrossga.net
Alyssa Sinclair	GVCID	alyssa@gwinnettville.com
Chuck Warbington	GVCID	chuck@gwinnettville.com
Doug Stacks	Lilburn	dstacks@cityoflilburn.com
Vince Edwards	Gwinnett County	Vince.Edwards@gwinnettcounty.com
Gerald McDowell	Lilburn CID	GMcDowell@LilburnCID.com
David Fincher	GACS	dfincher@greateratlantachristian.org
Jill Morris	GACS	jmorris@greateratlantachristian.org
Kevin Skinner	Pond & Company	SkinnerK@pondco.com
Ron Osterloh	Pond & Company	OsterlohR@pondco.com
Richard Fangmann	Pond & Company	FangmannR@pondco.com
Mark Edwards	Pond & Company	EdwardsM@pondco.com
William Hunter	GDOT – District 1	wihunter@dot.ga.gov

PURPOSE OF MEETING:

Stakeholder Meeting to discuss possible alignments, areas of concern, and linkages to surrounding infrastructure for a multi-use trail connecting the proposed greenway trail, along Beaver Ruin Rd in Norcross, to the Camp Creek Greenway in Lilburn.



**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013**

The Following is a summary of what was discussed at the Concept Team Meeting:

PROJECT BACKGROUND

- Project has been included in the following reports;
 - Indian Trail Corridor LCI -2007
 - ARC Bike and Pedestrian Plan -2007
 - Gwinnett County Comprehensive Transportation Plan – 2008
 - GVCID Indian Trail/Jimmy Carter Bike & Pedestrian Connectivity Study - 2012

PROJECT STATUS

- Feasibility of a multi-use trail is being determined.
- GVCID has been awarded \$300,000 in Transportation Alternatives Funding for PE in FY 2014 for this project.

PROJECT PRESENTATION

- Proposed trail would be a 10' concrete trail with a 4' grass strip between the trail and curb and gutter.
- Proposed trail would tie into the existing Camp Creek Greenway at the intersection of Killian Hill Rd. and Poplar St.
- Proposed trail would run along the south side of Killian Hill Rd for approximately 250' before making use of a midblock crossing in order to cross to the north side of Killian Hill Rd.
- Midblock crossing could be a Flashing Hybrid Beacon System or a HAWK system. Would need to do a traffic study to determine which one would be best for this crossing.
- The reason the road crosses to the north side of Killian Hill Rd is to avoid the large amount of driveways on the south side of the road.
- The stretch of Killian Rd in front of the Killian Hill Crossing Shopping Center has substantial walls that make it an area of concern. Pond & Company believe that there is extra width in the roadway that could be used so that the walls would not be disturbed. This would require at a minimum moving the curb and gutter and existing drainage structures to the edge of the existing travel lane.
- Lawrenceville Highway is a well-traveled roadway. Special consideration will be given to make sure that a safe crossing is provided here.
- Bridge over Jackson Creek appears to have extra width that could be used to run the trail along the existing bridge. This may require some reconfiguration of the existing striping.
- Before the alignment reaches Hillcrest Rd. there is a significant stretch of the shoulder that has very steep slopes. In this area it is likely that some combination of extensive grading, wall installation, additional right of way acquisition, and boardwalk installation will be necessary.
- At the Merchants Crossing Shopping Center steep slopes and walls, as well as a parking lot that is very close to the roadway will make the installation of the trail difficult. It was recommended by Pond & Company that the deceleration and acceleration lanes be removed, and that additional width be used for the installation of the trail. In this area it is

Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013

- still likely that some combination of extensive grading, wall installation, additional right of way acquisition, and boardwalk installation will be necessary.
- There is potential to install a spur that connects Bryson Park to Hopkins Elementary School. A greenway could be installed from Bryson Park to Old Manor Ct., and then “sharrows” or a pathway could continue along Hillcrest Rd to Hopkins Elementary School.
 - Immediately to the west of the Indian Trail Apartment homes is a low point and creek that could lead to some difficulties in construction. Pond & Company believes that the trail can be installed by removing the acceleration lane and installing the greenway in that additional width.
 - Singleton Rd., Hillcrest Rd, Oakbrook Parkway, and the On-ramps for I-85 are all well-traveled roadways. Special consideration will be given to make sure that safe crossings are provided at these locations.
 - There are significant slopes where the quarry property runs along Indian Trail Lilburn Rd, between Singleton Rd and Hillcrest Rd. In this area it is likely that some combination of extensive grading, wall installation, additional right of way acquisition, and boardwalk installation will be necessary.
 - At the shopping center immediately to the west of Hillcrest Rd steep slopes and a parking lot that is very close to the roadway will make the installation of the trail difficult. It was recommended by Pond & Company that the deceleration lane be removed, and that additional width be used for the installation of the trail.
 - At the creek crossing between Willow Trail Parkway and Oakbrook Parkway a pedestrian bridge will need to be installed on the north side of Indian Trail Lilburn Rd. Currently many pedestrians walk on the small 1’ concrete edge on the backside of the bridge. The proposed bridge can match the existing bridge on the south side of Indian Trail Lilburn Rd.
 - Installing a 10’ pathway immediately to the west of Willow Trail Parkway will likely require the existing walls to be reconstructed.
 - Four options were discussed to cross I-85 with a pedestrian bridge. These included;
 - A pedestrian bridge located right next to the existing Indian Trail Lilburn Rd bridge,
 - A pedestrian bridge that crosses about 500 ‘ north of the existing Indian Trail Lilburn Rd bridge and connects to the park and ride.
 - An alignment that breaks off of Indian Trail Lilburn Rd and follows Hillcrest Rd and then uses a pedestrian bridge to cross I-85.
 - An alignment that breaks off of Indian Trail Lilburn Rd and follows Willow Trail Parkway and then uses a pedestrian bridge to cross I-85 at Hillcrest Rd.

PROJECT DISCUSSION

- Things to Consider in the project area
 - 1 mile of trail is being designed along US29 from Indian Trail Northbound – Fully funded TE.
 - Jackson Creek Trail – Lilburn CID led.
 - Multi-Use Trail Proposed on Killian Hill from Camp Creek Greenway Trailhead Eastbound.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013**

- Discussed the need for safer more attractive crossings at the 1500 building for GAC students. Discussed the need for countdown timers.
- Discussed revisiting the signal issue and looking at the spike in demand presented by additional use between the main campus and 1500 building. It could help to meet the warrant for a pedestrian bridge or some other type of crossing.
- Scope of the trail project could be extended to include better crossings of Indian Trail Lilburn Rd.
- Discussed incorporating landscaping features that will help to guide pedestrians to crossings.
- Lilburn already has 16 miles of trails. This project will cause some shuffling in the priorities of future trail projects.
- Lilburn has plans to reroute Church St to connect to Poplar St. This will increase the ADT of Poplar St. and could warrant a signal at the intersection of Poplar St. and Killian Hill Rd.
- Lilburn is installing 10' sidewalks around the City Hall as part of their Main St realignment project.
- Discussed extending the limits of this project to Arcado Rd.
- Discussed setting a threshold ADT to determine whether crossings should be made at grade, or should be grade separated.
- Project will not include lighting, furniture, etc.
- Need to let stakeholders in the area know of the project so they do not make improvements that could then be nullified by this project.
- Discussed the idea of Pond & Company Landscape Architect meeting with the GAC project manager.
- A greater need for sidewalks and city owned properties are some of the reasons for the alignment being on the north side of Indian Trail.
- Expect to know about Satellite extension feasibility within 6 months.
- Lilburn side of the project should be the first priority.
- Kickoff for the PE would be 2014. Design, including ROW would last 2-3 years.
- Project would be ready for the 2016 SPLOST, could get Federal funds beforehand.
- Brought up the idea of all 4 partners trying to appeal for SRTA funds.
- The pedestrian bridge alongside the existing bridge would be similar to the silver comet trail.
- GDOT would be most concerned with the crossings of the ramps to I-85.
- Connection to transit could help to get funding through last mile connectivity.

ACTION ITEMS

- Advance ARC scoping Document.
- Hold second stakeholder meeting before PIOH meetings. Second meeting will be held in 6-8 weeks.
- Include preliminary cost estimate with the next batch of information.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Sept. 11, 2013**



- Move photo on the schematic that is currently covering the Lilburn City Hall and Main St areas.
- Provide additional and/or more detailed information about the crossing of I-85 and other highly discussed areas.

Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013



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SIGN IN SHEET

ATTENDEES:

Name Company /Dept/Branch Email Address

VINCE EDWARDS GWINNETT COUNTY
Chuck Worbyton Gwinnett Village CID
BRETT HARTE GREATER ATLANTA CHRISTIAN SCHOOL
ED O'CONNOR LILBURN CID
JEFF MUELLER NORCROSS
Doug Stacks Lilburn
Alyssa Sinclair Gwinnett Village CID
Mark Edwards POND

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013**



MEETING MINUTES

Project: Indian Trail Multi-Use Trail Feasibility Study

Meeting Location: Gwinnett Village CID Office

Meeting Date: Nov. 12, 2013

Minutes Prepared By: Mark Edwards

Minutes Prepared On: Nov. 13, 2013

ATTENDEES:

<u>Name</u>	<u>Company /Dept/Branch</u>	<u>Email Address</u>
Jeff Mueller	Norcross	JMueller@norcrossga.net
Alyssa Sinclair	GVCID	alyssa@gwinnettville.com
Chuck Warbington	GVCID	chuck@gwinnettville.com
Doug Stacks	Lilburn	dstacks@cityoflilburn.com
Ed O'Connor	Lilburn CID	eoconnor@lavista.com
Vince Edwards	Gwinnett County	Vince.Edwards@gwinnettcounty.com
Brett Harte	GACS	bharte@greateratlantachristian.org
Kevin Skinner	Pond & Company	SkinnerK@pondco.com
Ron Osterloh	Pond & Company	OsterlohR@pondco.com
Richard Fangmann	Pond & Company	FangmannR@pondco.com
Mark Edwards	Pond & Company	EdwardsM@pondco.com
Graham Malone	Pond & Company	MaloneG@pondco.com

PURPOSE OF MEETING:

The second stakeholder meeting to discuss challenges and solutions along the suggested alignment, linkages to surrounding infrastructure and future trail projects, and preliminary cost estimates for a multi-use trail connecting the proposed greenway trail, along Beaver Ruin Rd in Norcross, to the Camp Creek Greenway in Lilburn.

The Following is a summary of what was discussed at the Second Concept Team Meeting:



**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013**

PROJECT STATUS

- Feasibility of a multi-use trail is being determined.
- GVCID has been awarded \$300,000 in Transportation Alternatives Funding for PE in FY 2014 for this project.

PROJECT PRESENTATION

- At the first stakeholders meeting the idea of grade separated crossings at major intersections was discussed to separate bike riders from motorist. This idea was deemed to be cost-prohibitive, and too difficult to construct given the existing constraints.
- An idea to install 10'-12' wide custom crosswalks (green lane with a bike symbol) along the corridor was presented as a solution to bring more attention to bicyclist at crossings.
- All routes that were contingent on the Hillcrest/Satellite Connector were removed from the discussion since the first stakeholder meeting. The Hillcrest/Satellite Connector project is viewed as a low priority long term project by Gwinnett County, so the focus was shifted to the route along Indian Trail Lilburn Rd.
- Proposed trail would be a 10' concrete trail with a separation between the trail and the curb and gutter.
- In areas where constraints are present the trail could be moved closer to the back of the curb.
- The proposed trail would tie into the planned greenway along Beaver Ruin Rd at the southeast intersection of Indian Trail Lilburn Rd and Beaver Ruin Rd.
- It is recommended for the trail to cross the I-85 South on-ramp perpendicularly. In order to accomplish this, the proposed trail would need to swing out before it crosses the proposed pedestrian bridge, which would require additional grading. This would make motorist and pedestrians more aware of each other at this critical location. Additionally, a pole mounted Rapid Flashing Beacon is suggested at this location.
- The crossing of I-85 would be accomplished with a 300' single-span pedestrian bridge. This pedestrian bridge would be located next to the existing Indian Trail Lilburn Rd. bridge, and is estimated to have a construction cost of \$1.8 million. A two-span pedestrian bridge could save approximately \$200,000, but would require a pier to be constructed in the median of I-85.
- Installing a 10' pathway in front of the office park immediately to the north of Willow Trail Parkway will require the installation of additional retaining walls, and the reconstruction of existing retaining walls.
- The idea of repurposing the existing right turn lane into the office park at this location as usable space for the trail was suggested. This could have an effect on the traffic accessing the I-85 northbound ramp. Further analysis would be necessary during later stages of engineering design.
- At the Beaver Ruin Creek crossing between Willow Trail Parkway and Oakbrook Parkway a pedestrian bridge will need to be installed on the east side of Indian Trail Lilburn Rd. Currently many pedestrians walk on the small 1' concrete edge on the backside of the

Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013

bridge. The proposed bridge can match the existing bridge on the south side of Indian Trail Lilburn Rd.

- At the Greater Atlanta Christian School, signal retiming to split the minor street phases could help to increase the safety of pedestrians at both intersections along Indian Trail Lilburn Rd. A pedestrian bridge could still be part of a long-term plan at this location and may be considered as a bid alternate in this project.
- At the Indian Trail Plaza Shopping Center, steep slopes and a parking lot that is very close to the roadway will make the installation of the trail difficult. It is suggested that the deceleration lane be removed, and that area be repurposed for the installation of the trail.
- There are significant slopes where the quarry property runs along Indian Trail Lilburn Rd, between Singleton Rd and Hillcrest Rd. In this area it is suggested that right of way and easement are acquired from the quarry so the trail can follow along the existing grade. As the necessary property is likely in an unusable buffer it could be possible to get a property donation from the quarry.
- At the CVS on the corner of Steve Reynolds Blvd and Indian Trail Lilburn Rd steep slopes and a parking lot that is very close to the roadway will make the installation of the trail difficult. It is likely that a gravity wall will need to be installed at this location to protect the existing parking lot.
- Immediately to the west of the Indian Trail Apartment homes is a low point and creek that could lead to some difficulties in construction. It is suggested that the trail can be installed by removing the acceleration lane and installing the greenway in that additional width.
- Just east of Burns Rd is an undeveloped property with steep slopes and limited right of way. It is likely that a substantial amount of easement will need to be acquired at this location or that the installation of a retaining wall will be necessary.
- At the Merchants Crossing Shopping Center steep slopes and walls, as well as a parking lot that is very close to the roadway will make the installation of the trail difficult. It was suggested that the deceleration and acceleration lanes be removed, and that additional width be used for the installation of the trail. In this area it is still likely that a retaining wall will need to be installed.
- In front of the City Harvest Worship Center steep grade changes will likely require the installation of a retaining wall in order to accommodate the 10' trail.
- East of Hillcrest Rd. there is a significant stretch of the shoulder that has very steep slopes. In this area it is suggested that approximately 600 LF of boardwalk is installed. The boardwalk in this area will not be shaded by trees year round, so it will be able to dry out and should not be a concern for slipping.
- Just after the suggested boardwalk section there is an opportunity to repurpose the existing acceleration lane from Exchange Place NW to provide additional space to construct the trail.
- Two options were presented for the section between Jackson Creek and the existing Camp Creek Greenway. Option 1 consists of continuing along Indian Trail Lilburn Rd/ Killian Hill Rd. Option 2 would run parallel to Jackson Creek, pass under the Lawrenceville Hwy Bridge, make use of a small pedestrian bridge to cross over Jackson Creek, and then run along the backside of the properties that make up the Killian Hill Crossing Shopping Center and then continue to travel along Killian Hill Rd.

Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013

- Option 2 could tie into the 1 mile of trail is being designed along US29 from Indian Trail Northbound – Fully funded TE.
- As discussed in previous meetings there are many limiting factors along the option 1 route. While there is additional roadway width to borrow from in this area it would require extensive reconstruction of an area that was recently constructed. Substantial walls and the bridge over Jackson Creek make this an area for concern. Also, in traveling the option 1 route, pedestrians would need to cross the Lawrenceville Hwy intersection.
- Option 2 would be a mix of concrete trail and boardwalk. It would provide pedestrians a chance to get away from the side of Indian Trail Lilburn Rd and increase the overall aesthetics of the greenway. Option 2 could require additional environmental coordination as it goes through some areas that appear to be wetlands. **(WILL MOVE FORWARD WITH OPTION 2)**
- A midblock crossing is recommended to get the trail back to the south side of Killian Hill Rd. This crossing would likely require a HAWK system, but a traffic study would need to be performed for verification.
- The proposed trail would tie into the existing Camp Creek Greenway at the intersection of Killian Hill Rd. and Poplar St.
- Pond & Company evaluated continuing the trail on the north side of Killian Hill Rd. until it reaches Trickum Middle school. This area is very constructible, but would require curb and gutter, and drainage installation. Additionally, a pedestrian bridge would need to be installed to span the CSX railroad.

PROJECT DISCUSSION

- Would like for our project to tie into the 1 mile of trail is being designed along US29 from Indian Trail Northbound – Fully funded TE.
- Discussed removing the section of the trail that extends from the Camp Creek Greenway to Trickum Middle School on the north side of Killian Hill Rd, and instead installing the trail on the south side from the Camp Creek Greenway up to the next section of the Camp Creek Greenway right before the CSX railroad. **(WILL MOVE FORWARD WITH THIS IDEA)**
- Need to talk to the Gwinnett County Parks and Rec department about a connection to Bryson Park.
- Should finalize the draft scoping document in the next two weeks for comment and review.
- Discussed the idea of moving the trail to the south side of Indian Trail Rd, where more existing infrastructure exists, and using grade separated crossings to link back to the north side.
- A greater need for sidewalks and city owned properties are some of the reasons for the alignment being on the north side of Indian Trail.
- East of Burns Rd the project is out of the GVCID area. Would like the City of Lilburn and the Lilburn CID to coordinate their preferences after that section.
- Will need to look at ways to prioritize, use bid alts, and break the project into segments, so that it can be constructed in a reasonable sequence and within funding limitations. It was noted that constructing all \$8M in one project is unlikely.

**Indian Trail Multi-Use Trail Feasibility Study
Gwinnett Village CID
Stakeholders Meeting – Nov. 12, 2013**

- Break the project into 3 segments (Segment 1 – Beaver Ruin to Willow Trail, Segment 2 – Willow Trail to Burns Road, Segment 3 – Burns Road to Tie In with proposed Lilburn Trail) with priority being place on the middle segment.
- Would like to talk to Pam Ledbetter with Accent Atlanta to try to give the trail a better name.
- Excited to have multijurisdictional support. It should go a long way when trying to get funding.

ACTION ITEMS

- Finalize ARC scoping Document.
- Set a date for PIOH meeting (January/February) and update drawings for presentation to the public.
- Separate preliminary cost estimate into 3 Segments. (Segment 1 – Beaver Ruin to Willow Trail, Segment 2 – Willow Trail to Burns Road, Segment 3 – Burns Road to Tie In with proposed Lilburn Trail).
- Pond to Share concept with Pam Ledbetter, and connect the jurisdictions to brainstorm naming the trail.