Georgia Department of Transportation

Interoffice Memo
Office of Design Policy & Support

DATE: 12/29/2022

FILE: P.I.# 0017789
Cherokee County / GDOT District 6 - Cartersville
SR 140 @ SR 5 BU IN CANTON – Intersection Improvement

FROM: Dane Peters for R. Christopher Rudd, PE, 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
Albert Shelby, Director of Program Delivery
Clement Solomon, Director, Division of Intermodal
Darryl VanMeter, Assistant Director of P3/State Innovative Delivery Administrator
Matthew Markham, Deputy Director of Planning
Kim Nesbitt, Program Delivery Administrator
Bobby Hilliard, Program Control Administrator
Eric Duff, State Environmental Administrator
Alan Davis, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Erik Rohde, State Project Review Engineer
Patrick Allen, State Materials Engineer
Nick Fields, State Utilities Administrator
Eric Conklin, State Transportation Data Administrator
Attn: Systems & Classification Branch
Lee Howell, Statewide Location Bureau Chief
Grant Waldrop, District 6 District Engineer
David Acree, District 6 Preconstruction Engineer
Jun Birnkammer, District 6 Utilities Manager
Keith Posey, Project Manager
BOARD MEMBER - 11th Congressional District

Limited Scope
Project Concept Report

Template version: 2021.12.22

Project Type:	Intersection Improvement	P.I. Number:	0017789
GDOT District:	6	County:	Cherokee
Federal Route Number:	N/A	State Route Number:	140, SR 5 BU
Project Number:	N/A		

Operational improvement of intersection of SR 140/Waleska Road from @ SR 5 BU/Riverstone Parkway to north of Mary Lane

** Report updated 12-1-2022 & 12-19-2022 to address review comments

Submitted for approval:

Paul Murphy, P.E., Michael Baker International — Date: 10/14/2022

Bethany Watson, PE, AICP, City of Canton City Engineer — Date: 10/14/22

Kimberly W. Nesbitt
State Program Delivery Administrator — Date: 10/18/2022

Keith Posey
GDOT Project Manager — Date: 10/14/2022

* Recommendations on file - KLP

Recommendation for approval:

* Eric Duff — State Environmental Administrator — Date: 10-21-2022

* Oladimeji Onabanjo — For State Traffic Engineer — Date: 11-3-2022

* Grant Waldrop — District Engineer — Date: 11-3-2022

☒ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).

☐ 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).

* Matt Markham — *for* Division of Planning — Date: 11-16-2022

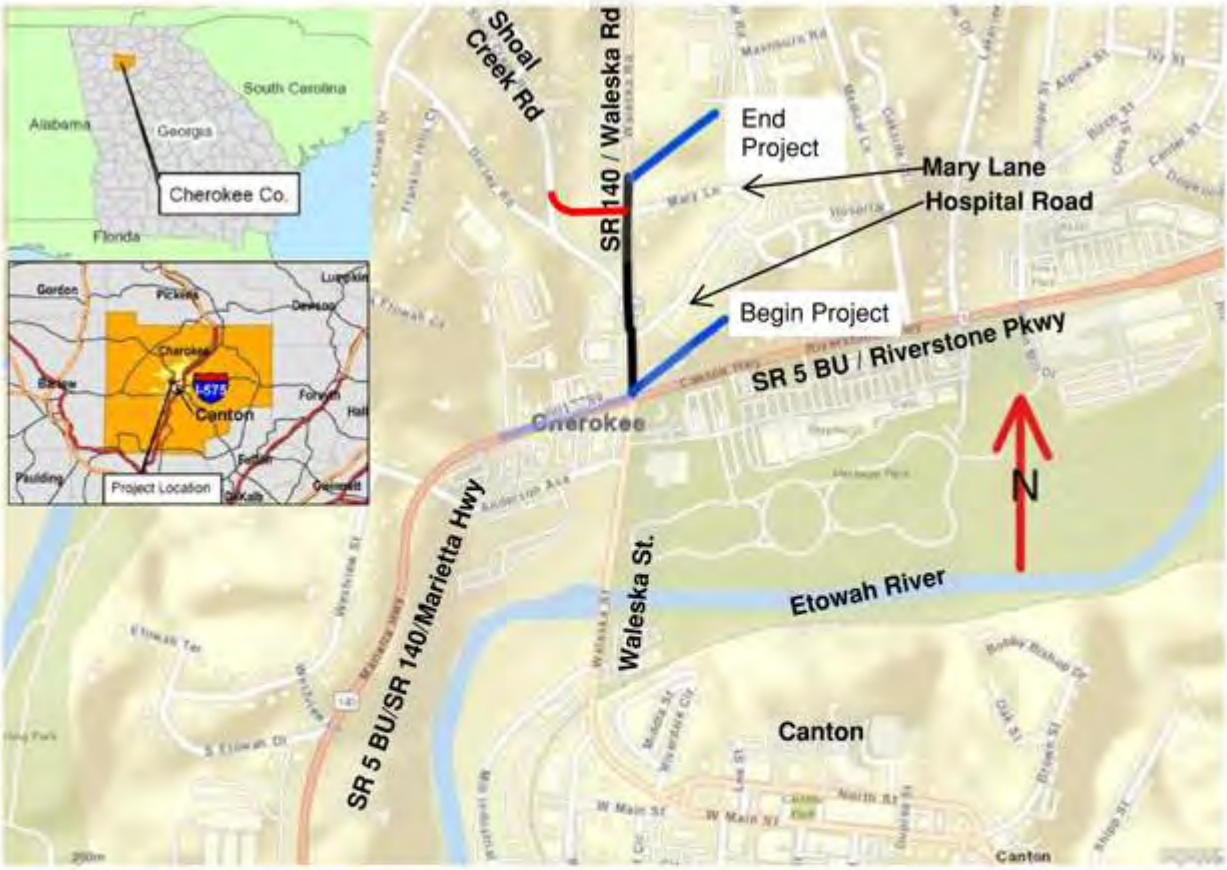
Approval:

Concur: Hiral Patel — GDOT Director of Engineering — Date: 12/26/2022

Approve: Meg Pirkle — Digitally signed by Andrew Heath DN: C=US, E=aheath@dot.ga.gov, O=Georgia DOT, OU=Chief Engineer Office, CN=Andrew Heath Date: 2022.12.29 10:13:01-05'00' — GDOT Chief Engineer — Date: 12/29/2022

* Albert Shelby, Director of Program Delivery, recommended for approval 10-21-2022
* Alan Hood, Air Safety Data Program Manager, recommended for approval on 10-21-2022
* Joshua Taylor, Asst, State Project Review Engineer, recommended for approval on 11-7-2022
* Marcela Coll, State Utilities Pre-Construction Manager, recommended for approval on 11-2-2022

PROJECT LOCATION MAP



PROJECT LOCATION MAP
SR 140 @ SR 5 BU
PI 0017789
Intersection Improvement, Cherokee County

PLANNING & BACKGROUND DATA

Prepared By: City of Canton/Michael Baker International **Date Completed:** *Date* 11/29/2022

Project Justification Statement:

The intersection of SR 140 (Marietta Highway/Waleska Street) and SR 5 BU (Marietta Highway)/Riverstone Parkway experiences peak hour delays, especially southbound queueing. The AADT on SR 140 in the vicinity of the Marietta Highway intersection is 19,550 in 2022. The current conditions have approximately 50 feet of storage on the southbound right turn lane and approximately 100 feet of storage on the southbound left turn lane. The intersection level of service for the main intersection is LOS D in the AM and the PM and is projected to have a failing LOS of F by 2048. Other issues include two intersections of substandard skews and substandard stopping sight distance issues tying in within 500 feet of the intersection with Marietta Highway. Adding to the congestion are three commercial driveways with unrestricted access located within 350 feet of the intersection with Marietta Highway. Current year peak hour southbound queuing along SR 140 is approximately 0.75 miles

SR 140 from Marietta Highway north to the city limits was identified in the 2019 SR 140 Corridor Planning Study (initiated by the City of Canton) as requiring operational improvements and including multimodal facilities. Without mitigation, the intersection of SR 140 at BU 5 (Marietta Highway) will be LOS F in the design year 2048.

The project goal is to improve the operation of the intersection by increasing left turn queue capacity for southbound SR 140 traffic and to improve the sub-standard intersection skew of Shoal Creek Road with SR 140. A secondary goal is a reduction in the severity and frequency of crashes due to the raised concrete median and the relocation of Shoal Creek Road to a ninety-degree skewed intersection across from Mary Lane. There are 195 crashes total in the project study area during the queried time period (July 2017 – June 2022). After a review of the crash reports, the majority of crashes along the corridor are rear ends related to congestion and vehicles waiting to turn onto side streets. All of the severe and most of the moderate injury crashes in the project area are angle crashes, which are related to a failure to yield at SR 5 BU and the side streets, and limited sight distance at Shoal Creek Road. The project aims to address crashes in four ways: limiting access to right-in right out on side streets, reducing congestion, adding turn lanes, and improving intersection skew at Shoal Creek Road. See appendix for more details on crash history.

Existing conditions: Existing SR 140/Waleska Rd has two 12-foot lanes, one in each direction, with right turn lanes at Walgreens entrance, Texaco entrance, and right and left turn lanes at State Route 140/Waleska Rd and State Route 5 intersection, all 12-foot widths. There is no existing median. 248 ft. of sidewalk spanning from Walgreens entrance island to State Route 140/Waleska Rd and State Route 5 intersection. 200 ft. of sidewalk starting from Edward Jones entrance and extending South. Both sidewalks are 6.5-feet in width and have a 5.5-foot grass strip between the sidewalk and the road. South end of corridor meets with State Route 140/Waleska Rd and State Route 5 intersection, which is signalized. Other intersections are Hospital Road, Shoal Creek Road, and Mary Lane entering Waleska Road and these are all TWSC. There are overhead utilities on the west side of the corridor.

Other projects in the area:

PI 0017982 SR 140 @ SR 5 CONN

MPO: *Atlanta TMA* **TIP #:** CH-140A
Congressional District(s): *11*

Federal Oversight: ☐ **PoDI** ☒ **Exempt** ☐ **State Funded** ☐ **Other**

Projected Traffic: 24 HR T: 5.5 % Current Year (2022): 19,550

Open Year (2028): 21,700 Design Year (2048): 30,700
Traffic data source: Field Counts and TADA data.
Traffic Projections Performed by: Michael Baker International
Date approved by the GDOT Office of Planning: *7/1/2022*

AASHTO Functional Classification (Mainline): Minor Arterial

AASHTO Context Classification (Mainline): Suburban
AASHTO Project Type (Mainline): Construction on existing roads
Is the project located on a NHS roadway? ☒ No ☐ Yes

Complete Streets - Bicycle, Pedestrian, and/or Transit Standards Warrants:

Warrants met: ☐ None ☐ Bicycle ☒ Pedestrian ☒ Transit

Pedestrian Warrant #1: There are pedestrian travel generators (commercial areas) within the project limits and the project lies between residential land uses and recreational land uses at the Etowah River. The proposed typical section includes a 5-foot sidewalk on the east side and an 8-foot sidewalk on the west side of the corridor.

Bicycle Warrant #1: Cherokee High School is located within three miles of the project location. Bicycle accommodations were not considered due to lack current bicycle connectivity and lack of existing bicycle volumes.

Transit Warrant: CATS website lists a route stop for SR 140 at Hospital Road.

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

Pavement Evaluation and Recommendations

Initial Pavement Evaluation Summary Report Required? ☒ No ☐ Yes
Feasible Pavement Alternatives: ☒ HMA ☐ PCC ☐ HMA & PCC

Is the project located on a Special Roadway or Network? ☒ No ☐ Yes
Do the limits of the project include one or more signalized intersections? ☐ No ☒ Yes

Is Federal Aviation Administration coordination anticipated? ☒ No ☐ Yes

DESIGN AND STRUCTURAL

Description of the proposed project: The project PI 0017789 is located in Canton in Cherokee County and proposes construction of additional lanes, a concrete median, increased right turn lane storage, right-in/right-out improvements at Walgreens Driveway and Hospital Road, signal improvements, and the realignment of Shoal Creek Road to align with Mary Lane. The proposed corridor will have four 11-foot wide lanes, a concrete median with 6.5-20-foot width. There will be a 5-foot wide sidewalk on the west side and an 8-foot wide sidewalk on the east side. The proposed left turn lanes will both be 11-feet wide. The realigned section of Shoal Creek Road will increase from existing 10-foot lane widths to 11-foot lane widths. The new curve has a horizontal curve radius of 154-feet. The total project length is approximately 1,710 feet.

Major Structures: N/A

Mainline Design Features:

SR140 / SR 5	**Functional Classification:** *Minor Arterial*		
Feature	**Existing**	***Policy**	**Proposed**
Typical Section:			
- Number of Through Lanes	2		4
- **Lane Width(s) (-ft)**	**12**	**11 – 12**	**11**
- **Median Width (-ft) & Type**	**N/A**	**20**	**6.5 – 20**
- **Shoulder Width (-ft) (Outside)**	**0-2**	**N/A**	**N/A**
- **Border Area Width (-ft)**	**4-10**	**10 – 16**	**10-14.5**
- **Cross Slope (%)**	**2%**	**2%**	**2%**
- **Outside Shoulder Slope (%)**	**6%**	**2%**	**2%**
- **Sidewalks (-ft)**	**N/A**	**5**	**Varies 5 – 8**
- Auxiliary Lanes	RTL-11', RTL-12', LTL-12'		LTL-11', LTL-11'
- **Bike Accommodations**	**No – Shared Use Path less than 10' wide**	**Yes****	**No – Shared Use Path less than 10' wide**
Posted Speed (mph)	45		45
Design Speed (mph)	**45**	**45**	**45**
Minimum Horizontal Curve Radius (-ft)	**14000**	**711**	**14000**
Maximum Superelevation Rate (%)	**2**	**4**	**2**
Maximum Grade (%)	**5**	**8**	**5**
Access Control	**Permit**	**Permit**	**Permit**
Design Vehicle	WB-40		WB-40
Check Vehicle	N/A		N/A
Pavement Type	HMA		HMA

**According to current GDOT Design Policy if applicable*

*** Bicycle accommodations were not considered due to lack current bicycle connectivity and lack of existing bicycle volumes.*

Sideroad Design Features:

Shoal Creek Road	**Functional Classification:** *Local Road and Street*		
Feature	**Existing**	***Policy**	**Proposed**
Typical Section:			
- Number of Through Lanes	2		2
- **Lane Width(s) (-ft)**	**10**	**10 – 12**	**11**
- **Median Width (-ft) & Type**	**N/A**	**N/A**	**N/A**
- **Shoulder Width (-ft) (Outside)**	**0-2**	**N/A**	**N/A**
- **Border Area Width (-ft)**	**0**	**4-10**	**4-10**
- **Cross Slope (%)**	**2%**	**2%**	**2%**
- **Outside Shoulder Slope (%)**	**6%**	**2%**	**2%**
- **Sidewalks (-ft)**	**N/A**	**5**	**5**
- Auxiliary Lanes	N/A		N/A’
- **Bike Accommodations**	**N/A**	**Yes****	**No – 5-foot sidewalk**
Posted Speed (mph)	30		30
Design Speed (mph)	**30**	**30**	**30**
Minimum Horizontal Curve Radius (-ft)	**231**	**231**	**231**
Maximum Superelevation Rate (%)	**2**	**6**	**6**
Maximum Grade (%)	**N/A**	**9**	**5**
Access Control	**N/A**	**N/A**	**N/A**
Design Vehicle	SU		SU
Check Vehicle	N/A		N/A
Pavement Type	HMA		HMA

**According to current GDOT Design Policy if applicable*
*** Bicycle accommodations were not considered due to lack current bicycle connectivity and lack of existing bicycle volumes.*

Design Exceptions/Design Variances to FHWA or GDOT Controlling Criteria anticipated: None

Design Variances to GDOT Standard Criteria anticipated: Intersection Skew Angle for Hospital Road at Waleska Road.

Lighting Proposed: ☒ No ☐ Yes

Off-site Detours Anticipated: ☐ No ☐ Undetermined ☒ Yes*

If yes:	Roadway type to be closed:	☒ Local Road	☐ State Route
	Detour Route selected:	☒ Local Road	☐ State Route
	District Concurrence w/Detour Route:	☒ No/Pending	☐ Received
	Detour Presented to Public:	☒ No	☐ Yes

*Off-site detour for Shoal Creek Road only which would be 0.6 miles to N. Etowah Drive and would be in effect for as little as a few months depending on how the project is staged.

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes Non-Significant

INTERCHANGES AND INTERSECTIONS

Interchanges/Major Intersections: At beginning (south end) of the project there is a major signalized intersection between State Route 140 and Business Route 5.

Intersection Control Evaluation (ICE) Required: ☐ No ☒ Yes

Roundabout Concept Validation Required: ☒ No ☐ Yes

UTILITY AND PROPERTY

Railroad Involvement: N/A

Utility Involvements: See attached Concept Utility Report for Details

- Southern Gas Company aka AGL
- City of Canton-Water
- City of Canton-Sewer
- Comcast (COM)
- Crown Castle (CCN)
- Ellijay Telephone Company (ETC)
- Georgia Power Company (GPC)
- Windstream (WST)

SUE Required: ☐ No ☒Yes

Public Interest Determination Policy and Procedure recommended: ☒ No ☐ Yes

Right-of-Way (ROW): Existing width: 80ft. Proposed width: 105 ft.

Required Right-of-Way anticipated: ☐ None ☒ Yes ☐ Undetermined

Easements anticipated: ☐ None ☒ Temporary ☒ Permanent * ☐ Utility ☒ Other

** Permanent easements include the right to place utilities.*

Anticipated total number of impacted parcels:		13
Displacements anticipated:	Businesses:	0
	Residences:	0
	Other:	0
Total Displacements:		0

Location and Design approval: ☐ Not Required ☒ Required

Impacts to federally managed property anticipated: ☒ No ☐ Yes ☐ Undetermined

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document: *NEPA ~ CE*

Level of Environmental Analysis:

☐ The environmental considerations noted below are based on preliminary desktop or screening level environmental analysis and are subject to revision after the completion of resource identification, delineation, and agency concurrence.

☒ The environmental considerations noted below are based on the completion of resource identification, delineation, and agency concurrence.

MS4 Permit Compliance – Is the project located in a MS4 area? ☐ No ☒ Yes
If yes, is the GDOT MS4 Permit anticipated to apply to all or part of this project? ☐ No ☒ Yes

Is ecology water quality mitigation anticipated? ☒ No ☐ Yes

Will a Non-MS4 Detention Report be required during preliminary design? ☒ No ☐ Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated:

Nationwide Permit 14 – It is anticipated that implementation of the proposed project would result in unavoidable impacts to jurisdictional stream resources. Although the impacts are expected to be below the compensatory mitigation threshold of 100 linear feet, a PCN will need to be submitted to the U.S. Army Corps of Engineers due to the presence of suitable gray bat (*Myotis grisescens*) habitat within the Environmental Survey Boundary (ESB).

Compensatory Mitigation – It is anticipated that the unavoidable impacts to jurisdictional stream resources would not exceed 100 linear feet; therefore, compensatory mitigation would not be required.

Stream Buffer Variance – The field investigation identified the presence of three state buffered waters (one perennial stream and two intermittent streams) within the ESB. It is anticipated that any impacts to the 25-foot protected vegetated buffer of these three aquatic resources would be exempt from the variance requirements, as they would occur within the roadway drainage structure exemption area. As a result, a request for a buffer variance issued by the Georgia Department of Natural Resources (GDNR) – Environmental Protection Division (EPD) would not be required.

Notice of Intent (NOI) for National Pollutant Discharge Elimination System (NPDES) Permit No. GAR100002.

Air Quality:

Is the project located in an Ozone Non-attainment area? ☒ No ☐ Yes

Is a Carbon Monoxide hotspot analysis required? ☒ No ☐ Yes

- Air specialist documentation for Ozone and Carbon Monoxide compliance will be required.
- It is anticipated Mobile Source Air Toxics (MSATs) screening will be required.

NEPA/GEPA Comments & Information:

Ecological Resources: *ERSR resubmitted 10/04/2022 to OES for review*

- 3 Streams (1 perennial and 2 intermittent)
- No Wetlands
- Monarch Butterfly is a federal candidate species that is not currently being assessed statewide.
- Gray Bat is a federally endangered species with suitable foraging habitat identified within the ESB.
- Special Provision 107.23H for the protection of the Gray Bat will be required.
- Migratory Bird habitat is present throughout the ESB

Archaeology: *Archaeological Short Report resubmitted 10/05/2022 to OES for review*

- An Archaeological Short Report with negative findings was completed and SHPO concurrence is not required.

Historic Resources: *HRSR submitted 08/25/2022 to OES for review*

- Three (3) National Register of Historic Places (NRHP) Eligible Resources (Mary Lane Historic District, Poland House, and Covington House)
- No NRHP Listed Resources
- No National Historic Landmarks
- No NRHP Eligible Bridges in updated Georgia Historic Bridge Survey

Section 4(f) – It is anticipated that implementation of the proposed project would result in impacts to NRHP-eligible properties identified within the ESB. It is anticipated that the impacts would be considered to be *de minimis* and a full Section 4(f) evaluation would not be required.

Noise Impacts – The proposed project is not a capacity increasing project. In addition, the realignment of Shoal Creek Road is not anticipated to adversely affect local noise receptors. As a result, it is anticipated that the proposed project will qualify as a Type III project, and a full Type I noise analysis will not be required.

Public Involvement:

- A Public Information Open House (PIOH) and Detour meeting will be held in the summer of 2023.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Constructability/Construction:

- A constructability meeting is not anticipated.

Project Meetings: Concept Team Meeting 09/29/2022

Other coordination to date:. *None*

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Michael Baker International
Design	Michael Baker International
Right-of-Way Acquisition	City of Canton
Utility Coordination (Preconstruction)	City of Canton
Utility Relocation (Construction)	Utility Owners
Letting to Contract	City of Canton
Construction Supervision	City of Canton
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, & Permits	Michael Baker International
Environmental Mitigation	City of Canton
Construction Inspection & Materials Testing	City of Canton

Project Cost Estimate Summary and Funding Responsibilities						
	PE Activities		ROW	Reimbursable Utilities	CST*	Total Cost
	PE Funding	Section 404 Mitigation				
Date of Estimate:	4/12/2021	N/A	8/1/2022	11/26/2022	11/29/2022	
Proposed Funding Source(s):	Federal	N/A	Local or TBD	Local or TBD	Local or TBD	
Programmed Cost:	$363,093		$500,000	$30,731	$2,332,391	$3,226,215
Estimated Cost:	$950,000	$0	$2,043,000	$732,000	$5,007,413	$8,732,413
Total Cost Difference:						$5,506,198

*CST Cost includes Construction, Engineering and Inspection, Contingencies and Asphalt Fuel Price Adjustment.
** ROW Estimate developed by design team - submitted to GDOT for approval on 08/01/2022).

- Anticipated additional funding through federal program

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: The preferred alternative proposes construction of additional lanes, a concrete median, increased right turn lane storage, right-in/right-out improvements at Walgreens Driveway and Hospital Road, signal improvements, and the realignment of Shoal Creek Road to align with Mary Lane. The proposed corridor will have four 11-foot lanes, a concrete median with 6.5-20-foot width. There will be a 5-foot sidewalk on the west side and an 8-foot sidewalk on the east side. The proposed left turn lanes will both be 13.5-feet. The realigned section of Shoal Creek Road will remain with 12-foot lane widths. The new curve has a horizontal curve radius of 154-feet. The total project length is ~ 1,710 feet.

Estimated Property Impacts:	**13**	**Estimated Total Cost:**	$8,732,413
Estimated ROW Cost:	**$2,043,000**	**Estimated CST Time:**	**24 Months**

Rationale: *This alternative was selected as it best addresses the needs of this interim project to reduce operational delays and southbound queuing on SR 140 while minimizing right of way acquisition and environmental permitting. For the build year of 2028, Southbound queueing is cut nearly half in the AM peak, and reduced by 74% in the PM peak. The delays for Southbound in the build year are also nearly cut in half for both AM and PM peaks. It will have the greatest secondary impact of reducing severity and frequency of collisions in the project area until a future 2 to 4 lane corridor widening of SR 140 between Canton and Waleska and full intersection design of Marietta Hwy / Riverstone Pkwy @ Waleska St / Waleska Rd can be completed in the future.*

**Estimated ROW cost by design team.*

No-Build Alternative: Existing SR 140 has two 12-foot lanes, one in each direction, with right turn lanes at Walgreens entrance, Texaco entrance, and right and left turn lanes at State Route 140 and State Route 5 intersection, all 12-foot widths. There is no existing median. 248 ft. sidewalk spanning from Walgreens entrance island to State Route 140 and State Route 5 intersection. 200 ft. sidewalk starting from Edward Jones entrance and extending South. Both sidewalks are 6.5-feet in width and have a 5.5-foot grass strip between the sidewalk and the road. South end of corridor meets with State Route 140 and State Route 5 intersection, which is signalized. Other intersections are Hospital Road, Shoal Creek Road, and Mary Lane entering Waleska Road and these are all stop sign controlled.

Estimated Property Impacts:	**n/a**	**Estimated Total Cost:**	**n/a**
Estimated ROW Cost:	**n/a**	**Estimated CST Time:**	**n/a**

Rationale: The No Build alternative does not meet the goals of the interim project.

Alternative 1: Alternative 1 has the same roadway layout as the preferred alternative with a change in the treatment of driveways accessing SR 140. Instead of removing the northern-most dental office driveway from Shoal Creek Road and the driveway supplying the property in the northwest quadrant of SR 140/Shoal Creek Road, the driveways are retained with similar access to SR 140. However with the construction of the median, left-turning traffic will be required to turn right onto SR 140 and then U-Turn at the SR 140/BU 5 intersection. This change in movement requires additional pavement and property from the Texaco gas station at the northeast quadrant of SR 140/BU 5.

Estimated Property Impacts:	**12**	**Estimated Total Cost:**	**$12,727,413**
Estimated ROW Cost:	**$6,038,000**	**Estimated CST Time:**	**24 Months**

Rationale: This alternative was not selected as it does not meet the operational goals of the interim project better than the preferred because it moves more traffic through the intersection with SR 140/BU 5 than the preferred alternative. It increases the number of southbound u-turn movements by the number of drivers who wish to make a left turn from the dental office northern driveway and the commercial property in the northwest quadrant of SR 140/Shoal Creek Road. The alternative has greater property impacts at the SR 140/BU 5 intersection at the Texaco gas station in the northeast quadrant, potential requiring a total take of the property totaling approximately $2.5M. Environmental impacts would be similar to the preferred alternative, with the exception of potential underground storage tank mitigations in the discussed gas station property.

**Estimated ROW cost by design team.*

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout – Preferred Alternative
2. Typical sections
3. Detailed Cost Estimates:
    a. Construction Cost Estimate
    b. Right-of-Way.
    c. Utilities
4. Concept Utility Report
5. Crash summaries and diagrams
6. Traffic diagrams or projections
7. Capacity analysis summary
8. Stage 1 ICE Report(s)
9. MS4 Concept Report Summary
10. Minutes of Concept Meetings
11. Other Meeting Minutes NOT INCLUDED IN DRAFT. None to date as of 10/14/22

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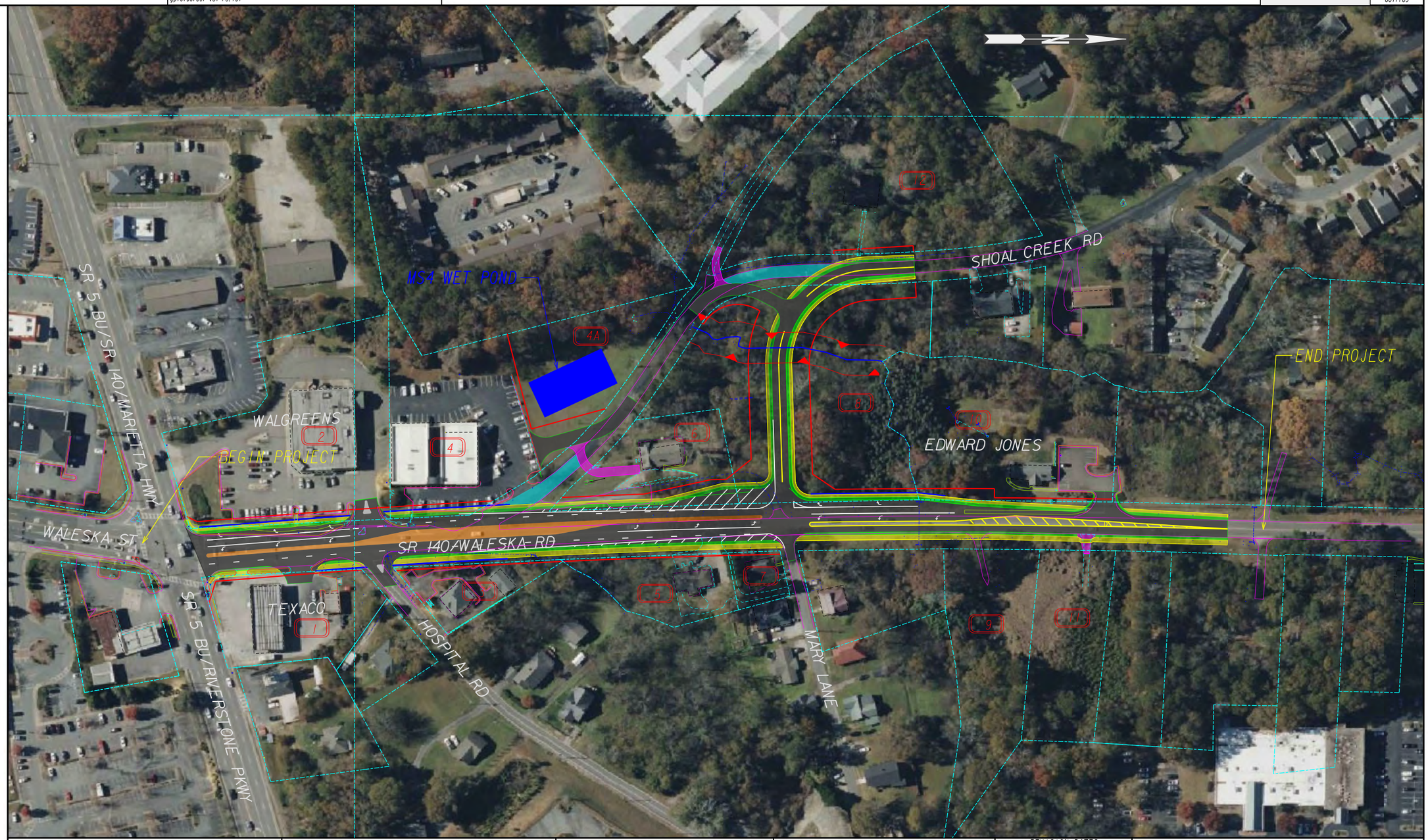

PROPERTY AND EXISTING R/W LINE	EXISTING PAVEMENT	Michael Baker INTERNATIONAL 420 Technology Pkwy, Suite 150 Norcross, GA 30092 Phone: (770) 263-9118	REVISION DATES
REQUIRED R/W LINE	RAISED MEDIAN		
CONSTRUCTION LIMITS	SIDEWALK		
EDGE OF PAVEMENT	REMOVAL OF EXIST. PAVEMENT		
EDGE OF PAVED SHOULDER			
PARAPET RETAINING WALL			
ENVIRONMENTALLY SENSITIVE AREA			
ESA BUFFER			

Est 1834 CANTON GEORGIA

SCALE IN FEET
0 75 150 300

10/23/2015 GPLN

CONCEPT LAYOUT

SR 140 @ SR 5 BU

PREFERRED ALTERNATIVE

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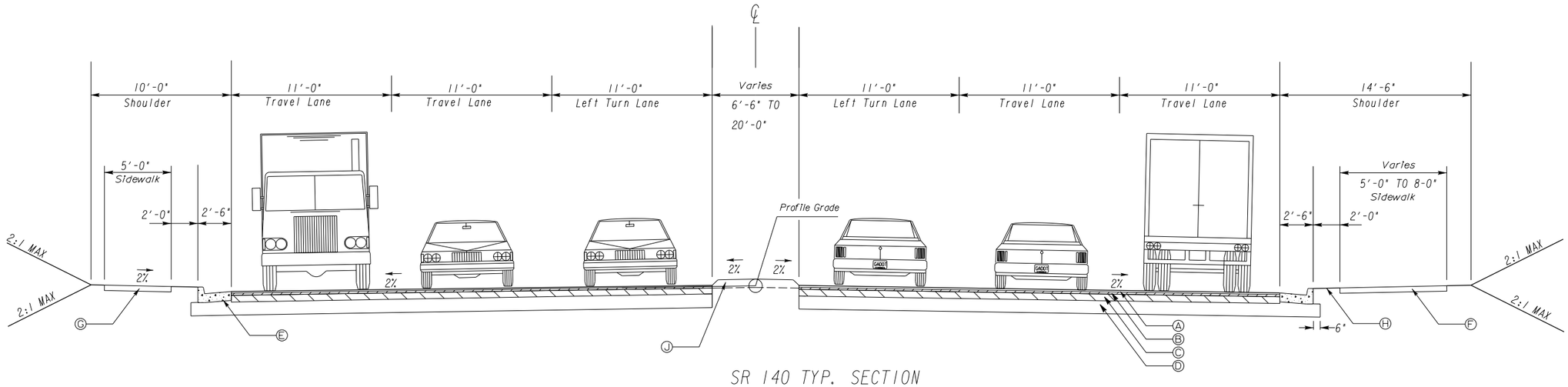
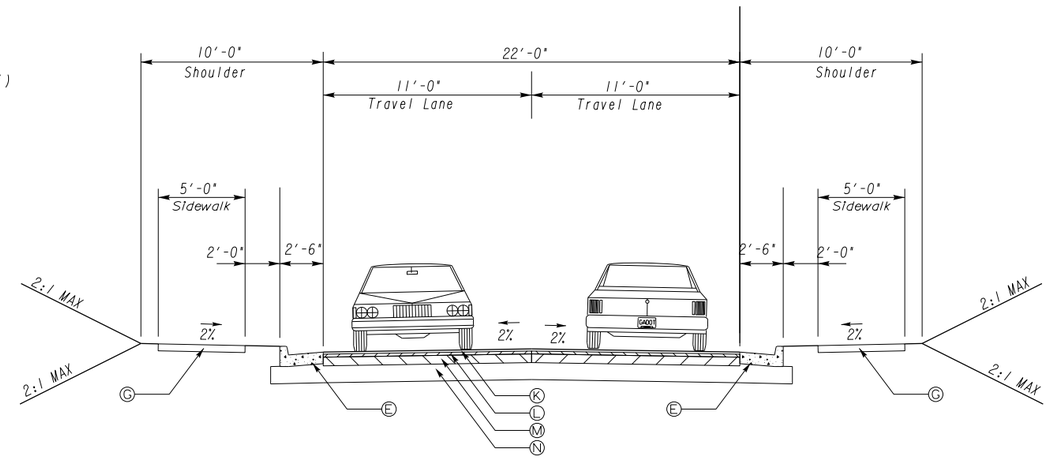
BACKCHECKED:		DATE:		-0001A
CORRECTED:		DATE:		
VERIFIED:		DATE:		



SR 140 TYP. SECTION

TYPICAL PAVEMENT SECTION

- Ⓐ RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME (165 LB/SY)
- Ⓑ RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LB/SY)
- Ⓒ RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LB/SY)
- Ⓓ GR AGGR BASE CRS, INCL MATL, 12 IN
- Ⓔ CONCRETE CURB & GUTTER, GA STD 9032B, TYP 2, 8" X 30"
- Ⓕ SIDEWALK, 6"
- Ⓖ SIDEWALK, 4"
- Ⓗ GRASS STRIP
- Ⓙ CONCRETE MEDIAN, 6 IN WITH TYPE 7 FACE
- Ⓚ RECYCLED ASPH CONC 12.5 MM, SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (165 LB/SY)
- Ⓛ RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LB/SY)
- Ⓜ RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LB/SY)
- Ⓝ GR AGGR BASE CRS, INCL MATL, 8 IN



SHOAL CREEK ROAD TYP. SECTION

Michael Baker INTERNATIONAL
420 Technology Pkwy, Suite 150
Norcross, GA 30092
Phone: (770) 263-9118

CANTON GEORGIA Est 1834

REVISION DATES

TYPICAL SECTIONS
SR 140 @ SR 5 BU
CONCEPT

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		05-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

Project Cost Estimate

Processed on: 11/29/2022 12:05:47 PM

Concept Name: 0017789
Concept Description: SR 140 @ SR 5
Spec Year: 21
Item History: BHP-ALL
Cost Estimate Phase: 2-DE

Cost Estimate Name: 0017789-Alt 1
Adhoc Pricing Total: $0.00
Typical Section Total: $0.00
Estimate Total: $4,211,386.30

ITEMS FOR CONCEPT NAME 0017789

0100 - Roadway

Line Number	Item	Quantity	Units	Price	Description	Amount
0005	150-1000	1	LS	195,000.00	TRAFFIC CONTROL - - PI0017789	$195,000.00
0010	210-0100	1	LS	550,000.00	GRADING COMPLETE - - PI0017789	$550,000.00
0050	441-0016	1376	SY	50.86	DRIVEWAY CONCRETE, 6 IN TK	$69,980.61
0055	441-0104	1490	SY	38.85	CONC SIDEWALK, 4 IN	$57,884.65
0060	441-0108	100	SY	81.63	CONC SIDEWALK, 8 IN	$8,163.48
0045	441-0748	1880	SY	65.32	CONCRETE MEDIAN, 6 IN	$122,808.82
0065	441-4030	27	SY	80.53	CONC VALLEY GUTTER, 8 IN	$2,174.27
0210	441-5003	1000	LF	20.00	CONCRETE HEADER CURB, 8 IN, TP 3	$20,000.00
0070	441-6222	4350	LF	16.48	CONC CURB & GUTTER, 8 IN X 30 IN, TP 2	$71,694.22
0205	500-3120	950	LF	1,067.78	CLASS A CONCRETE, TYPE P3, RETAINING WALL	$1,014,391.00
0075	632-0003	2	EA	8,329.14	CHANGEABLE MESSAGE SIGN, PORTABLE, TYPE 3	$16,658.28
0080	634-1200	10	EA	186.58	RIGHT OF WAY MARKERS	$1,865.79
0100 Total						$2,130,621.12

0110 - Pavement

Line Number	Item	Quantity	Units	Price	Description	Amount
0015	310-1101	9020	TN	36.11	GR AGGR BASE CRS, INCL MATL	$325,716.89
0020	318-3000	100	TN	41.36	AGGR SURF CRS	$4,136.10
0030	402-3121	4300	TN	95.69	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	$411,452.08
0035	402-3190	1440	TN	101.92	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2,INCL BITUM MATL & H LIME	$146,761.01
0025	402-4510	1080	TN	104.87	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME	$113,258.75
0040	413-0750	2000	GL	5.77	TACK COAT	$11,537.52
0110 Total						$1,012,862.35

0200 - Drainage

Line Number	Item	Quantity	Units	Price	Description	Amount
0085	550-1180	2000	LF	53.40	STORM DRAIN PIPE, 18 IN, H 1-10	$106,801.96
0100	550-1240	1400	LF	68.60	STORM DRAIN PIPE, 24 IN, H 1-10	$96,046.76
0090	550-1300	125	LF	104.44	STORM DRAIN PIPE, 30 IN, H 1-10	$13,054.56
0105	550-4224	2	EA	1,179.26	FLARED END SECTION 24 IN, STORM DRAIN	$2,358.52
0095	550-4230	2	EA	1,451.52	FLARED END SECTION 30 IN, STORM DRAIN	$2,903.04
0115	668-1100	16	EA	4,321.12	CATCH BASIN, GP 1	$69,137.94
0110	668-2100	5	EA	2,974.09	DROP INLET, GP 1	$14,870.45
0200 Total						$305,173.23

0300 - Temporary Erosion Control

Line Number	Item	Quantity	Units	Price	Description	Amount
0125	163-0232	6	AC	565.22	TEMPORARY GRASSING	$3,391.31
0130	163-0240	151	TN	338.97	MULCH	$51,184.29
0135	163-0301	2	EA	2,295.24	CONSTRUCT AND REMOVE CONSTRUCTION EXITS	$4,590.49
0140	163-0528	320	LF	15.08	CONSTRUCT AND REMOVE FABRIC CHECK DAM - TYPE C SILT FENCE	$4,826.48
0145	163-0550	21	EA	182.38	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	$3,830.03

0300 - Temporary Erosion Control

Line Number	Item	Quantity	Units	Price	Description	Amount
0150	165-0030	1840	LF	0.86	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	$1,582.49
0155	165-0041	480	LF	3.58	MAINTENANCE OF CHECK DAMS - ALL TYPES	$1,717.79
0160	165-0101	2	EA	1,247.11	MAINTENANCE OF CONSTRUCTION EXIT	$2,494.22
0165	165-0105	21	EA	83.43	MAINTENANCE OF INLET SEDIMENT TRAP	$1,751.96
0170	165-0310	2	EA	828.94	MAINTENANCE OF CONSTRUCTION EXIT TIRE WASH AREA (PER EACH)	$1,657.89
0175	171-0030	3680	LF	4.22	TEMPORARY SILT FENCE, TYPE C	$15,512.71
0300 Total						$92,539.66

0400 - Permanent Erosion Control

Line Number	Item	Quantity	Units	Price	Description	Amount
0180	700-6910	6	AC	1,385.48	PERMANENT GRASSING	$8,312.89
0185	700-7000	33	TN	152.40	AGRICULTURAL LIME	$5,029.18
0190	700-8000	6	TN	767.58	FERTILIZER MIXED GRADE	$4,605.48
0195	700-8100	550	LB	4.35	FERTILIZER NITROGEN CONTENT	$2,394.58
0235	700-9300	2800	SY	9.55	SOD	$26,746.10
0400 Total						$47,088.23

0500 - MS4

Line Number	Item	Quantity	Units	Price	Description	Amount
0215	169-0040	1	EA	100,000.00	WET DETENTION POND, NO. - - 1	$100,000.00
0240	169-0041	1	EA	50,000.00	WET DETENTION BASIN MAINTENANCE	$50,000.00
0500 Total						$150,000.00

0600 - Signing

Line Number	Item	Quantity	Units	Price	Description	Amount
0265	636-1033	75	SF	23.26	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	$1,744.53
0270	636-1036	75	SF	23.37	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 11	$1,753.11

0600 - Signing

Line Number	Item	Quantity	Units	Price	Description	Amount
0275	636-2070	450	LF	10.30	GALV STEEL POSTS, TP 7	$4,633.52
0280	636-3010	4	EA	668.28	GROUND-MOUNTED BREAKAWAY SIGN SUPPORT	$2,673.13
0290	639-2002	240	LF	6.39	STEEL WIRE STRAND CABLE, 3/8 IN	$1,534.48
0285	639-4003	2	EA	11,005.02	STRAIN POLE, TP III	$22,010.03
0600 Total						$34,348.80

0610 - Pavement Marking

Line Number	Item	Quantity	Units	Price	Description	Amount
0120	009-3000	1	LS	75,000.00	MISCELLANEOUS CONSTRUCTION	$75,000.00
0220	653-0120	14	EA	123.21	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	$1,725.00
0225	653-1501	6160	LF	0.67	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	$4,113.34
0230	653-1704	130	LF	7.47	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	$971.55
0245	653-3501	2420	GLF	0.60	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	$1,455.32
0250	653-6004	320	SY	5.85	THERMOPLASTIC TRAF STRIPING, WHITE	$1,871.16
0255	653-6006	600	SY	5.37	THERMOPLASTIC TRAF STRIPING, YELLOW	$3,221.40
0260	654-1003	60	EA	6.59	RAISED PVMT MARKERS TP 3	$395.14
0610 Total						$88,752.91

0700 - Signals

Line Number	Item	Quantity	Units	Price	Description	Amount
0200	647-1000	1	LS	350,000.00	TRAFFIC SIGNAL INSTALLATION NO - - 1	$350,000.00
0700 Total						$350,000.00

ADHOC PRICING FOR CONCEPT NAME 0017789

TYPICAL SECTIONS FOR CONCEPT NAME 0017789

TOTALS FOR CONCEPT NAME 0017789

ITEMS COST:	$4,211,386.30
TYPICAL SECTION:	$0.00
AD-HOC PRICING:	$0.00
ESTIMATED COST:	$4,211,386.30
CONTINGENCY PERCENT:	
ENGINEERING AND INSPECTION:	
ESTIMATED COST WITH CONTINGNECY AND E&I:	

Georgia Department of Transportation

Interoffice Memo

FILE

PI NUMBER	0017789	PROJECT DESCRIPTION	SR 140 @ SR 5 BU IN CANTON
OFFICE	Program Delivery		
DATE	Tuesday, November 29, 2022		

From: Kimberly W. Nesbitt, State Program Delivery Administrator

To: Erik Rohde, P.E., State Project Review Engineer
via email Mailbox: CostEstimatesandUpdates@dot.ga.gov

Subject: **REVISIONS TO PROGRAMMED COSTS**

Project Manager:	Keith Posey
Management Let Date:	3/15/2026
Management Right of Way Date:	12/15/2024

Cost Estimate Review Iteration

Date of Submittal #1	
Date of Submittal #2	
Date of Submittal #3	

Summary of Programmed Costs and Proposed Revised Costs:

Estimate Type	Cost Estimate Amounts (T-Pro Without Inflation)	Last Estimate Date	Revised Cost Estimate
CONSTRUCTION	$2,332,391.00		$5,007,413.24
RIGHT OF WAY	$500,000.00		$2,043,000.00
UTILITIES	$30,731.00		$732,000.00

Explanation for Cost Change and Contingency Justification:

As per Contingencies Table in GDOT Policy 3A-9, a conceptual contingency of 10% has been chosen.

Attachments:

1.Detailed Cost Estimate (GDOT 411 Printout)

Georgia Department of Transportation

Interoffice Memo

Design Phase Leader Validation of Final QC/QA for Construction Cost Estimate Used In This Revision to Programmed Costs:

Consultant Company or GDOT Design Office:	Michael Baker International
Printed Name:	Paul Murphy, P.E.
Title:	Project Manager
Signature:	
Date:	11/29/2022

FOR PROJECTS WITH A LOCAL SPONSOR	
If the project has a local sponsor, the project manager should ensure that the local authority completes the following validation indicating that it has reviewed the construction cost estimate and whether it is in concurrence with the construction costs presented.	
Please select the appropriate validation below upon review of the cost estimate: ☐ I acknowledge that I have reviewed the project construction cost estimate and concur with the costs presented. ☐ I acknowledge that I have reviewed the project construction cost estimate but do not concur with the costs presented.	
Please provide an explanation for non-concurrence.	
Local Authority Name and Title:	
Local Authority Signature:	
Date:	

Georgia Department of Transportation

Interoffice Memo

Cost Estimate Worksheet:

CONSTRUCTION COST ESTIMATE (Required base estimate entered from AASHTOWare Project Estimation and should not include E&I). →	**A**	$ 4,211,386.30
ENGINEERING AND INSPECTION (The default E&I percentage is 5.0%, but may be adjusted per project scope.) →	**D**	$ 210,569.32

Construction Cost	E&I Percentage	E&I Cost
B	C	D = B x C
$ 4,211,386.30	5%	$ 210,569.32

CONTINGENCY (Refer to the Risk and Contingencies Table included in GDOT Policy 3A-9 Cost Estimating Purpose) →	**I**	$ 442,195.56

Construction Cost	E&I Cost	Construction + E&I	Contingency Percentage	Contingency Cost
E	F	G = E + F	H	I = G x H
$ 4,211,386.30	$ 210,569.32	$ 4,421,955.62	10%	$ 442,195.56

ASPHALT FUEL PRICE ADJUSTMENT (Leave blank if not applicable) →	**Q**	$ 143,262.06

Date	Nov 2022
Regular Unleaded	$3.149/ GAL
Diesel	$4.913/ GAL
Liquid AC	$683.00/ TON

Current Asphalt Fuel Index Prices can be found at the link below:

http://www.dot.ga.gov/PS/Materials/AsphaltFuelIndex

		Tons	Percentage of Asphaltic Concrete	Tons of Asphaltic Concrete	Total Monthly Tonnage of Asphalt Cement (TMT)	Monthly Asphalt Cement Price month project let (APL)	Max. Cap	Monthly Asphalt Cement Price month placed (APM)	Price Adjustment (PA)
Liquid AC	Description	J	K	L = J x K	M = Sum of Columns L, T & W	N	O	P = (N x O)+N	Q = [((P - N) / N)] x M x N
	Leveling				349.59 TN	$683.00/ TON	60%	$ 1,092.80	$ 143,262.06
	Patching								
	9.5 mm SP								
	12.5 OGFC								
	12.5 PEM								
	12.5 mm SP	1080.00 TN	5.00%	54.00 TN					
	19 mm SP	1440.00 TN	5.00%	72.00 TN					
	25 mm SP	4300.00 TN	5.00%	215.00 TN					

Bituminous Tack Coat	Description	Tack Coat R	GL/TN S	Tons T = R/S
	Tack Coat	2000.00 GL	232.8234 GL/TN	8.59 TN

Bituminous Tack Coat (Surface Treatment)	Description	SY U	GL/SY V	TN W = (U x V) / (232.8234 GL/TN)
	Single Surface Treatment		0.20 Gl/SY	
	Double Surface Treatment		0.44 Gl/SY	
	Triple Surface Treatment		0.71 Gl/SY	

CONSTRUCTION TOTAL COST →	**X = A+D+I+Q**	$ 5,007,413.24
RIGHT OF WAY COST →	**Y**	$ 2,043,000.00
UTILITIES COST (Provided by Utility Office) →	**Z = Sum of Reimbursable Costs**	$ 732,000.00

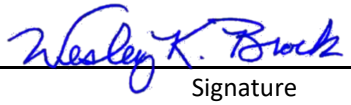
Utility Owner	Reimbursable Cost	Utility Owner	Reimbursable Cost
	$ 732,000.00		

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 8/1/2022 Project: SR140 @ SR5 BU Pref Alt
Revised: County: Cherokee
PI: 17789
Description: New road alignment and improvements
Project Termini: SR140 @ SR5 BU

Existing ROW: Varies
Parcels: 13 Required ROW: Varies

Land and Improvements		$1,695,322.50
Proximity Damage	*$0.00*	
Consequential Damage	*$525,000.00*	
Cost to Cures	*$35,000.00*	
Trade Fixtures	*$35,000.00*	
Improvements	*$39,215.00*	
Valuation Services		$98,750.00
Legal Services		$83,775.00
Relocation		$39,000.00
Demolition		$15,000.00
Administrative		$111,000.00
TOTAL ESTIMATED COSTS		$2,042,847.50
TOTAL ESTIMATED COSTS (ROUNDED)		***$2,043,000.00***

Prepared By: Wesley K. Brock  8/1/2022
Print Name Signature Date

Cost Estimation Supervisor : _____
Print Name Signature Date

NOTE: Superviser is only attesting that the estimate was completed using the correct information provided for the the project. The Supervisor is not attesting to property values or the accuracy of the market value estimations provided in this report. No Market Appreciation is included in this Preliminary Cost Estimate.

Comments:

Wesley Brock of THC, Inc. is the author of this ROW cost estimate

FILE

Project No:
County **Cherokee**
P.I.# **0017789**
Description: **Intersection Improvement for SR 140 at SR 5 Business**

Office: **Cartersville**
Date: **11/26/2022**

FROM Kerry Gore, SAM Utility Coordination Department Manager

TO Felecia Basolo, Project Manager

SUBJECT **PRELIMINARY UTILITY COST ESTIMATE**

A review of utilities located on the above referenced project has been conducted with Concept Layout plans. Listed below is a breakdown of the anticipated reimbursable and non-reimbursable cost.

Utility Owner		Reimbursable	Non-Reimbursable	In Contract/CIA (Non-Reimbursable)	Estimate Based on
Southern Gas Company aka AGL		$0.00	$80,160.00	$0.00	Preliminary info from Utility
City of Canton-Water		$0.00	$0.00	$373,800.00	Preliminary info from Utility
City of Canton-Sewer		$0.00	$0.00	$645,600.00	Site Visit / Available Drawings
Crown Castle		$0.00	$42,000.00		
Comcast		$0.00	$42,000.00	$0.00	Preliminary info from Utility
Ellijay Telephone Company		$0.00	$18,000.00	$0.00	Preliminary info from Utility
Georgia Power Company-Dist.	*	$732,000.00	$0.00	$0.00	Site Visit / Available Drawings
Windstream		$0.00	$120,000.00	$0.00	Site Visit / Available Drawings
		$0.00	$0.00	$0.00	Site Visit / Available Drawings
Total	100.00%	$732,000.00	$302,160.00	$1,019,400.00	
Department Responsibility	100.00%	$732,000.00		$1,019,400.00	
Local Sponsor Responsibility	0.00%	$0.00		$0.00	PFA Dated N/A with N/A

* Indicates reminursable cost based on potential prior right claim for utility owner

Estimate is based on the best available information at the current stage

If additional information is needed, please contact David Woodcox at 678-983-1001.

cc: Nicholas Fields, State Utilities Administrator
Marcela Coll, State Utilities Preconstruction Manager
David Acree, District 6 Preconstruction Manager
Jun Birnkammer, District 6 Utilities Manager

Original Version: May 24, 2013
Revision: Feb. April 5, 2018

Concept Utility Report

Project Number: 0017789 **District:** 6

County: Cherokee **Prepared by:** Kerry Gore

P.I. # 0017789 **Date:** August 25, 2022

Project Description: Intersection Improvements along SR 140/Waleska Street at SR 5 Business in the City of Canton, Ga.

The information provided herein has been gathered from Georgia811and/or field visits and serves as an estimate. Nothing contained in this report is to be used as a substitute for 1st Submission or SUE.

Are SUE services recommended? Choose an item.

Level: ☒A ☒B ☐C ☐D

Public Interest Determination (PID):

☐Automatic ☐Mandatory ☐Consideration ☒No Use ☐Exempt

Is a separate utility funding phase recommended? Yes

Potential Project (Schedule/Budget) Impacts: Georgia Power (GPC) will be subject to buying additional easements to facilitate their relocation plan. There are several(Crown Castle, Windstream, Comcast) attaches on the GPC pole line that will be dependent on the pole line. GPC-D will be claiming prior rights. The relocation of the pole line will be critical path for construction. The City of Canton 8" water line is located on private easement and ROW.

Capital Improvement Projects (Utilities) Anticipated in the Area: none at this time

Project Specific Recommendations for Avoidance/Mitigation: GPC self supporting poles are anticipated in order to eliminate guying issues. Estimated GPC total non-current relocation days is 540 days. Based on additional attachees and high risk utility impacts to the project construction schedule, it is recommended to provide early authorization to GPC to begin easement acquisiton.

Right of Way Coordination: Recommended to purchase permananent easements for the right to place utilities. City of Canton 12" sanitary sewer line is located within private easement

Environmental Coordination: Utility owners self-performing will be responsible for their envionmental clearances. Facilities placed in the roadway contract are subject to be included in the project environmental document

Additional Remarks: N/A

Original Version: May 24, 2013
Revision: Feb. March 8, 2018

Utilities have facilities within the project limits.

Utilities have been identified using Georgia811 and/or field visits.

Facility Owner	**Facility Owner Contact Email Address**	**Existing Facilities/ Appurtenances**	**General Description of Location**	**Facilities to Avoid** *approx. limits*	**Facilities Retention Recommended** *approx. limits*	**Comments**
Southern Company Gas aka AGL	Megan Mclaurin, memclaur@southernco.com	4" plastic and 2" steel gas mains, 2" regulator station	- 4"plastic gas main parallels along southside of SR 5 BU, 4" plastic line crosses under SR 5 BU and travels north along west of SR 140 - 2" steel gas main along Mary Lane, Shoal Creek Rd, and Hospital Dr. - 2" regulator station in the NE quad of Hospital Dr./SR 140	4" plastic line along SR 5BU/SR 140	None	None
City of Canton-Water	David.Hatabian, david.hatabian@cantonga.gov	6" and 8" PVC/DIP water mains, 2 Backflow	8" water line parallels southside SR 5 BU and	6" and 8" PVC/DIP water mains and	The entire system will not conflict with the project.	-Depth and type are unknown

		Preventer Vaults	westside of SR 140, 6" parallels west side of Shoal Creek Rd, 8" line along Mary Lane, 8" line along Hospital Dr.	Backflow Preventer Vaults	Recommend retention where applicable	Facilities located inside existing ROW and a portion on private easement
City of Canton-Sewer	David Hatabian, david.hatabian@cantonga.gov	8" and 12" clay sewer mains, 9 sewer manholes and appurtenances	8" clay sewer along SR 5 BU, 8" sewer crossing at Hospital Drive and then same line travels north along eastside of SR 140, 8" sewer line along Mary Lane, 12" sewer line crosses Shoal Creek Rd at Dorsey Rd and travels east along Shoal Creek Rd. and a portion on private easement along Shoal creek Rd re-alignment	8" and 12" clay sewer lines	The entire system will not conflict with the project. Recommend retention where applicble	Sewer lines are assumed to be clay based on City records
Comcast (COM)	John Pierno, john_pierno@comcast.com	COAX Cable	COAX cable attached to GPC pole line along SR 5BU and SR 140	None	None	COM is dependent on the pole line relocation and attaches
Crown Castle (CCN)	Venesia Horne, venesia.horne@crowncastle.com	288, 140, and 72 count fiber cables	Fiber cables attached to GPC pole line along SR	None	None	ETC lease fibers from CCN and both lines cannot

			5 BU and SR 140			be taken out of service at the same time.
Ellijay Telephone Company (ETC)	Frankie Rigdon, frankier@ellijay.com	24 and 48 count fiber cables	Fiber cables attached to GPC pole line along SR 5 BU	None	None	ETC is dependent on the pole line relocation and attaches
Georgia Power Company Distribution (GPC-D)	Chris Boggs, cjboggs@southernco.com	22 power poles impacted with 12 poles having roadway lighting	3-phase line along SR 5 BU, Along SR 140, double circuit line from SR 5 BU up to Shoal Creek Rd. Line splits at this location and travels along Shoal creek Dr. and continues north along SR 140	Pole line is anticipated to be in conflict	None	GPC will be claiming prior rights and will need to acquire addtioanl easements to accommodate relocation
Windstream (WST)	Drace Farrell, drace.a.farrell@windstream.com	2700 copper cable, 12 and 48 count fiber cables	Facilities are both underground and aerial along SR 5BU and SR 140 and side roads	None	None	WST is dependent on the pole line relocation and attaches

Note: *To add additional rows, click the bottom right corner of the box above, then click the blue + that will appear. Please add additional rows prior to entering text.*

0017789 Crash Data

July 1, 2017 - June 30, 2022 (5 years)

SR 140 at SR 5 BU Project Area

Queried Area:

Year	Crash Type						Total
	Angle	Head On	Rear End	Sideswipe - Same Direction	Sideswipe - Opposite Direction	Not a Collision w/ a Motor Vehicle	
2017*	6		9		4	1	**20**
2018	17		24		5	3	**49**
2019	8	5	10	2	2	1	**28**
2020	11	3	23	1		1	**39**
2021	15	1	20	1	5	1	**43**
2022*	6		7	1	1	1	**16**
Total	63	9	93	5	17	8	**195**

*Includes only 6 months of the year

Year	Injury Severity					Total
	Fatality	Serious Injury	Minor Injury	Possible Injury or Complaint	No Apparent Injury	
2017*				1	19	**20**
2018			2	5	42	**49**
2019				3	25	**28**
2020			3	9	27	**39**
2021		3	2	5	33	**43**
2022*			1	2	13	**16**
Total	0	3	8	25	159	**195**

*Includes only 6 months of the year

Georgia Department of Transportation

Interoffice Memo

FILE: Cherokee County
P.I. # 0017789

DATE: July 1, 2022

FROM: Matt Markham, Deputy Director of Planning

TO: Kimberly Nesbitt, State Program Delivery Administrator
Attention: Keith Posey

SUBJECT: **Design Traffic Forecasts** for SR 140 @ SR 5 BU IN CANTON

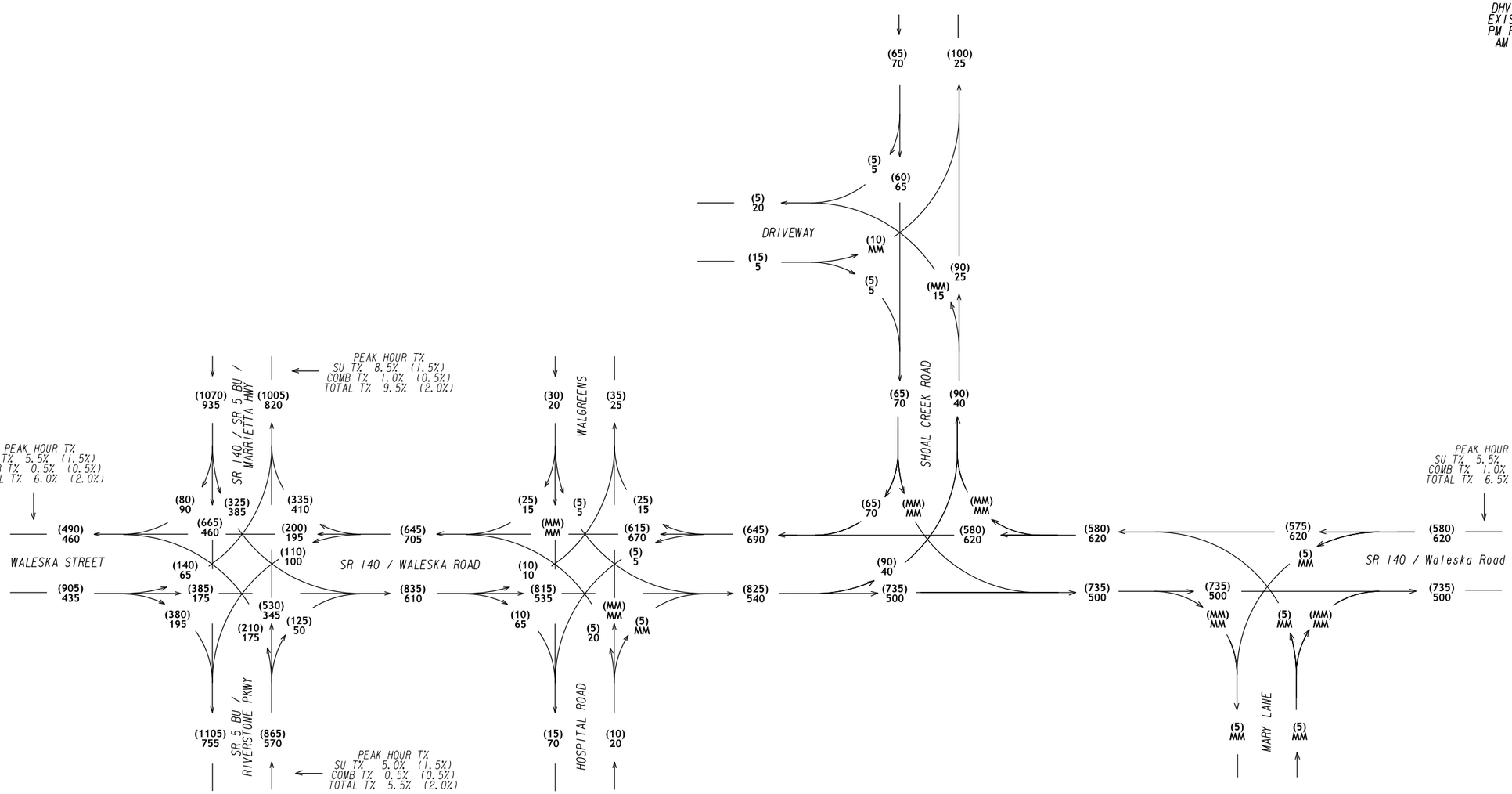
Per request, we have reviewed the consultant's design traffic forecasts for the above project. Based on the information furnished, we find the design traffic forecasts to be satisfactory, and the design traffic forecasting task to be complete for the above project. The reviewed and approved design traffic forecasts for the above project is attached in 0017789_10.pdf and 0017789_10.dgn.

If you have any questions concerning this information please contact Andre Washington at 404-631-1925.

Chelsea Lincoln
Gresham Smith
Design Traffic Review Consultant to GDOT
678-518-3890

MM/CBL

DHV TRAFFIC VOLUMES
EXISTING YEAR (2022)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

EXISTING

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2022 EXISTING DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

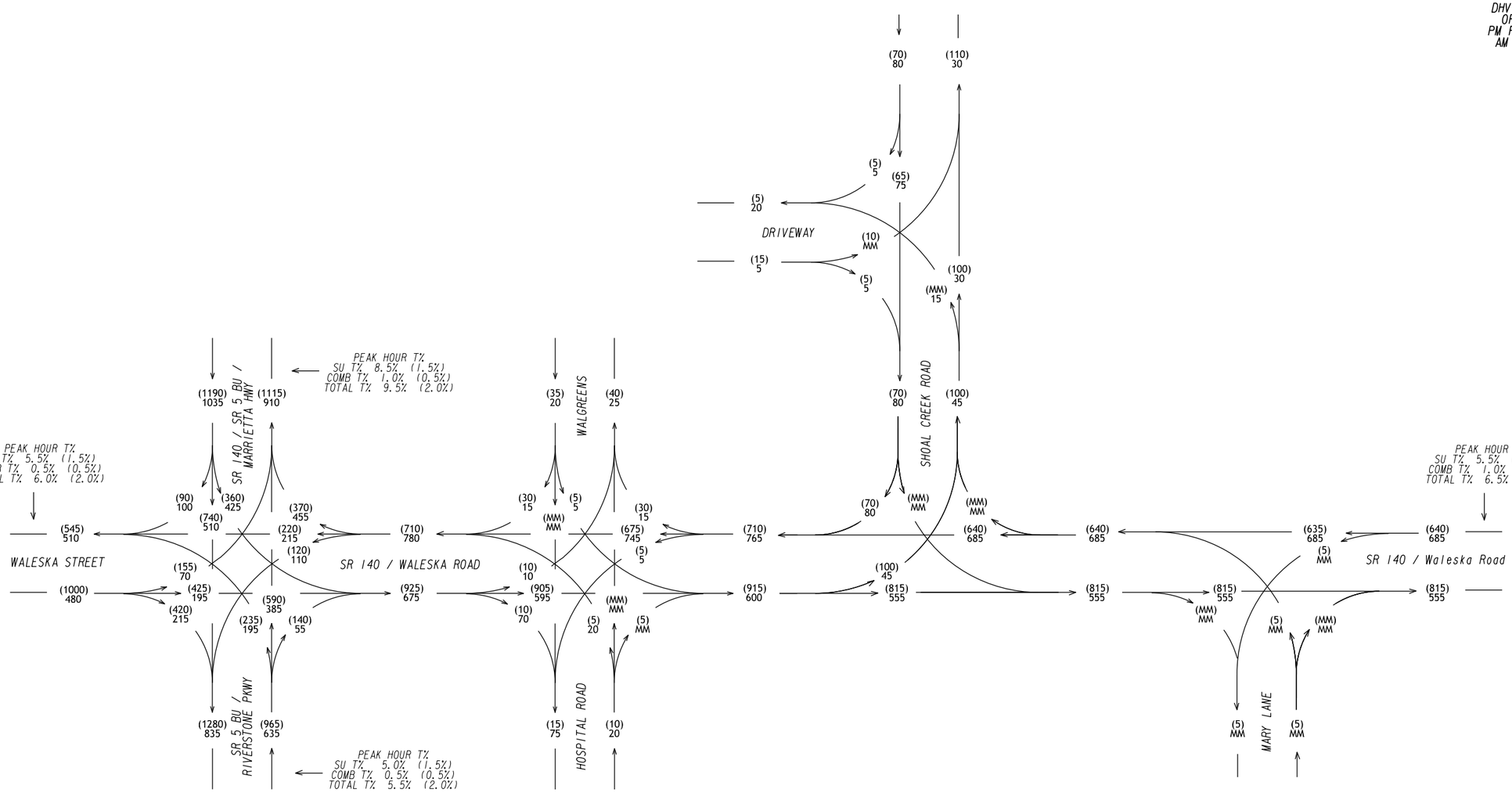
No Scale

REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

DHV TRAFFIC VOLUMES
OPEN YEAR (2028)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

NO BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2028 NO BUILD DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

No Scale

REVISION DATES

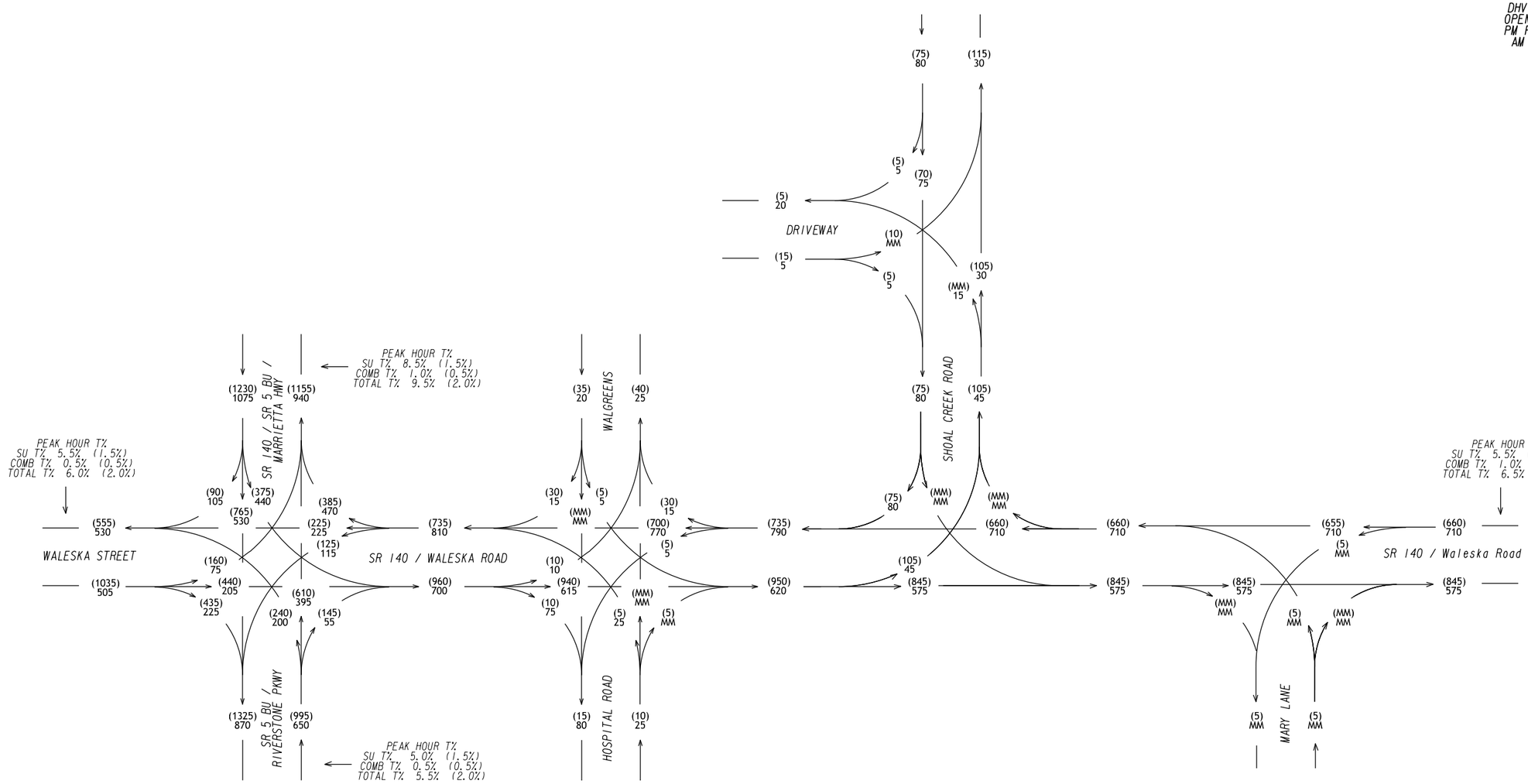
TRAFFIC DIAGRAM

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 10-0002

10/23/2015 GPLN

DHV TRAFFIC VOLUMES
OPEN YEAR + 2 (2030)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

NO BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2030 NO BUILD DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

No Scale

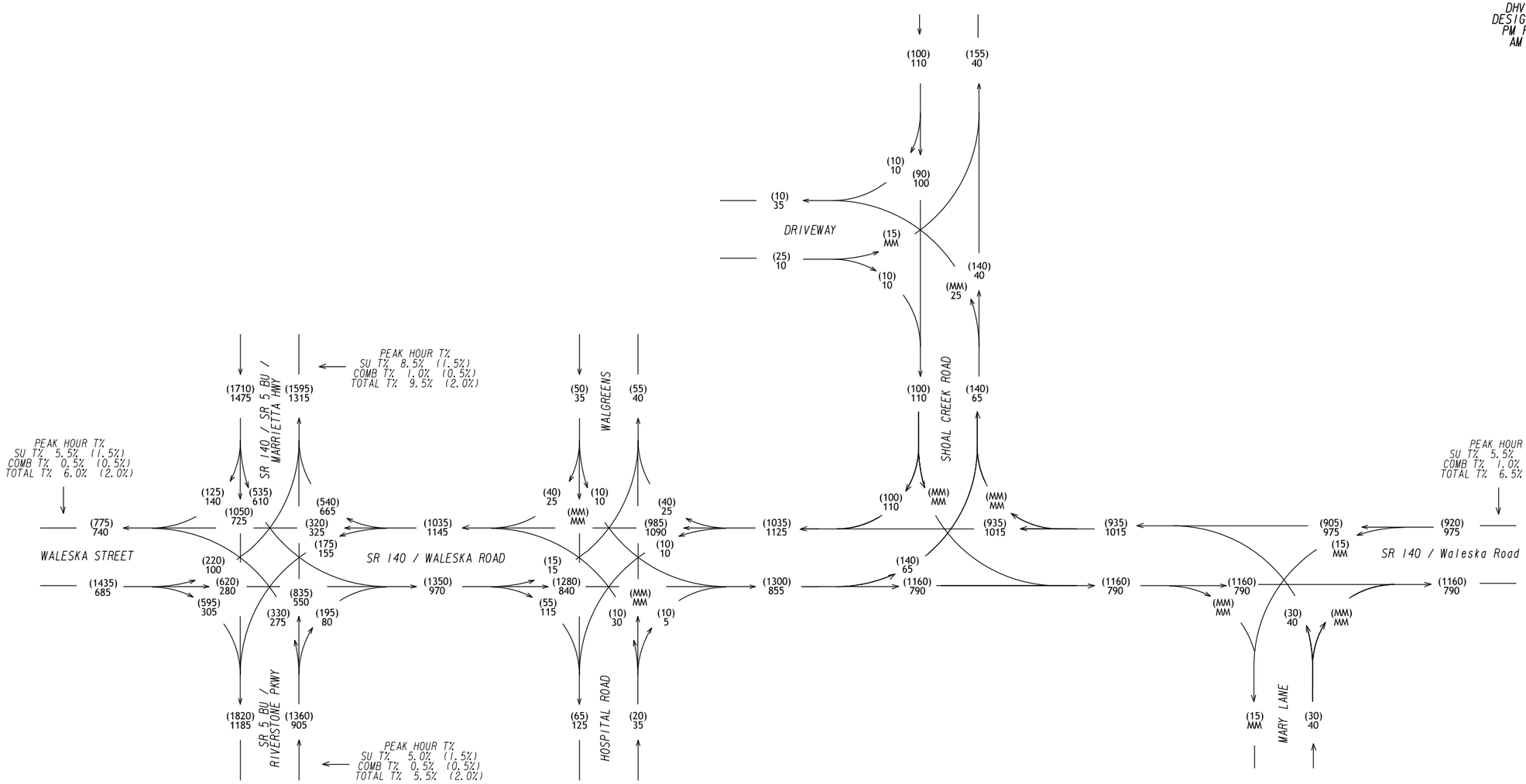
REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0003
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

DHV TRAFFIC VOLUMES
DESIGN YEAR YEAR (2048)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

NO BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2048 NO BUILD DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

No Scale

REVISION DATES

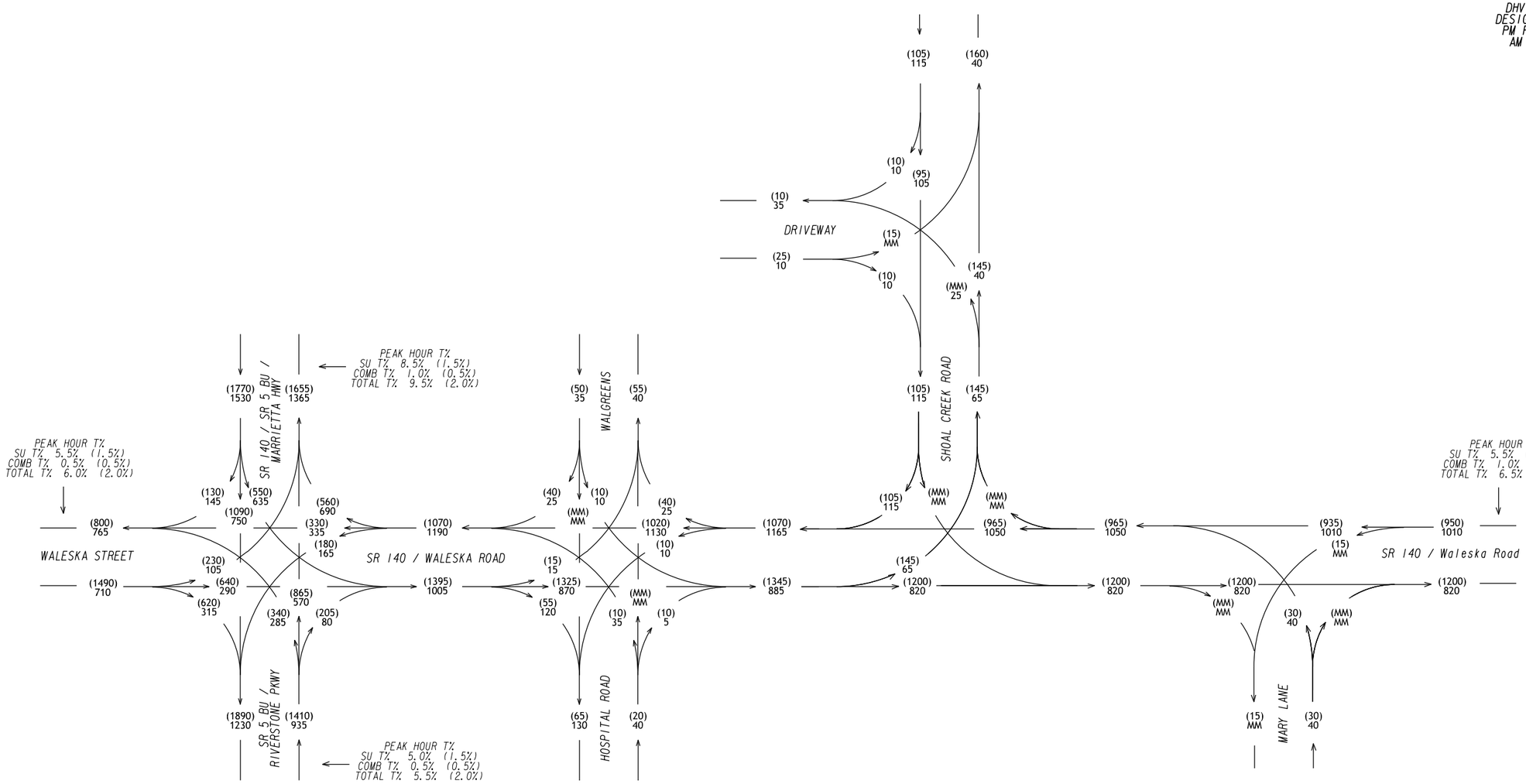
TRAFFIC DIAGRAM

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 10-0004

10/23/2015 GPLN

DHV TRAFFIC VOLUMES
DESIGN YEAR + 2 (2050)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

NO BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2050 NO BUILD DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

No Scale

REVISION DATES

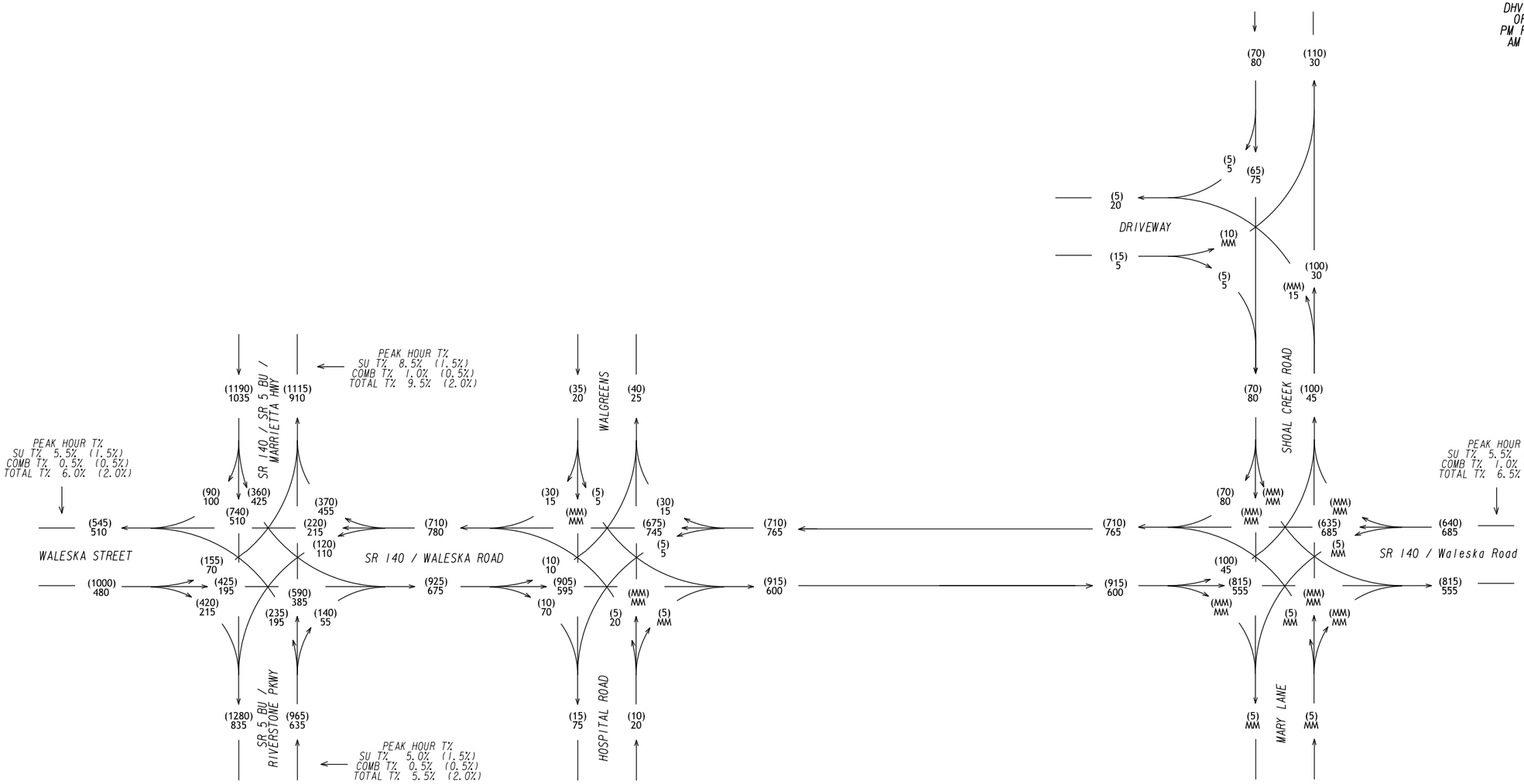
TRAFFIC DIAGRAM

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 10-0005

10/23/2015 GPLN

DHV TRAFFIC VOLUMES
OPEN YEAR (2028)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2028 BUILD DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

No Scale

REVISION DATES

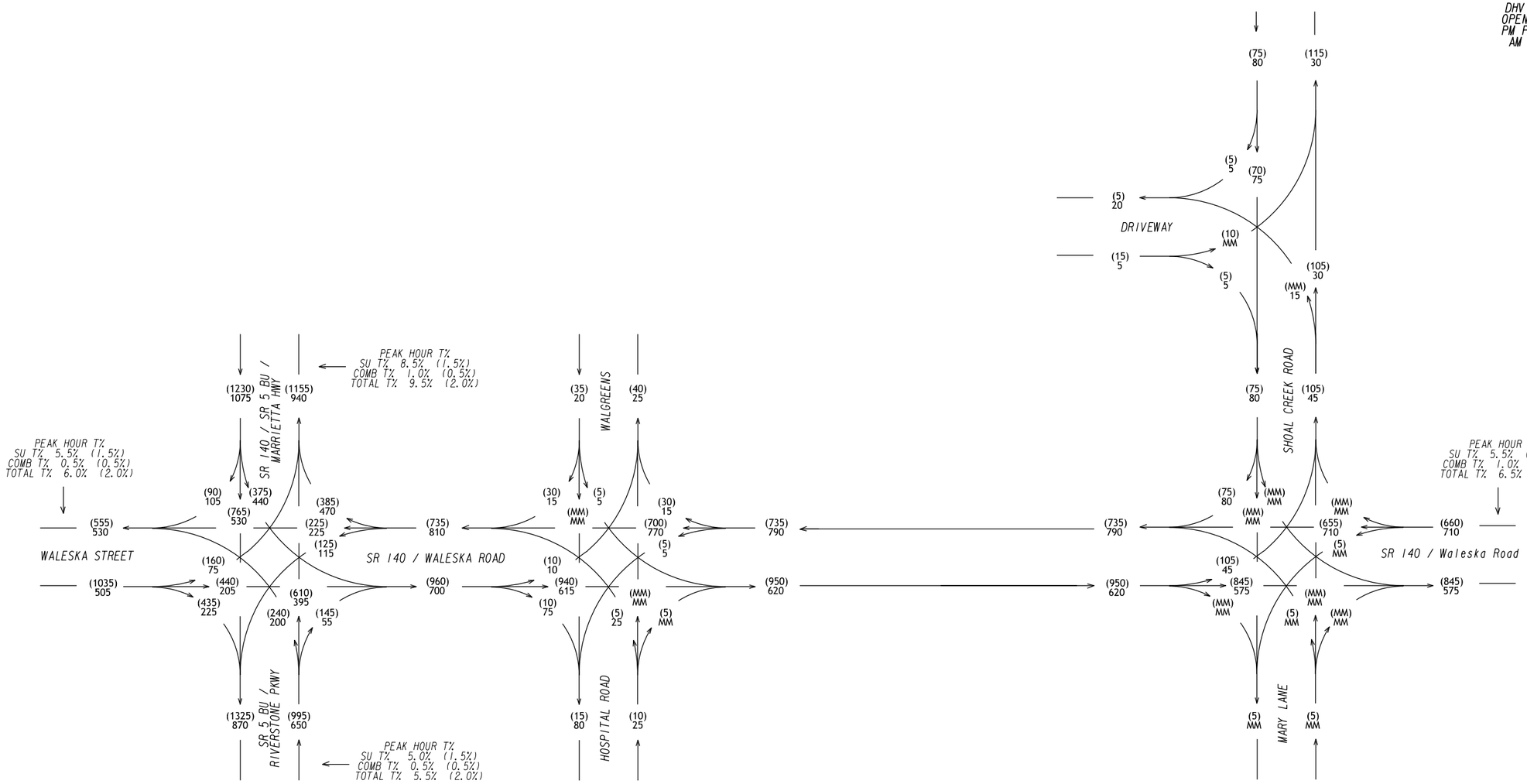
TRAFFIC DIAGRAM

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 10-0006

10/23/2015 GPLN

DHV TRAFFIC VOLUMES
OPEN YEAR + 2 (2030)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2030 BUILD DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

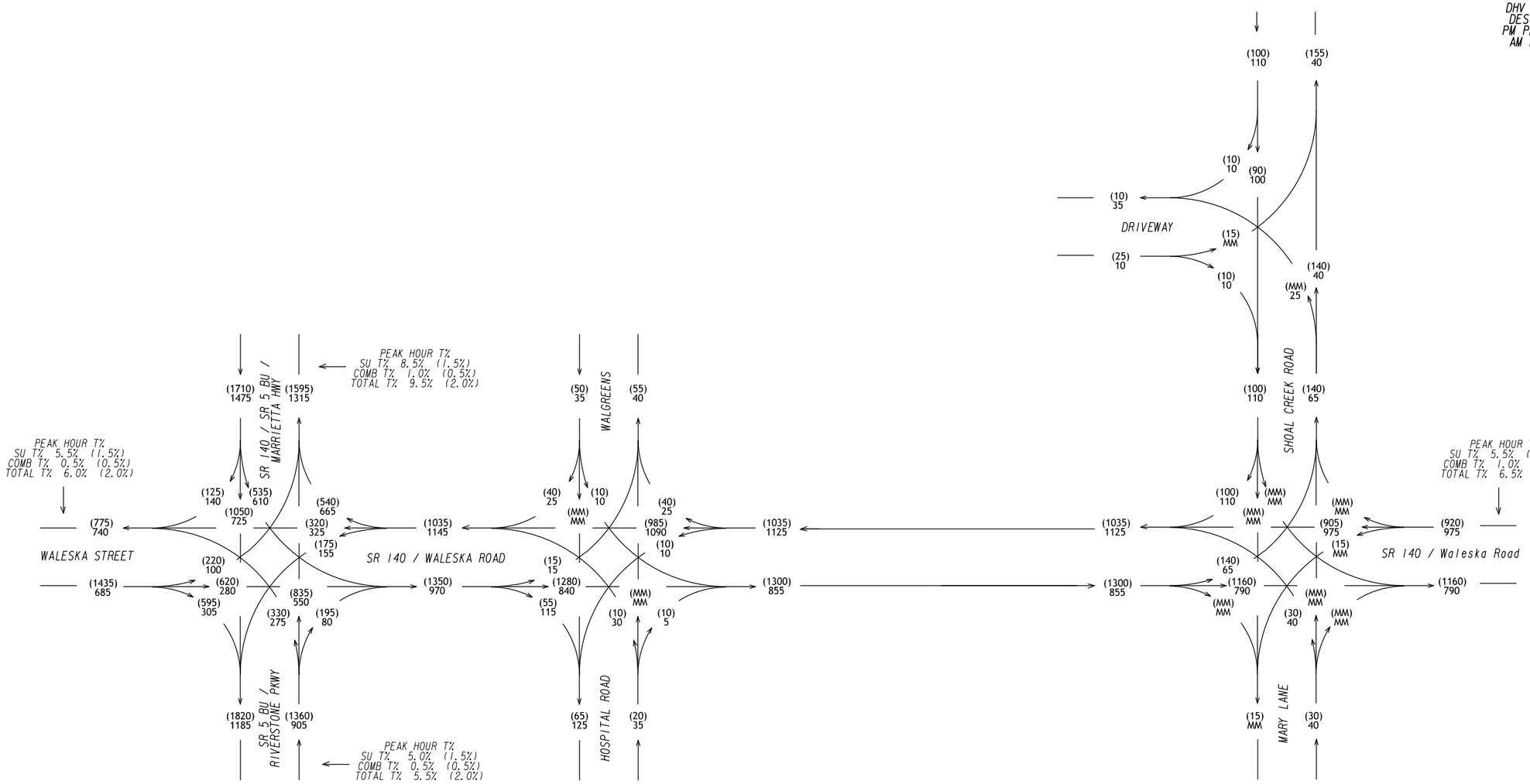
No Scale

REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:	DRAWING No.
BACKCHECKED:		DATE:	10-0007
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DHV TRAFFIC VOLUMES
DESIGN YEAR (2048)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2048 BUILD DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

No Scale

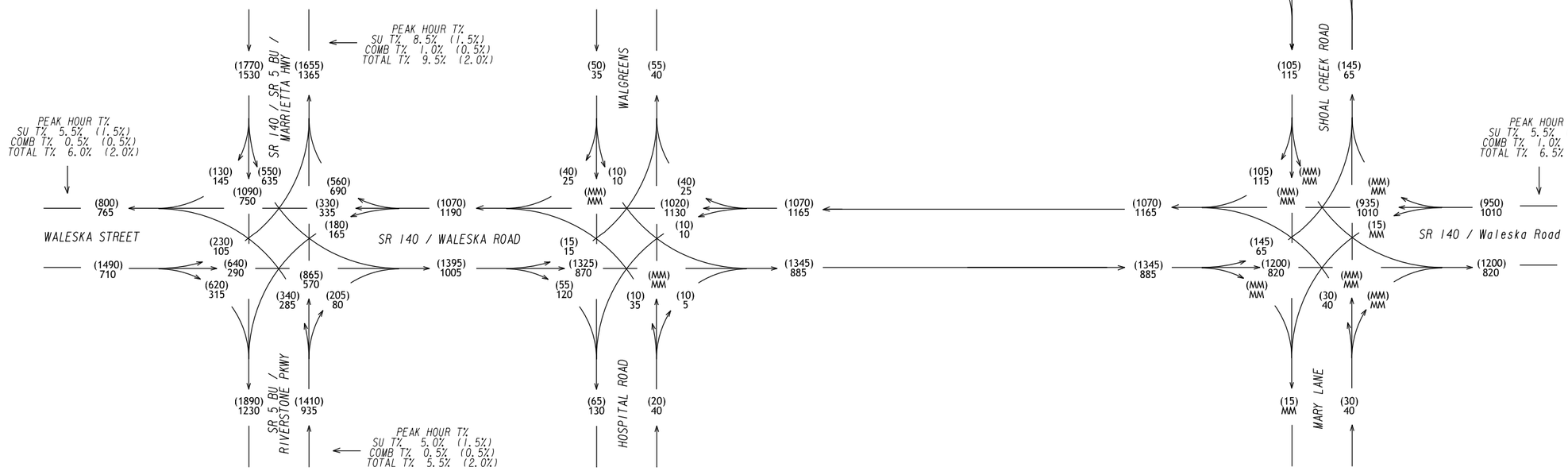
REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0008
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

DHV TRAFFIC VOLUMES
DESIGN YEAR +2 (2050)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2050 BUILD DHV

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

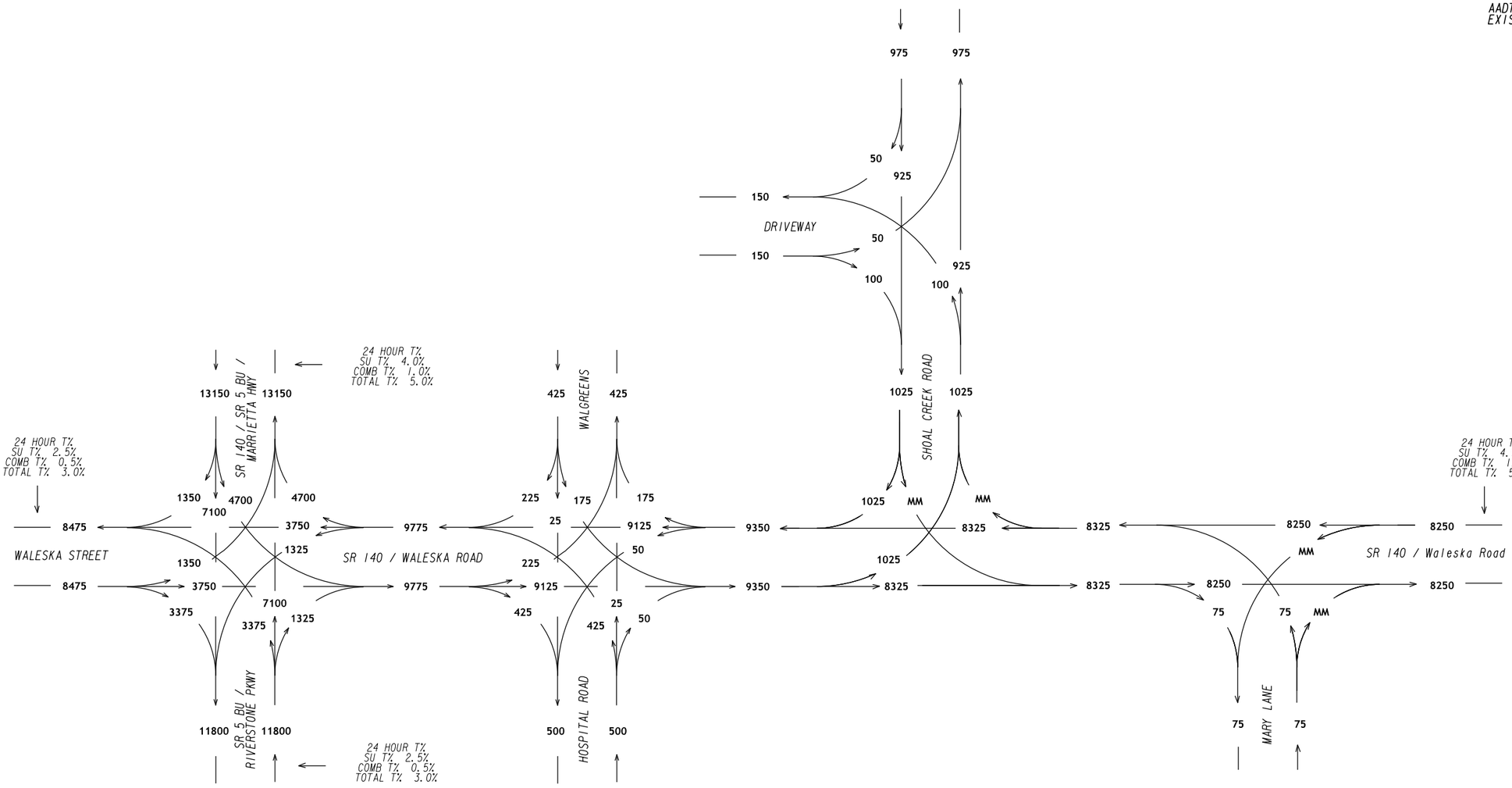
No Scale

REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0009
CORRECTED:		DATE:		
VERIFIED:		DATE:		

AADT TRAFFIC VOLUMES
EXISTING YEAR (2022)
AADT = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

EXISTING

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2022 EXISTING AADT

Michael Baker
INTERNATIONAL
420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

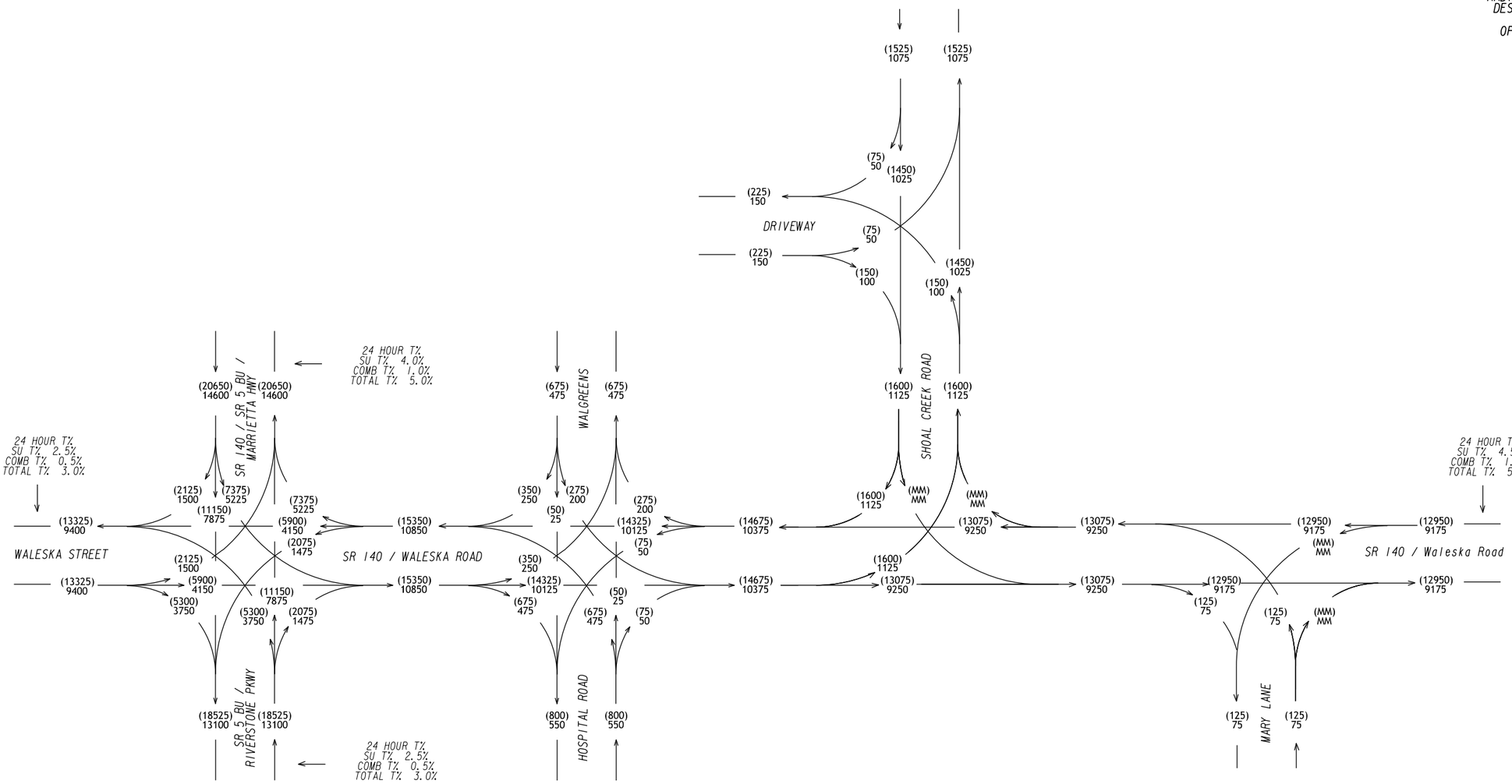
No Scale

REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0010
CORRECTED:		DATE:		
VERIFIED:		DATE:		

AADT TRAFFIC VOLUMES
DESIGN YEAR (2048)
AADT = (XXX)
OPEN YEAR (2028)
AADT = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

NO BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2028/2048 NO BUILD AADT

Michael Baker
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420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
(770) 263-9118

No Scale

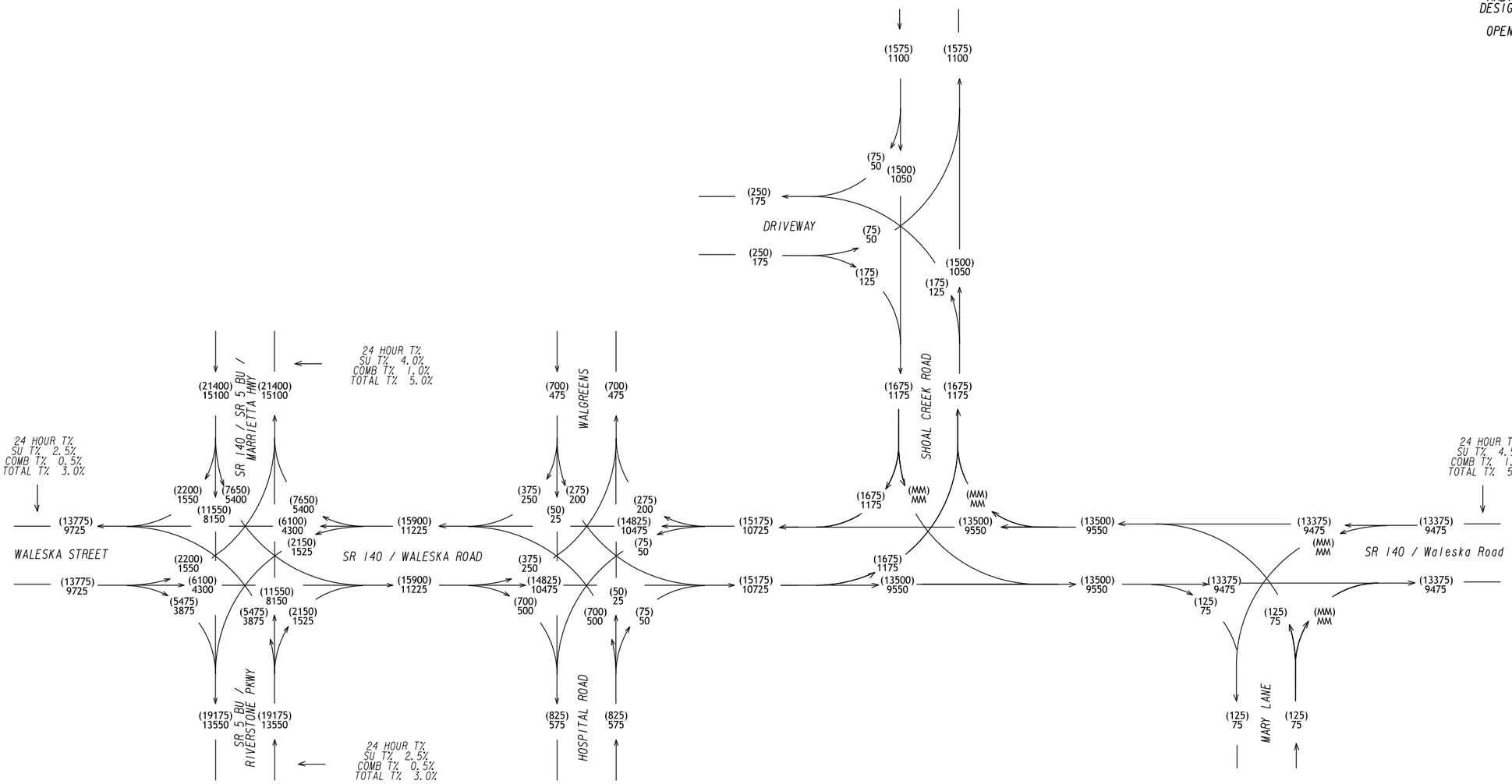
REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0011
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

AADT TRAFFIC VOLUMES
DESIGN YEAR + 2 (2050)
AADT = (XXX)
OPEN YEAR + 2 (2030)
AADT = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

NO BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2030/2050 NO BUILD AADT

Michael Baker
INTERNATIONAL
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(770) 263-9118

No Scale

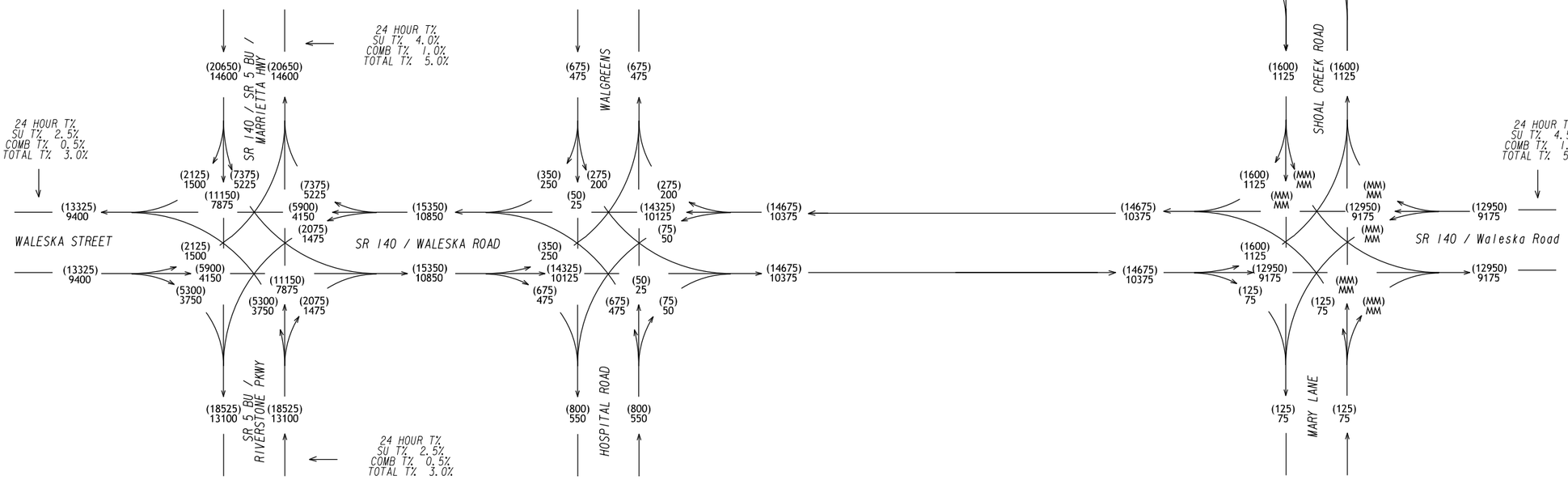
REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0012
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

AADT TRAFFIC VOLUMES
DESIGN YEAR (2048)
AADT = (XXX)
OPEN YEAR (2028)
AADT = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2028/2048 BUILD AADT

Michael Baker
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420 TECHNOLOGY PARKWAY, STE. 150
NORCROSS, GEORGIA 30092
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No Scale

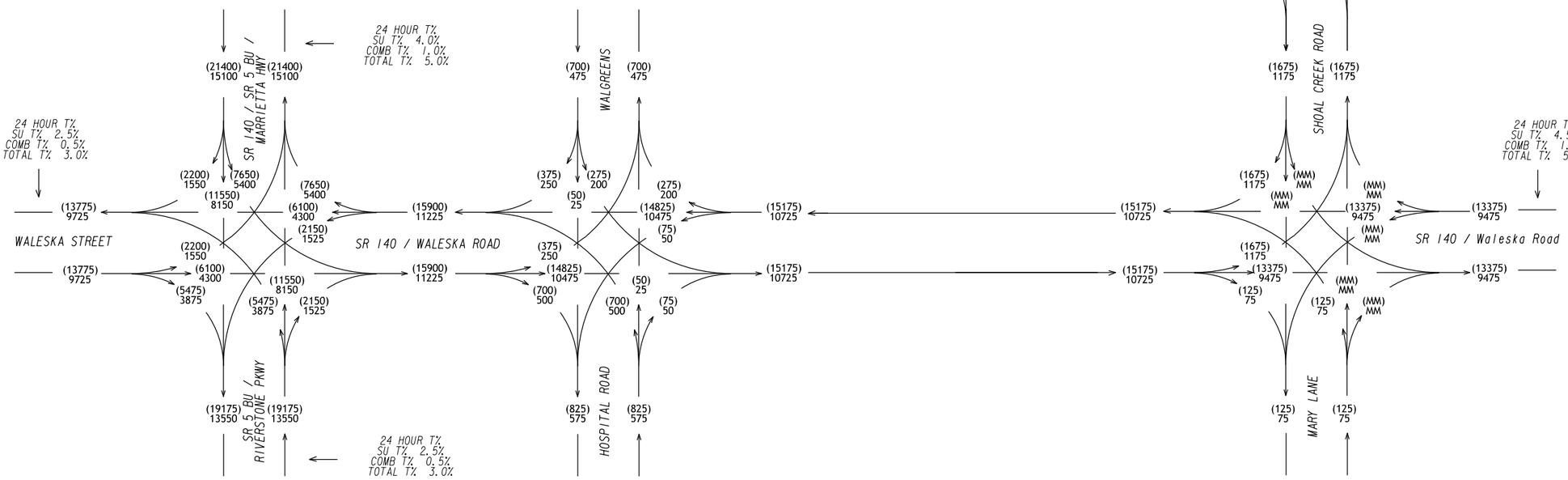
REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0013
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

AADT TRAFFIC VOLUMES
DESIGN YEAR + 2 (2050)
AADT = (XXX)
OPEN YEAR + 2 (2030)
AADT = XXX



NOTE: COUNTS COLLECTED DURING COVID-19 AND ADJUSTED PER GDOT FORECASTING GUIDANCE

BUILD

PI# 0017789
CHEROKEE COUNTY
SR 140 @ SR 5 BU
(MARIETTA HWY)

2030/2050 BUILD AADT

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No Scale

REVISION DATES

TRAFFIC DIAGRAM

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		10-0014
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

SR 140 at SR 5 BU Capacity Analysis Summary
Updated 11/23/2022

Interesection	Approach	Control	Movement	AM PEAK							PM PEAK						
				Movement		Approach			Intersection		Movement		Approach			Intersection	
				Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS
2022 EXISTING																	
SR 140 @ SR 5 BU	Eastbound	Signal	Left	37.6	D	37.6	D	325	**35.3**	**D**	56.6	E	49.2	D	558	**45.4**	**D**
			Thru	37.7	D						46.0	D					
			Right	-	-						-	-					
	Westbound	Signal	Left	26.4	C	42.2	D	207			42.3	D	54.2	D	343		
			Thru	49.2	D						58.0	E					
			Right	-	-						-	-					
	Northbound	Signal	Left	25.3	C	24.6	C	191			32.4	C	36.2	D	745		
			Thru	42.9	D						63.6	E					
			Right	7.9	A						9.9	A					
	Southbound	Signal	Left	26.4	C	33.4	C	1012*			36.8	D	40.1	D	1123*		
			Thru	40.6	D						51.7	D					
			Right	31.8	C						34.4	C					
2028 NO BUILD																	
SR 140 @ SR 5 BU	Eastbound	Signal	Left	53.1	D	45.7	D	413	**42.3**	**D**	64.7	E	51.8	D	1,672	**55.3**	**E**
			Thru	40.6	D						46.2	D					
			Right	-	-						-	-					
	Westbound	Signal	Left	31.4	C	49.5	D	250			51.9	D	61.6	E	424		
			Thru	57.6	E						64.8	E					
			Right	-	-						-	-					
	Northbound	Signal	Left	28.6	C	26.7	C	219			39.1	D	55.0	E	1,110		
			Thru	46.9	D						96.1	F					
			Right	7.8	A						19.4	B					
	Southbound	Signal	Left	29.7	C	41.7	D	975*			52.9	D	52.8	D	2070*		
			Thru	45.8	D						61.7	E					
			Right	42.6	D						47.4	D					
2028 BUILD																	
SR 140 @ SR 5 BU	Eastbound	Signal	Left	34.7	C	33.3	C	257	**32.1**	**C**	61.4	E	49.2	D	375	**43.8**	**D**
			Thru	32.3	C						44.0	D					
			Right	-	-						-	-					
	Westbound	Signal	Left	24.4	C	40.5	D	231			52.1	D	60.5	E	374		
			Thru	47.6	D						63.2	E					
			Right	-	-						-	-					
	Northbound	Signal	Left	33.2	C	31.4	C	239			42.8	D	45.1	D	968		
			Thru	54.8	D						80.3	F					
			Right	9.7	A						10.4	B					
	Southbound	Signal	Left	34.2	C	22.5	C	513**			58.9	E	28.2	C	547**		
			Thru	45.8	D						47.3	D					
			Right	8.7	A						6.9	A					
2048 NO BUILD																	
SR 140 @ SR 5 BU	Eastbound	Signal	Left	195.4	F	110.8	F	1,821	**98.1**	**F**	173.8	F	100.4	F	1,718	**146.1**	**F**
			Thru	51.2	D						67.0	E					
			Right	-	-							-					
	Westbound	Signal	Left	71.4	E	69.6	E	354			229.8	F	163.4	F	1,632		
			Thru	68.8	E						142.1	F					
			Right	-	-							-					
	Northbound	Signal	Left	41.0	D	39.2	D	473			66.3	E	198.4	F	1,046		
			Thru	71.7	E						335.2	F					
			Right	8.9	A						104.7	F					
	Southbound	Signal	Left	44.4	D	139.6	F	4,272*			70.7	E	126.3	F	4,480*		
			Thru	70.1	E						90.7	F					
			Right	195.7	F						165.4	F					
2048 BUILD																	
SR 140 @ SR 5 BU	Eastbound	Signal	Left	77.4	E	56.8	E	744	**62.5**	**E**	226.9	F	128.5	F	1,851	**119.5**	**F**
			Thru	42.3	D						83.7	F					
			Right	-	-						-	-					
	Westbound	Signal	Left	56.6	E	80.9	F	506			229.7	F	162.6	F	1,578		
			Thru	91.5	F						141.1	F					
			Right	-	-						-	-					
	Northbound	Signal	Left	96.5	F	56.1	E	517			71.8	E	105.6	F	1,040		
			Thru	92.2	F						163.1	F					
			Right	9.8	A						58.1	E					
	Southbound	Signal	Left	109.9	F	58.9	E	1,201*			192.7	F	63.4	E	1,592*		
			Thru	91.1	F						58.7	E					
			Right	31.3	C						24.3	C					

*Reported queues in SimTraffic cannot be longer than length between intersections (link distance). To capture the real world effective queue length in instances where SimTraffic queue extends past adjacent intersections, the distance between adjacent intersections was added to queue length for the next intersection where the queue was less than the link length. For instance, in this case, the effective southbound queue length for SR 140 @ SR 5 BU was calculated by adding the southbound queue length at Mary Lane to the distance between Mary Lane and SR 5 BU.

**The queue here is segment of SR 140 and SR 5 BU southbound queue

2022 Existing Capacity Analysis Results

Updated 10/13/2022

Interesection	Approach	Control	AM PEAK					PM PEAK				
			Approach			Intersection		Approach			Intersection	
			Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS
SR 140 @ SR 5 BU	Eastbound	Signal	37.6	D	325	**35.3**	**D**	49.2	D	558	**45.4**	**D**
	Westbound	Signal	42.2	D	207			54.2	D	343		
	Northbound	Signal	24.6	C	191			36.2	D	745		
	Southbound	Signal	33.4	C	1012*			40.1	D	1123*		
SR 140 @ Hospital Rd / Walgreens	Eastbound	Stop	23.1	C	45	*N/A*	*N/A*	23.9	C	58	*N/A*	*N/A*
	Westbound	Stop	32.2	D	49			27.6	D	22		
	Northbound	Free	0.2	A	102			0.1	A	164		
	Southbound	Free	0.1	A	138**			0.1	A	177**		
SR 140 @ Shoal Creek Rd	Eastbound	Stop	15.4	C	51	*N/A*	*N/A*	14.5	B	65	*N/A*	*N/A*
	Northbound	Free	0.7	A	115			1.0	A	171		
	Southbound	Free	0.0	A	375**			0.0	A	415**		
SR 140 @ Mary Ln	Westbound	Stop	0.0	A	0	*N/A*	*N/A*	25.0	D	17	*N/A*	*N/A*
	Northbound	Free	0.0	A	0			0.0	A	16		
	Southbound	Free	0.0	A	37**			0.1	A	148**		

*Reported queues in SimTraffic cannot be longer than length between intersections (link distance). To capture the real world effective queue length in instances where SimTraffic queue extends past adjacent intersections, the distance between adjacent intersections was added to queue length for the next intersection where the queue was less than the link length. For instance, in this case, the effective southbound queue length for SR 140 @ SR 5 BU was calculated by adding the southbound queue length at Mary Lane to the distance between Mary Lane and SR 5 BU.

**The queue here is segment of SR 140 and SR 5 BU southbound queue

2028 No Build Capacity Analysis Results

Updated 10/13/2022

Interesection	Approach	Control	AM PEAK					PM PEAK				
			Approach			Intersection		Approach			Intersection	
			Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS
SR 140 @ SR 5 BU	Eastbound	Signal	45.7	D	413	**42.3**	**D**	51.8	D	1,672	**55.3**	**E**
	Westbound	Signal	49.5	D	250			**61.6**	**E**	424		
	Northbound	Signal	26.7	C	219			**55.0**	**E**	1,110		
	Southbound	Signal	41.7	D	975*			52.8	D	2070*		
SR 140 @ Hospital Rd / Walgreens	Eastbound	Stop	28.0	D	44	*N/A*	*N/A*	27.4	D	86	*N/A*	*N/A*
	Westbound	Stop	40.4	E	154			33.8	D	101		
	Northbound	Free	0.1	A	195			0.1	A	316		
	Southbound	Free	0.1	A	200**			0.1	A	173**		
SR 140 @ Shoal Creek Rd	Eastbound	Stop	17.2		350	*N/A*	*N/A*	15.8	C	693	*N/A*	*N/A*
	Northbound	Free	0.7	A	153			1.1	A	195		
	Southbound	Free	0.0	A	446**			0.0	A	545**		
SR 140 @ Mary Ln	Westbound	Stop	0.0	A	0	*N/A*	*N/A*	29.4	D	40	*N/A*	*N/A*
	Northbound	Free	0.0	A	0			0.0	A	0		
	Southbound	Free	0.0	A	330**			0.1	A	1095**		

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**The queue here is segment of SR 140 and SR 5 BU southbound queue

2028 Build Capacity Analysis Results

Updated 10/13/2022

Interesection	Approach	Control	AM PEAK					PM PEAK				
			Approach			Intersection		Approach			Intersection	
			Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS
SR 140 @ SR 5 BU	Eastbound	Signal	33.3	C	257	**32.1**	**C**	49.2	D	375	**43.8**	**D**
	Westbound	Signal	40.5	D	231			**60.5**	**E**	374		
	Northbound	Signal	31.4	C	239			45.1	D	968		
	Southbound	Signal	22.5	C	513**			28.2	C	547**		
SR 140 @ Hospital Rd / Walgreens	Eastbound	Stop	11.8	B	5	*N/A*	*N/A*	11.6	B	10	*N/A*	*N/A*
	Westbound	Stop	10.7	B	33			11.8	B	28		
	Northbound	Free	0.0	A	5			0.0	A	10		
	Southbound	Free	0.0	A	13*			0.0	A	47*		
SR 140 @ Shoal Creek Rd / Mary Ln	Eastbound	Stop	18.5	C	63	*N/A*	*N/A*	20.2	B	56	*N/A*	*N/A*
	Westbound	Stop	0.0	A	0			**64.4**	**E**	22		
	Northbound	Free	0.0	A	53			0.0	A	62		
	Southbound	Free	0.0	A	7			0.1	A	5		

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**The queue here is segment of SR 140 and SR 5 BU southbound queue

2048 No Build Capacity Analysis Results

Updated 10/13/2022

Interesection	Approach	Control	AM PEAK					PM PEAK				
			Approach			Intersection		Approach			Intersection	
			Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS
SR 140 @ SR 5 BU	Eastbound	Signal	**110.8**	**F**	1,821	**98.1**	**F**	**100.4**	**F**	1,718	**146.1**	**F**
	Westbound	Signal	**69.6**	**E**	354			**163.4**	**F**	1,632		
	Northbound	Signal	39.2	D	473			**198.4**	**F**	1,046		
	Southbound	Signal	**139.6**	**F**	4,272*			**126.3**	**F**	4,480*		
SR 140 @ Hospital Rd / Walgreens	Eastbound	Stop	**131.3**	**F**	52	*N/A*	*N/A*	**232.1**	**F**	251	*N/A*	*N/A*
	Westbound	Stop	**228.1**	**F**	640			**172.7**	**F**	219		
	Northbound	Free	0.2	A	289			0.1	A	319		
	Southbound	Free	0.1	A	154**			0.1	A	154**		
SR 140 @ Shoal Creek Rd	Eastbound	Stop	**37.2**	**E**	607	*N/A*	*N/A*	28.7	D	773	*N/A*	*N/A*
	Northbound	Free	0.9	A	74			1.3	A	196		
	Southbound	Free	0.0	A	420**			0.0	A	427**		
SR 140 @ Mary Ln	Westbound	Stop	**64.3**	**F**	595	*N/A*	*N/A*	**121.1**	**F**	282	*N/A*	*N/A*
	Northbound	Free	0.0	A	0			0.0	A	0		
	Southbound	Free	0.0	A	3,297**			0.2	A	3,505**		

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**The queue here is segment of SR 140 and SR 5 BU southbound queue

2048 Build Capacity Analysis Results

Updated 10/13/2022

Interesection	Approach	Control	AM PEAK					PM PEAK				
			Approach			Intersection		Approach			Intersection	
			Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	SimTraffic 95th % Queue (Ft)	Delay (sec/veh)	LOS
SR 140 @ SR 5 BU	Eastbound	Signal	**56.8**	**E**	744	**62.5**	**E**	**128.5**	**F**	1,851	**119.5**	**F**
	Westbound	Signal	**80.9**	**F**	506			**162.6**	**F**	1,578		
	Northbound	Signal	**56.1**	**E**	517			**105.6**	**F**	1,040		
	Southbound	Signal	**58.9**	**E**	1,201*			**63.4**	**E**	1,592*		
SR 140 @ Hospital Rd / Walgreens	Eastbound	Stop	14.8	B	23	*N/A*	*N/A*	14.2	B	22	*N/A*	*N/A*
	Westbound	Stop	12.4	B	47			14.7	B	36		
	Northbound	Free	0	A	8			0	A	30		
	Southbound	Free	0	A	671**			0	A	644**		
SR 140 @ Shoal Creek Rd / Mary Ln	Eastbound	Stop	**119.7**	**F**	346	*N/A*	*N/A*	**135.8**	**F**	359	*N/A*	*N/A*
	Westbound	Stop	**497.2**	**F**	191			**974.3**	**F**	113		
	Northbound	Free	2.9	A	122			1.9	A	95		
	Southbound	Free	0.0	A	226**			2.0	A	617**		

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GDOT INTERSECTION CONTROL EVALUATION (ICE) TOOL

ICE Version 2.2 | Revised 12/01/2021

GDOT PI#:	0017789	Request By:	City of Canton		
County:	Cherokee	GDOT District:	6 - Cartersville		
Major Road:	SR 140	Road Class:	Minor Arterial	Speed Limit:	35 mph
Crossing Road:	SR 5 BU	Road Class:	Local	Speed Limit:	35 mph
Major Road Direction:	East/West	Area Type:	Urban		
Intersection Control:	Signal (turn lanes on mainline)	Project ID:			
Prepared By:	Michael Baker	Date:	10/4/2022		
Project Purpose:	Intersection Improvement				

Existing Data Year:	2022
Project Opening Year:	2028
Project Design Year:	2048
Annual Growth Rate:	1.8%
K Factor*:	7%

* K Factor = Proportion of average annual daily traffic occurring in the highest one hour of the day

APPROACH SPLITS:

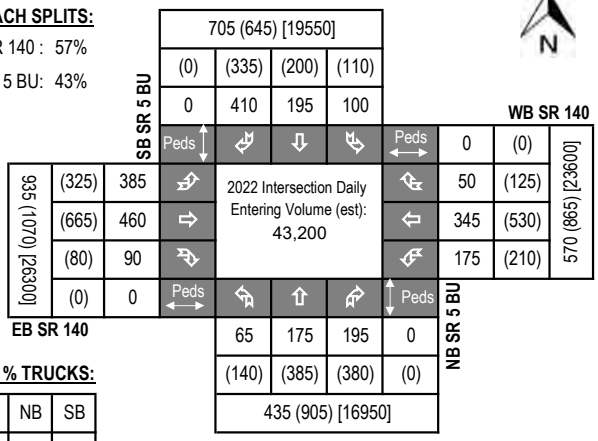
SR 140 : 57%

SR 5 BU: 43%

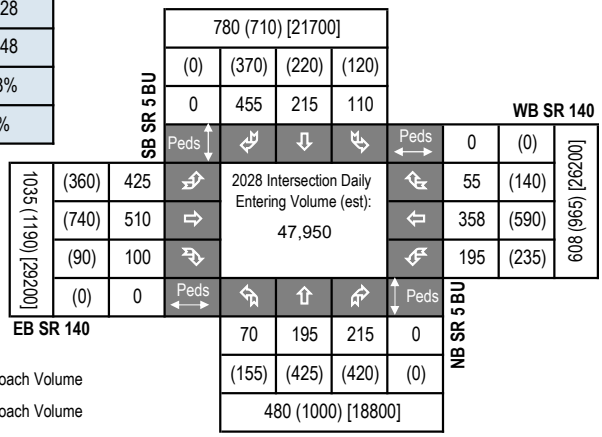
PEAK HR % TRUCKS:

EB	WB	NB	SB
6%	4%	4%	6%

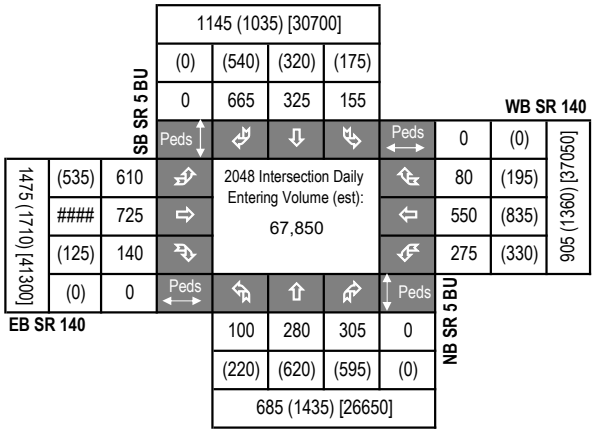
2022 EXISTING YEAR VOLUMES



2028 OPENING YEAR VOLUMES



2048 DESIGN YEAR VOLUMES



LEGEND:

000 = AM Peak Approach Volume

(000) = PM Peak Approach Volume

[000] = ADT Volume (Estimate)

Introduction: In 2005, SAFETEA-LU established the Highway Safety Improvement Program (HSIP) and mandated that each state prepare a Strategic Highway Safety Plan (SHSP) to prioritize safety funding investments. Intersections quickly became a common component of most states' SHSP emphasis areas and HSIP project lists, including Georgia's SHSP. Intersection Control Evaluation (ICE) policies and procedures represent a traceable and transparent procedure to streamline the evaluation of intersection control alternatives, and further leverage safety advancements for intersection improvements beyond just the safety program. Approximately one-third of all traffic fatalities and roughly seventy five percent of all traffic crashes in Georgia occur at or adjacent to intersections. Accordingly, the Georgia SHSP includes an emphasis on enhancing intersection safety to advance the *Toward Zero Deaths* vision embraced by the Georgia Governor's Office of Highway Safety (GOHS). This ICE tool was developed to support the ICE policy, developed and adopted to help ensure that intersection investments across the entire Georgia highway system are selected, prioritized and implemented with defensible benefits for safety towards those ends.

Tool Goal: The goal of this ICE tool is to provide a simplified and consistent way of importing traffic, safety, cost, environmental impact and stakeholder posture data to assess and quantify intersection control improvement benefits. The tool supports the ICE policy and procedures to provide traceability, transparency, consistency and accountability when identifying and selecting an intersection control solution that both meets project purpose and reflects overall best value in terms of specific performance-based criteria.

Requirements: An ICE is required for any intersection improvement (e.g. new or modified intersection, widening/reconstruction or corridor project, or work accomplished through a driveway or encroachment permit that affects an intersection) where: **1)** the intersection includes at least one roadway designated as a State Route (State Highway System) or as part of the National Highway System; or **2)** the intersection will be designed or constructed using State or Federal funding. In certain circumstances where an ICE would otherwise be required, the requirement may be waived based on appropriate evidence presented with a written request. (See the "**Waiver**" tab to review criteria that may make a project waiver eligible and for instructions to submit a waiver request to the Department). An ICE is not required when the proposed work does not include any changes to the intersection design, involves only routine traffic signal timing and equipment maintenance, or for driveway permits where the driveway is not a new leg to an already existing intersection on either 1) a divided, multi-lane highway with a closed median and only right-in/right-out access or 2) an undivided roadway where the development is not required to construct left and/or right turn lanes (as per the Driveway Manual and District Traffic Engineer).

Two-Stage Process: A complete ICE process consists of two (2) distinct stages, and it is expected that the respective level of effort for completing both stages of ICE will correspond to the magnitude and complexity of the intersection. Prior to starting an ICE, the District Traffic Engineer and/or State Traffic Engineer should be consulted for advice on an appropriate level of effort. The Stage 1 and Stage 2 ICE forms are designed minimize required data inputs using drop-down menu choices and limiting text entry. All fields shaded grey include drop down menu choices and all fields shaded blue require data entry. All other cells in the worksheet are locked.

Stage 1: Screening Decision Record Stage 1 should be conducted early in the project development process and is intended to inform which alternatives are worthy of further evaluation in Stage 2. Stage 1 serves as a screening effort meant to *eliminate* non-competitive options and identify which alternatives merit further considerations based on their practical feasibility. Users should use good engineering judgement in responding to the seven policy questions by selecting "Yes" or "No" in the drop-down boxes. Alternatives should not be summarily eliminated without due consideration, and reasons for eliminating or advancing an alternative should be documented in the "Screening Decision Justification" column.

Stage 2: Alternative Selection Decision Record Stage 2 involves a more detailed and familiar evaluation of the alternatives identified in Stage 1 in order to support the selection of a preferred alternative that may be advanced to detailed design. Stage 2 data entry may require the use of external analysis tools to determine costs, operations and/or safety data that, combined with environmental and stakeholder posture data, form the basis of the ICE evaluation. A separate "CostEst" worksheet tab helps users develop pre-planning-level cost estimates for each Stage 2 alternative evaluated, and a separate Users Guide has been prepared to give guidance on Stage 1 and Stage 2 data entry. Once all data is entered, each alternative is scored and ranked, with the results reported at the bottom of the Stage 2 worksheet to inform on the best of the intersection controls evaluated for project recommendation.

Documentation: A complete ICE document consists of the combination of the outputs from either a completed and signed waiver form or both Stage 1 and Stage 2 worksheets (along with supporting costing and/or environmental documentation), to be included in the approved project Concept Report (or equivalent) or as a stand-alone document.

GDOT ICE STAGE 1: SCREENING DECISION RECORD

ICE Version 2.2 | Revised 12/01/2021

GDOT PI #	0017789
Project Location:	SR 140 @ SR 5 BU
Existing Control:	Signal (turn lanes on mainline)
Prepared by:	Michael Baker
Date:	10/4/2022

Answer "Yes" or "No" to each policy question for each control type to identify which alternatives should be evaluated in the Stage 2 Decision Record; enter justification in the rightmost column

Note: Up to 5 alternatives may be selected and evaluated; Use this ICE Stage 1 to screen 5 or fewer alternatives to evaluate in Stage 2

	Intersection Alternative (see "Intersections" tab for detailed description of intersection/interchange type)	1. Does alternative address the project need in a balanced manner and in scale with the project?	2. Does alternative improve safety performance in terms of reducing severe crashes?	3. Does alternative incorporate safety, convenience and accessibility for pedestrians and/or bicyclists?	4. Does alternative improve (or preserve) traffic operations (congestion, delay, reliability, etc.)?	5. Does alternative appear feasible given the site characteristics, constrains & location context?	6. Does alternative appear feasible with respect to other project factors?	7. Overall feasible alternative (select alternative for further evaluation in Stage 2)?	**Screening Decision Justification:**
Unsignalized Intersections	Conventional (Minor Stop)	No	No	No	No	No	No	No	Intersection currently signalized
	Conventional (All-Way Stop)	No	No	No	No	No	No	No	Intersection currently signalized
	Mini Roundabout	No	No	No	No	No	No	No	Intersection currently signalized
	Single Lane Roundabout	No	No	No	No	No	No	No	Intersection currently signalized
	Multilane Roundabout	No	No	No	No	No	No	No	Intersection currently signalized
	RCUT (stop control)	No	No	No	No	No	No	No	Intersection currently signalized
	RIRO w/down stream U-Turn	No	No	No	No	No	No	No	Intersection currently signalized
	High-T (unsignalized)	No	No	No	No	No	No	No	Intersection currently signalized
	Offset-T Intersections	No	No	No	No	No	No	No	Intersection currently signalized
	Diamond Interch (Stop Control)	No	No	No	No	No	No	No	Intersection currently signalized
	Diamond Interch (RAB Control)	No	No	No	No	No	No	No	Intersection currently signalized
	Add LT Lanes on SR 140 Add one RT Lane on SR 140	No	No	No	No	No	No	No	Intersection currently signalized
	Other unsignalized (provide description):	No	No	No	No	No	No	No	Intersection currently signalized
Signalized Intersections	Traffic Signal	**No**	**No**	**No**	**No**	**No**	**No**	**Yes**	Currently signalized, project scope includes only 1 intersection leg
	Median U-Turn (Indirect Left)	No	No	No	No	No	No	No	Not feasible given project scope and area type
	RCUT (signalized)	No	No	No	No	No	No	No	Not feasible given project scope and area type
	Displaced Left Turn (CFI)	No	No	No	No	No	No	No	Not feasible given project scope and area type
	Continuous Green-T	No	No	No	No	No	No	No	Not feasible given project scope and area type
	Jughandle	No	No	No	No	No	No	No	Not feasible given project scope and area type
	Quadrant Roadway	No	No	No	No	No	No	No	Not feasible given project scope and area type
	Diamond Interch (Signal Control)	No	No	No	No	No	No	No	Not feasible given project scope and area type
	Diverging Diamond	No	No	No	No	No	No	No	Not feasible given project scope and area type
	Single Point Interchange	No	No	No	No	No	No	No	Not feasible given project scope and area type
	No LT Lane Improvements No RT Lane Improvements	No	No	No	No	No	No	No	Only feasible for 1 leg of intersection
	Other Signalized (provide description):	No	No	No	No	No	No	No	N/A

= Intersection type selected for more detailed analysis in Stage 2 Alternative Selection Decision Record

Waiver Request - Level 2 / 3

In certain circumstances where an ICE would otherwise be required, an ICE may be waived based on appropriate evidence presented with a written request. Scenarios in which an ICE waiver request may be considered include:

1. Proposed improvements do not substantially alter the character of the intersection, and are considered minor in nature, such as extending existing turn lane(s) or modifying signal phasing at an existing traffic signal
2. The intersection consists of a public roadway intersecting a divided, multilane roadway where the access will be limited to a closed median with only right-in/right-out access that will operate acceptably; or
3. The intersection is along an undivided, two-lane roadway that will not be widened and meets the following criteria:
   - Low risk in terms of exposure (total intersection entering volume less than 1,000 vehicles /day)
   - Latest 5 years of crash history is not indicative of a crash problem (no discernible crash patterns coupled with low crash frequency and severity)
   - Layout has no unusual or undesirable geometric features (such as restricted sight distance)
   - The proposed changes are not expected to adversely affect safety

If only one alternative is determined to be feasible from the ICE Stage 1, then a waiver may be submitted in lieu of completing ICE Stage 2. The waiver must clearly explain why there is no other feasible alternative. A Waiver Form should also be submitted to document an agreed upon decision to select a preferred alternative other than the highest scoring alternative in Stage 2.

ICE waiver forms with supporting documentation should be submitted for approval to the Office of Traffic Operations or District Engineer (depending on Waiver level). Questions regarding the waiver process should be routed to the State Traffic Engineer.

Project Information:

Location:	SR 140 @ SR 5 BU
County:	Cherokee
GDOT District:	6 - Cartersville
Area Type:	Urban
Existing Intersection Control:	Signal (turn lanes on mainline)
GDOT PI # (or N/A):	0017789
Requested By:	City of Canton
Prepared By:	Michael Baker
Date:	10/4/2022
Waiver Request Type:	Add/Extend Turn Lane

Traffic and Operations Data:[1,2]

Intersection meets signal/AWS warrants?	Meets Signal Warrants	
Traffic Analysis Type:	Intersection Delay	
Existing Major Street Avg Daily Traffic (ADT):	26,300	
Existing Minor Street Avg Daily Traffic (ADT):	19,550	
Analysis Period:	AM Peak	PM Peak
2028 Opening Yr Peak Hour Intersection Delay:	32.1 sec	43.8 sec
2028 Opening Yr Peak Hour Intersection V/C:	0.83	0.95
2048 Design Yr Peak Hour Intersection Delay:	62.5 sec	119.5 sec
2048 Design Yr Peak Hour Intersection V/C:	0.98	1.38

Crash Data (Required):[3]

Crash Type	Crash Data: Enter most recent 5 years of crash data	Crash Severity K*	A*	B*	C*	O	
	Angle	0	2	5	6	30	33%
	Head-On	0	0	0	4	3	5%
	Rear End	0	0	1	5	51	44%
	Sideswipe - same	0	0	0	0	14	11%
	Sideswipe - opposite	0	0	0	0	2	2%
	Not Collision w/Motor Veh	0	0	1	2	3	5%
	TOTALS:	0	2	7	17	103	129

* Number of crashes resulting in injuries / fatalities, not number of persons

Description of Work / Justification for Waiver (Required):	The purpose of this project is to improve operations on the northern leg of this intersection. It is not feasible to construct any other intersection type as this is the junction of two major roadways in an urban area. Extended the existing turn lanes will improve traffic flow for the southboundi signal traffic and traffic at the surrounding driveways
Proposed Intersection Control:	Traffic Signal

REQUESTED BY: Mary Eades Date: 10/4/2022

Title: Traffic Engineer

APPROVED BY: Digitally signed by Alan Davis DN: C=US, E=aladavis@dot.ga.gov, O=Georgia Department of Transportation, OU=Traffic Operations, CN=Alan Davis Date: 2022.10.20 11:19:39-04'00' Date:

Name:

District Engineer or (Approved Delegate)

GDOT INTERSECTION CONTROL EVALUATION (ICE) TOOL

ICE Version 2.2 | Revised 12/01/2021

GDOT PI#:	0017789	Request By:	City of Canton		
County:	Cherokee	GDOT District:	6 - Cartersville		
Major Road:	Shoal Creek Rd	Road Class:	Local	Speed Limit:	35 mph
Crossing Road:	205 Waleska Rd	Road Class:	Local	Speed Limit:	< 35 mph
Major Road Direction:	East/West	Area Type:	Urban		
Intersection Control:	Conventional (Minor Stop)	Project ID:			
Prepared By:	Michael Baker	Date:	8/2/2022		
Project Purpose:	Intersection Improvement				

Existing Data Year:	2022
Project Opening Year:	2028
Project Design Year:	2048
Annual Growth Rate:	1.8%
K Factor*:	7%

* K Factor = Proportion of average annual daily traffic occurring in the highest one hour of the day

APPROACH SPLITS:

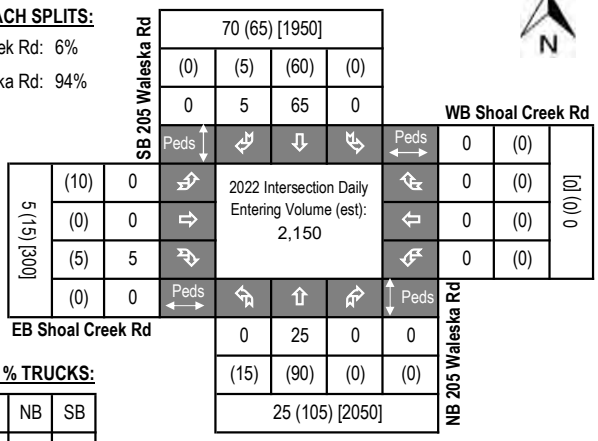
Shoal Creek Rd: 6%

205 Waleska Rd: 94%

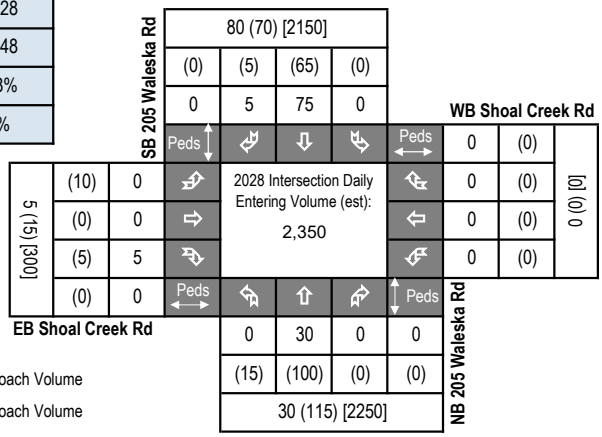
PEAK HR % TRUCKS:

EB	WB	NB	SB
0%	0%	0%	0%

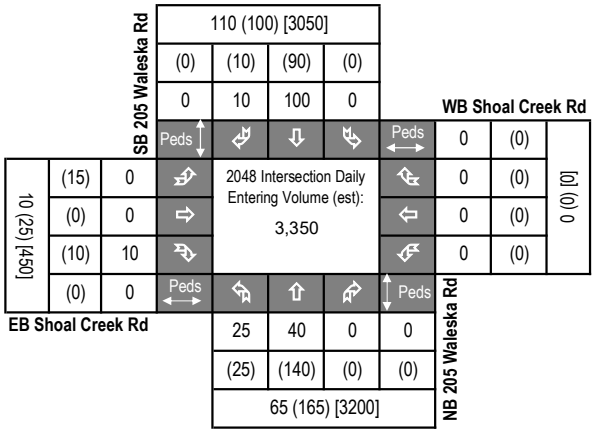
2022 EXISTING YEAR VOLUMES



2028 OPENING YEAR VOLUMES



2048 DESIGN YEAR VOLUMES



LEGEND:

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Requirements: An ICE is required for any intersection improvement (e.g. new or modified intersection, widening/reconstruction or corridor project, or work accomplished through a driveway or encroachment permit that affects an intersection) where: **1)** the intersection includes at least one roadway designated as a State Route (State Highway System) or as part of the National Highway System; or **2)** the intersection will be designed or constructed using State or Federal funding. In certain circumstances where an ICE would otherwise be required, the requirement may be waived based on appropriate evidence presented with a written request. (See the "**Waiver**" tab to review criteria that may make a project waiver eligible and for instructions to submit a waiver request to the Department). An ICE is not required when the proposed work does not include any changes to the intersection design, involves only routine traffic signal timing and equipment maintenance, or for driveway permits where the driveway is not a new leg to an already existing intersection on either 1) a divided, multi-lane highway with a closed median and only right-in/right-out access or 2) an undivided roadway where the development is not required to construct left and/or right turn lanes (as per the Driveway Manual and District Traffic Engineer).

Two-Stage Process: A complete ICE process consists of two (2) distinct stages, and it is expected that the respective level of effort for completing both stages of ICE will correspond to the magnitude and complexity of the intersection. Prior to starting an ICE, the District Traffic Engineer and/or State Traffic Engineer should be consulted for advice on an appropriate level of effort. The Stage 1 and Stage 2 ICE forms are designed minimize required data inputs using drop-down menu choices and limiting text entry. All fields shaded grey include drop down menu choices and all fields shaded blue require data entry. All other cells in the worksheet are locked.

Stage 1: Screening Decision Record Stage 1 should be conducted early in the project development process and is intended to inform which alternatives are worthy of further evaluation in Stage 2. Stage 1 serves as a screening effort meant to *eliminate* non-competitive options and identify which alternatives merit further considerations based on their practical feasibility. Users should use good engineering judgement in responding to the seven policy questions by selecting "Yes" or "No" in the drop-down boxes. Alternatives should not be summarily eliminated without due consideration, and reasons for eliminating or advancing an alternative should be documented in the "Screening Decision Justification" column.

Stage 2: Alternative Selection Decision Record Stage 2 involves a more detailed and familiar evaluation of the alternatives identified in Stage 1 in order to support the selection of a preferred alternative that may be advanced to detailed design. Stage 2 data entry may require the use of external analysis tools to determine costs, operations and/or safety data that, combined with environmental and stakeholder posture data, form the basis of the ICE evaluation. A separate "CostEst" worksheet tab helps users develop pre-planning-level cost estimates for each Stage 2 alternative evaluated, and a separate Users Guide has been prepared to give guidance on Stage 1 and Stage 2 data entry. Once all data is entered, each alternative is scored and ranked, with the results reported at the bottom of the Stage 2 worksheet to inform on the best of the intersection controls evaluated for project recommendation.

Documentation: A complete ICE document consists of the combination of the outputs from either a completed and signed waiver form or both Stage 1 and Stage 2 worksheets (along with supporting costing and/or environmental documentation), to be included in the approved project Concept Report (or equivalent) or as a stand-alone document.

GDOT ICE STAGE 1: SCREENING DECISION RECORD

ICE Version 2.2 | Revised 12/01/2021

GDOT PI #	0017789
Project Location:	Shoal Creek Rd @ 205 Waleska Rd
Existing Control:	Conventional (Minor Stop)
Prepared by:	Michael Baker
Date:	8/2/2022

Answer "Yes" or "No" to each policy question for each control type to identify which alternatives should be evaluated in the Stage 2 Decision Record; enter justification in the rightmost column

Note: Up to 5 alternatives may be selected and evaluated; Use this ICE Stage 1 to screen 5 or fewer alternatives to evaluate in Stage 2

	Intersection Alternative (see "Intersections" tab for detailed description of intersection/interchange type)	1. Does alternative address the project need in a balanced manner and in scale with the project?	2. Does alternative improve safety performance in terms of reducing severe crashes?	3. Does alternative incorporate safety, convenience and accessibility for pedestrians and/or bicyclists?	4. Does alternative improve (or preserve) traffic operations (congestion, delay, reliability, etc.)?	5. Does alternative appear feasible given the site characteristics, constrains & location context?	6. Does alternative appear feasible with respect to other project factors?	7. Overall feasible alternative (select alternative for further evaluation in Stage 2)?	**Screening Decision Justification:**
Unsignalized Intersections	Conventional (Minor Stop)	**No**	**No**	**No**	**No**	**No**	**No**	**Yes**	Current Intersection
	Conventional (All-Way Stop)	No	No	No	No	No	No	No	Volume on sidestreet too low to justify
	Mini Roundabout	No	No	No	No	No	No	No	Low volumes on driveway do not justify cost, no crash problems
	Single Lane Roundabout	No	No	No	No	No	No	No	Low volumes on driveway do not justify cost, no crash problems
	Multilane Roundabout	No	No	No	No	No	No	No	Single lane approaches
	RCUT (stop control)	No	No	No	No	No	No	No	No place for downstream u-turn
	RIRO w/down stream U-Turn	No	No	No	No	No	No	No	No place for downstream u-turn
	High-T (unsignalized)	No	No	No	No	No	No	No	T intersection currently
	Offset-T Intersections	No	No	No	No	No	No	No	not feasible for driveway
	Diamond Interch (Stop Control)	No	No	No	No	No	No	No	not feasible for driveway
	Diamond Interch (RAB Control)	No	No	No	No	No	No	No	not feasible for driveway
	No LT Lane Improvements No RT Lane Improvements	No	No	No	No	No	No	No	Low volumes don't justify turn lanes
	Other unsignalized (provide description):	No	No	No	No	No	No	No	
Signalized Intersections	Traffic Signal	No	No	No	No	No	No	No	Signal warrants not met
	Median U-Turn (Indirect Left)	No	No	No	No	No	No	No	Signal warrants not met
	RCUT (signalized)	No	No	No	No	No	No	No	Signal warrants not met
	Displaced Left Turn (CFI)	No	No	No	No	No	No	No	Signal warrants not met
	Continuous Green-T	No	No	No	No	No	No	No	Signal warrants not met
	Jughandle	No	No	No	No	No	No	No	Signal warrants not met
	Quadrant Roadway	No	No	No	No	No	No	No	Signal warrants not met
	Diamond Interch (Signal Control)	No	No	No	No	No	No	No	Signal warrants not met
	Diverging Diamond	No	No	No	No	No	No	No	Signal warrants not met
	Single Point Interchange	No	No	No	No	No	No	No	Signal warrants not met
	No LT Lane Improvements No RT Lane Improvements	No	No	No	No	No	No	No	
	Other Signalized (provide description):	No	No	No	No	No	No	No	N/A

= Intersection type selected for more detailed analysis in Stage 2 Alternative Selection Decision Record

GDOT INTERSECTION CONTROL EVALUATION (ICE) WAIVER FORM

ICE Version 2.2 | Revised 12/01/2021

Waiver Request - Level 1

In certain circumstances where an ICE would otherwise be required, an ICE may be waived based on appropriate evidence presented with a written request. Scenarios in which an ICE waiver request may be considered include:

1. Proposed improvements do not substantially alter the character of the intersection, and are considered minor in nature, such as extending existing turn lane(s) or modifying signal phasing at an existing traffic signal
2. The intersection consists of a public roadway intersecting a divided, multilane roadway where the access will be limited to a closed median with only right-in/right-out access that will operate acceptably; or
3. The intersection is along an undivided, two-lane roadway that will not be widened and meets the following criteria:
   - Low risk in terms of exposure (total intersection entering volume less than 1,000 vehicles /day)
   - Latest 5 years of crash history is not indicative of a crash problem (no discernible crash patterns coupled with low crash frequency and severity)
   - Layout has no unusual or undesirable geometric features (such as restricted sight distance)
   - The proposed changes are not expected to adversely affect safety

If only one alternative is determined to be feasible from the ICE Stage 1, then a waiver may be submitted in lieu of completing ICE Stage 2. The waiver must clearly explain why there is no other feasible alternative. A Waiver Form should also be submitted to document an agreed upon decision to select a preferred alternative other than the highest scoring alternative in Stage 2.

ICE waiver forms with supporting documentation should be submitted for approval to the Office of Traffic Operations or District Engineer (depending on Waiver level). Questions regarding the waiver process should be routed to the State Traffic Engineer.

Project Information:

Location:	Shoal Creek Rd @ 205 Waleska Rd		
County:	Cherokee	GDOT PI # (or N/A):	0017789
GDOT District:	6 - Cartersville	Requested By:	City of Canton
Area Type:	Urban	Prepared By:	Michael Baker
Existing Intersection Control:	Conventional (Minor Stop)	Date:	8/2/2022
		Waiver Request Type:	GDOT PDP Project

Traffic and Operations Data:[1,2]

Intersection meets signal/AWS warrants?	Meets Signal Warrants	
Traffic Analysis Type:	Intersection Delay	
Existing Major Street Avg Daily Traffic (ADT):	1,950	
Existing Minor Street Avg Daily Traffic (ADT):	300	
Analysis Period:	AM Peak	PM Peak
2028 Opening Yr Peak Hour Intersection Delay:		
2028 Opening Yr Peak Hour Intersection V/C:		
2048 Design Yr Peak Hour Intersection Delay:	8.9 sec	8.0 sec
2048 Design Yr Peak Hour Intersection V/C:	0.07	0.17

Crash Data (Required):[3]

Crash Type	Crash Data: Enter most recent 5 years of crash data	Crash Severity K*	A*	B*	C*	O	
	Angle	0	0	0	0	0	#DIV/0!
	Head-On	0	0	0	0	0	#DIV/0!
	Rear End	0	0	0	0	0	#DIV/0!
	Sideswipe - same	0	0	0	0	0	#DIV/0!
	Sideswipe - opposite	0	0	0	0	0	#DIV/0!
	Not Collision w/Motor Veh	0	0	0	0	0	#DIV/0!
	TOTALS:	0	0	0	0	0	0

* Number of crashes resulting in injuries / fatalities, not number of persons

Description of Work / Justification for Waiver (Required):	With the relocation of Shoal Creek Road to Mary Lane, this driveway access will be relocated and extended. Access to Shoal Creek Road and SR 140 will remain the same. Volumes are low at this driveway intersection and will remain low in design year. There are no existing crash problems and no anticipated adverse affects to safety with the relocation.
Proposed Intersection Control:	Conventional (Minor Stop)

REQUESTED BY: Mary Eades Date: 9/7/2022

Title: Traffic Engineer

APPROVED BY: Digitally signed by Alan Davis DN: C=US, E=aladavis@dot.ga.gov, O=Georgia Department of Transportation, OU=Traffic Operations, CN=Alan Davis Date: 2022.10.20 11:18:59-04'00' Date:

Name:

Chief Engineer or (Approved Delegate)

[1] *Analysis data input on this worksheet is for proposed control & configuration on form, not the No-Build data shown on the top of Stage 2*

[2] *ADT's required if available (from data collected or nearest GDOT count station site); Capacity data optional unless needed to justify basis of the waiver request.*

[3] *Crash data (required for all existing intersections) must be entered here independent from Stage 2 worksheet inputs (not linked)*

GDOT INTERSECTION CONTROL EVALUATION (ICE) TOOL

ICE Version 2.2 | Revised 12/01/2021

GDOT PI#:	0017789	Request By:	City of Canton		
County:	Cherokee	GDOT District:	6 - Cartersville		
Major Road:	SR 140	Road Class:	Minor Arterial	Speed Limit:	35 mph
Crossing Road:	Hospital Rd	Road Class:	Local	Speed Limit:	< 35 mph
Major Road Direction:	North/South	Area Type:	Urban		
Intersection Control:	Conventional (Minor Stop)	Project ID:			
Prepared By:	Michael Baker	Date:	8/2/2022		
Project Purpose:	Intersection Improvement				

Existing Data Year:	2022
Project Opening Year:	2028
Project Design Year:	2048
Annual Growth Rate:	1.8%
K Factor*:	7%

* K Factor = Proportion of average annual daily traffic occurring in the highest one hour of the day

LEGEND:

000 = AM Peak Approach Volume

(000) = PM Peak Approach Volume

[000] = ADT Volume (Estimate)

2022 EXISTING YEAR VOLUMES

APPROACH SPLITS:

SR 140 : 97%

Hospital Rd: 3%

				690 (645) [18700]					
				(0)	(25)	(615)	(5)		
SB SR 140				0	15	670	5		WB Hospital Rd
				Peds				Peds	0	(0)	
20 (30) [850]	(5)	5		2022 Intersection Daily Entering Volume (est): 19,800					0	(5)	20 (10) [100]
	(0)	0							0	(0)	
	(25)	15							20	(5)	
	(0)	0	Peds					Peds			
EB Hospital Rd				10	535	65	0				NB SR 140
				(10)	(815)	(10)	(0)				
				610 (835) [19950]							

PEAK HR % TRUCKS:

EB	WB	NB	SB
0%	0%	6%	6%

2028 OPENING YEAR VOLUMES

				765 (710) [20750]					
				(0)	(30)	(675)	(5)		
SB SR 140				0	15	745	5		WB Hospital Rd
				Peds				Peds	0	(0)	
20 (35) [950]	(5)	5		2028 Intersection Daily Entering Volume (est): 22,250					0	(5)	20 (10) [1100]
	(0)	0							0	(0)	
	(30)	15							20	(5)	
	(0)	0	Peds					Peds			
EB Hospital Rd				10	595	70	0				NB SR 140
				(10)	(905)	(10)	(0)				
				675 (925) [21700]							

2048 DESIGN YEAR VOLUMES

				1125 (1035) [29350]					
				(0)	(40)	(985)	(10)		
SB SR 140				0	25	1,090	10		WB Hospital Rd
				Peds				Peds	0	(0)	
35 (50) [1350]	(10)	10		2048 Intersection Daily Entering Volume (est): 31,500					5	(10)	35 (20) [1600]
	(0)	0							0	(0)	
	(40)	25							30	(10)	
	(0)	0	Peds					Peds			
EB Hospital Rd				15	840	115	0				NB SR 140
				(15)	(1280)	(55)	(0)				
				970 (1350) [30700]							

Introduction: In 2005, SAFETEA-LU established the Highway Safety Improvement Program (HSIP) and mandated that each state prepare a Strategic Highway Safety Plan (SHSP) to prioritize safety funding investments. Intersections quickly became a common component of most states' SHSP emphasis areas and HSIP project lists, including Georgia's SHSP. Intersection Control Evaluation (ICE) policies and procedures represent a traceable and transparent procedure to streamline the evaluation of intersection control alternatives, and further leverage safety advancements for intersection improvements beyond just the safety program. Approximately one-third of all traffic fatalities and roughly seventy five percent of all traffic crashes in Georgia occur at or adjacent to intersections. Accordingly, the Georgia SHSP includes an emphasis on enhancing intersection safety to advance the *Toward Zero Deaths* vision embraced by the Georgia Governor's Office of Highway Safety (GOHS). This ICE tool was developed to support the ICE policy, developed and adopted to help ensure that intersection investments across the entire Georgia highway system are selected, prioritized and implemented with defensible benefits for safety towards those ends.

Tool Goal: The goal of this ICE tool is to provide a simplified and consistent way of importing traffic, safety, cost, environmental impact and stakeholder posture data to assess and quantify intersection control improvement benefits. The tool supports the ICE policy and procedures to provide traceability, transparency, consistency and accountability when identifying and selecting an intersection control solution that both meets project purpose and reflects overall best value in terms of specific performance-based criteria.

Requirements: An ICE is required for any intersection improvement (e.g. new or modified intersection, widening/reconstruction or corridor project, or work accomplished through a driveway or encroachment permit that affects an intersection) where: **1)** the intersection includes at least one roadway designated as a State Route (State Highway System) or as part of the National Highway System; or **2)** the intersection will be designed or constructed using State or Federal funding. In certain circumstances where an ICE would otherwise be required, the requirement may be waived based on appropriate evidence presented with a written request. (See the "**Waiver**" tab to review criteria that may make a project waiver eligible and for instructions to submit a waiver request to the Department). An ICE is not required when the proposed work does not include any changes to the intersection design, involves only routine traffic signal timing and equipment maintenance, or for driveway permits where the driveway is not a new leg to an already existing intersection on either 1) a divided, multi-lane highway with a closed median and only right-in/right-out access or 2) an undivided roadway where the development is not required to construct left and/or right turn lanes (as per the Driveway Manual and District Traffic Engineer).

Two-Stage Process: A complete ICE process consists of two (2) distinct stages, and it is expected that the respective level of effort for completing both stages of ICE will correspond to the magnitude and complexity of the intersection. Prior to starting an ICE, the District Traffic Engineer and/or State Traffic Engineer should be consulted for advice on an appropriate level of effort. The Stage 1 and Stage 2 ICE forms are designed minimize required data inputs using drop-down menu choices and limiting text entry. All fields shaded grey include drop down menu choices and all fields shaded blue require data entry. All other cells in the worksheet are locked.

Stage 1: Screening Decision Record Stage 1 should be conducted early in the project development process and is intended to inform which alternatives are worthy of further evaluation in Stage 2. Stage 1 serves as a screening effort meant to *eliminate* non-competitive options and identify which alternatives merit further considerations based on their practical feasibility. Users should use good engineering judgement in responding to the seven policy questions by selecting "Yes" or "No" in the drop-down boxes. Alternatives should not be summarily eliminated without due consideration, and reasons for eliminating or advancing an alternative should be documented in the "Screening Decision Justification" column.

Stage 2: Alternative Selection Decision Record Stage 2 involves a more detailed and familiar evaluation of the alternatives identified in Stage 1 in order to support the selection of a preferred alternative that may be advanced to detailed design. Stage 2 data entry may require the use of external analysis tools to determine costs, operations and/or safety data that, combined with environmental and stakeholder posture data, form the basis of the ICE evaluation. A separate "CostEst" worksheet tab helps users develop pre-planning-level cost estimates for each Stage 2 alternative evaluated, and a separate Users Guide has been prepared to give guidance on Stage 1 and Stage 2 data entry. Once all data is entered, each alternative is scored and ranked, with the results reported at the bottom of the Stage 2 worksheet to inform on the best of the intersection controls evaluated for project recommendation.

Documentation: A complete ICE document consists of the combination of the outputs from either a completed and signed waiver form or both Stage 1 and Stage 2 worksheets (along with supporting costing and/or environmental documentation), to be included in the approved project Concept Report (or equivalent) or as a stand-alone document.

GDOT ICE STAGE 1: SCREENING DECISION RECORD

ICE Version 2.2 | Revised 12/01/2021

GDOT PI #	0017789
Project Location:	SR 140 @ Hospital Rd
Existing Control:	Conventional (Minor Stop)
Prepared by:	Michael Baker
Date:	8/2/2022

Answer "Yes" or "No" to each policy question for each control type to identify which alternatives should be evaluated in the Stage 2 Decision Record; enter justification in the rightmost column

Note: Up to 5 alternatives may be selected and evaluated; Use this ICE Stage 1 to screen 5 or fewer alternatives to evaluate in Stage 2

	Intersection Alternative (see "Intersections" tab for detailed description of intersection/interchange type)	1. Does alternative address the project need in a balanced manner and in scale with the project?	2. Does alternative improve safety performance in terms of reducing severe crashes?	3. Does alternative incorporate safety, convenience and accessibility for pedestrians and/or bicyclists?	4. Does alternative improve (or preserve) traffic operations (congestion, delay, reliability, etc.)?	5. Does alternative appear feasible given the site characteristics, constrains & location context?	6. Does alternative appear feasible with respect to other project factors?	7. Overall feasible alternative (select alternative for further evaluation in Stage 2)?	Screening Decision Justification:
Unsignalized Intersections	Conventional (Minor Stop)	**Yes**	**No**	**No**	**Yes**	**Yes**	**Yes**	**Yes**	Existing Conditions
	Conventional (All-Way Stop)	No	No	No	No	No	No	No	Too much traffic on major road/ proximiity to signal
	Mini Roundabout	No	No	No	No	No	No	No	Too much traffic on major road/ proximiity to signal
	Single Lane Roundabout	No	**Yes**	No	No	No	No	No	Proximity to signal makes roundabout not feasible
	Multilane Roundabout	No	**Yes**	No	No	No	No	No	Proximity to signal makes roundabout not feasible
	RCUT (stop control)	No	No	No	No	No	No	No	No room for LT staging
	RIRO w/down stream U-Turn	**Yes**	**Yes**	**No**	**Yes**	**Yes**	**Yes**	**Yes**	RIRO improves operations at signal and intersections, improves safety
	High-T (unsignalized)	No	No	No	No	No	No	No	Not a T intersection
	Offset-T Intersections	No	No	No	No	No	No	No	Not feasible with proximity to signal
	Diamond Interch (Stop Control)	No	No	No	No	No	No	No	Not feasible with proximity to signal
	Diamond Interch (RAB Control)	No	No	No	No	No	No	No	Not feasible with proximity to signal
	Add LT Lanes on SR 140 Add one RT Lane on SR 140	No	**Yes**	No	**Yes**	**Yes**	No	No	Adding RT and LT lanes only at driveway not in line with project goals
	Other unsignalized (provide description):	No	No	No	No	No	No	No	N/A
Signalized Intersections	Traffic Signal	No	No	No	No	No	No	No	Warrants not met
	Median U-Turn (Indirect Left)	No	No	No	No	No	No	No	Warrants not met
	RCUT (signalized)	No	No	No	No	No	No	No	Warrants not met
	Displaced Left Turn (CFI)	No	No	No	No	No	No	No	Warrants not met
	Continuous Green-T	No	No	No	No	No	No	No	Warrants not met
	Jughandle	No	No	No	No	No	No	No	Warrants not met
	Quadrant Roadway	No	No	No	No	No	No	No	Warrants not met
	Diamond Interch (Signal Control)	No	No	No	No	No	No	No	Warrants not met
	Diverging Diamond	No	No	No	No	No	No	No	Warrants not met
	Single Point Interchange	No	No	No	No	No	No	No	Warrants not met
	No LT Lane Improvements No RT Lane Improvements	No	No	No	No	No	No	No	Warrants not met
	Other Signalized (provide description):	No	No	No	No	No	No	No	Warrants not met

= Intersection type selected for more detailed analysis in Stage 2 Alternative Selection Decision Record

GDOT ICE STAGE 2: ALTERNATIVE SELECTION DECISION RECORD

ICE Version 2.2 | Revised 12/01/2021

Project Location: SR 140 @ Hospital Rd
Existing Intersection Control: Conventional (Minor Stop)
Type of Analysis: Conventional Non-Safety Funded Project

District: 6 - Cartersville
County: Cherokee
Area: Urban

GDOT PI #: 0017789
Prepared by: Michael Baker
Date: 8/2/2022

Opening / Design Year Traffic Operations

Intersection meets signal/AWS warrants?	None	
Traffic Analysis Measure of Effectiveness	Intersection Delay	
Traffic Analysis Software Used	Synchro	
Analysis Time Period	AM Peak Hr	PM Peak Hr
2028 Opening Yr No-Build Peak Hr Intersection	0.0 sec	0.0 sec
2028 Opening Yr No-Build Peak Hr Intersection V/C	0.00	0.00
2048 Design Yr No-Build Peak Hr Intersection Delay	228.1 sec	232.1 sec
2048 Design Yr No-Build Peak Hr Intersection V/C	0.85	1.36

Complete Streets Warrants Met?

- ☐ PEDESTRIANS
- ☐ BICYCLES
- ☐ TRANSIT

Crash Data: Enter most recent 5 years of crash data	*Crash Severity* K*	A*	B*	C*	O	Crash Type
Angle	0	0	0	0	5	26%
Head-On	0	0	0	0	1	5%
Rear End	0	0	0	1	10	58%
Sideswipe - same	0	0	0	0	1	5%
Sideswipe - opposite	0	0	0	0	1	5%
Not Collision w/Motor Veh	0	0	0	0	0	0%
TOTALS:	0	0	0	1	18	19

* Number of crashes resulting in injuries / fatalities, not number of persons

Alternatives Analysis:	**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 4**	**Alternative 5**
Proposed Control Type/Improvement:	Conventional (Minor Stop)	RIRO w/down stream U-Turn	N/A	N/A	N/A
Project Cost: (From CostEst Worksheet)					
Construction Cost	$0	$294,000			
ROW Cost	$0	$690,000			
Environmental Cost	$0	$0			
Reimbursable Utility Cost	$0	$4,000			
Design & Contingency Cost	$0	$0			
Cost Adjustment (justification req'd)	0%	0%			
Total Cost	$0	$988,000			
Traffic Operations:					
Traffic Analysis Software Used	Synchro	Synchro			
Analysis Period	AM Peak Hr / PM Peak Hr	AM Peak Hr / PM Peak Hr			
2048 Design Yr Build Intersection Delay	228.1 sec / 232.1 sec	15.2 sec / 14.9 sec			
2048 Design Yr Build Intersection V/C	0.85 / 1.36	0.09 / 0.13			
Safety Analysis:					
Predefined CRF: PDO	N/A	35%			
Predefined CRF: Fatal/Inj	N/A	54%			
Predefined CRF Source:	CRF unavailable; provide user defined CRF below	FHWA Clearinghouse #s 5555 / 5556			
User Defined CRF: PDO					
User Defined CRF: Fatal/Inj					
User Defined CRF Source (write in if applicable):					
Environmental Impacts:[1]					
Historic District/Property	None	None			
Archaeology Resources	None	None			
Graveyard	None	None			
Stream	None	None			
Underground Tank/Hazmat	None	None			
Park Land	None	None			
EJ Community	None	None			
Wooded Area	None	None			
Wetland	None	None			
Stakeholder Posture:	*Note: If environmental impact is significant (**RED**), provide justification impact won't jeopardize project delivery using "Env" worksheet*				
	[1] Environmental impacts are only preliminary estimates; detailed environmental impact documentation will be included with project concept				
Local Community Support	Unknown	Unknown			
GDOT Support	Unknown	Unknown			
Final ICE Stage 2 Score:	4.6	5.2			
Rank of Control Type Alternatives:	2	1			

Note: Stage 2 score is not given (shown as "-") if signal or AWS is selected as control type but respective warrants are not met

Provide additional comments and/or explain any unique analysis inputs, or results (as necessary):

All build alternatives include the relocation of Shoal Creek Road to align with Mary Road, creating a 4-leg intersection. Build alternatives evaluation include rerouted right-in right-out traffic from Hospital Road and Walgreens driveway. Note that for unsignalized intersection the worst approach LOS was reported.

GDOT INTERSECTION CONTROL EVALUATION (ICE) TOOL

ICE Version 2.2 | Revised 12/01/2021

GDOT PI#:	0017789	Request By:	City of Canton		
County:	Cherokee	GDOT District:	6 - Cartersville		
Major Road:	Waleska Rd	Road Class:	Local	Speed Limit:	35 mph
Crossing Road:	367 Waleska Rd	Road Class:	Local	Speed Limit:	< 35 mph
Major Road Direction:	North/South	Area Type:	Urban		
Intersection Control:	Conventional (Minor Stop)	Project ID:			
Prepared By:	Michael Baker	Date:	8/2/2022		
Project Purpose:	Intersection Improvement				

Existing Data Year:	2022
Project Opening Year:	2028
Project Design Year:	2048
Annual Growth Rate:	1.8%
K Factor*:	7%

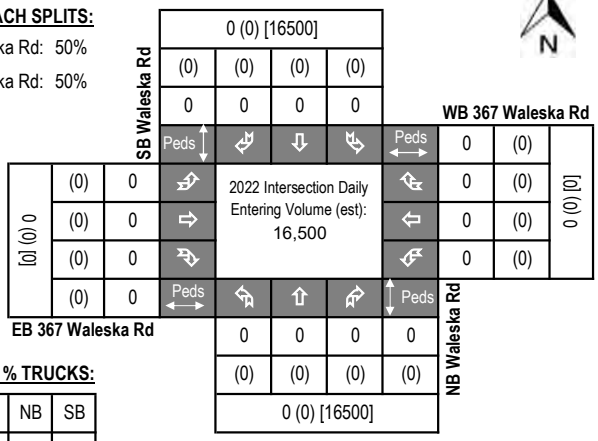
* K Factor = Proportion of average annual daily traffic occurring in the highest one hour of the day

2022 EXISTING YEAR VOLUMES

APPROACH SPLITS:

Waleska Rd: 50%

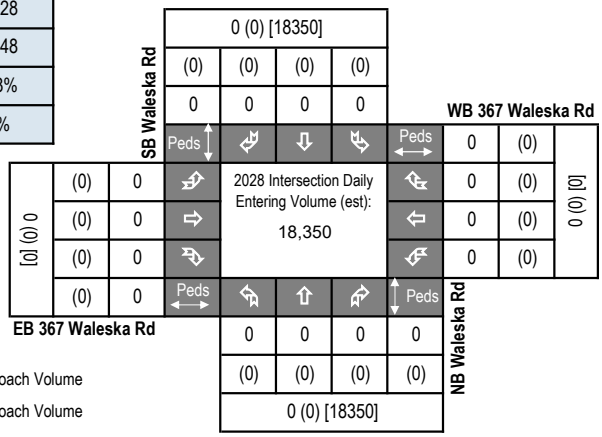
367 Waleska Rd: 50%



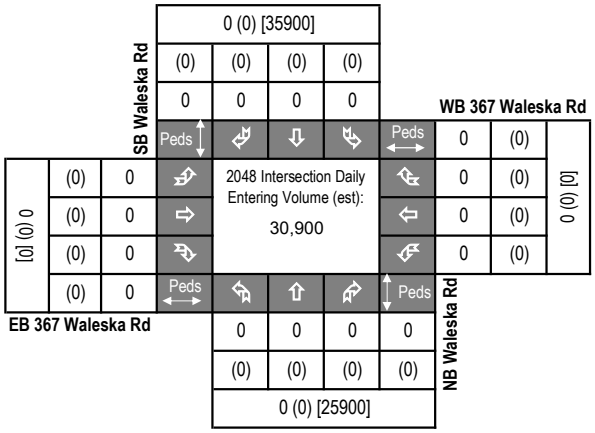
PEAK HR % TRUCKS:

EB	WB	NB	SB
0%	0%	0%	0%

2028 OPENING YEAR VOLUMES



2048 DESIGN YEAR VOLUMES



LEGEND:

000 = AM Peak Approach Volume

(000) = PM Peak Approach Volume

[000] = ADT Volume (Estimate)

Introduction: In 2005, SAFETEA-LU established the Highway Safety Improvement Program (HSIP) and mandated that each state prepare a Strategic Highway Safety Plan (SHSP) to prioritize safety funding investments. Intersections quickly became a common component of most states' SHSP emphasis areas and HSIP project lists, including Georgia's SHSP. Intersection Control Evaluation (ICE) policies and procedures represent a traceable and transparent procedure to streamline the evaluation of intersection control alternatives, and further leverage safety advancements for intersection improvements beyond just the safety program. Approximately one-third of all traffic fatalities and roughly seventy five percent of all traffic crashes in Georgia occur at or adjacent to intersections. Accordingly, the Georgia SHSP includes an emphasis on enhancing intersection safety to advance the *Toward Zero Deaths* vision embraced by the Georgia Governor's Office of Highway Safety (GOHS). This ICE tool was developed to support the ICE policy, developed and adopted to help ensure that intersection investments across the entire Georgia highway system are selected, prioritized and implemented with defensible benefits for safety towards those ends.

Tool Goal: The goal of this ICE tool is to provide a simplified and consistent way of importing traffic, safety, cost, environmental impact and stakeholder posture data to assess and quantify intersection control improvement benefits. The tool supports the ICE policy and procedures to provide traceability, transparency, consistency and accountability when identifying and selecting an intersection control solution that both meets project purpose and reflects overall best value in terms of specific performance-based criteria.

Requirements: An ICE is required for any intersection improvement (e.g. new or modified intersection, widening/reconstruction or corridor project, or work accomplished through a driveway or encroachment permit that affects an intersection) where: **1)** the intersection includes at least one roadway designated as a State Route (State Highway System) or as part of the National Highway System; or **2)** the intersection will be designed or constructed using State or Federal funding. In certain circumstances where an ICE would otherwise be required, the requirement may be waived based on appropriate evidence presented with a written request. (See the "**Waiver**" tab to review criteria that may make a project waiver eligible and for instructions to submit a waiver request to the Department). An ICE is not required when the proposed work does not include any changes to the intersection design, involves only routine traffic signal timing and equipment maintenance, or for driveway permits where the driveway is not a new leg to an already existing intersection on either 1) a divided, multi-lane highway with a closed median and only right-in/right-out access or 2) an undivided roadway where the development is not required to construct left and/or right turn lanes (as per the Driveway Manual and District Traffic Engineer).

Two-Stage Process: A complete ICE process consists of two (2) distinct stages, and it is expected that the respective level of effort for completing both stages of ICE will correspond to the magnitude and complexity of the intersection. Prior to starting an ICE, the District Traffic Engineer and/or State Traffic Engineer should be consulted for advice on an appropriate level of effort. The Stage 1 and Stage 2 ICE forms are designed minimize required data inputs using drop-down menu choices and limiting text entry. All fields shaded grey include drop down menu choices and all fields shaded blue require data entry. All other cells in the worksheet are locked.

Stage 1: Screening Decision Record Stage 1 should be conducted early in the project development process and is intended to inform which alternatives are worthy of further evaluation in Stage 2. Stage 1 serves as a screening effort meant to *eliminate* non-competitive options and identify which alternatives merit further considerations based on their practical feasibility. Users should use good engineering judgement in responding to the seven policy questions by selecting "Yes" or "No" in the drop-down boxes. Alternatives should not be summarily eliminated without due consideration, and reasons for eliminating or advancing an alternative should be documented in the "Screening Decision Justification" column.

Stage 2: Alternative Selection Decision Record Stage 2 involves a more detailed and familiar evaluation of the alternatives identified in Stage 1 in order to support the selection of a preferred alternative that may be advanced to detailed design. Stage 2 data entry may require the use of external analysis tools to determine costs, operations and/or safety data that, combined with environmental and stakeholder posture data, form the basis of the ICE evaluation. A separate "CostEst" worksheet tab helps users develop pre-planning-level cost estimates for each Stage 2 alternative evaluated, and a separate Users Guide has been prepared to give guidance on Stage 1 and Stage 2 data entry. Once all data is entered, each alternative is scored and ranked, with the results reported at the bottom of the Stage 2 worksheet to inform on the best of the intersection controls evaluated for project recommendation.

Documentation: A complete ICE document consists of the combination of the outputs from either a completed and signed waiver form or both Stage 1 and Stage 2 worksheets (along with supporting costing and/or environmental documentation), to be included in the approved project Concept Report (or equivalent) or as a stand-alone document.

GDOT ICE STAGE 1: SCREENING DECISION RECORD

ICE Version 2.2 | Revised 12/01/2021

GDOT PI #	0017789
Project Location:	Waleska Rd @ 367 Waleska Rd
Existing Control:	Conventional (Minor Stop)
Prepared by:	Michael Baker
Date:	8/2/2022

Answer "Yes" or "No" to each policy question for each control type to identify which alternatives should be evaluated in the Stage 2 Decision Record; enter justification in the rightmost column

Note: Up to 5 alternatives may be selected and evaluated; Use this ICE Stage 1 to screen 5 or fewer alternatives to evaluate in Stage 2

	Intersection Alternative (see "Intersections" tab for detailed description of intersection/interchange type)	1. Does alternative address the project need in a balanced manner and in scale with the project?	2. Does alternative improve safety performance in terms of reducing severe crashes?	3. Does alternative incorporate safety, convenience and accessibility for pedestrians and/or bicyclists?	4. Does alternative improve (or preserve) traffic operations (congestion, delay, reliability, etc.)?	5. Does alternative appear feasible given the site characteristics, constrains & location context?	6. Does alternative appear feasible with respect to other project factors?	7. Overall feasible alternative (select alternative for further evaluation in Stage 2)?	**Screening Decision Justification:**
Unsignalized Intersections	Conventional (Minor Stop)	**No**	**No**	**No**	**No**	**No**	**No**	**Yes**	Current Intersection
	Conventional (All-Way Stop)	No	No	No	No	No	No	No	Mainline volumes too high
	Mini Roundabout	No	No	No	No	No	No	No	Low volumes on driveway, proximity to other intersections
	Single Lane Roundabout	No	No	No	No	No	No	No	Low volumes on driveway, proximity to other intersections
	Multilane Roundabout	No	No	No	No	No	No	No	Low volumes on driveway, proximity to other intersections
	RCUT (stop control)	No	No	No	No	No	No	No	Requires additional ROW for mainline median, extends limits of project
	RIRO w/down stream U-Turn	No	No	No	No	No	No	No	Unnessecary modification based on driveway volume and crash history
	High-T (unsignalized)	No	No	No	No	No	No	No	Unnessecary modification based on driveway volume and crash history
	Offset-T Intersections	No	No	No	No	No	No	No	T-intersection currently
	Diamond Interch (Stop Control)	No	No	No	No	No	No	No	not feasible for driveway
	Diamond Interch (RAB Control)	No	No	No	No	No	No	No	not feasible for driveway
	Add LT Lanes on SR 140 Add one RT Lane on SR 140	No	No	No	No	No	No	No	turn lane not warranted based on low drivewy volumes
	Other unsignalized (provide description):	No	No	No	No	No	No	No	
Signalized Intersections	Traffic Signal	No	No	No	No	No	No	No	Signal warrants not met
	Median U-Turn (Indirect Left)	No	No	No	No	No	No	No	Signal warrants not met
	RCUT (signalized)	No	No	No	No	No	No	No	Signal warrants not met
	Displaced Left Turn (CFI)	No	No	No	No	No	No	No	Signal warrants not met
	Continuous Green-T	No	No	No	No	No	No	No	Signal warrants not met
	Jughandle	No	No	No	No	No	No	No	Signal warrants not met
	Quadrant Roadway	No	No	No	No	No	No	No	Signal warrants not met
	Diamond Interch (Signal Control)	No	No	No	No	No	No	No	Signal warrants not met
	Diverging Diamond	No	No	No	No	No	No	No	Signal warrants not met
	Single Point Interchange	No	No	No	No	No	No	No	Signal warrants not met
	No LT Lane Improvements No RT Lane Improvements	No	No	No	No	No	No	No	
	Other Signalized (provide description):	No	No	No	No	No	No	No	N/A

= Intersection type selected for more detailed analysis in Stage 2 Alternative Selection Decision Record

GDOT INTERSECTION CONTROL EVALUATION (ICE) WAIVER FORM

ICE Version 2.2 | Revised 12/01/2021

Waiver Request - Level 1

In certain circumstances where an ICE would otherwise be required, an ICE may be waived based on appropriate evidence presented with a written request. Scenarios in which an ICE waiver request may be considered include:

1. Proposed improvements do not substantially alter the character of the intersection, and are considered minor in nature, such as extending existing turn lane(s) or modifying signal phasing at an existing traffic signal
2. The intersection consists of a public roadway intersecting a divided, multilane roadway where the access will be limited to a closed median with only right-in/right-out access that will operate acceptably; or
3. The intersection is along an undivided, two-lane roadway that will not be widened and meets the following criteria:
   - Low risk in terms of exposure (total intersection entering volume less than 1,000 vehicles /day)
   - Latest 5 years of crash history is not indicative of a crash problem (no discernible crash patterns coupled with low crash frequency and severity)
   - Layout has no unusual or undesirable geometric features (such as restricted sight distance)
   - The proposed changes are not expected to adversely affect safety

If only one alternative is determined to be feasible from the ICE Stage 1, then a waiver may be submitted in lieu of completing ICE Stage 2. The waiver must clearly explain why there is no other feasible alternative. A Waiver Form should also be submitted to document an agreed upon decision to select a preferred alternative other than the highest scoring alternative in Stage 2.

ICE waiver forms with supporting documentation should be submitted for approval to the Office of Traffic Operations or District Engineer (depending on Waiver level). Questions regarding the waiver process should be routed to the State Traffic Engineer.

Project Information:

Location:	Waleska Rd @ 367 Waleska Rd		
County:	Cherokee	GDOT PI # (or N/A):	0017789
GDOT District:	6 - Cartersville	Requested By:	City of Canton
Area Type:	Urban	Prepared By:	Michael Baker
Existing Intersection Control:	Conventional (Minor Stop)	Date:	8/2/2022
		Waiver Request Type:	GDOT PDP Project

Traffic and Operations Data:[1,2]

Intersection meets signal/AWS warrants?	Meets Signal Warrants	
Traffic Analysis Type:	Intersection Delay	
Existing Major Street Avg Daily Traffic (ADT):	1,950	
Existing Minor Street Avg Daily Traffic (ADT):	25 (Trip Gen)	
Analysis Period:	AM Peak	PM Peak
2028 Opening Yr Peak Hour Intersection Delay:		
2028 Opening Yr Peak Hour Intersection V/C:		
2048 Design Yr Peak Hour Intersection Delay:		
2048 Design Yr Peak Hour Intersection V/C:		

Crash Data (Required):[3]

Crash Type	Crash Data: Enter most recent 5 years of crash data	Crash Severity K*	A*	B*	C*	O	
	Angle	0	0	0	0	0	#DIV/0!
	Head-On	0	0	0	0	0	#DIV/0!
	Rear End	0	0	0	0	0	#DIV/0!
	Sideswipe - same	0	0	0	0	0	#DIV/0!
	Sideswipe - opposite	0	0	0	0	0	#DIV/0!
	Not Collision w/Motor Veh	0	0	0	0	0	#DIV/0!
	TOTALS:	0	0	0	0	0	0

* Number of crashes resulting in injuries / fatalities, not number of persons

Description of Work / Justification for Waiver (Required):	There are no crashes at this driveway and volumes in/out are expected to be low due to office size. This project will not substantially alter the character or change the footprint of this intersection.
Proposed Intersection Control:	Conventional (Minor Stop)

REQUESTED BY: Mary Eades Date: 9/7/2022

Title: Traffic Engineer

APPROVED BY: Digitally signed by Alan Davis DN: C=US, E=aladavis@dot.ga.gov, O=Georgia Department of Transportation, OU=Traffic Operations, CN=Alan Davis Date: 2022.10.20 11:19:13-04'00' Date:

Name:

Chief Engineer or (Approved Delegate)

[1] *Analysis data input on this worksheet is for proposed control & configuration on form, not the No-Build data shown on the top of Stage 2*

[2] *ADT's required if available (from data collected or nearest GDOT count station site); Capacity data optional unless needed to justify basis of the waiver request.*

[3] *Crash data (required for all existing intersections) must be entered here independent from Stage 2 worksheet inputs (not linked)*

GDOT INTERSECTION CONTROL EVALUATION (ICE) TOOL

ICE Version 2.2 | Revised 12/01/2021

GDOT PI#:	0017789	Request By:	City of Canton		
County:	Cherokee	GDOT District:	6 - Cartersville		
Major Road:	Waleska Rd	Road Class:	Local	Speed Limit:	35 mph
Crossing Road:	Texaco Dwy	Road Class:	Local	Speed Limit:	< 35 mph
Major Road Direction:	North/South	Area Type:	Urban		
Intersection Control:	Conventional (Minor Stop)	Project ID:			
Prepared By:	Michael Baker	Date:	8/2/2022		
Project Purpose:	Intersection Improvement				

Existing Data Year:	2022
Project Opening Year:	2028
Project Design Year:	2048
Annual Growth Rate:	1.8%
K Factor*:	7%

* K Factor = Proportion of average annual daily traffic occurring in the highest one hour of the day

APPROACH SPLITS:

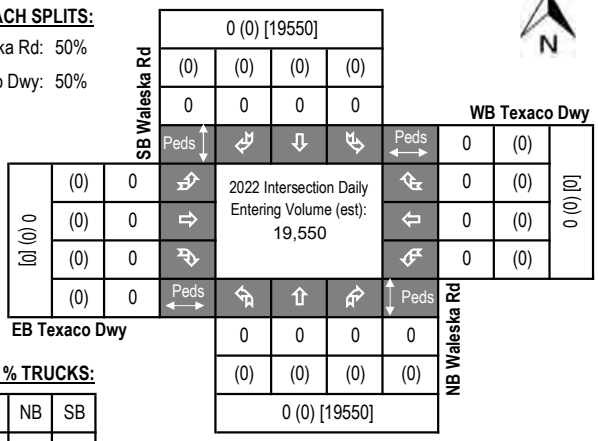
Waleska Rd: 50%

Texaco Dwy: 50%

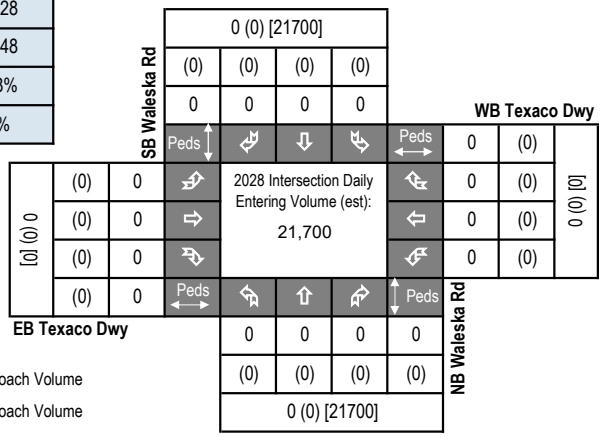
PEAK HR % TRUCKS:

EB	WB	NB	SB
0%	0%	0%	0%

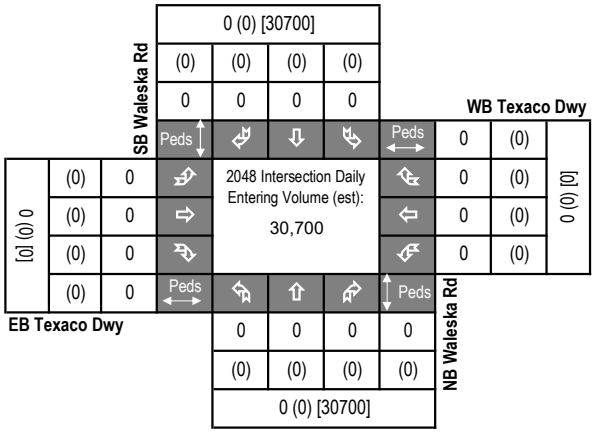
2022 EXISTING YEAR VOLUMES



2028 OPENING YEAR VOLUMES



2048 DESIGN YEAR VOLUMES



LEGEND:

000 = AM Peak Approach Volume

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Introduction: In 2005, SAFETEA-LU established the Highway Safety Improvement Program (HSIP) and mandated that each state prepare a Strategic Highway Safety Plan (SHSP) to prioritize safety funding investments. Intersections quickly became a common component of most states' SHSP emphasis areas and HSIP project lists, including Georgia's SHSP. Intersection Control Evaluation (ICE) policies and procedures represent a traceable and transparent procedure to streamline the evaluation of intersection control alternatives, and further leverage safety advancements for intersection improvements beyond just the safety program. Approximately one-third of all traffic fatalities and roughly seventy five percent of all traffic crashes in Georgia occur at or adjacent to intersections. Accordingly, the Georgia SHSP includes an emphasis on enhancing intersection safety to advance the *Toward Zero Deaths* vision embraced by the Georgia Governor's Office of Highway Safety (GOHS). This ICE tool was developed to support the ICE policy, developed and adopted to help ensure that intersection investments across the entire Georgia highway system are selected, prioritized and implemented with defensible benefits for safety towards those ends.

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Documentation: A complete ICE document consists of the combination of the outputs from either a completed and signed waiver form or both Stage 1 and Stage 2 worksheets (along with supporting costing and/or environmental documentation), to be included in the approved project Concept Report (or equivalent) or as a stand-alone document.

GDOT ICE STAGE 1: SCREENING DECISION RECORD

ICE Version 2.2 | Revised 12/01/2021

GDOT PI #	0017789
Project Location:	Waleska Rd @ Texaco Dwy
Existing Control:	Conventional (Minor Stop)
Prepared by:	Michael Baker
Date:	8/2/2022

Answer "Yes" or "No" to each policy question for each control type to identify which alternatives should be evaluated in the Stage 2 Decision Record; enter justification in the rightmost column

Note: Up to 5 alternatives may be selected and evaluated; Use this ICE Stage 1 to screen 5 or fewer alternatives to evaluate in Stage 2

	Intersection Alternative (see "Intersections" tab for detailed description of intersection/interchange type)	1. Does alternative address the project need in a balanced manner and in scale with the project?	2. Does alternative improve safety performance in terms of reducing severe crashes?	3. Does alternative incorporate safety, convenience and accessibility for pedestrians and/or bicyclists?	4. Does alternative improve (or preserve) traffic operations (congestion, delay, reliability, etc.)?	5. Does alternative appear feasible given the site characteristics, constrains & location context?	6. Does alternative appear feasible with respect to other project factors?	7. Overall feasible alternative (select alternative for further evaluation in Stage 2)?	**Screening Decision Justification:**
Unsignalized Intersections	Conventional (Minor Stop)	No	No	No	No	No	No	No	New median & extension of turn lanes @ signal, safety/delay concerns
	Conventional (All-Way Stop)	No	No	No	No	No	No	No	Mainline volumes too high
	Mini Roundabout	No	No	No	No	No	No	No	Proximity to signal not feasible
	Single Lane Roundabout	No	No	No	No	No	No	No	Proximity to signal not feasible
	Multilane Roundabout	No	No	No	No	No	No	No	Proximity to signal not feasible
	RCUT (stop control)	No	No	No	No	No	No	No	Proximity to signal not feasible
	RIRO w/down stream U-Turn	**Yes**	**Yes**	**No**	**No**	**No**	**No**	**Yes**	allows for fewer conflicts with SB traffic queueing at signal, in scope
	High-T (unsignalized)	No	No	No	No	No	No	No	Proximity to signal not feasible
	Offset-T Intersections	No	No	No	No	No	No	No	T-intersection currently
	Diamond Interch (Stop Control)	No	No	No	No	No	No	No	not feasible for driveway
	Diamond Interch (RAB Control)	No	No	No	No	No	No	No	not feasible for driveway
	Add LT Lanes on SR 140 Add one RT Lane on SR 140	No	No	No	No	No	No	No	Proximity to signal not feasible
	Other unsignalized (provide description):	No	No	No	No	No	No	No	
Signalized Intersections	Traffic Signal	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	Median U-Turn (Indirect Left)	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	RCUT (signalized)	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	Displaced Left Turn (CFI)	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	Continuous Green-T	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	Jughandle	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	Quadrant Roadway	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	Diamond Interch (Signal Control)	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	Diverging Diamond	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	Single Point Interchange	No	No	No	No	No	No	No	Signal warrants not met, proximity to existing signal not feasible
	No LT Lane Improvements No RT Lane Improvements	No	No	No	No	No	No	No	
	Other Signalized (provide description):	No	No	No	No	No	No	No	N/A

= Intersection type selected for more detailed analysis in Stage 2 Alternative Selection Decision Record

GDOT INTERSECTION CONTROL EVALUATION (ICE) WAIVER FORM

ICE Version 2.2 | Revised 12/01/2021

Waiver Request - Level 1

In certain circumstances where an ICE would otherwise be required, an ICE may be waived based on appropriate evidence presented with a written request. Scenarios in which an ICE waiver request may be considered include:

1. Proposed improvements do not substantially alter the character of the intersection, and are considered minor in nature, such as extending existing turn lane(s) or modifying signal phasing at an existing traffic signal
2. The intersection consists of a public roadway intersecting a divided, multilane roadway where the access will be limited to a closed median with only right-in/right-out access that will operate acceptably; or
3. The intersection is along an undivided, two-lane roadway that will not be widened and meets the following criteria:
   - Low risk in terms of exposure (total intersection entering volume less than 1,000 vehicles /day)
   - Latest 5 years of crash history is not indicative of a crash problem (no discernible crash patterns coupled with low crash frequency and severity)
   - Layout has no unusual or undesirable geometric features (such as restricted sight distance)
   - The proposed changes are not expected to adversely affect safety

If only one alternative is determined to be feasible from the ICE Stage 1, then a waiver may be submitted in lieu of completing ICE Stage 2. The waiver must clearly explain why there is no other feasible alternative. A Waiver Form should also be submitted to document an agreed upon decision to select a preferred alternative other than the highest scoring alternative in Stage 2.

ICE waiver forms with supporting documentation should be submitted for approval to the Office of Traffic Operations or District Engineer (depending on Waiver level). Questions regarding the waiver process should be routed to the State Traffic Engineer.

Project Information:

Location:	Waleska Rd @ Texaco Dwy		
County:	Cherokee	GDOT PI # (or N/A):	0017789
GDOT District:	6 - Cartersville	Requested By:	City of Canton
Area Type:	Urban	Prepared By:	Michael Baker
Existing Intersection Control:	Conventional (Minor Stop)	Date:	8/2/2022
		Waiver Request Type:	GDOT PDP Project

Traffic and Operations Data:[1,2]

Intersection meets signal/AWS warrants?	Meets Signal Warrants	
Traffic Analysis Type:	Intersection Delay	
Existing Major Street Avg Daily Traffic (ADT):	19,550	
Existing Minor Street Avg Daily Traffic (ADT):	700 (30% of Trip Gen)	
Analysis Period:	AM Peak	PM Peak
2028 Opening Yr Peak Hour Intersection Delay:		
2028 Opening Yr Peak Hour Intersection V/C:		
2048 Design Yr Peak Hour Intersection Delay:		
2048 Design Yr Peak Hour Intersection V/C:		

Crash Data (Required):[3]

Crash Type — Crash Data: Enter most recent 5 years of crash data	Crash Severity K*	A*	B*	C*	O	
Angle	0	0	0	0	3	50%
Head-On	0	0	0	0	0	0%
Rear End	0	0	0	1	1	33%
Sideswipe - same	0	0	0	0	0	0%
Sideswipe - opposite	0	0	0	0	0	0%
Not Collision w/Motor Veh	0	0	0	0	1	17%
TOTALS:	0	0	0	1	5	6

* Number of crashes resulting in injuries / fatalities, not number of persons

Description of Work / Justification for Waiver (Required):	With improvements at SR 140/SR 5 BU signal including extension of turn lanes and construction of median, consolidating the Texaco driveways to one larger driveway with RIRO access reduces conflict with southbound vehicles queueing at the signal. Vehicles will U-turn at Shoal Creek Road, and will still have full access to Texaco at driveway on SR 5 BU. RIRO improvements are in kind with Walgreens dwy and Hospital Rd improvements
Proposed Intersection Control:	RIRO w/down stream U-Turn

REQUESTED BY: Mary Eades Date: 9/7/2022

Title: Traffic Engineer

APPROVED BY: Digitally signed by Alan Davis DN: C=US, E=aladavis@dot.ga.gov, O=Georgia Department of Transportation, OU=Traffic Operations, CN=Alan Davis Date: 2022.10.20 11:19:59-04'00' Date:

Name:

Chief Engineer or (Approved Delegate)

[1] *Analysis data input on this worksheet is for proposed control & configuration on form, not the No-Build data shown on the top of Stage 2*

[2] *ADT's required if available (from data collected or nearest GDOT count station site); Capacity data optional unless needed to justify basis of the waiver request.*

[3] *Crash data (required for all existing intersections) must be entered here independent from Stage 2 worksheet inputs (not linked)*

GDOT INTERSECTION CONTROL EVALUATION (ICE) TOOL

ICE Version 2.2 | Revised 12/01/2021

GDOT PI#:	0017789	Request By:	City of Canton		
County:	Cherokee	GDOT District:	6 - Cartersville		
Major Road:	SR 140	Road Class:	Minor Arterial	Speed Limit:	45 mph
Crossing Road:	Mary Ln/Shoal	Road Class:	Local	Speed Limit:	< 35 mph
Major Road Direction:	North/South	Area Type:	Urban		
Intersection Control:	Conventional (Minor Stop)	Project ID:			
Prepared By:	Michael Baker	Date:	8/2/2022		
Project Purpose:	Intersection Improvement				

Existing Data Year:	2022
Project Opening Year:	2028
Project Design Year:	2048
Annual Growth Rate:	1.8%
K Factor*:	7%

* K Factor = Proportion of average annual daily traffic occurring in the highest one hour of the day

APPROACH SPLITS:

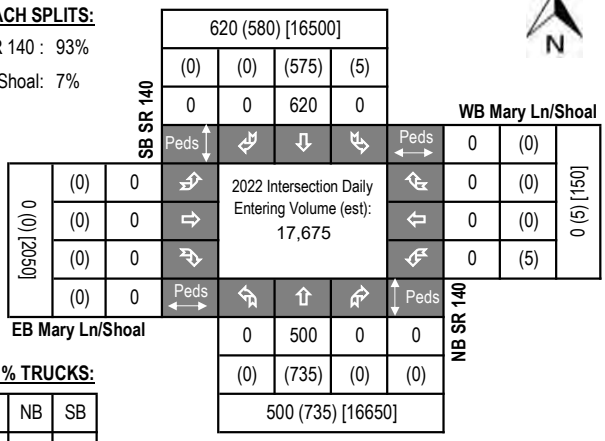
SR 140 : 93%

Mary Ln/Shoal: 7%

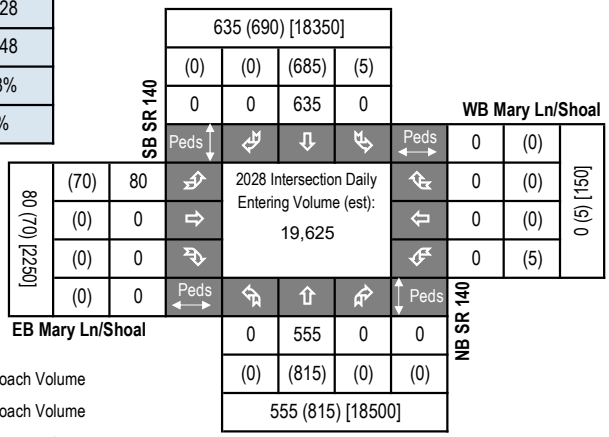
PEAK HR % TRUCKS:

EB	WB	NB	SB
0%	0%	6%	6%

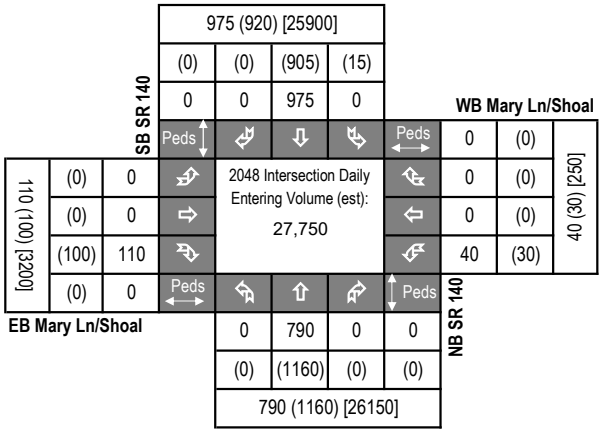
2022 EXISTING YEAR VOLUMES



2028 OPENING YEAR VOLUMES



2048 DESIGN YEAR VOLUMES



LEGEND:

000 = AM Peak Approach Volume

(000) = PM Peak Approach Volume

[000] = ADT Volume (Estimate)

Introduction: In 2005, SAFETEA-LU established the Highway Safety Improvement Program (HSIP) and mandated that each state prepare a Strategic Highway Safety Plan (SHSP) to prioritize safety funding investments. Intersections quickly became a common component of most states' SHSP emphasis areas and HSIP project lists, including Georgia's SHSP. Intersection Control Evaluation (ICE) policies and procedures represent a traceable and transparent procedure to streamline the evaluation of intersection control alternatives, and further leverage safety advancements for intersection improvements beyond just the safety program. Approximately one-third of all traffic fatalities and roughly seventy five percent of all traffic crashes in Georgia occur at or adjacent to intersections. Accordingly, the Georgia SHSP includes an emphasis on enhancing intersection safety to advance the *Toward Zero Deaths* vision embraced by the Georgia Governor's Office of Highway Safety (GOHS). This ICE tool was developed to support the ICE policy, developed and adopted to help ensure that intersection investments across the entire Georgia highway system are selected, prioritized and implemented with defensible benefits for safety towards those ends.

Tool Goal: The goal of this ICE tool is to provide a simplified and consistent way of importing traffic, safety, cost, environmental impact and stakeholder posture data to assess and quantify intersection control improvement benefits. The tool supports the ICE policy and procedures to provide traceability, transparency, consistency and accountability when identifying and selecting an intersection control solution that both meets project purpose and reflects overall best value in terms of specific performance-based criteria.

Requirements: An ICE is required for any intersection improvement (e.g. new or modified intersection, widening/reconstruction or corridor project, or work accomplished through a driveway or encroachment permit that affects an intersection) where: **1)** the intersection includes at least one roadway designated as a State Route (State Highway System) or as part of the National Highway System; or **2)** the intersection will be designed or constructed using State or Federal funding. In certain circumstances where an ICE would otherwise be required, the requirement may be waived based on appropriate evidence presented with a written request. (See the "**Waiver**" tab to review criteria that may make a project waiver eligible and for instructions to submit a waiver request to the Department). An ICE is not required when the proposed work does not include any changes to the intersection design, involves only routine traffic signal timing and equipment maintenance, or for driveway permits where the driveway is not a new leg to an already existing intersection on either 1) a divided, multi-lane highway with a closed median and only right-in/right-out access or 2) an undivided roadway where the development is not required to construct left and/or right turn lanes (as per the Driveway Manual and District Traffic Engineer).

Two-Stage Process: A complete ICE process consists of two (2) distinct stages, and it is expected that the respective level of effort for completing both stages of ICE will correspond to the magnitude and complexity of the intersection. Prior to starting an ICE, the District Traffic Engineer and/or State Traffic Engineer should be consulted for advice on an appropriate level of effort. The Stage 1 and Stage 2 ICE forms are designed minimize required data inputs using drop-down menu choices and limiting text entry. All fields shaded grey include drop down menu choices and all fields shaded blue require data entry. All other cells in the worksheet are locked.

Stage 1: Screening Decision Record Stage 1 should be conducted early in the project development process and is intended to inform which alternatives are worthy of further evaluation in Stage 2. Stage 1 serves as a screening effort meant to *eliminate* non-competitive options and identify which alternatives merit further considerations based on their practical feasibility. Users should use good engineering judgement in responding to the seven policy questions by selecting "Yes" or "No" in the drop-down boxes. Alternatives should not be summarily eliminated without due consideration, and reasons for eliminating or advancing an alternative should be documented in the "Screening Decision Justification" column.

Stage 2: Alternative Selection Decision Record Stage 2 involves a more detailed and familiar evaluation of the alternatives identified in Stage 1 in order to support the selection of a preferred alternative that may be advanced to detailed design. Stage 2 data entry may require the use of external analysis tools to determine costs, operations and/or safety data that, combined with environmental and stakeholder posture data, form the basis of the ICE evaluation. A separate "CostEst" worksheet tab helps users develop pre-planning-level cost estimates for each Stage 2 alternative evaluated, and a separate Users Guide has been prepared to give guidance on Stage 1 and Stage 2 data entry. Once all data is entered, each alternative is scored and ranked, with the results reported at the bottom of the Stage 2 worksheet to inform on the best of the intersection controls evaluated for project recommendation.

Documentation: A complete ICE document consists of the combination of the outputs from either a completed and signed waiver form or both Stage 1 and Stage 2 worksheets (along with supporting costing and/or environmental documentation), to be included in the approved project Concept Report (or equivalent) or as a stand-alone document.

GDOT ICE STAGE 1: SCREENING DECISION RECORD

ICE Version 2.2 | Revised 12/01/2021

GDOT PI #	0017789
Project Location:	SR 140 @ Mary Ln/Shoal
Existing Control:	Conventional (Minor Stop)
Prepared by:	Michael Baker
Date:	8/2/2022

Answer "Yes" or "No" to each policy question for each control type to identify which alternatives should be evaluated in the Stage 2 Decision Record; enter justification in the rightmost column

Note: Up to 5 alternatives may be selected and evaluated; Use this ICE Stage 1 to screen 5 or fewer alternatives to evaluate in Stage 2

	Intersection Alternative (see "Intersections" tab for detailed description of intersection/interchange type)	1. Does alternative address the project need in a balanced manner and in scale with the project?	2. Does alternative improve safety performance in terms of reducing severe crashes?	3. Does alternative incorporate safety, convenience and accessibility for pedestrians and/or bicyclists?	4. Does alternative improve (or preserve) traffic operations (congestion, delay, reliability, etc.)?	5. Does alternative appear feasible given the site characteristics, constrains & location context?	6. Does alternative appear feasible with respect to other project factors?	7. Overall feasible alternative (select alternative for further evaluation in Stage 2)?	**Screening Decision Justification:**
Unsignalized Intersections	Conventional (Minor Stop)	**Yes**	No	No	No	**Yes**	**Yes**	No	Delay over 500 seconds in both peak periods without turn lanes
	Conventional (All-Way Stop)	No	No	No	No	No	No	No	Too much traffic on major road
	Mini Roundabout	No	No	No	No	No	No	No	Roundabout impacts historical property along Mary lane
	Single Lane Roundabout	No	**Yes**	**Yes**	No	**Yes**	No	No	Roundabout impacts historical property along Mary lane
	Multilane Roundabout	No	**Yes**	**Yes**	No	No	No	No	Roundabout impacts historical property along Mary lane
	RCUT (stop control)	No	No	No	No	No	No	No	U-turn accomodation requires significantly more ROW, property impacts. No U-turn location for north
	RIRO w/down stream U-Turn	No	No	No	No	No	No	No	No downstream U-turn location for north side
	High-T (unsignalized)	No	No	No	No	No	No	No	Future intersection 4-legged
	Offset-T Intersections	No	No	No	No	No	No	No	Shoal Creek currently at offset position.
	Diamond Interch (Stop Control)	No	No	No	No	No	No	No	Not feasible given area
	Diamond Interch (RAB Control)	No	No	No	No	No	No	No	Not feasible given area
	Add LT Lanes on SR 140 Add one RT Lane on SR 140	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	Turn lanes improve operations without large historical impacts;
	Other unsignalized (provide description):	No	No	No	No	No	No	No	N/A
Signalized Intersections	Traffic Signal	**Yes**	No	**Yes**	No	**Yes**	No	No	Warrants not met.
	Median U-Turn (Indirect Left)	No	No	No	No	No	No	No	Warrants not met.
	RCUT (signalized)	No	No	No	No	No	No	No	Warrants not met.
	Displaced Left Turn (CFI)	No	No	No	No	No	No	No	Warrants not met.
	Continuous Green-T	No	No	No	No	No	No	No	Warrants not met.
	Jughandle	No	No	No	No	No	No	No	Warrants not met.
	Quadrant Roadway	No	No	No	No	No	No	No	Warrants not met.
	Diamond Interch (Signal Control)	No	No	No	No	No	No	No	Warrants not met.
	Diverging Diamond	No	No	No	No	No	No	No	Warrants not met.
	Single Point Interchange	No	No	No	No	No	No	No	Warrants not met.
	No LT Lane Improvements No RT Lane Improvements	No	No	No	No	No	No	No	Warrants not met.
	Other Signalized (provide description):	No	No	No	No	No	No	No	Warrants not met.

▭ = Intersection type selected for more detailed analysis in Stage 2 Alternative Selection Decision Record

GDOT INTERSECTION CONTROL EVALUATION (ICE) WAIVER FORM

ICE Version 2.2 | Revised 12/01/2021

Waiver Request - Level 1

In certain circumstances where an ICE would otherwise be required, an ICE may be waived based on appropriate evidence presented with a written request. Scenarios in which an ICE waiver request may be considered include:

1. Proposed improvements do not substantially alter the character of the intersection, and are considered minor in nature, such as extending existing turn lane(s) or modifying signal phasing at an existing traffic signal
2. The intersection consists of a public roadway intersecting a divided, multilane roadway where the access will be limited to a closed median with only right-in/right-out access that will operate acceptably; or
3. The intersection is along an undivided, two-lane roadway that will not be widened and meets the following criteria:
   - Low risk in terms of exposure (total intersection entering volume less than 1,000 vehicles /day)
   - Latest 5 years of crash history is not indicative of a crash problem (no discernible crash patterns coupled with low crash frequency and severity)
   - Layout has no unusual or undesirable geometric features (such as restricted sight distance)
   - The proposed changes are not expected to adversely affect safety

If only one alternative is determined to be feasible from the ICE Stage 1, then a waiver may be submitted in lieu of completing ICE Stage 2. The waiver must clearly explain why there is no other feasible alternative. A Waiver Form should also be submitted to document an agreed upon decision to select a preferred alternative other than the highest scoring alternative in Stage 2.

ICE waiver forms with supporting documentation should be submitted for approval to the Office of Traffic Operations or District Engineer (depending on Waiver level). Questions regarding the waiver process should be routed to the State Traffic Engineer.

Project Information:

Location: SR 140 @ Mary Ln/Shoal
County: Cherokee
GDOT District: 6 - Cartersville
Area Type: Urban
Existing Intersection Control: Conventional (Minor Stop)

GDOT PI # (or N/A): 0017789
Requested By: City of Canton
Prepared By: Michael Baker
Date: 10/7/2022
Waiver Request Type: GDOT PDP Project

Traffic and Operations Data:[1,2]

Intersection meets signal/AWS warrants?	None	
Traffic Analysis Type:	Intersection Delay	
Existing Major Street Avg Daily Traffic (ADT):	18,700	
Existing Minor Street Avg Daily Traffic (ADT):	2,050	
Analysis Period:	AM Peak	PM Peak
2028 Opening Yr Peak Hour Intersection Delay:	0.0 sec	0.0 sec
2028 Opening Yr Peak Hour Intersection V/C:	0.00	0.00
2048 Design Yr Peak Hour Intersection Delay:	497.2 sec	974.3 sec
2048 Design Yr Peak Hour Intersection V/C:	0.73	1.20

Crash Data (Required):[3]

Crash Type	Crash Data: Enter most recent 5 years of crash data	Crash Severity K*	A*	B*	C*	O	
	Angle	0	0	0	0	0	0%
	Head-On	0	0	1	0	0	50%
	Rear End	0	0	0	0	1	50%
	Sideswipe - same	0	0	0	0	0	0%
	Sideswipe - opposite	0	0	0	0	0	0%
	Not Collision w/Motor Veh	0	0	0	0	0	0%
	TOTALS:	0	0	1	0	1	2

* Number of crashes resulting in injuries / fatalities, not number of persons

Description of Work / Justification for Waiver (Required): Shoal Creek will be realigned w/Mary Rd to allow for space for SR 140 & SR 5 BU improvements. Turn lanes on SR 140 at Shoal Creek are necessary for improved operations; 1025 daily left turns to Shoal Creek exceeds min turn lane theshold. RCUT & RIRO not feasible here due to environmental & historical limits & excessive additional ROW/property impacts at Texaco required to accomodate u-turns. Worst movement delay reported above

Proposed Intersection Control: Add Turn Ln/Median (Unsig)

REQUESTED BY: Mary Eades, PE Date: 10/7/2022

Title: Traffic Engineer

APPROVED BY: Digitally signed by Alan Davis DN: C=US, E=aladavis@dot.ga.gov, O=Georgia Department of Transportation, OU=Traffic Operations, CN=Alan Davis Date: 2022.10.20 11:19:29-04'00' Date:

Name:

Chief Engineer or (Approved Delegate)

[1] *Analysis data input on this worksheet is for proposed control & configuration on form, not the No-Build data shown on the top of Stage 2*

[2] *ADT's required if available (from data collected or nearest GDOT count station site); Capacity data optional unless needed to justify basis of the waiver request.*

[3] *Crash data (required for all existing intersections) must be entered here independent from Stage 2 worksheet inputs (not linked)*

Prepared for:

Georgia Department of Transportation

MS4 Concept Report for

SR 140 at SR 5

PI 0017789

Cherokee County, Georgia
July 2022

Prepared By:
Aulick Engineering, LLC
1900 Century Place NE, Suite 305
Chamblee, GA 30345
770-880-8037

AULICK ENGINEERING LLC
STORMWATER | HYDRAULICS | EROSION CONTROL
AIRFIELD & CIVIL SITE | CONSTRUCTION SERVICES

Michael Baker
INTERNATIONAL

MS4 Concept Report Summary

P.I. Number: 0017789

PLE Evaluation

Attach the following checklist information to the Concept Report Template:

Is there a Project Level Exclusion that applies to this project: ☒ No ☐ Yes

If yes, please indicate which of the following exclusions apply:

☐ 1. Roadways that are not owned or operated (maintained) by GDOT may not require post-construction BMPs. Coordinate with the appropriate local government or entity to determine stormwater management requirements.

☐ 2. The project location is not within a designated MS4 area.

☐ 3. Maintenance and safety improvement projects whereby the sites are not connected and disturb less than one acre at each individual site. This includes projects such as repaving, bridge maintenance, maintenance projects that do not add impervious surface area, driveway access paving, shoulder paving and building, fiber optic line installation, sign addition, safety projects whereby the sites are not connected and the individual site disturbs less than one acre, and sound barrier installation.

☐ 4. Projects that have their environmental documents approved or right-of-way plans submitted for approval on or before June 30th, 2012.

☐ 5. Road projects that disturb less than 1 acre or for site development projects that add less than 5,000 ft^2 of impervious area **(Evaluate during Preliminary Design).**

☐ 6. Projects in MS4 areas added to GDOT's 2017 MS4 permit with concept approval (start of preliminary engineering) before January 3, 2018.

Concept Outfall Evaluation

Complete the tables below and include as an attachment to the Concept Report. Add additional rows, if necessary. It is understood that this information will be approximate based on available information at the time of the concept.

Drainage Area Summary		
Outfall	Pre-Development Area (Acres)	Post-Development Area (Acres)
1	0.25	0.25
2	0.67	0.67
3	0.61	0.61
4	5.95	5.62
5	0.53	0.53
6	1.70	1.59
7	1.29	0.86
8	2.32	1.92
9	1.05	2.54
10	3.44	3.19
11	0.54	0.63

Concept Level Judgement	
Outfall	Using a concept level judgement, is this outfall likely to have a structural BMP? *This will be finalized later in the design process.
1	No – negligible increase in impervious area
2	No – negligible increase in impervious area
3	No – negligible increase in impervious area
4	No – flows originate outside of GDOT R/W
5	No – decrease in impervious area
6	No – negligible increase in impervious area
7	No – negligible increase in impervious area
8	No – decrease in impervious area
9	Yes – Wet detention pond
10	No – negligible increase in impervious area
11	No – negligible increase in impervious area

In addition to the above charts, attach the Drainage Area Map (using existing topographic information) to the Concept Report.

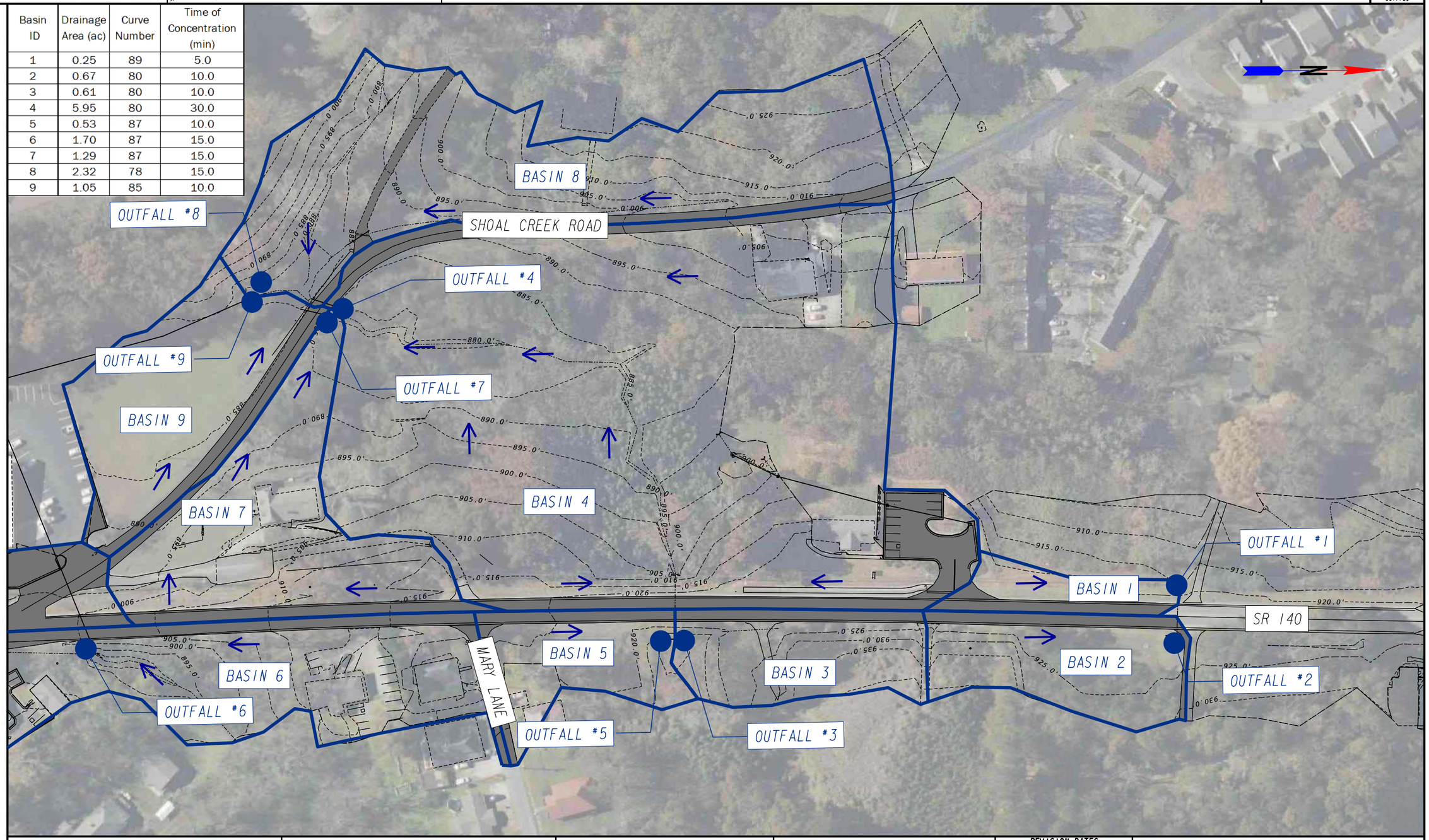
Things to consider while making this concept level judgement are:

- Discharges which exit right-of-way as sheet flow
- Flows that originate offsite
- Reduction or no change (or negligible increase) in impervious area
- Impact on a cultural / community resource
- Displacement of residence or business
- Violation of state or federal law (e.g. fill in a FEMA zone or structural BMP in the clear zone)

APPENDIX A

DRAINAGE AREA MAPS

Basin ID	Drainage Area (ac)	Curve Number	Time of Concentration (min)
1	0.25	89	5.0
2	0.67	80	10.0
3	0.61	80	10.0
4	5.95	80	30.0
5	0.53	87	10.0
6	1.70	87	15.0
7	1.29	87	15.0
8	2.32	78	15.0
9	1.05	85	10.0



DRAINAGE AREA TO STUDY POINT

EXISTING IMPERVIOUS AREA

Michael Baker INTERNATIONAL

ULICK ENGINEERING LLC
STORMWATER | HYDRAULICS | EROSION CONTROL
AIRFIELD & CIVIL SITE | CONSTRUCTION SERVICES

SCALE IN FEET
0 50 100 200

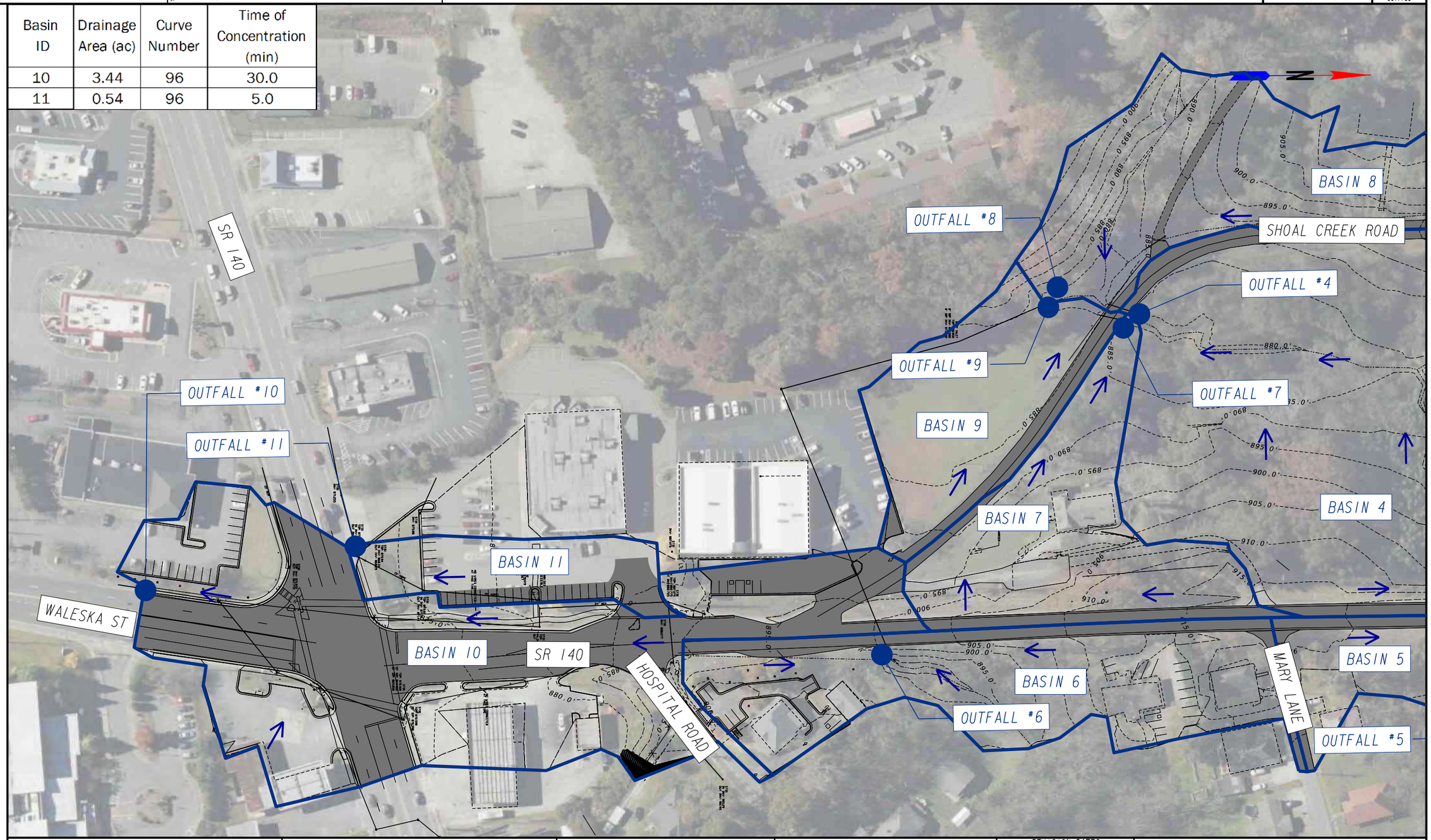
REVISION DATES

DRAINAGE AREA MAP
SR 140 @ SR 5

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		DAM EX-1
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

Basin ID	Drainage Area (ac)	Curve Number	Time of Concentration (min)
10	3.44	96	30.0
11	0.54	96	5.0



DRAINAGE AREA TO STUDY POINT

EXISTING IMPERVIOUS AREA

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AIRFIELD & CIVIL SITE | CONSTRUCTION SERVICES

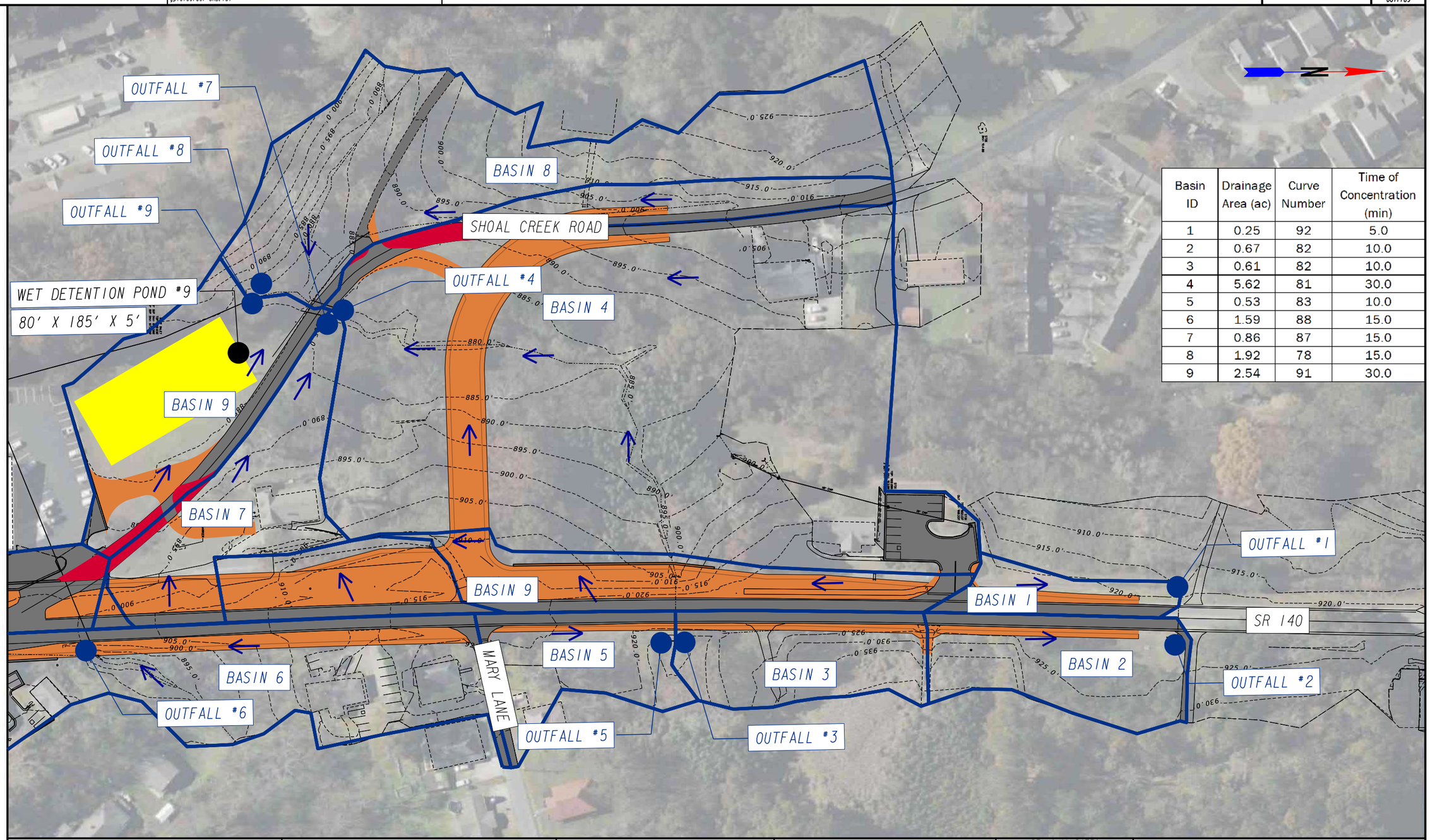
SCALE IN FEET
0 50 100 200

REVISION DATES

DRAINAGE AREA MAP
SR 140 at SR 5

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		DAM-EX 2
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN



Basin ID	Drainage Area (ac)	Curve Number	Time of Concentration (min)
1	0.25	92	5.0
2	0.67	82	10.0
3	0.61	82	10.0
4	5.62	81	30.0
5	0.53	83	10.0
6	1.59	88	15.0
7	0.86	87	15.0
8	1.92	78	15.0
9	2.54	91	30.0

DRAINAGE AREA TO STUDY POINT
EXISTING IMPERVIOUS AREA
PROPOSED IMPERVIOUS AREA
EXISTING IMPERVIOUS TO BE REMOVED

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SCALE IN FEET
0 50 100 200

REVISION DATES

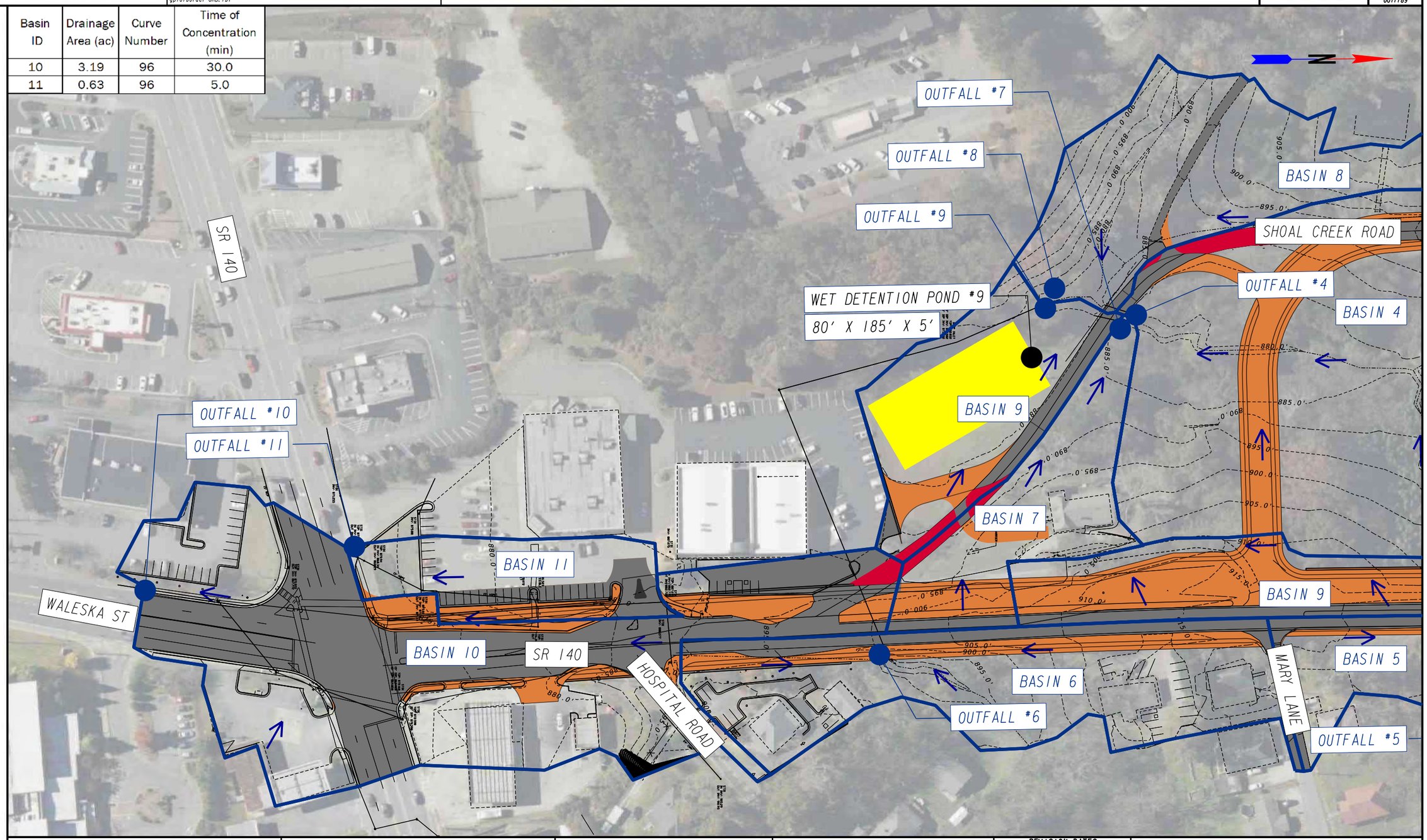
DRAINAGE AREA MAP
SR 140 at SR 5

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. DAM PR-1

10/23/2015 GPLN

Basin ID	Drainage Area (ac)	Curve Number	Time of Concentration (min)
10	3.19	96	30.0
11	0.63	96	5.0



DRAINAGE AREA TO STUDY POINT
EXISTING IMPERVIOUS AREA
PROPOSED IMPERVIOUS AREA
EXISTING IMPERVIOUS TO BE REMOVED

Michael Baker INTERNATIONAL

ULICK ENGINEERING LLC
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AIRFIELD & CIVIL SITE | CONSTRUCTION SERVICES

SCALE IN FEET
0 50 100 200

REVISION DATES

DRAINAGE AREA MAP
SR 140 at SR 5

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		DAM-PR 2
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN

PI# 00017789, Cherokee County – Draft Concept Team Meeting Minutes

Held via Microsoft Teams on 9/29/2022 @1:00pm. Prepared by: Paul Murphy, MBI

Keith Posey introduced the project

Bethany Watson introduced herself

Keith Posey gave an overview of the schedule and project

Paul Murphy delivered the PowerPoint presentation

Questions

David Roadway design "Do you have traffic numbers on the side roads, in particular, Shoal Creek Road and Mary Lane?"

Mary Eades responded with "Yes, for the design year Shoal Creek Road has 3,000 ADT and Mary Lane 250 ADT"

Office of traffic Ops Ron K "The shared-use path is shown as 8 feet, which is the minimum I believe, but recommended is 10 feet"

Dave Peters "According to AASHTO, State minimums are 10 feet, but you can go down to 8 feet for short distances. But there doesn't appear to have bike warrants"

Keith "We do have Cherokee High School, that would meet bike lane guidelines. Design policy states this is a "should" consider, whereas a warrant is a 'shall'"

Dave Peters "Keith, I believe that's correct. If there's a reason to not consider the bike lanes for a guideline, but if it was warranted, there would need to be a design variance."

Ron "If there's a bike path connecting to the project than the bike lane is warranted"

Bethany "There is not a bike path connecting the south end of this project"

Keith using google maps and street view clarified there is no existing bike path connected to this project, but there is a park south of the project. Cherokee High School is also nearby, which would make this project fall under the guidelines of a bike path.

Ron "Agreed, and may I recommend the path be 10' minimum, if at all possible?"

Paul "We'll try our best to meet that 10-foot minimum"

Chris is with District Traffic Ops "Can we taper down the NB lane to a single lane before Mary Lane?"

Bill Ruhsam "This is the first of many projects along this corridor to widen Waleska Road, which is why the footprint is shown the way it is."

Chris “Ok, we would still recommend that the lanes be striped to taper before Mary Lane if the footprint is maintained.”

Oladimeji “My other question is about operational analysis of Mary Lane and traffic queues. Were there other options considered by the ICE team?”

Mary Eades “Currently, there’s not much traffic on Mary Lane and the congestion seen in the model is from a soon to be built apartment complex. The complex is near the former hospital, which is east of the project. Currently, there are multiple options for that traffic to access Waleska Road, and that isn’t the goal of this project. Our main concern was reducing congestion on southbound SR 140.”

Oladimeji “Is cul-de-sacing Mary Lane an option, since there’s not many vehicles coming through there?”

Mary “That would be the desire, but I’ll defer to Paul.”

Paul “We considered it, but we’re currently planning on leaving access to Mary Lane.”

Oladimeji “Looking at the capacity analysis results, can you disclose the delay for the side roads?”

Mary “Aside from Mary Lane (the left turn from Mary Lane), every other side road improves with this design. Shoal Creek has a No-Build queue of 700 feet, which would only get worse by the design year. The queue is reducted to about 50 feet with the current design. There are similar results for the other side roads.

Oladimeji “Can you provide the LOS and the queueing of the side roads in the report?’

Mary “Yes, we can provide that.”

Bill “Mary Lane is a historic district, so removing access and cul-de-sacing Mary Lane would require significant impacts to the historic district and greatly increase our environmental impact.”

Oladimeji “There is an additional lane southbound that might cause issues. Can we taper both Northbound and Southbound lanes south of the Mary lane intersection.”

Paul “Yes, we can look into that.”

Laura Nesbitt “Is there a reason an R-cut has not been considered at Mary Lane and Shoals?”

Mary “Yes, we’ve looked at providing an R-cut at Mary Lane, but there are several problems with removing access. First, this intersection provides access to northbound SR 140 for Walgreens and doctors offices via Shoal Creek Road. Closing that access would require additional U-turns that would impact the Texaco gas station ”

Laura “Is the belief that you can’t U-turn at the signal?

Mary “That is correct. It is my understanding that additional right-of-way would be needed to allow for U-turns”

Laura “What was the design vehicle observed U-turning?”

Paul “I believe it was a Single Unit vehicle” (correction, the design vehicle is WB-40)

Laura “I would definitely like to see that design vehicle turning radius.”

Paul “We can provide that.”

Laura “Also, is there any connectivity between parcels 2 & 4, currently?”

Paul “There is in the back of the property.”

Laura “Are you closing the driveway from SR 140 to Parcel 4 to relocate it around with this driveway.”

Paul “Yes, driveway access to SR 140 is eliminated with this concept.”

Bethany “To clarify, there is no current driveway access to SR 140 for parcel 4., It’s access is off of Shoal Creek Road.”

Laura “I was just curious how the district feels about an R-cut at that intersection?”

Chris “I would say that it would create some access challenges with U-turning traffic. I think reducing the crossing lanes would mitigate my concerns until SR 140 is widened. We can revisit an R-cut at a later date.”

Bill “There would also have to be a U-turn to the north to provide access with an R-cut.”

Chris “Without a history of accidents at Mary Lane, I don’t feel an R-cut is worth the access issues it would create.”

Laura “As long as the ICE can reflect the tapers and the adjusted traffic volumes, I believe it will be clear.”

Keith “Laura is this something you want to see before the concept report is submitted to design policy for the official GDOT review, or can it be done concurrently?

Laura “ICE documentation is supposed to be submitted prior to concept report submittal, so if you have any ICE waivers, they can be signed prior to concept approval.

Chris “It also greatly reduces the chances of being rejected by traffic ops once it’s officially submitted.

Keith “Yes, Chris, I remember that as well. I understand what you and Laura are saying.”

Mary “One more question for Laura, so Laura we had resubmitted the ICE based on our conversations on the R-cut, so I was wondering what else you need from us, as I thought we had already addressed the R-cut discussion?”

Chris “Laura might chime in, but it all depends on how the ICE is coming out. Any waivers are signed off by traffic ops before concept. If you couldn’t explain away requiring stage 2 of an R-cut, then you would need a waiver.”

Mary “Ok, I just wanted to avoid any further delay to the project. I believe we submitted a couple of versions where we were going to stage 2 with a waiver based on the comments we received, so I just wanted to make sure you we’re good to move forward.

Laura “We are looking at that currently, but we were waiting until this meeting to see if the waiver was still eligible. We’ll be discussing with the team and getting back to you.

Keith “Laura, just to clarify, do you need any additional info for traffic ops to meet and discuss?”

Laura “So technically the traffic numbers did not reflect the realignment, so would you want the introduction tab to show the realignment volumes on separate sheets.”

Mary “when you say realignment volumes, do you mean the traffic forecast?”

Laura “Yes”

Mary “The build traffic forecast was included in the ICE submittal.

Laura “If you could attach that to your ICE waiver document that would be helpful.”

Mary “Ok. I’ll just resend you the whole package again. The last submittal we provided had everything attached there, so I’ll send that right now.”

Keith “Thanks, Mary. It’s good to make sure we’re all on the same page”

Keith “Any other questions?”

Jun “I have one on page 8. It says GDOT is to handle utility coordination. It should say locals.”

Keith “Yes, we agree. That was one of the OPD comments.”

Jun “Since this is a State Route, make sure the utility owners submit their permits through our office. If there’s reimbursable utilities, the agreement will have to be between the local government and the utility companies. You will also need to provide the request certification, which will be included with the ”Buy American” clause. Did you have any questions in regards to that?”

Felecia “ No ma’am. We’ll handle it, eventually.

Daniel “Jun, what about the utility cost?”

Jun “This is local. The locals will provide that to the PM and the PM will provide it to us and then give concurrence that the estimate looks reasonable.”

Keith “In the concept report there will be a concept estimate report. Do you want me to send you the costs before the concept report is submitted?”

Jun “Yes.”

Keith “If no other questions, Michael Baker will draft up the meeting minutes and there will be a week to review those meeting minutes. Thank you all.

Note: The LAP Team in the Office of Program Delivery provided review comments for the LSCR post CTM and MBI will address those comments in the LSCR as part of the CTM.

Action Items

The ICE resubmittal (Mary Eades)

Responses to LAP Team LSCR comments (Paul Murphy)

Concept layout adjustments (lane tapers both NB and SB south of Mary Lane) (Paul Murphy)

Utility Concept Cost estimate (Keith Posey)

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