

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 0013367

OFFICE Design Policy & Support

Forsyth County

GDOT District 1 - Gainesville

DATE 2/6/2015

US 19/SR 400 Widening from CR 458/McFarland

Parkway to SR 369/Brown's Bridge Road

FROM  for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

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

Attachment

DISTRIBUTION:

Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Darryl Vanmeter, State Innovative Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Ben Rabun, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Richard Cobb, Statewide Location Bureau Chief
Brent Cook, District Engineer
Brandon Kirby, District Preconstruction Engineer
Neil Kantner, District Utilities Engineer
Andrew Hoening, Project Manager
BOARD MEMBER - 7th Congressional District

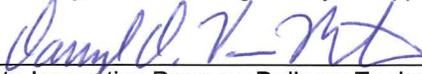
**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT**

| | | | |
|-----------------------|-----------------|---------------------|----------------|
| Project Type: | <u>Widening</u> | P.I. Number: | <u>0013367</u> |
| GDOT District: | <u>6</u> | County: | <u>Forsyth</u> |
| Federal Route Number: | <u>19</u> | State Route Number: | <u>400</u> |
| | Project Number: | <u>N/A</u> | |

US 19/SR 400 Widening From CR 458 / McFarland Parkway to SR 369 / Brown's Bridge Road

Submitted for approval:

 1/21/15
Brent Story, Office of Design Policy & Support Date

 1/23/15
State Innovative Program Delivery Engineer Date

 01/23/2015
GDOT Project Manager Date

Recommendation for approval:

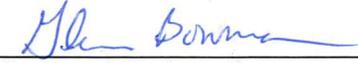
 1/23/2015
State Environmental Administrator Date

 1/23/2015
State Bridge Engineer Date

- 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).

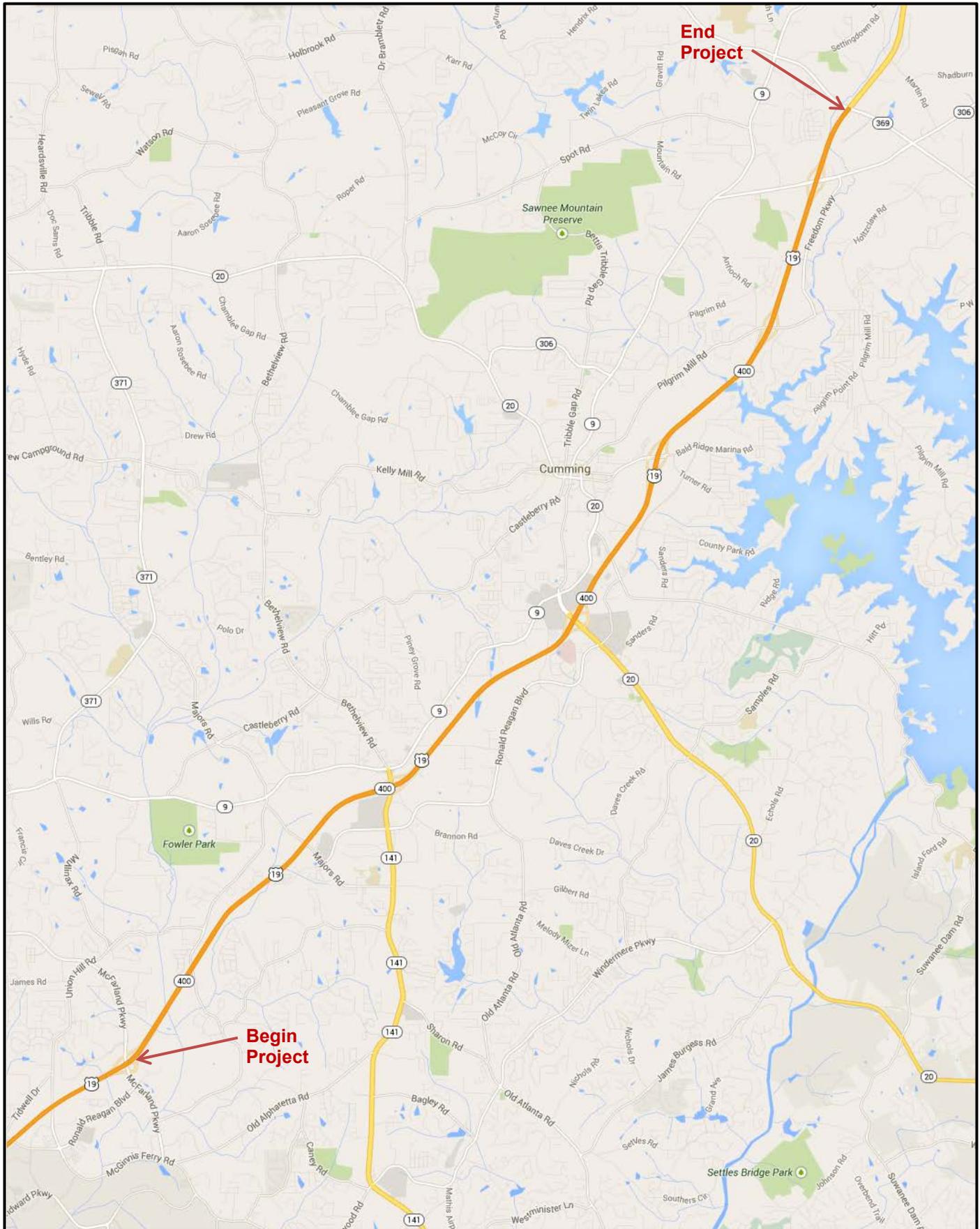
 1-23-15
State Transportation Planning Administrator Date

Approval:

Concur:  1/26/2015
GDOT Director of Engineering Date

Approve:  1.27.15
GDOT Chief Engineer Date

Project Location Map:



County: Forsyth

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

Warrants met: None Bicycle Pedestrian Transit

GRTA Express Bus Route 400 services a Park and Ride Lot adjacent to SR 400 between North Old Atlanta Road and SR 20. No accommodations are needed to SR 400.

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required? No Yes
 Preliminary Pavement Type Selection Report Required? No Yes
 Feasible Pavement Alternatives: HMA PCC HMA & PCC

DESIGN AND STRUCTURAL

Description of Proposed Project: This project proposes to construct one additional 11 foot travel lane, 10 foot inside shoulder (of which 8 feet would be paved), and 11 foot paved outside shoulder in each direction on US 19/SR 400, from the McFarland Parkway interchange north to SR 369 / Brown’s Bridge Road. The project length would be approximately 13.4 miles. The construction of the additional lanes and inside shoulder would take place in the existing median of US 19/SR 400.

Major Structures in the Project Corridor That Would Require Improvements:

| Structure ID | Description | Existing | Proposed |
|--------------|---------------------------------------|-------------------------------------|------------------|
| 117-0024-0 | US 19/SR 400 NB Bridge @ Big Creek | 200 ft x 44.2 ft Suff Rtg: 69.20 | 200 ft x 60.5 ft |
| 117-0025-0 | US 19/SR 400 SB Bridge @ Big Creek | 200 ft x 44.2 ft Suff Rtg: 69.20 | 200 ft x 60.5 ft |
| 117-0027-0 | US 19/SR 400 NB Bridge @ Sawnee Creek | 275 ft x 44.0 ft Suff Rtg: 78.90 | 275 ft x 60.3 ft |
| 117-0028-0 | US 19/SR 400 SB Bridge @ Sawnee Creek | 275 ft x 44.1 ft Suff Rtg: 78.90 | 275 ft x 60.3 ft |

Major Structures in the Project Corridor That Would Not Require Improvements:

| Structure ID | Description | Existing | Proposed |
|--------------|---|---------------------------------|-----------|
| 117-0042-0 | CR 458/McFarland Road Bridge | 310 ft x 118.1 ft | Unchanged |
| 117-0011-0 | CR 53/Shiloh Road Bridge | 392 ft x 32.2 ft | Unchanged |
| 117-0026-0 | US 19/SR 400 @ Bagley Creek Tributary Culvert | 341 ft x Double 6 ft x10 ft | Unchanged |
| 117-0007-0 | CR 19/Majors Road Bridge | 286 ft x 32.1 ft | Unchanged |
| 117-0013-0 | SR 141/Peachtree Parkway Bridge | 302 ft x 97.5 ft | Unchanged |
| 117-0006-0 | CR 17/Pendley Road Bridge | 326 ft x 34.1 ft | Unchanged |
| 117-0032-0 | CR 450/North Old Atlanta Road Bridge | 326 ft x 46.2 ft | Unchanged |
| 117-0008-0 | SR 20/Buford Road Bridge | 326 ft x 138 ft | Unchanged |
| 117-0035-0 | CR 85/Buford Dam Road Bridge | 347 ft x 46.3 ft | Unchanged |
| 117-0012-0 | CR 87/Mary Alice Park Road Bridge | 310 ft x 45.8 ft | Unchanged |
| 117-0039-0 | CR 460/Bald Ridge Marina Rd EB Bridge | 336 ft x 44.2 ft | Unchanged |
| 117-0040-0 | CR 460/Bald Ridge Marina Rd WB Bridge | 336 ft x 43.3 ft | Unchanged |
| 117-0044-0 | CR 97/Pilgrim Mill Road Bridge | 312 ft x 55.7 ft | Unchanged |
| 117-0014-0 | SR 306/Keith Bridge Road Bridge | 300 ft x 83.4 ft | Unchanged |
| 117-0029-0 | US 19/SR 400 @ Bald Ridge Creek Culvert | 435 ft x Triple 6 ft x 13 ft | Unchanged |

County: Forsyth

Mainline Design Features: US 19/SR 400 (Urban Freeway & Expressway)

| Feature | Existing | Standard* | Proposed |
|--|-----------------------------------|---|--|
| Typical Section | | | |
| - Number of Lanes | 4 | 4-6 | 5-6 (2-3 lanes SB, 3 lanes NB) |
| - Lane Width(s) | 12 feet | 12 feet | 11-12 feet |
| - Median Width & Type | 64 foot rural (depressed-grassed) | Positive Barrier Separation for widths ≤ 52 feet. | 42 - 53 feet rural (depressed-grassed) |
| - Outside Shoulder or Border Area Width | 12 feet (10 feet paved) | 10 feet paved, min. | 12 feet (11 feet paved) |
| - Outside Shoulder Slope | 6% | 6% | 6% |
| - Inside Shoulder Width | 10 feet (4 feet paved) | 10 feet paved, min. | 10 feet (8 feet - paved) |
| Posted Speed | 65 mph | | 65 mph |
| Design Speed | 65 mph | 65 mph | 65 mph |
| Min Horizontal Curve Radius | 2864.79 feet | 1660 feet | Unchanged |
| Maximum Superelevation Rate | 4.9% | 6% | Unchanged |
| Maximum Grade | ≤ 4% | 4% | Unchanged |
| Minimum Vertical Clearance | ≥ 16.5 feet | 16.5 feet | Unchanged |
| Access Control | Full | Full | Full |
| Design Vehicle | WB-67 | WB-67 | WB-67 |
| Pavement Type | PCC/HMA [#] | HMA or PCC | PCC/HMA [#] |

*According to current GDOT design policy if applicable

[#] Existing pavement changes from PCC to HMA just north of the SR 306 interchange NB off ramp and SB on ramp.

Major Interchanges/Intersections:

- US 19/SR 400 @ CR 458/McFarland Parkway
- US 19/SR 400 @ SR 141/Peachtree Parkway
- US 19/SR 400 @ SR 20/Buford Road
- US 19/SR 400 @ CR 460/Bald Ridge Marina Road
- US 19/SR 400 @ CR 97/Pilgrim Mill Road
- US 19/SR 400 @ SR 306/Keith Bridge Road
- US 19/SR 400 @ SR 369 Browns Bridge Road

Lighting required: No Yes

Transportation Management Plan [TMP]: No Yes

If Yes: Project classified as: Non-Significant Significant

TMP Components Anticipated: TTC TO PI

Will Context Sensitive Solutions procedures be utilized? No Yes

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

- 11 foot lane width
- 8 foot paved inside shoulder

Design Variances to GDOT Standard Criteria anticipated:

None currently anticipated

County: Forsyth

VE Study anticipated: No Yes Completed – Date:

In accordance with GDOT Policy 2450-1 Value Engineering, A VE study is not required since this project is proposed to be contracted as a design-build project (Georgia Code Section 32-2-81).

UTILITY AND PROPERTY

Temporary State Route Needed: No Yes Undetermined

Railroad Involvement: None anticipated – No railroad lines exist within the project corridor.

Utility Involvements: None anticipated. Utilities Owners with utility facilities in the project corridor are listed in the attached Utility Cost Estimate

SUE Required: No Yes

Public Interest Determination Policy and Procedure recommended? No Yes

Right-of-Way: Existing width: 300 ft minimum. Proposed width: 300 ft minimum.
Required Right-of-Way anticipated: No Yes Undetermined

Easements anticipated: None Temporary Permanent Utility Other

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

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:

GEPA: **NEPA:** CE PCE

A Type B GEPA document is expected to be required for this project. Approval is anticipated by September, 2015.

MS4 Compliance – Is the project located in an MS4 area? No Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated:

- USACE 404 Nationwide or Regional Permit is currently anticipated.
- USACE 408 Permit may be needed,
- Noise impact calculations would be required if eligible historic resources are found in the project corridor.
- An Archeology survey/assessment may be required for any MS4 areas that are placed outside the roadway median/existing travel lanes.
- A stream buffer variance is not currently anticipated.
- A No-rise Certification is anticipated. FEMA review is not required.

Air Quality:

Is the project located in a PM 2.5 Non-attainment area? No Yes
 Is the project located in an Ozone Non-attainment area? No Yes
 Carbon Monoxide hotspot analysis: Required Not Required TBD

An air assessment for Carbon Monoxide and Ozone will be completed as per Georgia State Law requirements.

NEPA/GEPA Comments & Information: No additional comments

County: Forsyth

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Project Meetings:

12/23/2015 - GDOT internal schedule & scoping meeting.

| Project Activity | Party Responsible for Performing Task(s) |
|---|--|
| Concept Development | GDOT – Office of Design Policy & Support |
| Design | Design-Build Team |
| Right-of-Way Acquisition | Forsyth County - None Anticipated |
| Utility Relocation | Design-Build Team |
| Letting to Contract | GDOT – Office of Innovative Delivery |
| Construction Supervision | GDOT – Office of Construction |
| Providing Material Pits | Construction Contractor |
| Providing Detours | None Anticipated |
| Environmental Studies, Documents, & Permits | GDOT & Design-Build Team |
| Environmental Mitigation | GDOT & Design-Build Team |
| Construction Inspection & Materials Testing | GDOT |

Other coordination to date:

Project Cost Estimate and Funding Responsibilities:

| | Breakdown of PE | ROW | Reimbursable Utility | CST* | Environmental Mitigation | Total Cost |
|------------------|-----------------|----------------|----------------------|-------------------------|--------------------------|--------------|
| Funded By | N/A | Forsyth County | Forsyth County | GDOT/ Forsyth County | Forsyth County | |
| \$ Amount | \$0 | \$0 | \$0 | \$68,110,000 | \$0 | \$68,110,000 |
| Date of Estimate | N/A | N/A | 12/15/2014 | TBD | N/A | |

*CST Cost includes: Construction, Engineering and Inspection, & Contingencies.

Note: Forsyth County would provide \$53,000,000 and GDOT would provide \$10,000,000 in state funds for construction.

ALTERNATIVES DISCUSSION

Preferred Alternative: One additional NB and SB lane on US 19/SR 400 from McFarland Road to Bald Ridge Marina Road & one additional NB lane on US 19/SR 400 from Bald Ridge Marina Road to SR 369.

| | | | |
|---|------------|------------------------------|---------------------|
| Estimated Property Impacts: | 0 | Estimated Total Cost: | \$68,110,000 |
| Estimated ROW Cost: | \$0 | Estimated CST Time: | 18-24 months |
| Rationale: This alternative would increase capacity on US 19/SR 400. | | | |

No-Build Alternative: No improvements to US 19/SR 400

| | | | |
|---|------------|------------------------------|-----------------|
| Estimated Property Impacts: | 0 | Estimated Total Cost: | \$0 |
| Estimated ROW Cost: | \$0 | Estimated CST Time: | 0 months |
| Rationale: This alternative would not address current and future trip delays/travel times on US 19/SR 400. | | | |

Comments/Additional Information: US 19/SR 400 bridge widening @ Big Creek may affect the existing alignment of the Big Creek Greenway.

County: Forsyth

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Roadway Typical Section
3. Cost Estimates
4. Traffic diagrams
5. Bridge Inventory Reports
6. Meeting Minutes
7. Pavement Design

McFarland Pkwy

SR 400

Big Creek

Shiloh Rd.

Begin Project

SCALE IN FEET



Shiloh Rd.

SR 400

Bagley Creek

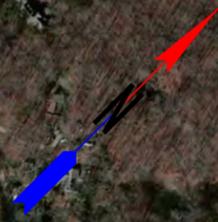


Majors Road

SR 400

Majors Road

SR 141 / Peachtree Pkwy

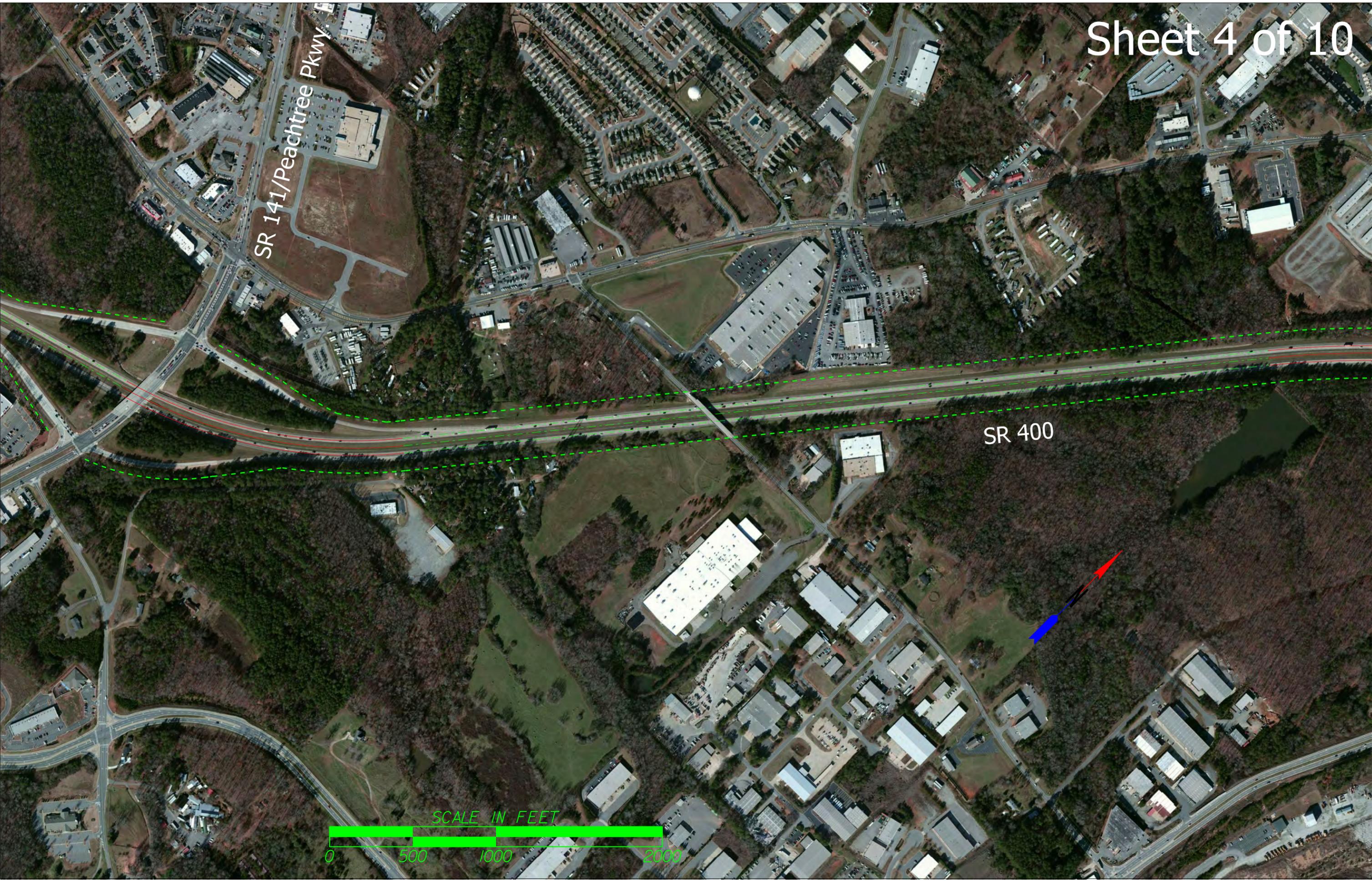


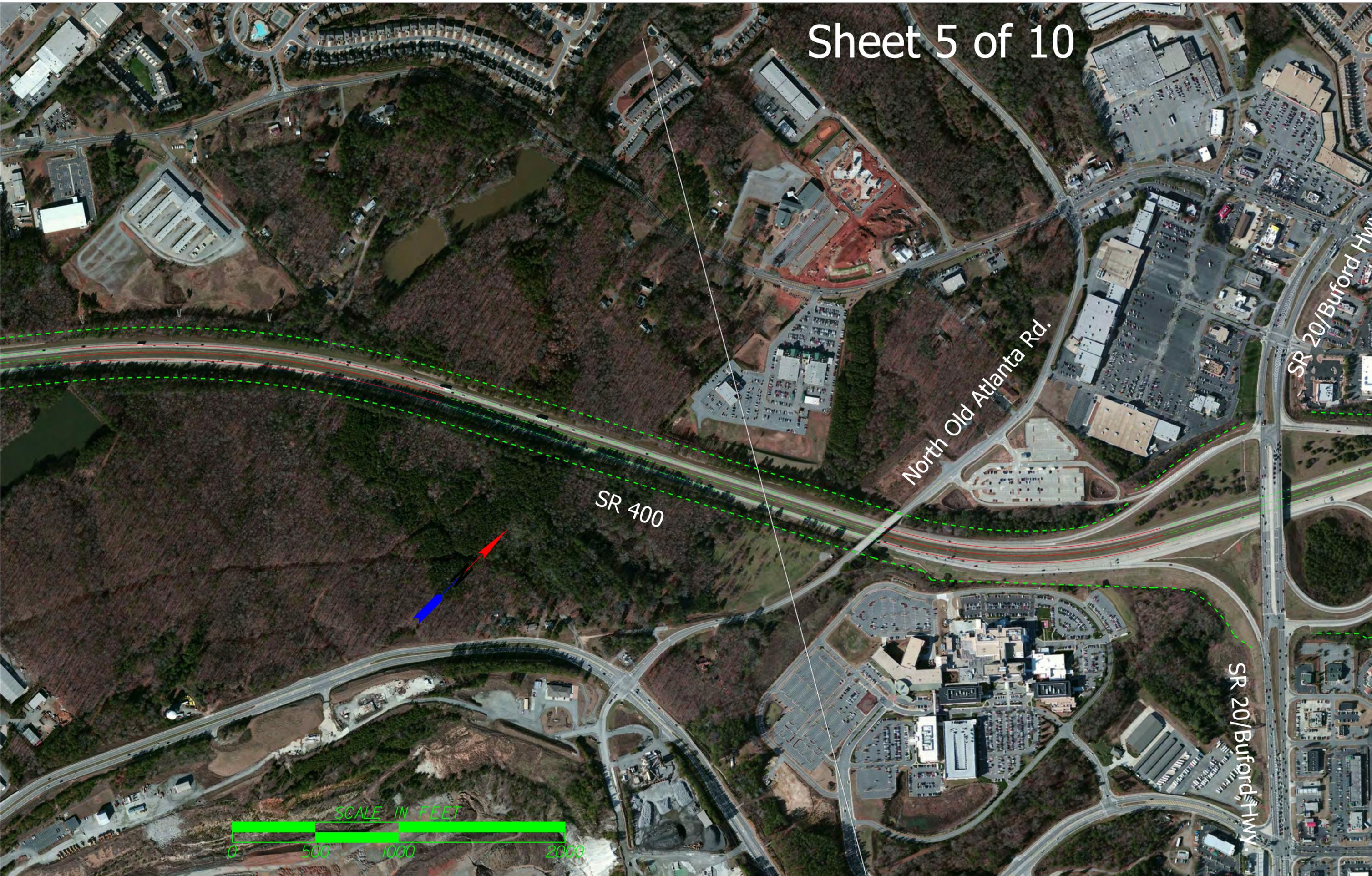
SCALE IN FEET



SR 141/Peachtree Pkwy.

SR 400





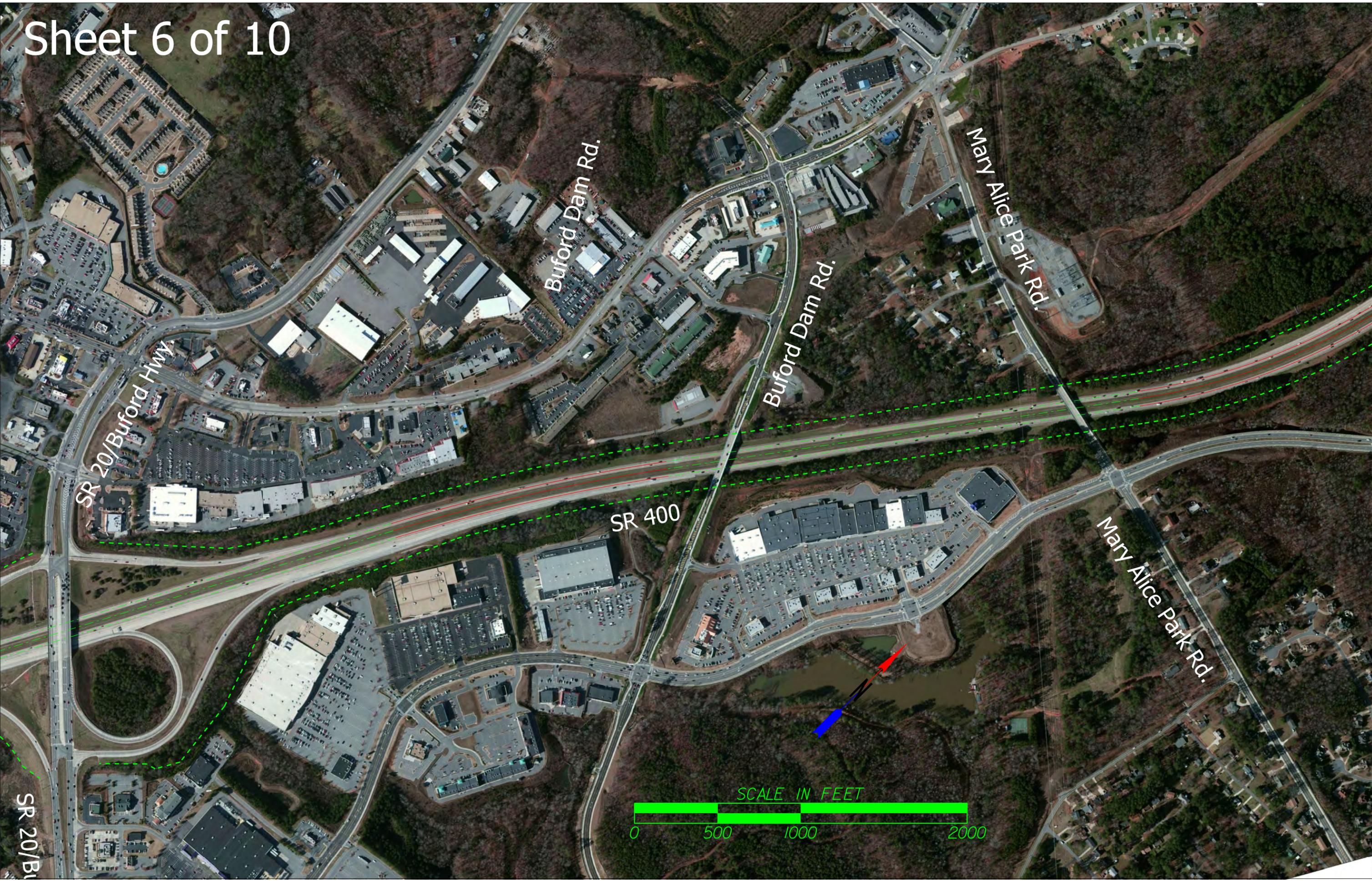
SR 400

North Old Atlanta Rd.

SR 20/Burford Hwy

SR 20/Burford Hwy





SR 20/Buford Hwy

Buford Dam Rd.

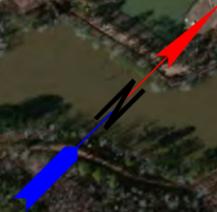
Buford Dam Rd.

Mary Alice Park Rd.

SR 400

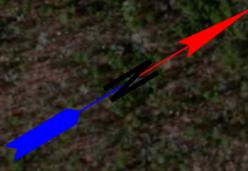
Mary Alice Park Rd.

SR 20/B



Bald Ridge Marina Rd.

SR 400



Sawnee Creek

Pilgrim Mill Rd.

SR 400

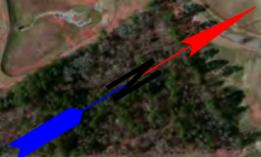
Pilgrim Mill Rd.

SCALE IN FEET



SR 308/Keith Bridge Rd.

SR 400



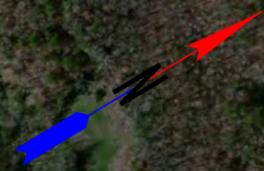
SCALE IN FEET



SR 369/Browns Bridge Rd.

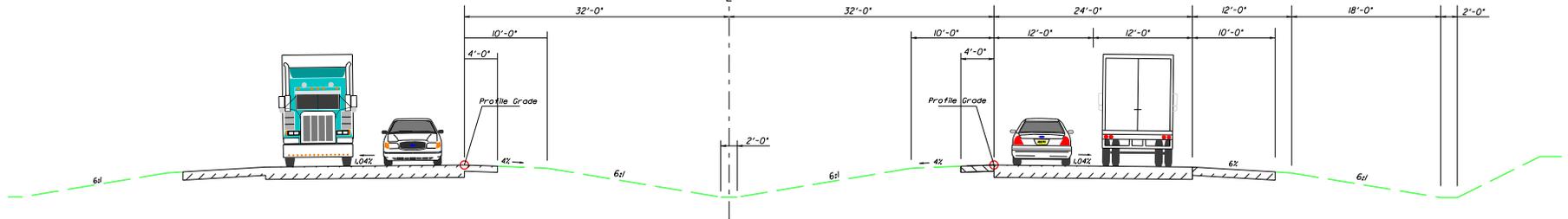
SR 400

End Project

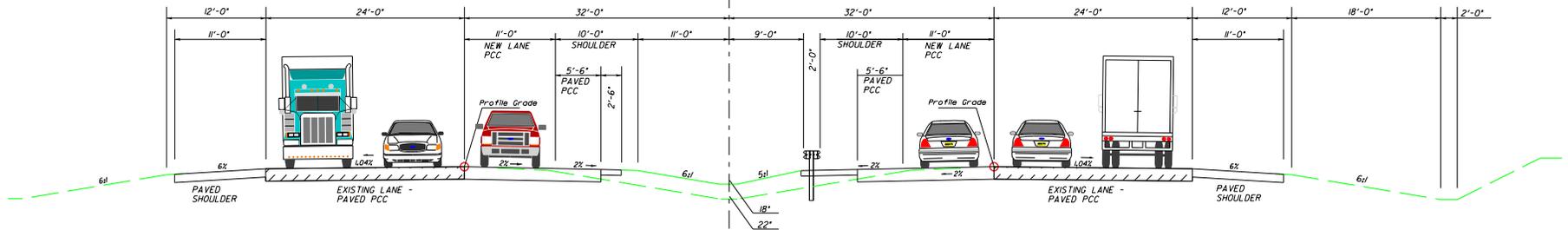


SR400 NORTH OF MCFARLAND PKWY.

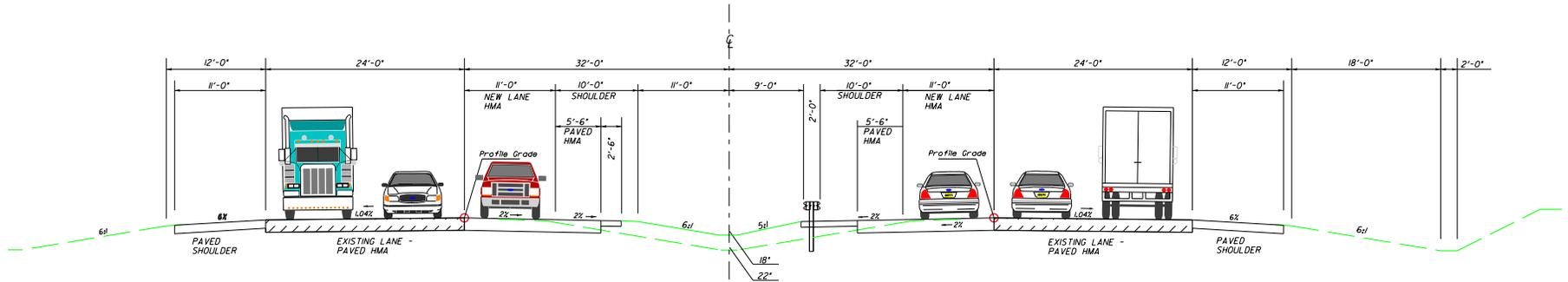
EXISTING



PROPOSED - SIX LANES



From CR 458/McFarland Parkway to SR 306/Keith Bridge Road.



From SR 306/Keith Bridge Road to SR 369/Browns Bridge Road.

Preliminary Cost Estimate:

Updated: January 23, 2015

PI# 0013367 Forsyth County - SR 400 Widening from McFarland Road to SR 369

Adding 1 11-foot travel lane in each direction from Mc Farland Road to SR 369, approximately 13.4 miles.

| Item No. | Units | Description | Quantity | Price/Unit | Amount |
|----------|-------|--------------------------------------|----------|----------------|----------------|
| | LS | Traffic Control | 9.50% | | \$4,720,000.00 |
| | LS | MS4 Compliance | 1 | \$480,000.00 | \$480,000.00 |
| 210-0100 | LS | Grading Complete | 1 | \$6,230,000.00 | \$6,230,000.00 |
| 153-1300 | LS | Field Engineer's Office | 1 | \$80,000.00 | \$80,000.00 |
| | LS | Adjust Drop Inlets to Grad | 192 | \$1,000.00 | \$200,000.00 |
| | LF | Remove Cable Barrier | 70752 | \$7.24 | \$520,000.00 |
| 620-0100 | LF | Temporary Median Barriers, Method #1 | 141504 | \$25.56 | \$3,620,000.00 |

| Structures - Widen Bridges to accommodate future build | | | | | |
|--|----|--|-------|----------|----------------|
| | SF | Structures, Bridge Widening (2 @ Big Creek) | 8800 | \$150.00 | \$1,320,000.00 |
| | SF | Structures, Bridge Widening (2 @ Sawnee Creek) | 12100 | \$150.00 | \$1,820,000.00 |

| New 11ft GP Lanes - from McFarland Pkwy to SR 306 | | | | | |
|---|----|---|--------|---------|-----------------|
| 310-5100 | SY | GR Aggr BS CRS 10 in incl Matl | 158752 | \$14.15 | \$2,250,000.00 |
| 439-0022 | SY | Plain PC Conc Pvmt, Class 3 Conc, 10 inch thick | 158752 | \$68.15 | \$10,820,000.00 |

| Inside Shoulders - Remove existing & replace with 5.5ft PCC + 2.5-4.5ft Asph + 2ft grass | | | | | |
|---|----|--|-------|---------|----------------|
| 610-2586 | SY | Remove 4ft Asphalt Shoulder | 57728 | \$1.91 | \$120,000.00 |
| 439-0018 | SY | Plain PC Conc Pvmt, Class 3 Conc, 8 inch thick | 79376 | \$52.00 | \$4,130,000.00 |
| 310-5080 | SY | GR Aggr BS CRS 8in incl Matl | 79376 | \$18.23 | \$1,450,000.00 |

| Inside Shoulders - Remove existing & replace with 5.5ft PCC + 2.5-4.5ft Asph + 2ft grass | | | | | |
|---|----|--|-------|---------|--------------|
| 402-3102 | TN | 1 1/4" Recycled Asph Conc 9.5mm Type II SP | 3552 | \$81.61 | \$290,000.00 |
| 402-3190 | TN | 2" Recycled Asph Conc 19mm SP | 5683 | \$70.96 | \$410,000.00 |
| 402-3121 | TN | 3" Recycled Asph Conc 25mm SP | 8524 | \$64.64 | \$560,000.00 |
| 310-5080 | SY | GR Aggr BS CRS 8in incl Matl | 50512 | \$18.23 | \$930,000.00 |

| Outside shoulders - remove existing 10ft asphalt & replace with 8in x 11ft RCC | | | | | |
|--|----|------------------------------------|--------|----------|----------------|
| 610-2586 | SY | Remove 10ft Asphalt Shoulder | 144320 | \$1.91 | \$280,000.00 |
| | CY | RCC Pavement (8in x 11ft Shoulder) | 35278 | \$165.00 | \$5,830,000.00 |
| 310-5080 | SY | GR Aggr BS CRS 8in incl Matl | 158752 | \$18.23 | \$2,900,000.00 |

| New 11ft GP Lanes - from SR 306 to SR 369 | | | | | |
|---|----|--------------------------------|-------|----------|--------------|
| 400-3206 | TN | 3/4" Asph Conc 12.5mm OGFC | 559 | \$123.14 | \$70,000.00 |
| 402-3600 | TN | 2" Recycl Asph Conc 12.5mm SP | 1597 | \$73.39 | \$120,000.00 |
| 402-3190 | TN | 2" Recycled Asph Conc 19mm SP | 1597 | \$70.96 | \$120,000.00 |
| 402-3121 | TN | 8" Recycled Asph Conc 25mm SP | 6389 | \$64.64 | \$420,000.00 |
| 310-5120 | SY | GR Aggr BS CRS 12 in incl Matl | 14197 | \$20.68 | \$300,000.00 |

| Inside Shoulders - Remove existing & replace with <u>5.5ft Full Depth Asph</u> + 2.5-4.5ft Asph + 2ft grass | | | | | |
|---|----|--------------------------------|------|---------|--------------|
| 610-2586 | SY | Remove 4ft Asphalt Shoulder | 5163 | \$1.91 | \$10,000.00 |
| 402-3113 | TN | 2" Recycl Asph Conc 12.5mm SP | 799 | \$73.39 | \$60,000.00 |
| 402-3190 | TN | 2" Recycled Asph Conc 19mm SP | 799 | \$70.96 | \$60,000.00 |
| 402-3121 | TN | 8" Recycled Asph Conc 25mm SP | 3194 | \$64.64 | \$210,000.00 |
| 310-5120 | SY | GR Aggr BS CRS 12 in incl Matl | 7099 | \$20.68 | \$150,000.00 |

| Inside Shoulders - Remove existing & replace with 5.5ft Full Depth Asph + <u>2.5-4.5ft Asph</u> + 2ft grass | | | | | |
|---|----|--|------|---------|-------------|
| 402-3102 | TN | 1 1/4" Recycled Asph Conc 9.5mm Type II SP | 318 | \$81.61 | \$30,000.00 |
| 402-3190 | TN | 2" Recycled Asph Conc 19mm SP | 508 | \$70.96 | \$40,000.00 |
| 402-3121 | TN | 3" Recycled Asph Conc 25mm SP | 762 | \$64.64 | \$50,000.00 |
| 310-5080 | SY | GR Aggr BS CRS 8in incl Matl | 4517 | \$18.23 | \$90,000.00 |

| Outside shoulders - remove existing 10ft asphalt & replace with 11ft full depth asph | | | | | |
|--|----|--------------------------------|-------|----------|--------------|
| 610-2586 | SY | Remove 10ft Asphalt Shoulder | 12907 | \$1.91 | \$30,000.00 |
| 400-3206 | TN | 3/4" Asph Conc 12.5mm OGFC | 559 | \$123.14 | \$70,000.00 |
| 402-3113 | TN | 2" Recycl Asph Conc 12.5mm SP | 1597 | \$73.39 | \$120,000.00 |
| 402-3190 | TN | 2" Recycled Asph Conc 19mm SP | 1597 | \$70.96 | \$120,000.00 |
| 402-3121 | TN | 8" Recycled Asph Conc 25mm SP | 6389 | \$64.64 | \$420,000.00 |
| 310-5120 | SY | GR Aggr BS CRS 12 in incl Matl | 14197 | \$20.68 | \$300,000.00 |

| Guardrail | | | | | |
|---|--------------------------|--|-------|---------|------------------------|
| 641-2200 | LF | DBL Faced Guardrail, Type W | 70752 | \$33.64 | \$2,390,000.00 |
| 402-3102 | TN | 1 1/4" Recycled Asph Conc 9.5mm Type II SP | 1106 | \$81.61 | \$100,000.00 |
| 402-3190 | TN | 2" Recycled Asph Conc 19mm SP | 1769 | \$70.96 | \$130,000.00 |
| 402-3121 | TN | 3" Recycled Asph Conc 25mm SP | 2653 | \$64.64 | \$180,000.00 |
| 310-5080 | SY | GR Aggr BS CRS 8in incl Matl | 15723 | \$18.23 | \$290,000.00 |
| ITEM SUBTOTAL | | | | | \$49,650,000.00 |
| Percentage based costs (based on item subtotal) | | | | | |
| EROCPTO | Erosion Control | | 5.0% | | \$2,490,000.00 |
| SIGNPCTO | Signing | | 1.0% | | \$500,000.00 |
| PVMKPCTO | Pavement Marking | | 2.5% | | \$1,250,000.00 |
| MISCPCTO | Miscellaneous Items | | 5.0% | | \$2,490,000.00 |
| BASE CONSTRUCTION SUBTOTAL | | | | | \$56,380,000.00 |
| Contingencies & other costs | | | | | |
| | Engineering & Inspection | | 5% | | \$2,820,000.00 |
| | Contingencies | | 15% | | \$8,880,000.00 |
| TOTAL | | | | | \$68,640,000.00 |

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE CSHPP-0007-00(526), **OFFICE** Planning
P.I. # 0007526
Forsyth/Fulton County **DATE** August 5, 2013

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

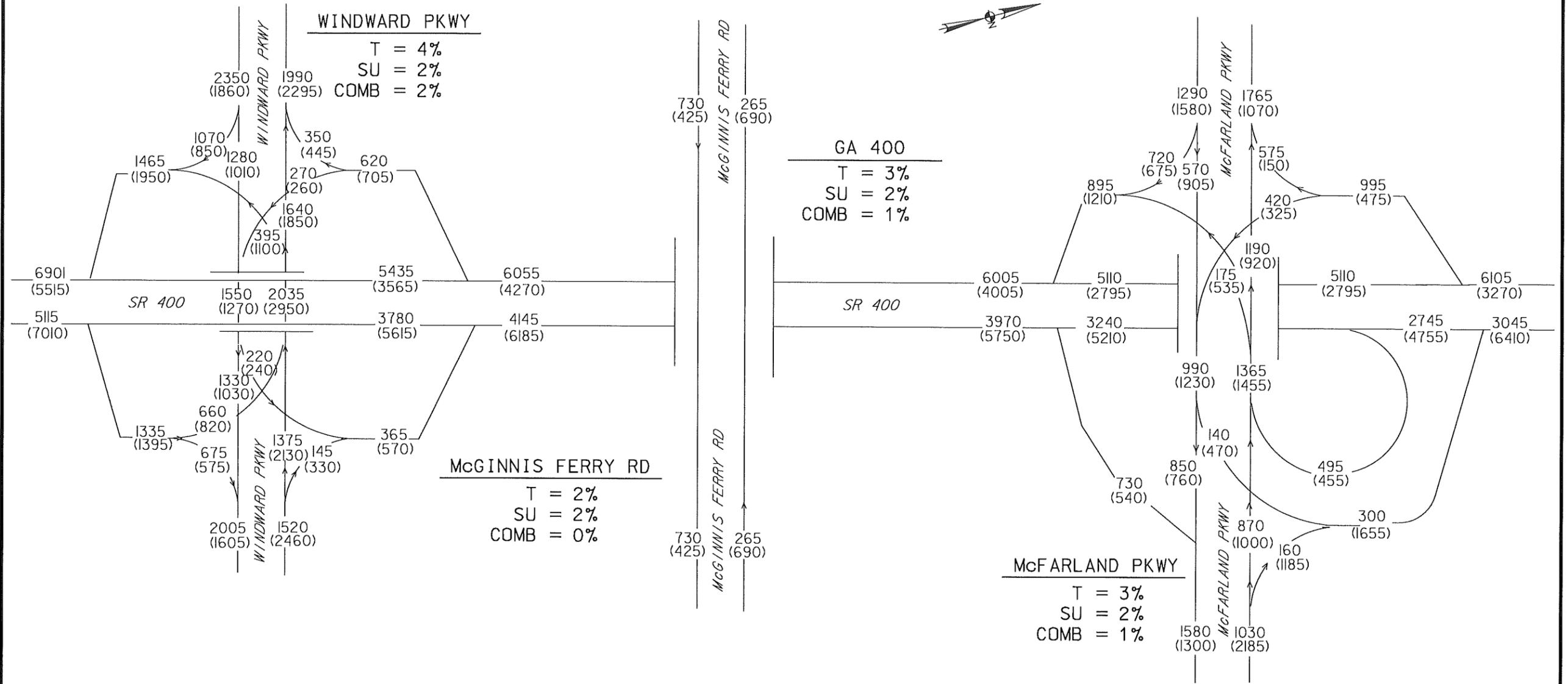
TO Genetha Rice-Singleton, State Program Delivery Design Engineer
Attention: Otis Clark

SUBJECT **Reviewed** Design Traffic for *SR 400 @ CR 41/CR 283/McGinnis Ferry Road*

We've done a final review on the consultant's Design Traffic for the above project.

The Design Traffic is approved based on the final information furnished. Any questions concerning this review should be addressed to Ms. Leslie R. Woods at e-mail lwoods2@dot.ga.gov or phone (404) 631-1773.

CLV/LRW



LEGEND
 00 AM PEAK HOUR
 (00) PM PEAK HOUR

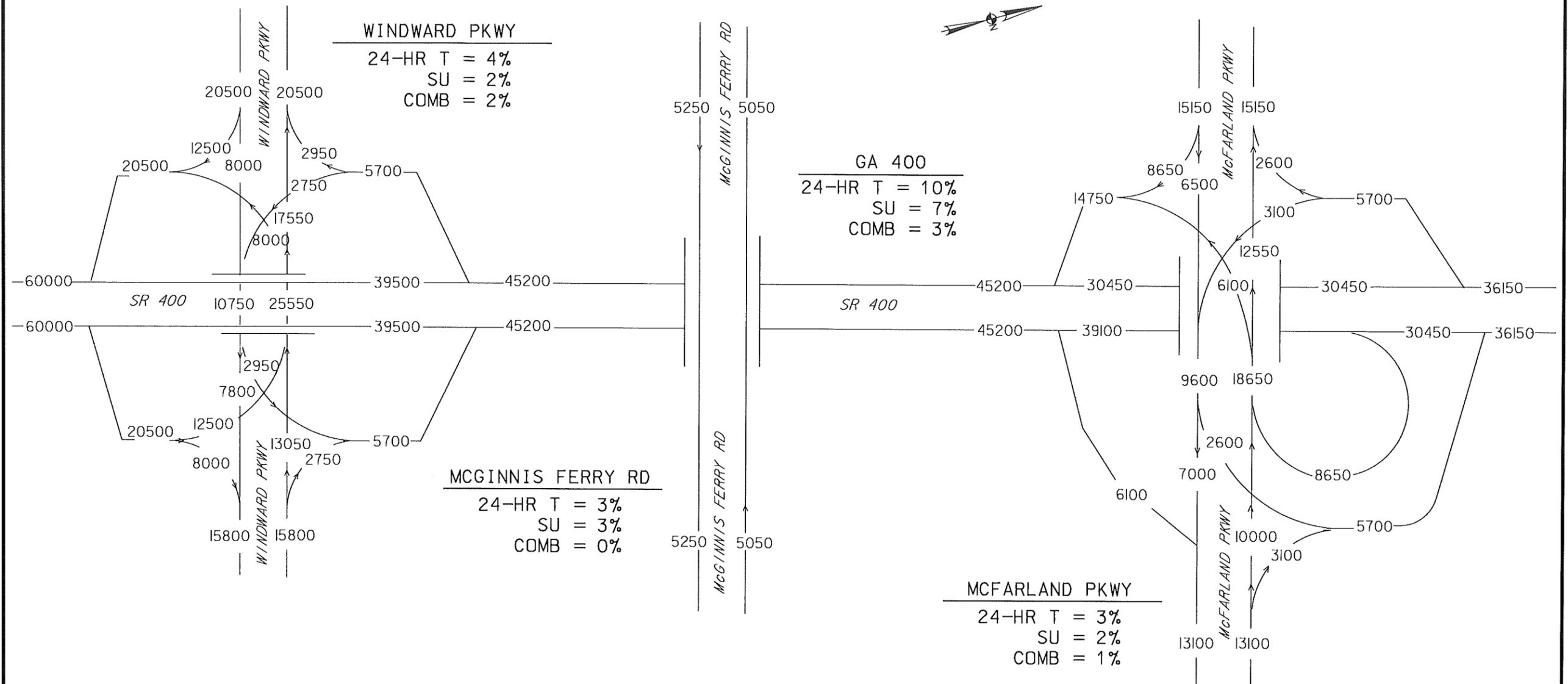
MA Moreland Altobelli Associates, Inc.
 2211 Beaver Run Road
 Suite 190
 Norcross, Georgia 30071
 Telephone (770) 263-5945

CSHPP-0007-00(526)
 P. I. No. 0007526
 FORSYTH & FULTON
 COUNTIES, GEORGIA

| REVISION DATES | | |
|----------------|--|--|
| | | |
| | | |
| | | |
| | | |

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
 TRAFFIC FLOW DIAGRAMS
 STATE ROUTE 400
 YEAR 2013 EXISTING
 PEAK HOUR TRAFFIC

DRAWING No.
10-002



LEGEND

OO AVERAGE DAILY TRAFFIC



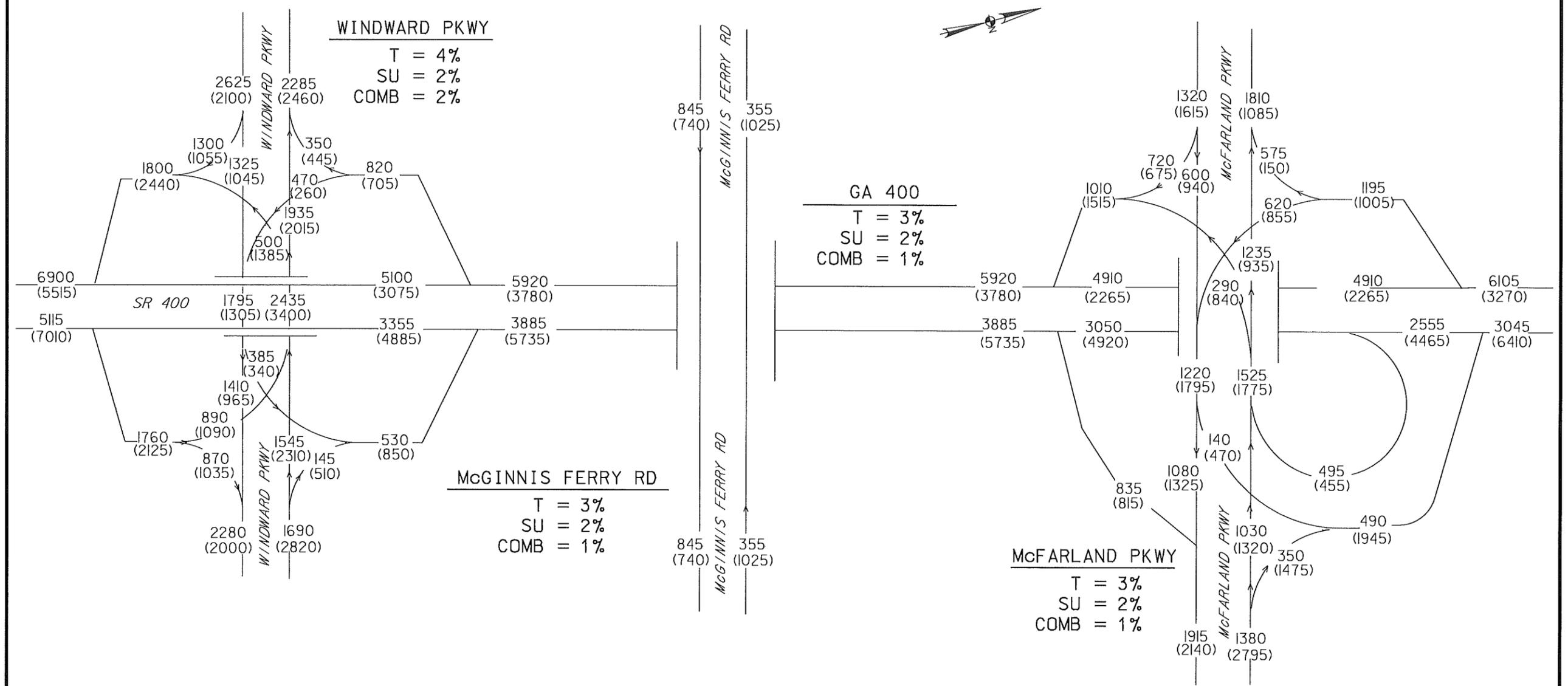
Moreland Altobelli
 Associates, Inc.
 2211 Beaver Run Road
 Suite 190
 Norcross, Georgia 30071
 Telephone (770) 263-5945

CSHPP-0007-00(526)
 P. I. No. 0007526
 FORSYTH & FULTON
 COUNTIES, GEORGIA

| REVISION DATES | | |
|----------------|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
 TRAFFIC FLOW DIAGRAMS
 STATE ROUTE 400
 2013 EXISTING
 AVERAGE DAILY TRAFFIC

DRAWING No.
10-004



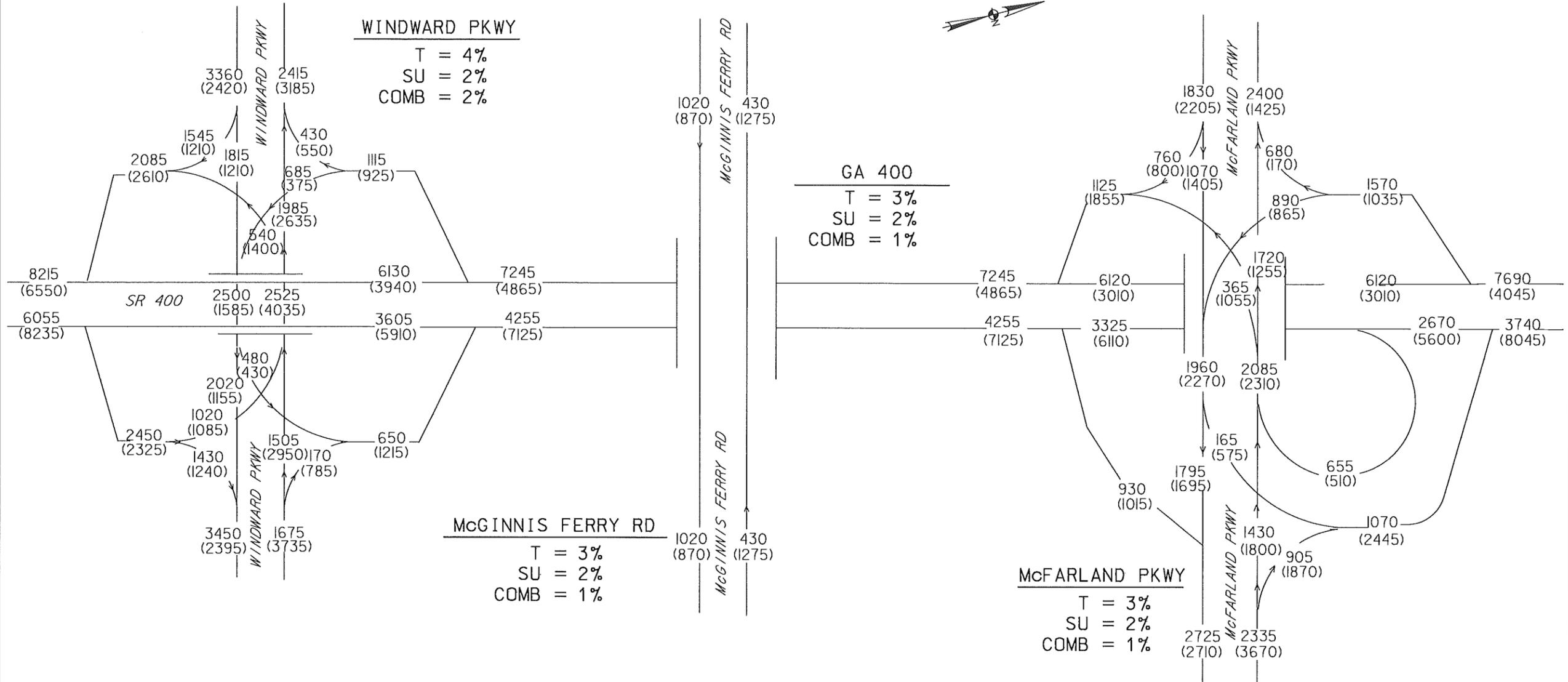
MA Moreland Altobelli Associates, Inc.
 2211 Beaver Run Road
 Suite 190
 Norcross, Georgia 30071
 Telephone (770) 263-5945

CSHPP-0007-00(526)
 P. I. No. 0007526
 FORSYTH & FULTON
 COUNTIES, GEORGIA

| REVISION DATES | |
|----------------|--|
| | |
| | |
| | |
| | |
| | |

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
 TRAFFIC FLOW DIAGRAMS
 STATE ROUTE 400
 YEAR 2020 NO-BUILD
 PEAK HOUR TRAFFIC

DRAWING No.
10-006



LEGEND
 00 AM PEAK HOUR
 (00) PM PEAK HOUR

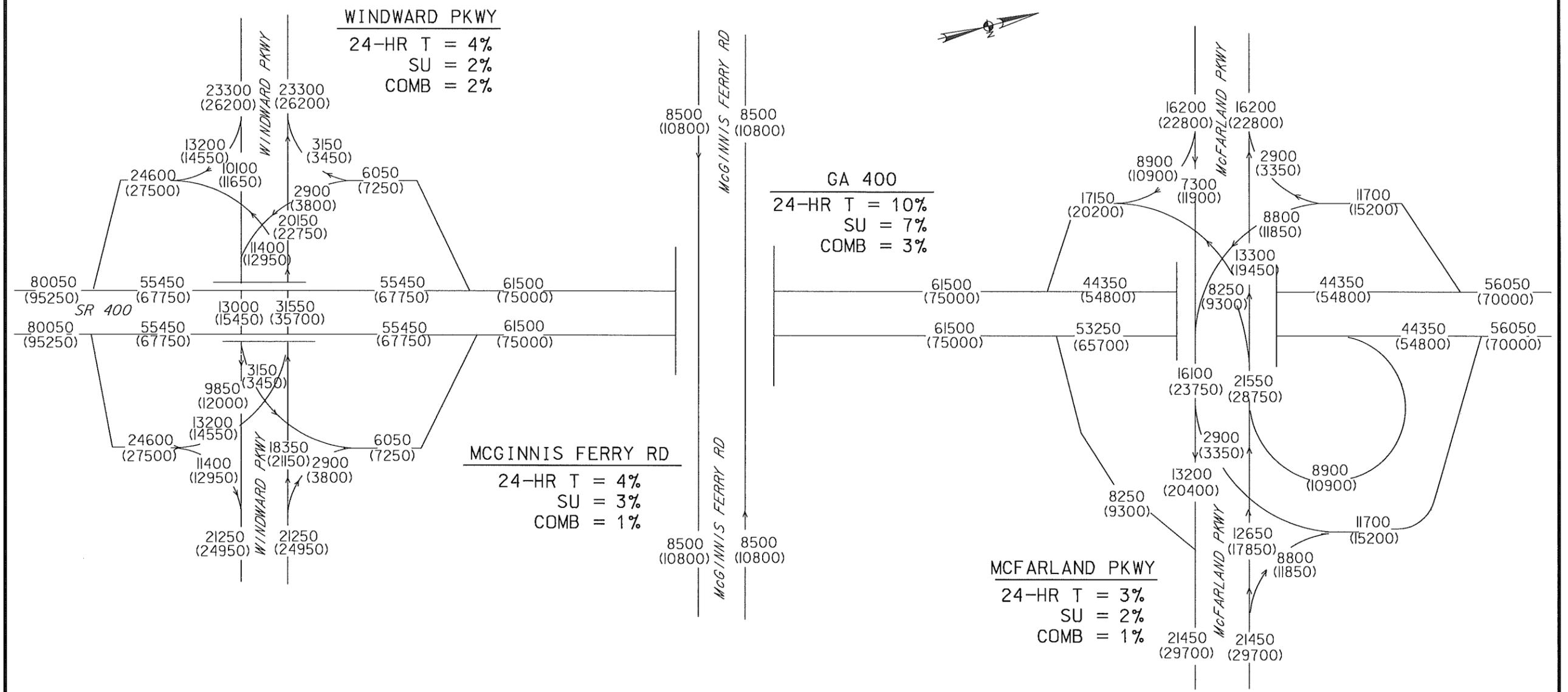
MA Moreland Altobelli Associates, Inc.
 2211 Beaver Run Road
 Suite 190
 Norcross, Georgia 30071
 Telephone (770) 263-5945

CSHPP-0007-00(526)
 P. I. No. 0007526
 FORSYTH & FULTON
 COUNTIES, GEORGIA

| REVISION DATES | |
|----------------|--|
| | |
| | |
| | |
| | |
| | |
| | |
| | |

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
 TRAFFIC FLOW DIAGRAMS
 STATE ROUTE 400
 YEAR 2040 NO-BUILD
 PEAK HOUR TRAFFIC

DRAWING No.
10-008



LEGEND
 00 YEAR 2020 ADT NO-BUILD
 (00) YEAR 2040 ADT NO-BUILD

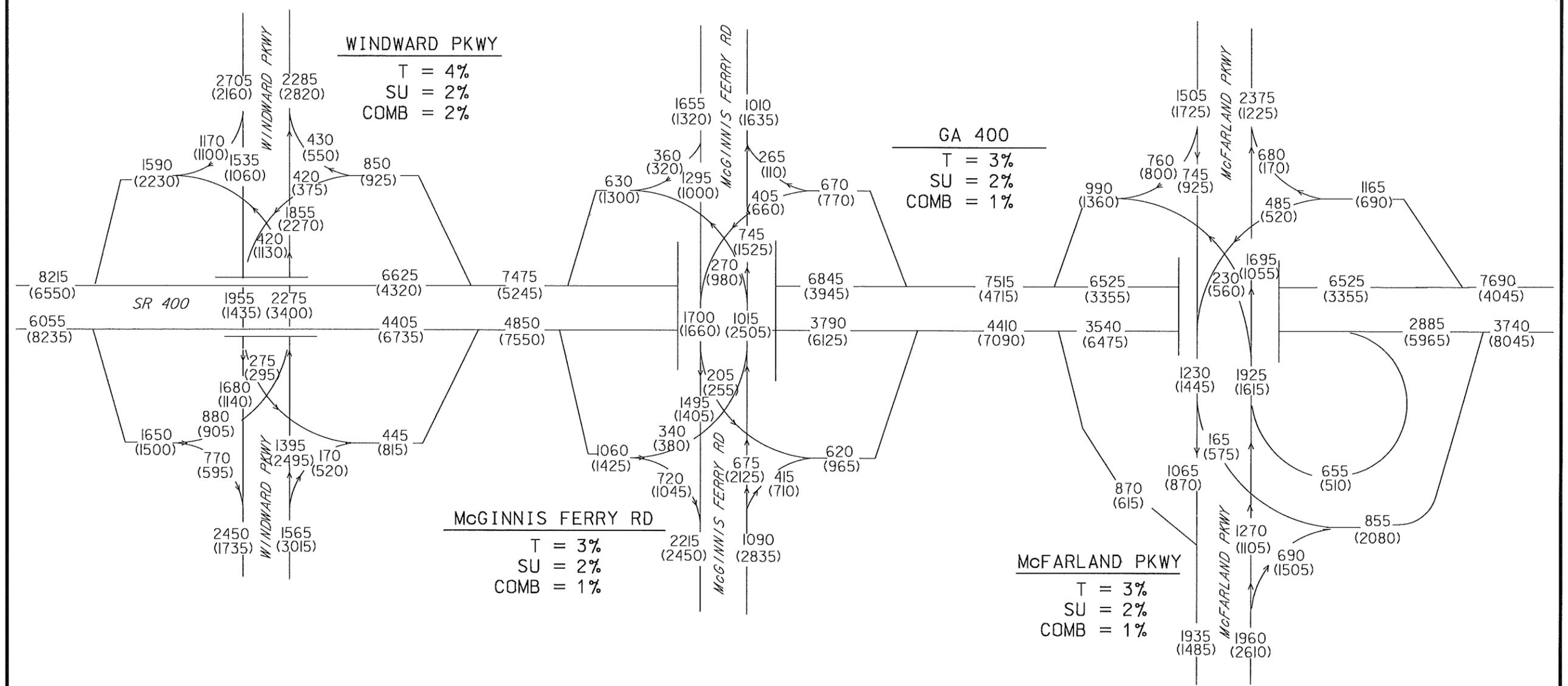
MA Moreland Altobelli Associates, Inc.
 2211 Beaver Run Road
 Suite 190
 Norcross, Georgia 30071
 Telephone (770) 263-5945

CSHPP-0007-00(526)
 P. I. No. 0007526
 FORSYTH & FULTON
 COUNTIES, GEORGIA

| REVISION DATES | |
|----------------|--|
| | |
| | |
| | |
| | |
| | |

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
 TRAFFIC FLOW DIAGRAMS
 STATE ROUTE 400
 YEAR 2020/YEAR 2040 NO-BUILD
 AVERAGE DAILY TRAFFIC

DRAWING No. 10-010



LEGEND
 OO AM PEAK HOUR
 (OO) PM PEAK HOUR

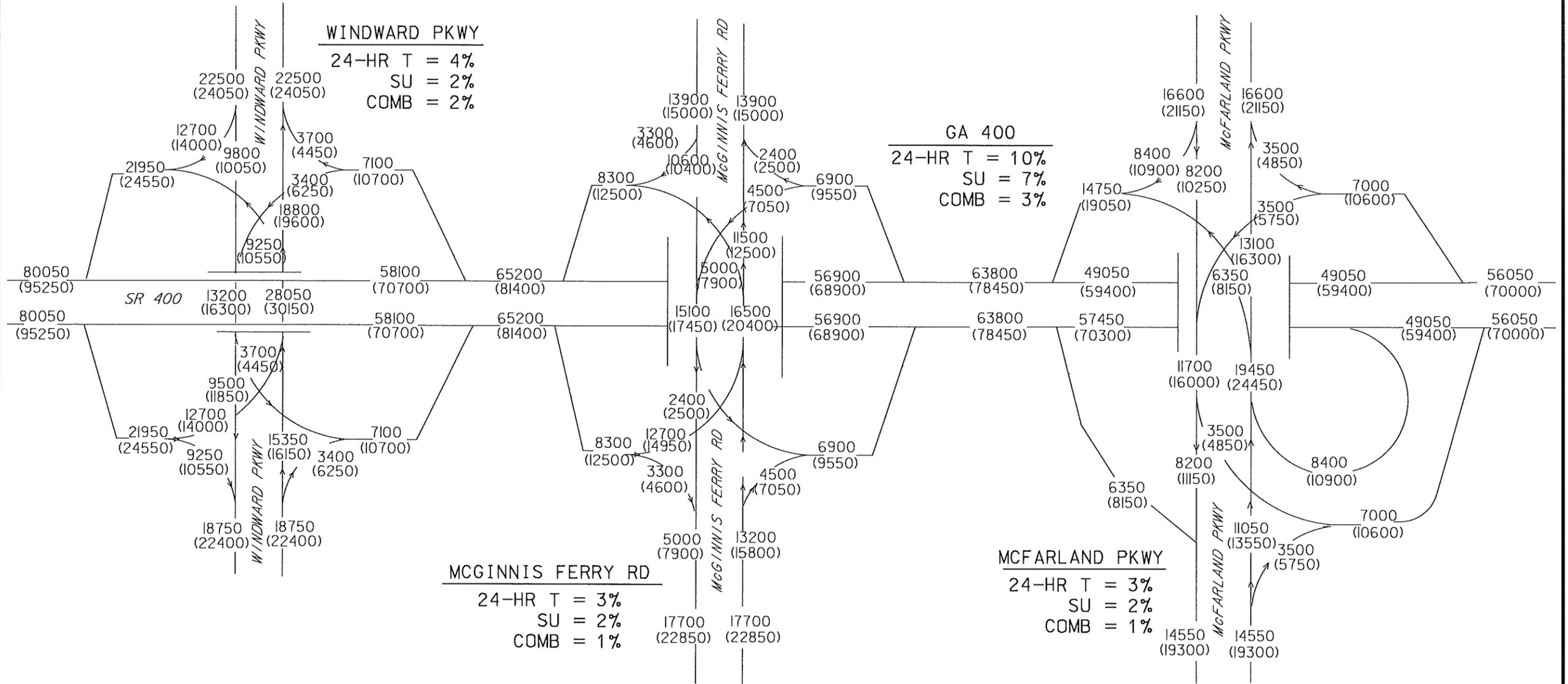
MA Moreland Altobelli
 Associates, Inc.
 2211 Beaver Run Road
 Suite 190
 Norcross, Georgia 30071
 Telephone (770) 263-5945

CSHPP-0007-00(526)
 P. I. No. 0007526
 FORSYTH & FULTON
 COUNTIES, GEORGIA

| REVISION DATES | |
|----------------|--|
| | |
| | |
| | |
| | |
| | |

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
OFFICE:
 TRAFFIC FLOW DIAGRAMS
 STATE ROUTE 400
 YEAR 2040 BUILD
 PEAK HOUR TRAFFIC

DRAWING No.
10-014



LEGEND

00 YEAR 2020 ADT BUILD
 (00) YEAR 2040 ADT BUILD



Moreland Altobelli
 Associates, Inc.
 2211 Beaver Run Road
 Suite 190
 Norcross, Georgia 30071
 Telephone (770) 263-5945

CSHPP-0007-00(526)
 P. I. No. 0007526
 FORSYTH & FULTON
 COUNTIES, GEORGIA

| REVISION DATES | |
|----------------|--|
| | |
| | |
| | |
| | |
| | |

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
 TRAFFIC FLOW DIAGRAMS
 STATE ROUTE 400
 YEAR 2020/2040 BUILD
 AVERAGE DAILY TRAFFIC

DRAWING No.
10-016

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:117-0024-0

Forsyth

SUFF. RATING: 77.20

Location & Geography

Structure ID: 117-0024-0
 200 Bridge Information: 06
 *6A Feature Int: BIG CREEK
 *6B Critical Bridge:
 *7A Route No Carried: SR00400
 *7B Facility Carried: US 19 (NBL)/ SR 400
 9 Location: 8 MI SW OF CUMMING
 2 Dot District: 4841100000 - D1 DISTRICT ONE GAINESVILLE
 207 Year Photo: 2013
 *91 Inspection Frequency: 24 Date: 08/02/2013
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 60 Date: 06/05/2012
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 *5 Inventory Route(O/U): 1
 Type: 2 - U.S. Numbered
 Designation: 1- Mainline
 Number: 00019
 Direction: 0. Not applicable
 *16 Latitude: 34.0000- 7.3824 HMMS Prefix:SR
 *17 Longitude: 84.0000- 7.3824 HMMS Suffix:00
 MP: 2.21
 98 Border Bridge: % Shared:00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 0- The Feature is not a STRAHNET route.
 12 Base Highway Network: 1
 13A LRS Inventory Route: 1171040000
 13B Sub Inventory Route: 0.00
 *101 Parallel Structure: R. Right structure of parallel bridges
 *102 Direction of Traffic: 1- One Way
 *264 Road Inventory Mile Post: 002.21
 *208 Inspection Area: Area 01 Initials: JBC
 Engineer's Initials: bcn
 * Location ID No: 117-00400D-002.21N

*104 Highway System: 1- Bridge does carry a route on the NHS.
 *26 Functional Classification: 12- Urban - Principal Arterial - Other Freeways or Expressway
 *204 Federal Route Type: F - Primary. No: 00561
 105 Federal Lands Highway: 0. Not applicable
 *110 Truck Route: 0
 206 School Bus Route: 0
 217 Benchmark Elevation: 0000.00
 218 Datum: 0- Not Applicable
 *19 Bypass Length: 1
 *20 Toll: 3- On a Free Road or Non-Highway
 *21 Maintenance: 01-State Highway Agency.
 *22 Owner: 01-State Highway Agency.
 *31 Design Load: 6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
 37 Historical Significance: 5- Not eligible for the National Register of Historic Places
 205 Congressional District: 7 - SEVEN
 27 Year Constructed: 1973
 106 Year Reconstructed: 0
 33 Bridge Median: 1-Open
 34 Skew: 35
 35 Structure Flared: No
 38 Navigation Control: 0- Navigation is not controlled by an Agency
 213 Special Steel Design: 0- Not applicable or other
 267 Type of Paint: 1- Lead Chromate Oil Alkyd System.
 *42 Type of Service On: 1-Highway
 Type of Service Under: 5-Waterway
 214 Movable Bridge: 0
 203 Type Bridge: E - Steel I - N. Steel-Co O. Concrete- O. Concrete
 259 Pile Encasement 1
 *43 Structure Type Main: 1-Concrete 4-Tee Beam
 45 No.Spans Main: 5
 44 Structure Type Appr: 0- Other 0- Other
 46 No Spans Appr: 0
 226 Bridge Curve Horz 0 Vert: 0.00
 111 Pier Protection N - Navigation Control item coded 0, or Feature not a waterway
 107 Deck Structure Type:
 108 Wearing Structure Type:
 Membrane Type:
 Deck Protection:

Signs & Attachments

225 Expansion Joint Type: 02- Open or sealed concrete joint (silicone sealant)
 242 Deck Drains: 1- Open Scuppers.
 243 Parapet Location: 3- Both sides.
 Height: 2.00
 Width: 1.10
 238 Curb Height: 0
 Curb Material: 0- None.
 239 Handrail 7- Aluminum. 7- Aluminum.
 *240 Median Barrier Rail: 0- None.
 241 Bridge Median Height: 0
 * Bridge Median Width: 0
 230 Guardrail Loc. Dir. Rear: 3- Both sides.
 Fwr: 0- None.
 Oppo. Dir. Rear: 0- None.
 Oppo. Fwr: 0- None.
 244 Approach Slab 3- Forward and Rear.
 224 Retaining Wall: 0- None.
 233 Posted Speed Limit: 65
 236 Warning Sign: 0.00
 234 Delineator: 1.00
 235 Hazard Boards: 0
 237 Utilities Gas: 00- Not Applicable
 Water: 00- Not Applicable
 Electric: 00- Not Applicable
 Telephone: 00- Not Applicable
 Sewer: 00- Not Applicable
 247 Lighting Street: 0
 Navigation: 0
 Aerial: 0- Not
 *248 County Continuity No.: 00



Processed Date:1/12/2015

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:117-0024-0

| | | | | | |
|-------------------------|--|---|--|------------------------------|---|
| Programming Data | | Measurements: | | 65 Inventory Rating Method: | 1-Load Factor (LF) |
| 201 Project No: | APD-056-1 (15) | *29 ADT | 70980 Year:2012 | 63 Operating Rating Method: | 1-Load Factor (LF) |
| 202 Plans Available: | 4- Plans in Infolmage. | 109 %Trucks: | 1 | 66 Inventory Type: | 2 - HS loading. Rating: 27 |
| 249 Prop Proj No: | 000000000000000000000000 | * 28 Lanes On: | 2 Under:0 | 64 Operating Type: | 2 - HS loading. Rating: 45 |
| 250 Approval Status: | 0000 | 210 No. Tracks On: | 00 Under:00 | 231 Calculated Loads: | |
| 251 PI Number: | 0000000 | * 48 Max. Span Length | 40 | H-Modified: | 20 0 |
| 252 Contract Date: | 02/01/1901 | * 49 Structure Length: | 200 | HS-Modified: | 25 0 |
| 260 Seismic No: | 00000 | 51 Br. Rwdy. Width | 42.00 | Type 3: | 28 0 |
| 75 Type Work: | 0- Not Applicable 0- Initial Inventory | 52 Deck Width: | 44.20 | Type 3s2: | 40 0 |
| 94 Bridge Imp. Cost: | \$781 | * 47 Tot. Horiz. Cl: | 42 | Timber: | 36 0 |
| 95 Roadway Imp. Cost: | \$78 | 50 Curb / Sidewalk Width | 0.00 / 0.00 | Piggyback: | 40 0 |
| 96 Total Imp Cost: | \$1172 | 32 Approach Rdwy. Width | 38 | 261 H Inventory Rating: | 22 |
| 76 Imp Length: | 0 | *229 Shoulder Width: | | 262 H Operating Rating | 43 |
| 97 Imp Year: | 2013 | Rear Lt: | 4.20 Type:2 - Rt:10 | 67 Structural Evaluation: | 5-Somewhat better than minimum adequacy to tolerate being left in place as is |
| 114 Fureur ADT: | 106470 Year:2032 | Fwd. Lt: | 4.20 Type:2 - Rt:10 | 58 Deck Condition: | 6 - Satisfactory Condition |
| Hydraulic Data | | Pavement Width: | | 59 Superstructure Condition: | 6 - Satisfactory Condition |
| 215 Waterway Data: | | Rear: | 23.40 Type: 1- Concrete. | * 227 Collision Damage: | 0 |
| High Water Elev: | 0000.0 Year:1900 | | 23.20 Type: 1- Concrete. | 60A Substructure Condition: | 5 - Fair Condition |
| Flood Elev: | 0000.0 Freq:00 | Intersaction Rear: 0 Fwd: 0 | | 60B Scour Condition: | 5 - Fair Condition |
| Avg Streambed Elev: | 0000.0 | 36 Safety Features Br. Rail: 1- Meets current standards | | 60C Underwater Condition | 5 - Fair Condition |
| Drainage Area: | 00042 | Transition: | 2- Inspected feature meets acceptable construction date standards. | 71 Waterway Adequacy: | 8-Equal to present desirable criteria. |
| Area of Opening: | 000890 | App. G. Rail: | 1- Meets current standards | 61 Channel Protection Cond.: | 5 |
| 113 Scour Critical | U. No Load Rating; no scour critical data entered. | App. Rail End: | 1- Meets current standards | 68 Deck Geometry: | 8-Equal to present desirable criteria. |
| 216 Water Depth: | 4.1 Br.Height:20.8 | 53 Minimum Cl. Over: | 99'99" | 69 UnderClr. Horz/Vert: | Not Applicable. |
| 222 Slope Protection: | 1 | Under: N- Feature not a highway or railroad. | 0.00'0.00" | 72 Appr. Alignment: | 8-No reduction of vehicle operating speed required. |
| 221 Spur Dikes Rear | 0 Fwd:0 | *228 Minimum Vertical Cl | | 62 Culvert: | N - Not Applicable |
| 219 Fender System | 0- None. | Act. Odm Dir.: | 99 ' 99" | Posting Data | |
| 220 Dolphin: | | Oppo. Dir: | 99' 99" | 70 Bridge Posting Required | 5. Equal to or above legal loads |
| 223 Culvert Cover: | 000 | Posted Odm. Dir: | 00' 00" | 41 Struct Open, Posted, CL: | A. Open, no restriction |
| Type: | 0- Not Applicable | Oppo. Dir: | 00'00 " | * 103 Temporary Structure: | 0 |
| No. Barrels: | 0 | 55 Lateral Undercl. Rt: | N- Feature not a highway or railroad. 0.00 | 232 Posted Loads | |
| Width: | 0.00 Height:0 | 56 Lateral Undercl. Lt: | 0.00 | H-Modified: | 00 |
| Length: | 0 Apron:0 | *10 Max Min Vert Cl: | 99' 99" Dir:0 | HS-Modified: | 00 |
| *265 U/W Insp. Area | 2 Diver:JWO | 39 Nav Vert Cl: | 000 Horiz:0 | Type 3: | 00 |
| *Location ID No: | 117-00400D-002.21N | 116 Nav Vert Cl Closed: | 000 | Type 3s2: | 00 |
| | | 245 Deck Thickness Main | 7.50 | Timber: | 00 |
| | | Deck Thick Approach: | 0.00 | Piggyback | 00 |
| | | 246 Overlay Thickness: | 0.00 | 253 Notification Date: | 02/01/1901 |
| | | 212 Year Last Painted: | Sup:0000 Sub:1988 | 258 Fed Notify Date: | 02/01/1901 |

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:117-0025-0

Forsyth

SUFF. RATING: 77.20

Location & Geography

Structure ID: 117-0025-0
 200 Bridge Information: 06
 *6A Feature Int: BIG CREEK
 *6B Critical Bridge:
 *7A Route No Carried: SR00400
 *7B Facility Carried: US 19 (SBL) / SR 400
 9 Location: 8 MI SW OF CUMMING
 2 Dot District: 4841100000 - D1 DISTRICT ONE GAINESVILLE
 207 Year Photo: 2013
 *91 Inspection Frequency: 24 Date: 08/02/2013
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 60 Date: 06/05/2012
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 *5 Inventory Route(O/U): 1
 Type: 2 - U.S. Numbered
 Designation: 1- Mainline
 Number: 00019
 Direction: 0. Not applicable
 *16 Latitude: 34.0000- 7.3956 HMMS Prefix:SR
 *17 Longitude: 84.0000- 7.3956 HMMS Suffix:00
 MP: 17.92
 98 Border Bridge: % Shared:00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 0- The Feature is not a STRAHNET route.
 12 Base Highway Network: 1
 13A LRS Inventory Route: 1171040000
 13B Sub Inventory Route: 0.00
 *101 Parallel Structure: L. Left structure of parallel bridges
 *102 Direction of Traffic: 1- One Way
 *264 Road Inventory Mile Post: 002.22
 *208 Inspection Area: Area 01 Initials: JBC
 Engineer's Initials: bcn
 * Location ID No: 117-00400D-002.22N

*104 Highway System: 1- Bridge does carry a route on the NHS.
 *26 Functional Classification: 12- Urban - Principal Arterial - Other Freeways or Expressways
 *204 Federal Route Type: F - Primary. No: 00561
 105 Federal Lands Highway: 0. Not applicable
 *110 Truck Route: 0
 206 School Bus Route: 0
 217 Benchmark Elevation: 0000.00
 218 Datum: 0- Not Applicable
 *19 Bypass Length: 1
 *20 Toll: 3- On a Free Road or Non-Highway
 *21 Maintenance: 01-State Highway Agency.
 *22 Owner: 01-State Highway Agency.
 *31 Design Load: 6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
 37 Historical Significance: 5- Not eligible for the National Register of Historic Places
 205 Congressional District: 7 - SEVEN
 27 Year Constructed: 1973
 106 Year Reconstructed: 0
 33 Bridge Median: 1-Open
 34 Skew: 35
 35 Structure Flared: No
 38 Navigation Control: 0- Navigation is not controlled by an Agency
 213 Special Steel Design: 0- Not applicable or other
 267 Type of Paint: 2- Non-Lead Oil Alkyd System (System IV).
 *42 Type of Service On: 1-Highway
 Type of Service Under: 5-Waterway
 214 Movable Bridge: 0
 203 Type Bridge: E - Steel I - N. Steel-Co O. Concrete- O. Concrete
 259 Pile Encasement 1
 *43 Structure Type Main: 1-Concrete 4-Tee Beam
 45 No.Spans Main: 5
 44 Structure Type Appr: 0- Other 0- Other
 46 No Spans Appr: 0
 226 Bridge Curve Horz 0 Vert: 0.00
 111 Pier Protection N - Navigation Control item coded 0, or Feature not a waterway
 107 Deck Structure Type:
 108 Wearing Structure Type:
 Membrane Type:
 Deck Protection:

Signs & Attachments

225 Expansion Joint Type: 02- Open or sealed concrete joint (silicone sealant)
 242 Deck Drains: 1- Open Scuppers.
 243 Parapet Location: 3- Both sides.
 Height: 2.00
 Width: 1.10
 238 Curb Height: 0
 Curb Material: 0- None.
 239 Handrail 7- Aluminum. 7- Aluminum.
 *240 Median Barrier Rail: 0- None.
 241 Bridge Median Height: 0
 * Bridge Median Width: 0
 230 Guardrail Loc. Dir. Rear: 3- Both sides.
 Fwr: 0- None.
 Oppo. Dir. Rear: 0- None.
 Oppo. Fwr: 0- None.
 244 Approach Slab 3- Forward and Rear.
 224 Retaining Wall: 0- None.
 233 Posted Speed Limit: 65
 236 Warning Sign: 0.00
 234 Delineator: 1.00
 235 Hazard Boards: 0
 237 Utilities Gas: 00- Not Applicable
 Water: 00- Not Applicable
 Electric: 00- Not Applicable
 Telephone: 00- Not Applicable
 Sewer: 00- Not Applicable
 247 Lighting Street: 0
 Navigation: 0
 Aerial: 0- Not
 *248 County Continuity No.: 00



Processed Date:1/12/2015

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:117-0025-0

| Programming Data | | Measurements: | | | | |
|-----------------------|--|------------------------------|--|--------------------|------------------------------|---|
| 201 Project No: | APD-056-1 (15) | *29 ADT | 70980 | Year:2012 | 65 Inventory Rating Method: | 1-Load Factor (LF) |
| 202 Plans Available: | 4- Plans in Infolmage. | 109 %Trucks: | 1 | | 63 Operating Rating Method: | 1-Load Factor (LF) |
| 249 Prop Proj No: | 000000000000000000000000 | * 28 Lanes On: | 2 | Under:0 | 66 Inventory Type: | 2 - HS loading. Rating: 27 |
| 250 Approval Status: | 0000 | 210 No. Tracks On: | 00 | Under:00 | 64 Operating Type: | 2 - HS loading. Rating: 45 |
| 251 PI Number: | 0000000 | * 48 Max. Span Length | 40 | | 231 Calculated Loads: | |
| 252 Contract Date: | 02/01/1901 | * 49 Structure Length: | 200 | | H-Modified: | 20 0 |
| 260 Seismic No: | 00000 | 51 Br. Rwdy. Width | 41.80 | | HS-Modified: | 25 0 |
| 75 Type Work: | 0- Not Applicable 0- Initial Inventory | 52 Deck Width: | 44.00 | | Type 3: | 28 0 |
| 94 Bridge Imp. Cost: | \$781 | * 47 Tot. Horiz. Cl: | 42 | | Type 3s2: | 40 0 |
| 95 Roadway Imp. Cost: | \$78 | 50 Curb / Sidewalk Width | 0.00 / 0.00 | | Timber: | 36 0 |
| 96 Total Imp Cost: | \$1172 | 32 Approach Rdwy. Width | 38 | | Piggyback: | 40 0 |
| 76 Imp Length: | 0 | *229 Shoulder Width: | | | 261 H Inventory Rating: | 22 |
| 97 Imp Year: | 2013 | Rear Lt: | 4.20 | Type:2 - Rt:10 | 262 H Operating Rating | 43 |
| 114 Fureur ADT: | 106470 Year:2032 | Fwd. Lt: | 4.20 | Type:2 - Rt:10 | 67 Structural Evaluation: | 5-Somewhat better than minimum adequacy to tolerate being left in place as is |
| Hydraulic Data | | Pavement Width: | | | 58 Deck Condition: | 6 - Satisfactory Condition |
| 215 Waterway Data: | | Rear: | 23.30 | Type: 1- Concrete. | 59 Superstructure Condition: | 6 - Satisfactory Condition |
| High Water Elev: | 0000.0 Year:1900 | | 23.40 | Type: 1- Concrete. | * 227 Collision Damage: | 0 |
| Flood Elev: | 0000.0 Freq:00 | Intersaction Rear: | 0 | Fwd: 0 | 60A Substructure Condition: | 5 - Fair Condition |
| Avg Streambed Elev: | 0000.0 | 36 Safety Features Br. Rail: | 1- Meets current standards | | 60B Scour Condition: | 5 - Fair Condition |
| Drainage Area: | 00042 | Transition: | 2- Inspected feature meets acceptable construction date standards. | | 60C Underwater Condition | 5 - Fair Condition |
| Area of Opening: | 000890 | App. G. Rail: | 1- Meets current standards | | 71 Waterway Adequacy: | 8-Equal to present desirable criteria. |
| 113 Scour Critical | U. No Load Rating; no scour critical data entered. | App. Rail End: | 1- Meets current standards | | 61 Channel Protection Cond.: | 5 |
| 216 Water Depth: | 4.1 Br.Height:21.8 | 53 Minimum Cl. Over: | 99'99" | | 68 Deck Geometry: | 7-Better than present minimum criteria. |
| 222 Slope Protection: | 1 | Under: | N- Feature not a highway or railroad. | 0.00'0.00" | 69 UnderClr. Horz/Vert: | Not Applicable. |
| 221 Spur Dikes Rear | 0 Fwd:0 | *228 Minimum Vertical Cl | | | 72 Appr. Alignment: | 8-No reduction of vehicle operating speed required. |
| 219 Fender System | 0- None. | Act. Odm Dir.: | 99 ' 99" | | 62 Culvert: | N - Not Applicable |
| 220 Dolphin: | | Oppo. Dir: | 99' 99" | | Posting Data | |
| 223 Culvert Cover: | 000 | Posted Odm. Dir: | 00' 00" | | 70 Bridge Posting Required | 5. Equal to or above legal loads |
| Type: | 0- Not Applicable | Oppo. Dir: | 00'00 " | | 41 Struct Open, Posted, CL: | A. Open, no restriction |
| No. Barrels: | 0 | 55 Lateral Undercl. Rt: | N- Feature not a highway or railroad. | 0.00 | * 103 Temporary Structure: | 0 |
| Width: | 0.00 Height:0 | 56 Lateral Undercl. Lt: | 0.00 | | 232 Posted Loads | |
| Length: | 0 Apron:0 | *10 Max Min Vert Cl: | 99' 99" Dir:0 | | H-Modified: | 00 |
| *265 U/W Insp. Area | 2 Diver:JWO | 39 Nav Vert Cl: | 000 Horiz:0 | | HS-Modified: | 00 |
| *Location ID No: | 117-00400D-002.22N | 116 Nav Vert Cl Closed: | 000 | | Type 3: | 00 |
| | | 245 Deck Thickness Main | 7.50 | | Type 3s2: | 00 |
| | | Deck Thick Approach: | 0.00 | | Timber: | 00 |
| | | 246 Overlay Thickness: | 0.00 | | Piggyback | 00 |
| | | 212 Year Last Painted: | Sup:0000 Sub:1988 | | 253 Notification Date: | 02/01/1901 |
| | | | | | 258 Fed Notify Date: | 02/01/1901 |

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:117-0027-0

Forsyth

SUFF. RATING: 82.50

Location & Geography

Structure ID: 117-0027-0
 200 Bridge Information: 06
 *6A Feature Int: SAWNEE CREEK
 *6B Critical Bridge:
 *7A Route No Carried: SR00400
 *7B Facility Carried: US 19 (NBL)
 9 Location: 2 MI NE OF CUMMING
 2 Dot District: 4841100000 - D1 DISTRICT ONE GAINESVILLE
 207 Year Photo: 2013
 *91 Inspection Frequency: 24 Date: 08/02/2013
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 00 Date: 02/01/1901
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 *5 Inventory Route(O/U): 1
 Type: 2 - U.S. Numbered
 Designation: 1- Mainline
 Number: 00019
 Direction: 0. Not applicable
 *16 Latitude: 34.0000- 13.2234 HMMS Prefix:SR
 *17 Longitude: 84.0000- 13.2234 HMMS Suffix:00
 MP: 11.55
 98 Border Bridge: % Shared:00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 0- The Feature is not a STRAHNET route.
 12 Base Highway Network: 1
 13A LRS Inventory Route: 1171040000
 13B Sub Inventory Route: 0.00
 *101 Parallel Structure: R. Right structure of parallel bridges
 *102 Direction of Traffic: 1- One Way
 *264 Road Inventory Mile Post: 011.55
 *208 Inspection Area: Area 01 Initials: JBC
 Engineer's Initials: bcn
 * Location ID No: 117-00400D-011.55N

*104 Highway System: 1- Bridge does carry a route on the NHS.
 *26 Functional Classification: 12- Urban - Principal Arterial - Other Freeways or Expressway
 *204 Federal Route Type: F - Primary. No: 00561
 105 Federal Lands Highway: 0. Not applicable
 *110 Truck Route: 0
 206 School Bus Route: 0
 217 Benchmark Elevation: 0000.00
 218 Datum: 0- Not Applicable
 *19 Bypass Length: 1
 *20 Toll: 3- On a Free Road or Non-Highway
 *21 Maintenance: 01-State Highway Agency.
 *22 Owner: 01-State Highway Agency.
 *31 Design Load: 6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
 37 Historical Significance: 5- Not eligible for the National Register of Historic Places
 205 Congressional District: 7 - SEVEN
 27 Year Constructed: 1975
 106 Year Reconstructed: 0
 33 Bridge Median : 1-Open
 34 Skew: 0
 35 Structure Flared: No
 38 Navigation Control: 0- Navigation is not controlled by an Agency
 213 Special Steel Design: 0- Not applicable or other
 267 Type of Paint: 5- Water - Born System.
 *42 Type of Service On: 1-Highway
 Type of Service Under: 5-Waterway
 214 Movable Bridge: 0
 203 Type Bridge: 0 - Multip - O. Concrete M. Steel - O. Concrete
 259 Pile Encasement 3
 *43 Structure Type Main: 4-Steel (Continuous) 2-Stringer/Multi-Beam or Girder
 45 No.Spans Main: 3
 44 Structure Type Appr: 0- Other 0- Other
 46 No Spans Appr: 0
 226 Bridge Curve Horz 0 Vert: 0.00
 111 Pier Protection N - Navigation Control item coded 0, or Feature not a waterway
 107 Deck Structure Type:
 108 Wearing Structure Type:
 Membrane Type:
 Deck Protection:

Signs & Attachments

225 Expansion Joint Type: 03- Compression seal.
 242 Deck Drains: 0- None.
 243 Parapet Location: 0- None present.
 Height: 0.00
 Width: 0.00
 238 Curb Height: 1
 Curb Material: 1- Concrete.
 239 Handrail 1- Concrete. 1- Concrete.
 *240 Median Barrier Rail: 0- None.
 241 Bridge Median Height: 0
 * Bridge Median Width: 0
 230 Guardrail Loc. Dir. Rear: 3- Both sides.
 Fwr: 2- Right side only.
 Oppo. Dir. Rear: 0- None.
 Oppo. Fwr: 0- None.
 244 Approach Slab 3- Forward and Rear.
 224 Retaining Wall: 0- None.
 233 Posted Speed Limit: 65
 236 Warning Sign: 0.00
 234 Delineator: 1.00
 235 Hazard Boards: 0
 237 Utilities Gas: 00- Not Applicable
 Water: 00- Not Applicable
 Electric: 00- Not Applicable
 Telephone: 00- Not Applicable
 Sewer: 00- Not Applicable
 247 Lighting Street: 0
 Navigation: 0
 Aerial: 0- Not
 *248 County Continuity No.: 00



Processed Date:1/12/2015

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:117-0027-0

| | | | | | |
|-------------------------|---|------------------------------|--|------------------------------|---|
| Programming Data | | Measurements: | | 65 Inventory Rating Method: | 1-Load Factor (LF) |
| 201 Project No: | APD-056-1 (24) | *29 ADT | 54750 Year:2012 | 63 Operating Rating Method: | 1-Load Factor (LF) |
| 202 Plans Available: | 4- Plans in Infolmage. | 109 %Trucks: | 1 | 66 Inventory Type: | 2 - HS loading. Rating: 24 |
| 249 Prop Proj No: | 000000000000000000000000 | * 28 Lanes On: | 2 Under:0 | 64 Operating Type: | 2 - HS loading. Rating: 40 |
| 250 Approval Status: | 0000 | 210 No. Tracks On: | 00 Under:00 | 231 Calculated Loads: | |
| 251 PI Number: | 0000000 | * 48 Max. Span Length | 85 | H-Modified: | 21 0 |
| 252 Contract Date: | 02/01/1901 | * 49 Structure Length: | 275 | HS-Modified: | 30 0 |
| 260 Seismic No: | 00000 | 51 Br. Rwdy. Width | 40.70 | Type 3: | 33 0 |
| 75 Type Work: | 0- Not Applicable 0- Initial Inventory | 52 Deck Width: | 44.00 | Type 3s2: | 36 0 |
| 94 Bridge Imp. Cost: | \$1,074 | * 47 Tot. Horiz. Cl: | 41 | Timber: | 35 0 |
| 95 Roadway Imp. Cost: | \$107 | 50 Curb / Sidewalk Width | 0.60 / 0.60 | Piggyback: | 37 0 |
| 96 Total Imp Cost: | \$1612 | 32 Approach Rdwy. Width | 38 | 261 H Inventory Rating: | 26 |
| 76 Imp Length: | 0 | *229 Shoulder Width: | | 262 H Operating Rating | 44 |
| 97 Imp Year: | 2013 | Rear Lt: | 4.50 Type:2 - Rt:10 | 67 Structural Evaluation: | 5-Somewhat better than minimum adequacy to tolerate being left in place as is |
| 114 Fureur ADT: | 82125 Year:2032 | Fwd. Lt: | 4.20 Type:2 - Rt:11 | 58 Deck Condition: | 6 - Satisfactory Condition |
| Hydraulic Data | | Pavement Width: | | 59 Superstructure Condition: | 6 - Satisfactory Condition |
| 215 Waterway Data: | | Rear: | 23.30 Type: 1- Concrete. | * 227 Collision Damage: | 0 |
| High Water Elev: | 0000.0 Year:1900 | | 23.20 Type: 1- Concrete. | 60A Substructure Condition: | 6 - Satisfactory Condition |
| Flood Elev: | 0000.0 Freq:00 | Intersaction Rear: | 0 Fwd: 0 | 60B Scour Condition: | 6 - Satisfactory Condition |
| Avg Streambed Elev: | 0000.0 | 36 Safety Features Br. Rail: | 2- Inspected feature meets acceptable construction date standards. | 60C Underwater Condition | N - Not Applicable |
| Drainage Area: | 00000 | Transition: | 2- Inspected feature meets acceptable construction date standards. | 71 Waterway Adequacy: | 9-Superior to present desirable criteria. |
| Area of Opening: | 000000 | App. G. Rail: | 2- Inspected feature meets acceptable construction date standards. | 61 Channel Protection Cond.: | 8 |
| 113 Scour Critical | 5. Foundations stable for conditions; scour within limits | App. Rail End: | 2- Inspected feature meets acceptable construction date standards. | 68 Deck Geometry: | 7-Better than present minimum criteria. |
| 216 Water Depth: | 4 Br.Height:41.7 | 53 Minimum Cl. Over: | 99'99" | 69 UnderClr. Horz/Vert: | Not Applicable. |
| 222 Slope Protection: | 1 | Under: | N- Feature not a highway or railroad. 0.00'0.00" | 72 Appr. Alignment: | 8-No reduction of vehicle operating speed required. |
| 221 Spur Dikes Rear | 0 Fwd:0 | *228 Minimum Vertical Cl | | 62 Culvert: | N - Not Applicable |
| 219 Fender System | 0- None. | Act. Odm Dir.: | 99 ' 99" | Posting Data | |
| 220 Dolphin: | | Oppo. Dir: | 99' 99" | 70 Bridge Posting Required | 5. Equal to or above legal loads |
| 223 Culvert Cover: | 000 | Posted Odm. Dir: | 00' 00" | 41 Struct Open, Posted, CL: | A. Open, no restriction |
| Type: | 0- Not Applicable | Oppo. Dir: | 00'00 " | * 103 Temporary Structure: | 0 |
| No. Barrels: | 0 | 55 Lateral Undercl. Rt: | N- Feature not a highway or railroad. 0.00 | 232 Posted Loads | |
| Width: | 0.00 Height:0 | 56 Lateral Undercl. Lt: | 0.00 | H-Modified: | 00 |
| Length: | 0 Apron:0 | *10 Max Min Vert Cl: | 99' 99" Dir:0 | HS-Modified: | 00 |
| *265 U/W Insp. Area | 0 Diver:ZZZ | 39 Nav Vert Cl: | 000 Horiz:0 | Type 3: | 00 |
| *Location ID No: | 117-00400D-011.55N | 116 Nav Vert Cl Closed: | 000 | Type 3s2: | 00 |
| | | 245 Deck Thickness Main | 9.00 | Timber: | 00 |
| | | Deck Thick Approach: | 0.00 | Piggyback | 00 |
| | | 246 Overlay Thickness: | 0.00 | 253 Notification Date: | 02/01/1901 |
| | | 212 Year Last Painted: | Sup:1995 Sub:0000 | 258 Fed Notify Date: | 02/01/1901 |

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:117-0028-0

Forsyth

SUFF. RATING: 82.50

Location & Geography

Structure ID: 117-0028-0
 200 Bridge Information: 06
 *6A Feature Int: SAWNEE CREEK
 *6B Critical Bridge:
 *7A Route No Carried: SR00400
 *7B Facility Carried: US 19 (SBL)
 9 Location: 2 MI NE OF CUMMING
 2 Dot District: 4841100000 - D1 DISTRICT ONE GAINESVILLE
 207 Year Photo: 2013
 *91 Inspection Frequency: 24 Date: 08/02/2013
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 00 Date: 02/01/1901
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 *5 Inventory Route(O/U): 1
 Type: 2 - U.S. Numbered
 Designation: 1- Mainline
 Number: 00019
 Direction: 0. Not applicable
 *16 Latitude: 34.0000- 13.2342 HMMS Prefix:SR
 *17 Longitude: 84.0000- 13.2342 HMMS Suffix:00
 MP: 11.56
 98 Border Bridge: % Shared:00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 0- The Feature is not a STRAHNET route.
 12 Base Highway Network: 1
 13A LRS Inventory Route: 1171040000
 13B Sub Inventory Route: 0.00
 *101 Parallel Structure: L. Left structure of parallel bridges
 *102 Direction of Traffic: 1- One Way
 *264 Road Inventory Mile Post: 011.56
 *208 Inspection Area: Area 01 Initials: JBC
 Engineer's Initials: bcn
 * Location ID No: 117-00400D-011.56N

*104 Highway System: 1- Bridge does carry a route on the NHS.
 *26 Functional Classification: 12- Urban - Principal Arterial - Other Freeways or Expressway
 *204 Federal Route Type: F - Primary. No: 00561
 105 Federal Lands Highway: 0. Not applicable
 *110 Truck Route: 0
 206 School Bus Route: 0
 217 Benchmark Elevation: 0000.00
 218 Datum: 0- Not Applicable
 *19 Bypass Length: 1
 *20 Toll: 3- On a Free Road or Non-Highway
 *21 Maintenance: 01-State Highway Agency.
 *22 Owner: 01-State Highway Agency.
 *31 Design Load: 6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
 37 Historical Significance: 5- Not eligible for the National Register of Historic Places
 205 Congressional District: 7 - SEVEN
 27 Year Constructed: 1975
 106 Year Reconstructed: 0
 33 Bridge Median : 1-Open
 34 Skew: 0
 35 Structure Flared: No
 38 Navigation Control: 0- Navigation is not controlled by an Agency
 213 Special Steel Design: 0- Not applicable or other
 267 Type of Paint: 5- Water - Born System.
 *42 Type of Service On: 1-Highway
 Type of Service Under: 5-Waterway
 214 Movable Bridge: 0
 203 Type Bridge: A- Spread - O. Concrete M. Steel - O. Concrete
 259 Pile Encasement 3
 *43 Structure Type Main: 4-Steel (Continuous) 2-Stringer/Multi-Beam or Girder
 45 No.Spans Main: 3
 44 Structure Type Appr: 0- Other 0- Other
 46 No Spans Appr: 0
 226 Bridge Curve Horz 0 Vert: 0.00
 111 Pier Protection N - Navigation Control item coded 0, or Feature not a waterway
 107 Deck Structure Type:
 108 Wearing Structure Type:
 Membrane Type:
 Deck Protection:

Signs & Attachments

225 Expansion Joint Type: 03- Compression seal.
 242 Deck Drains: 0- None.
 243 Parapet Location: 0- None present.
 Height: 0.00
 Width: 0.00
 238 Curb Height: 1
 Curb Material: 1- Concrete.
 239 Handrail 1- Concrete. 1- Concrete.
 *240 Median Barrier Rail: 0- None.
 241 Bridge Median Height: 0
 * Bridge Median Width: 0
 230 Guardrail Loc. Dir. Rear: 3- Both sides.
 Fwr: 0- None.
 Oppo. Dir. Rear: 0- None.
 Oppo. Fwr: 0- None.
 244 Approach Slab 3- Forward and Rear.
 224 Retaining Wall: 0- None.
 233 Posted Speed Limit: 65
 236 Warning Sign: 0.00
 234 Delineator: 1.00
 235 Hazard Boards: 0
 237 Utilities Gas: 00- Not Applicable
 Water: 00- Not Applicable
 Electric: 00- Not Applicable
 Telephone: 00- Not Applicable
 Sewer: 00- Not Applicable
 247 Lighting Street: 0
 Navigation: 0
 Aerial: 0- Not
 *248 County Continuity No.: 00



Processed Date:1/21/2015

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:117-0028-0

| Programming Data | | Measurements: | | | | |
|-----------------------|--|------------------------------|-------------|--|------------------------------|---|
| 201 Project No: | APD-056-1 (24) | *29 ADT | 54750 | Year:2012 | 65 Inventory Rating Method: | 1-Load Factor (LF) |
| 202 Plans Available: | 4- Plans in Infolmage. | 109 %Trucks: | 1 | | 63 Operating Rating Method: | 1-Load Factor (LF) |
| 249 Prop Proj No: | 000000000000000000000000 | * 28 Lanes On: | 2 | Under:0 | 66 Inventory Type: | 2 - HS loading. Rating: 24 |
| 250 Approval Status: | 0000 | 210 No. Tracks On: | 00 | Under:00 | 64 Operating Type: | 2 - HS loading. Rating: 40 |
| 251 PI Number: | 0000000 | * 48 Max. Span Length | 85 | | 231 Calculated Loads: | |
| 252 Contract Date: | 02/01/1901 | * 49 Structure Length: | 275 | | H-Modified: | 21 0 |
| 260 Seismic No: | 00000 | 51 Br. Rwdy. Width | 40.70 | | HS-Modified: | 30 0 |
| 75 Type Work: | 0- Not Applicable 0- Initial Inventory | 52 Deck Width: | 44.10 | | Type 3: | 33 0 |
| 94 Bridge Imp. Cost: | \$1,074 | * 47 Tot. Horiz. Cl: | 41 | | Type 3s2: | 36 0 |
| 95 Roadway Imp. Cost: | \$107 | 50 Curb / Sidewalk Width | 0.60 / 0.60 | | Timber: | 35 0 |
| 96 Total Imp Cost: | \$1612 | 32 Approach Rdwy. Width | 38 | | Piggyback: | 37 0 |
| 76 Imp Length: | 0 | *229 Shoulder Width: | | | 261 H Inventory Rating: | 26 |
| 97 Imp Year: | 2013 | Rear Lt: | 4.20 | Type:2 - Rt:10 | 262 H Operating Rating | 44 |
| 114 Fureur ADT: | 82125 Year:2032 | Fwd. Lt: | 4.30 | Type:2 - Rt:10 | 67 Structural Evaluation: | 5-Somewhat better than minimum adequacy to tolerate being left in place as is |
| Hydraulic Data | | Pavement Width: | | | 58 Deck Condition: | 6 - Satisfactory Condition |
| 215 Waterway Data: | | Rear: | | 23.20 Type: 1- Concrete. | 59 Superstructure Condition: | 7 - Good Condition |
| High Water Elev: | 0000.0 Year:1900 | Rear: | | 23.30 Type: 1- Concrete. | * 227 Collision Damage: | 0 |
| Flood Elev: | 0000.0 Freq:00 | Intersaction Rear: | | 0 Fwd: 0 | 60A Substructure Condition: | 7 - Good Condition |
| Avg Streambed Elev: | 0000.0 | 36 Safety Features Br. Rail: | | 2- Inspected feature meets acceptable construction date standards. | 60B Scour Condition: | 6 - Satisfactory Condition |
| Drainage Area: | 00000 | Transition: | | 2- Inspected feature meets acceptable construction date standards. | 60C Underwater Condition | N - Not Applicable |
| Area of Opening: | 000000 | App. G. Rail: | | 2- Inspected feature meets acceptable construction date standards. | 71 Waterway Adequacy: | 9-Superior to present desirable criteria. |
| 113 Scour Critical | U. No Load Rating; no scour critical data entered. | App. Rail End: | | 2- Inspected feature meets acceptable construction date standards. | 61 Channel Protection Cond.: | 6 |
| 216 Water Depth: | 7 Br.Height:44 | 53 Minimum Cl. Over: | | 99'99" | 68 Deck Geometry: | 7-Better than present minimum criteria. |
| 222 Slope Protection: | 1 | Under: | | N- Feature not a highway or railroad. 0.00'0.00" | 69 UnderClr. Horz/Vert: | Not Applicable. |
| 221 Spur Dikes Rear | 0 Fwd:0 | *228 Minimum Vertical Cl | | | 72 Appr. Alignment: | 8-No reduction of vehicle operating speed required. |
| 219 Fender System | 0- None. | Act. Odm Dir.: | | 99 ' 99" | 62 Culvert: | N - Not Applicable |
| 220 Dolphin: | | Oppo. Dir: | | 99' 99" | Posting Data | |
| 223 Culvert Cover: | 000 | Posted Odm. Dir: | | 00' 00" | 70 Bridge Posting Required | 5. Equal to or above legal loads |
| Type: | 0- Not Applicable | Oppo. Dir: | | 00'00 " | 41 Struct Open, Posted, CL: | A. Open, no restriction |
| No. Barrels: | 0 | 55 Lateral Undercl. Rt: | | N- Feature not a highway or railroad. 0.00 | * 103 Temporary Structure: | 0 |
| Width: | 0.00 Height:0 | 56 Lateral Undercl. Lt: | | 0.00 | 232 Posted Loads | |
| Length: | 0 Apron:0 | *10 Max Min Vert Cl: | | 99' 99" Dir:0 | H-Modified: | 00 |
| *265 U/W Insp. Area | 0 Diver:ZZZ | 39 Nav Vert Cl: | | 000 Horiz:0 | HS-Modified: | 00 |
| *Location ID No: | 117-00400D-011.56N | 116 Nav Vert Cl Closed: | | 000 | Type 3: | 00 |
| | | 245 Deck Thickness Main | | 9.00 | Type 3s2: | 00 |
| | | Deck Thick Approach: | | 0.00 | Timber: | 00 |
| | | 246 Overlay Thickness: | | 0.00 | Piggyback | 00 |
| | | 212 Year Last Painted: | | Sup:1995 Sub:0000 | 253 Notification Date: | 02/01/1901 |
| | | | | | 258 Fed Notify Date: | 02/01/1901 |

Posey, Keith

Subject: SR 400 Widening schedule meeting

From: Hoenig, Andrew

Sent: Monday, December 29, 2014 9:00 AM

To: Story, Brent; Patel, Hiral; VanMeter, Darryl; Bowman, Glenn; Rabun, Ben; Carpenter, Joe; Chamblin, Douglas; Cobb, Richard; DuVall, Bill; Duff, Eric; O'Hara, Richard C

Cc: Pirkle, Meg; McMurry, Russell; VanMeter, Darryl

Subject: SR 400 Widening schedule meeting

To recap some of the conversation from our Tuesday Dec 23 meeting, please see some items below:

- Innovative Delivery:
 - o Public Notice of Advertisement is advertised, Statements of Qualifications expected from Design-Build Teams on February 13, 2015
 - o GDOT Letting anticipated April 24, 2015 through Innovative Delivery
 - o Request For Proposals review meeting scheduled for January 21, 2015. Draft RFP has been distributed for review. Let Andrew know if you require hard copy.
 - o Follow up with State Construction Office to determine feasibility of temp work bridge at Lake Lanier.
 - o Check with Planning Office regarding TIP
 - o Track MOU approval with Forsyth County
- Design Policy & Support:
 - o Survey to continue on existing corridor in the following order of priority: roadway bridge clearances, drainage survey, utilities survey & hydrology survey on four existing bridges (two each at Big Creek Greenway & Lake Lanier). Shooting for delivery of all surveys by February 27 to coincide with RFP advertisement
 - o Continue to develop Concept Report, including project justification. Shooting for mid-January delivery
- Bridge Office:
 - o Develop draft preliminary bridge layout to be delivered by January 16
 - o Existing BFI is available; Design-Build team will complete a separate BFI Post-Let
 - o Check to see if two streams under SR 400 in corridor are FEMA-regulated
- Environmental:
 - o OES & Andrew to meet with USACE on site January 16 to discuss easement agreement, 404 and 408 permits and hydraulic study.
 - o BMPs limited to silt fence and hay bales will be allowed on outside slopes everywhere without archeology survey. Archeology survey may need to clear outside slopes where additional MS4 is necessary in areas on outside of horizontal curves. These areas have been provided previously by OID.
 - o Continue with special studies assuming GEPA Type B document is necessary due to USACE involvement. Document can be approved *after* award of the D/B contract.

- C. Andrew Hoenig, P.E., DBIA

Project Manager

GDOT, Office of Innovative Delivery

P: (404)-631-1757

M: (404)-985-4377

Rigid Pavement Design Analysis

| | | | | | |
|-----------------------|--|---------------------|--------------------------------------|----------------|-------|
| PI Number | 0013367 | County(s) | Forsyth (south) & Fulton (north) | | |
| Project Number | 0013367 | Design Name | SR 400 General Purpose Lane Widening | | |
| Project Description | SR 400 between McFarland Pkwy and Bald Ridge Marina Road | | | | |
| Section Location | Inside lane SR 400 including shoulders | | | Type Section | JPCP |
| Begin Section Station | 100+00 | End Section Station | 600+00 | Section Length | 50000 |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|-------------------|--------|-----------------|--------------------|------------------------|-----|
| Initial Design Year | 2015 | Initial AADT, VPD | 45,000 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2035 | Final AADT, VPD | 63,000 | SU Truck % | 4.00 | Curb & Gutter/Barrier | Yes |
| | | Mean AADT, VPD | 54,000 | MU Truck % | 2.00 | Interstate | No |

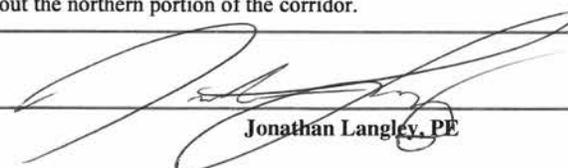
| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|---------|-------------------|------------|-------------|------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 54,000 | 40 | Other Vehicles | 94.00 | 0.004 | 82 |
| | | Single Unit Truck | 4.00 | 0.500 | 432 |
| | | Multi Unit Truck | 2.00 | 2.680 | 1,158 |
| Total Daily ESALs | | | | | 1,672 |
| Total Design Period ESALs | | | | | 12,205,600 |

| Design Data | | | | | | | |
|---|------|----------------------|---------------------------------------|-----------------------------------|-----------|-------------------------------------|-----|
| Terminal Serviceability Index (P _t) | 2.50 | Working Stress (psi) | 450 | Modulus of Elasticity (psi) | 3,200,000 | | |
| Soil Support Value | 2.00 | Subgrade Modulus (k) | 110 | Subbase Modulus (k ₁) | 175 | Subbase Modulus (k _{eff}) | 175 |
| Trial Depth of PCC Pavement (inches) | | 10.00 | Calculated Stress from Equation (psi) | | | 494.96 | |
| % Overstressed | 9.99 | % Underdesigned | 9.08 | Balanced Thickness (inches) | | 10.53 | |
| Non-Standard Value Comment | | | | | | | |

| Proposed Rigid Pavement Structure | |
|--|--------------------|
| Material | Thickness (inches) |
| JPCP - Jointed Portland Cement Concrete Pavement | 10.00 |
| 19 mm Superpave Asphaltic Concrete Interlayer | 0.00 |
| Graded Aggregate Base | 10.00 |

| JPCP - Dowel Bar Size and Spacing |
|--|
| Refer to GDOT Standard 5046H: Joint Details for Portland Cement Concrete Paving |

| | |
|----------------|--|
| Design Remarks | Traffic values are 80% of PI 0007526. Adjustment accounts for difference in design year and decrease in traffic volumes throughout the northern portion of the corridor. |
|----------------|--|

| | | |
|----------------|---|-------------------|
| Prepared By |  Jonathan Langley, PE | 1/21/2015 3:07 PM |
| Recommended By | _____ Consultant Design Phase Leader | Date |
| Approved By | _____ State Pavement Engineer | Date |

Rigid Pavement Design Analysis

| | | | | | |
|-----------------------|--|---------------------|---------------------------------------|----------------|-------|
| PI Number | 0013367 | County(s) | Forsyth (south) & Fulton (north) | | |
| Project Number | 0013367 | Design Name | GA 400 Inside Shoulders - JPC and RCC | | |
| Project Description | SR 400 between McFarland Pkwy and Bald Ridge Marina Road | | | | |
| Section Location | PI 0013667 - Inside Shoulders | | | Type Section | JPCP |
| Begin Section Station | 100+00 | End Section Station | 600+00 | Section Length | 50000 |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|-------------------|-------|-----------------|--------------------|------------------------|-----|
| Initial Design Year | 2015 | Initial AADT, VPD | 2,250 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2035 | Final AADT, VPD | 3,150 | SU Truck % | 4.00 | Curb & Gutter/Barrier | Yes |
| | | Mean AADT, VPD | 2,700 | MU Truck % | 2.00 | Interstate | No |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|---------|-------------------|------------|-------------|------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 2,700 | 40 | Other Vehicles | 94.00 | 0.004 | 5 |
| | | Single Unit Truck | 4.00 | 0.500 | 22 |
| | | Multi Unit Truck | 2.00 | 2.680 | 58 |
| Total Daily ESALs | | | | | 85 |
| Total Design Period ESALs | | | | | 620,500 |

| Design Data | | | | | | | |
|---|------|----------------------|---------------------------------------|-----------------------------------|-----------|-------------------------------------|-----|
| Terminal Serviceability Index (P _t) | 2.50 | Working Stress (psi) | 450 | Modulus of Elasticity (psi) | 3,200,000 | | |
| Soil Support Value | 2.00 | Subgrade Modulus (k) | 110 | Subbase Modulus (k ₁) | 155 | Subbase Modulus (k _{eff}) | 155 |
| Trial Depth of PCC Pavement (inches) | | 7.00 | Calculated Stress from Equation (psi) | | | 386.90 | |
| % Understressed | | 14.02 | % Overdesigned | | 16.31 | Balanced Thickness (inches) | |
| Non-Standard Value Comment | | | | | | | |

| Proposed Rigid Pavement Structure | |
|--|--------------------|
| Material | Thickness (inches) |
| JPCP - Jointed Portland Cement Concrete Pavement | 7.00 |
| 19 mm Superpave Asphaltic Concrete Interlayer | 0.00 |
| Graded Aggregate Base | 8.00 |

| JPCP - Dowel Bar Size and Spacing |
|--|
| Refer to GDOT Standard 5046H: Joint Details for Portland Cement Concrete Paving |

| | |
|-----------------------|--|
| Design Remarks | Design JPC and use same thickness for RCC. Use 5% of mainline traffic for shoulder design. |
|-----------------------|--|

Prepared By Jonathan Langley, PE 1/21/2015 3:15 PM
Date

Recommended By _____
Consultant Design Phase Leader Date

Approved By _____
State Pavement Engineer Date

Rigid Pavement Design Analysis

| | | | | | |
|------------------------------|--|----------------------------|--|-----------------------|-------|
| PI Number | 0013367 | County(s) | Forsyth (south) & Fulton (north) | | |
| Project Number | 0013367 | Design Name | SR 400 Outside Shoulders - JPC and RCC | | |
| Project Description | SR 400 between McFarland Pkwy and Bald Ridge Marina Road | | | | |
| Section Location | SR 400 Outside Shoulders | | | Type Section | JPCP |
| Begin Section Station | 100+00 | End Section Station | 600+00 | Section Length | 50000 |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|--------------------------|--------|------------------------|--------------------|----------------------------------|-----|
| Initial Design Year | 2015 | Initial AADT, VPD | 45,000 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2016 | Final AADT, VPD | 45,000 | SU Truck % | 4.00 | Curb & Gutter/Barrier | Yes |
| | | Mean AADT, VPD | 45,000 | MU Truck % | 2.00 | Interstate | No |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|---------|-------------------|------------|-------------|------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 45,000 | 40 | Other Vehicles | 94.00 | 0.004 | 68 |
| | | Single Unit Truck | 4.00 | 0.500 | 360 |
| | | Multi Unit Truck | 2.00 | 2.680 | 965 |
| Total Daily ESALs | | | | | 1,393 |
| Total Design Period ESALs | | | | | 508,445 |

| Design Data | | | | | | | | |
|--|------|-----------------------------|-----------------------|--|-----------|--|-----|------|
| Terminal Serviceability Index (P_t) | 2.50 | Working Stress (psi) | 450 | Modulus of Elasticity (psi) | 3,200,000 | | | |
| Soil Support Value | 2.00 | Subgrade Modulus (k) | 110 | Subbase Modulus (k₁) | 155 | Subbase Modulus (k_{eff}) | 155 | |
| Trial Depth of PCC Pavement (inches) | | | 7.00 | Calculated Stress from Equation (psi) | | 365.01 | | |
| % Understressed | | 18.89 | % Overdesigned | | 23.28 | Balanced Thickness (inches) | | 6.09 |
| Non-Standard Value Comment | | | | | | | | |

| Proposed Rigid Pavement Structure | |
|--|--------------------|
| Material | Thickness (inches) |
| JPCP - Jointed Portland Cement Concrete Pavement | 7.00 |
| 19 mm Superpave Asphaltic Concrete Interlayer | 0.00 |
| Graded Aggregate Base | 8.00 |

| JPCP - Dowel Bar Size and Spacing |
|--|
| Refer to GDOT Standard 5046H: Joint Details for Portland Cement Concrete Paving |

| | |
|-----------------------|--|
| Design Remarks | Traffic values are 80% of PI 0007526. Adjustment accounts for difference in design year and decrease in traffic volumes throughout the northern portion of the corridor. Pavement designed as JPCP and intended for use as RCC |
|-----------------------|--|

Prepared By _____ 1/21/2015 3:18 PM
Jonathan Langley, PE **Date**

Recommended By _____
Consultant Design Phase Leader **Date**

Approved By _____
State Pavement Engineer **Date**

Flexible Pavement Design Analysis

| | | | |
|----------------------------|--|--------------------|----------------------------------|
| PI Number | 0013367 | County(s) | Forsyth (south) & Fulton (north) |
| Project Number | 0013367 | Design Name | SR 400 General Purpose Widening |
| Project Description | SR 400 between McFarland Pkwy and Bald Ridge Marina Road | | |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|--------------------------|--------|------------------------|--------------------|----------------------------------|----|
| Initial Design Year | 2015 | Initial AADT, VPD | 45,000 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2035 | Final AADT, VPD | 63,000 | SU Truck % | 4.00 | Curb & Gutter/Barrier | No |
| | | Mean AADT, VPD | 54,000 | MU Truck % | 2.00 | | |

| Design Data | | | | | |
|--------------------------------------|-------|---------------------------------|------|-------------------------------|------|
| Lane Distribution Factor (%) | 40.00 | Soil Support Value | 2.00 | Single Unit ESAL | 0.40 |
| Terminal Serviceability Index | 2.50 | Regional Factor | 1.80 | Multiple Unit ESAL | 1.50 |
| | | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 0.77 |
| Non-Standard Value Comment | | | | | |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|---------|-------------------|------------|-------------|------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 54,000 | 40.00 | Single Unit Truck | 4.00 | 0.40 | 346 |
| | | Multi Unit Truck | 2.00 | 1.50 | 648 |
| Total Daily ESALs | | | | | 994 |
| Total Design Period ESALs | | | | | 7,256,200 |

| Proposed Flexible Full Depth Pavement Structure | | | | |
|---|-----------------------|---|------------------------|--------------------|
| Course | Material | Thickness (inches) | Structural Coefficient | Structural Value |
| Course 1 | 12.5 mm OGFC | 90 lbs/sy | 0.0000 | 0.00 |
| Course 2 | 12.5 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Course 3 | 19 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Course 4 | 25 mm Superpave | 0.50 | 0.4400 | 0.22 |
| | | 7.50 | 0.3000 | 2.25 |
| Course 5 | Graded Aggregate Base | 12.00 | 0.1600 | 1.92 |
| Required SN | 6.43 | Proposed pavement is 4.36% Underdesigned | | Proposed SN |
| | | | 6.15 | |

| | |
|-----------------------|--|
| Design Remarks | Traffic values are 80% of PI 0007526. Adjustment accounts for difference in design year and decrease in traffic volumes throughout the northern portion of the corridor. |
|-----------------------|--|

Prepared By Jonathan Langley, PE 1/21/2015 3:04 PM
Date

Recommended By _____
Consultant Design Phase Leader Date

Approved By _____
State Pavement Engineer Date

Flexible Pavement Design Analysis

| | | | |
|----------------------------|--|--------------------|----------------------------------|
| PI Number | 0013367 | County(s) | Forsyth (south) & Fulton (north) |
| Project Number | 0013367 | Design Name | GA 400 Inside Shoulders |
| Project Description | SR 400 between McFarland Pkwy and Bald Ridge Marina Road | | |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|-------------------|-------|-----------------|--------------------|------------------------|-----|
| Initial Design Year | 2015 | Initial AADT, VPD | 2,250 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2035 | Final AADT, VPD | 3,150 | SU Truck % | 4.00 | Curb & Gutter/Barrier | Yes |
| | | Mean AADT, VPD | 2,700 | MU Truck % | 2.00 | | |

| Design Data | | | | | |
|-----------------------------------|-------|--------------------------|------|------------------------|------|
| Lane Distribution Factor (%) | 40.00 | Soil Support Value | 2.00 | Single Unit ESAL | 0.40 |
| Terminal Serviceability Index | 2.50 | Regional Factor | 1.80 | Multiple Unit ESAL | 1.50 |
| | | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 0.77 |
| Non-Standard Value Comment | | | | | |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|---------|-------------------|------------|-------------|------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 2,700 | 40.00 | Single Unit Truck | 4.00 | 0.40 | 18 |
| | | Multi Unit Truck | 2.00 | 1.50 | 33 |
| Total Daily ESALs | | | | | 51 |
| Total Design Period ESALs | | | | | 372,300 |

| Proposed Flexible Full Depth Pavement Structure | | | | |
|---|--------------------------|--|------------------------|--------------------|
| Course | Material | Thickness (inches) | Structural Coefficient | Structural Value |
| Course 1 | 9.5 mm Type II Superpave | 1.25 | 0.4400 | 0.55 |
| Course 2 | 19 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Course 3 | 25 mm Superpave | 1.25 | 0.4400 | 0.55 |
| | | 0.75 | 0.3000 | 0.23 |
| Course 4 | Graded Aggregate Base | 8.00 | 0.1600 | 1.28 |
| Required SN | 4.24 | Proposed pavement is 17.82% Underdesigned | | Proposed SN |
| | | | | 3.49 |

| | |
|-----------------------|--|
| Design Remarks | Use 5% of mainline traffic for shoulder design |
|-----------------------|--|

Prepared By _____ 1/21/2015 3:00 PM
Jonathan Langley, PE **Date**

Recommended By _____
Consultant Design Phase Leader **Date**

Approved By _____
State Pavement Engineer **Date**

Flexible Pavement Design Analysis

| | | | |
|----------------------------|--|--------------------|-------------------------------------|
| PI Number | 0013367 | County(s) | Forsyth (south) & Fulton (north) |
| Project Number | 0013367 | Design Name | SR 400 Outside Shoulders - Flexible |
| Project Description | SR 400 between McFarland Pkwy and Bald Ridge Marina Road | | |

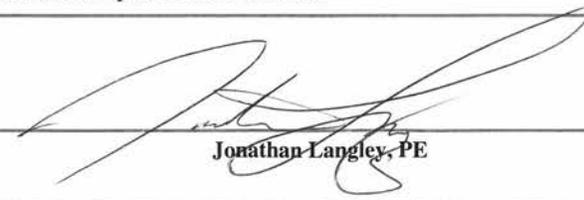
| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|-------------------|--------|-----------------|--------------------|------------------------|----|
| Initial Design Year | 2015 | Initial AADT, VPD | 45,000 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2035 | Final AADT, VPD | 63,000 | SU Truck % | 4.00 | Curb & Gutter/Barrier | No |
| | | Mean AADT, VPD | 54,000 | MU Truck % | 2.00 | | |

| Design Data | | | | | | |
|-----------------------------------|-------|--------------------|--------------------------|--------------------|------------------------|------|
| Lane Distribution Factor (%) | 40.00 | Soil Support Value | 2.00 | Single Unit ESAL | 0.40 | |
| Terminal Serviceability Index | 2.50 | Regional Factor | 1.80 | Multiple Unit ESAL | 1.50 | |
| | | | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 0.77 |
| Non-Standard Value Comment | | | | | | |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|---------|-------------------|------------|-------------|------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 54,000 | 40.00 | Single Unit Truck | 4.00 | 0.40 | 346 |
| | | Multi Unit Truck | 2.00 | 1.50 | 648 |
| Total Daily ESALs | | | | | 994 |
| Total Design Period ESALs | | | | | 7,256,200 |

| Proposed Flexible Full Depth Pavement Structure | | | | |
|---|-----------------------|---|------------------------|--------------------|
| Course | Material | Thickness (inches) | Structural Coefficient | Structural Value |
| Course 1 | 12.5 mm OGFC | 90 lbs/sy | 0.0000 | 0.00 |
| Course 2 | 12.5 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Course 3 | 19 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Course 4 | 25 mm Superpave | 0.50 | 0.4400 | 0.22 |
| | | 7.50 | 0.3000 | 2.25 |
| Course 5 | Graded Aggregate Base | 12.00 | 0.1600 | 1.92 |
| Required SN | 6.43 | Proposed pavement is 4.36% Underdesigned | | Proposed SN |
| | | | | 6.15 |

| | |
|-----------------------|--|
| Design Remarks | Traffic values are 80% of PI 0007526. Adjustment accounts for difference in design year and decrease in traffic volumes throughout the northern portion of the corridor. |
|-----------------------|--|

Prepared By _____ 1/21/2015 3:06 PM

Jonathan Langley, PE **Date**

Recommended By _____ **Date**
Consultant Design Phase Leader

Approved By _____ **Date**
State Pavement Engineer