

AGENDA
GPATS POLICY COORDINATING COMMITTEE
APRIL 18, 2016
Suite 400 - Greenville County Square
10:00 a.m.

- | | | | |
|---------|-----|--|---|
| | 1. | CALL TO ORDER / WELCOME AND INTRODUCTIONS | <i>Chairman
Councilman Butch Kirven</i> |
| action: | 2. | APPROVAL OF THE FEBRUARY 22, 2015 COMMITTEE MINUTES | Attachment 1 |
| | 3. | PUBLIC COMMENT | <i>Chairman
Councilman Butch Kirven</i> |
| | 4. | SCDOT PROJECT STATUS UPDATE | Attachment 2
<i>Tommy Elrod, PE
SCDOT Project Manager</i> |
| | 5. | 2016 TRANSPORTATION ALTERNATIVES PROGRAM UPDATE | Attachment 3
<i>Keith Brockington
GPATS Transportation Manager</i> |
| action: | 6. | GPATS 2016-2021 TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT #3 | Attachment 4
<i>Keith Brockington
GPATS Transportation Manager</i> |
| action: | 7. | EAST BUTLER ROAD CORRIDOR PLAN PRESENTATION | Attachment 5
<i>John Gardner
City of Mauldin, Economic Development</i> |
| | 8. | GPATS 2040 LONG-RANGE TRANSPORTATION PLAN KICK-OFF | Attachment 6
<i>Keith Brockington
GPATS Transportation Manager</i> |
| action: | 9. | TIGER VIII GRANT PRESENTATION | Attachment 7
<i>Keith Brockington
GPATS Transportation Manager</i> |
| | 10. | OLD BUSINESS | |
| | 11. | NEW BUSINESS | |
| | 12. | ADJOURN | |

MINUTES
GPATS POLICY COORDINATING COMMITTEE
February 22, 2016
Suite 400 – County Square
10:00 a.m.

MEMBERS PRESENT: Chairman Butch Kirven, Vice Chairman Senator Martin, Representative Smith, Representative Burns, Representative Loftis, Councilor Meadows, Councilor Payne, County Council Chair Taylor, Councilor Norris, Councilor Smith, Commissioner Willard, Mayor Baughman, Mayor Cook, Mayor Bagwell, Mayor Lee, Mayor Raines, Mayor Danner, Mayor Durham, Mayor Owens, Mayor Curtis, Keith Brockington and M. Carter

OTHERS PRESENT: P. Gucker, E. Vinson, H. Hahn, S. Julius, M. Floyd H. Gamble, E. Dillon, C. Nelson, T. Elrod, J. Chasteen, W. Elgin, D. Purgess, D. Dryhaug, D. Cooper, C. Unic, E. Case, M. Freeman and J. Horton.

CALL TO ORDER

Chairman Kirven called the meeting to order at 10:00 a.m. and welcomed the new GPATS members; Simpsonville Mayor Janice Curtis, Ft. Inn Mayor Sam Lee and GTA Board Chair Matt Carter.

APPROVAL OF THE MINUTES OF THE SEPTEMBER 28, 2015 COMMITTEE MEETING.

MOTION: By Senator Martin, to approve the minutes of the September 28, 2016 meeting as presented. The motion carried unanimously by voice vote.

PUBLIC COMMENT

There were no individuals signed up to speak.

SCDOT PROJECT STATUS UPDATE

Tommy Elrod with the SCDOT introduced Mr. Wilson Elgin, Engineer for the Upstate Regional Production Group. He gave the Committee an update on the various projects within the GPATS area. He spoke on the SC-153 extension, stating right of way that is needed is currently being acquired. Mr. Elrod stated the permitting process looked favorable. An application has been submitted to the CORP, recommending using the adjacent mitigation bank that was outside the watershed area of the project. Upstate Forever was opposed to the recommendation and had several suggestions. Mr. Elrod stated there was a site in northern Greenville County that looks favorable and we would be able to purchase. Hopefully there will be an approved permit by late summer. Construction would begin soon after.

Mr. Elrod spoke to the I-85/I-385 project, stating contractors have begun work. Substantial construction completion date would be October of 2018. Additionally, SCDOT was pursuing two additional widening projects in the area, from Pelham Road to BMW and from 385 to White Horse Road.

Mr. Elrod stated in May there would be opening bids for pavement rehab projects.

Mr. Elrod went over other projects which were included in the Committees agenda packet.

2016 TRANSPORTATION ALTERNATIVES PROGRAM CALL FOR PROJECTS

Keith Brockington informed the Committee of the annual cycle for the Transportation Alternative Program shall be opened for Fiscal Year 2016, for all eligible jurisdictions who currently do not have an active application or project less than 50% complete. He stated he was expecting notification of the FY2016 TAP Apportionment to GPATS in early spring. He explained all GPATS jurisdictions have been provided with applications and the applications are due by Friday, February 26, 2016. Mr. Brockington gave the tentative schedule for review and submission to GPATS.

GPATS DIRECT RECIPIENT STATUS/TRANSIT COORDINATION COMMITTEE

Keith Brockington addressed the Committee members with news of GPATS receiving Direct Recipient Status, allowing the Committee to fully manage the Transit Section 5339 and 5310 programs within the Greenville and Mauldin-Simpsonville Urbanized Areas. He stated as part of receiving the Recipient Status, GPATS is required to have a Transit Coordinating Committee (TCC), comprised of staff relevant to transit to meet regularly to discuss any upcoming transit issues. Mr. Brockington stated the TCC would be comprised of a sub-committee of the GPATS Study Team and meet one week prior to Study Team meetings and brings recommendations to the Study Team to be passed to the Policy Committee. Membership on the TCC will be voluntary and open for any interested Study Team members, but will be required of GPATS GTA and CAT staff.

Mr. Brockington gave the Committee a list of the current membership and answered questions from the Committee regarding the membership.

MOTION: By Councilor Smith to approve the creation of the Transit Coordinating Committee. The motion carried unanimously by voice vote.

GPATS TRANSIT PROJECT MANAGEMENT PLAN

Keith Brockington informed the Committee as part of the GPATS Direct Recipient Status, GPATS is required to adopt a Project Management Plan for transit. He stated a Project Management Plan serves to detail the roles and responsibilities of GPATS as it carries

out duties as an FTA Direct Recipient Grantee, identify partners, describe the GPATS Transit Program and formally state policies with regard to compliance in areas such as Civil Rights and ADA. Mr. Brockington stated Sam Julius, Transit Planning and Grants Manager will be responsible for the plan and insure that GPATS remains in compliance.

MOTION: By Councilor Smith, seconded by Representative Loftis to approve the GPATS Transit Project management Plan

GPATS 2016-2021 TRANSPORTATION IMPROVEMENT PROGRAM AMENDMENT #2

Mr. Brockington addressed the Committee with an amendment to the Transportation Improvement Program as follows:

- Inclusion of FY 2016 Interstate Rehab of I-385 of \$30,000,000
- Inclusion of FY 2016 Section 5303/GPATS UPWP Element 303 funding of \$100,000 for Planning Funds for mass Transit
- Breakdown of FY 2014/2015 Section 5339 funding between GTA and CAT based on applications for Bus Replacement capital purchases.
- Inclusion of the SCDOT's FY 2016 Vehicle Replacement Initiative, with the awarded amounts for GTA and CAT.

MOTION: By Senator Martin, seconded by Mayor Bagwell to approve the GPATS 2016-2012 Transportation Improvement Program Amendment #2. The motion carried unanimously by voice vote.

Chairman Kirven asked Commissioner Willard if he had anything to report to the Committee.

Commissioner Willard stated Christy Hall was now the Secretary of Transportation. He stated both the SCDOT and Commission have provided additional information to the Senate Transportation as well as the Finance Committee. Hopefully the information has provided them a foundation to make a decision.

Senator Martin briefed the Committee on the debate in Columbia regarding roads and increase in gas tax.

OLD BUSINESS

There was no old business.

NEW BUSINESS

GPATS 2040 LONG-RANGE TRANSPORTATION PLAN KICK-OFF

Keith Brockington addressed the Committee on the LRTP kick-off, with the formal Kick-off to be April 1, 2016. Mr. Brockington presented a tentative schedule for the LRTP and noted staff was preparing to hold at least seven (7) meetings per round, reaching all major areas of the GPATS region. He stated once underway more information will be sent out and at each Policy Committee meeting during this time, reports will be given on progress made and upcoming meetings. The tentative schedule is:

- Spring 2016 – Kickoff
- Summer 2016 – Initial Rounds of Public Involvement
- Fall/Winter 2016 – Travel Model, Data Processing
- Spring 2017 – Project/Document Finalization
- Fall 2017 – LRTP Adoption

ADJOURNMENT

There being no further business, and without objection the meeting adjourned at 11:08 a.m.

Submitted by Recording Secretary

GPATS Projects Status Report – April, 2016

Non-Guideshare Projects

Interstate

I-85/I-385 Interchange: design-build project to upgrade the I-85/I-385 interchange and to complete the 6-laning of I-385 between Butler and Roper Mountain Roads; construct auxiliary lanes and widen ramps on I-85 between Pelham Road and I-385; add collector-distributor roads along I-385 and replace loop ramps with directional ramps; this project will also replace the Roper Mountain Road bridge over I-85, improve the Woodruff Road @ Garlington/Miller Roads intersection and other improvements to Woodruff Road between I-85 and Market Point Drive, and upgrade the traffic signals on Woodruff Road between Roper Mountain Road/Verdae Boulevard and SC 14; cost proposals opened 8/6/14, with Flatiron Constructors/Zachry Construction Corp Joint Venture the winning team, with a low bid of \$231,116,087 and a construction time of 1,035 days, starting 12/14/2015 (NTP #2); construction activities began late January 2016, with substantial completion expected late 2018

I-85 Widening from Pelham Road to SC 101: widen selected segments of I-85 to 8 lanes from Pelham Road to SC 101; includes replacing the Rocky Creek culvert with a bridge and raising the grade of I-85 just south of Pelham Road; also includes replacing the S. Batesville Road bridge over I-85; began preliminary engineering (Michael Baker is consultant) late 2015, with environmental phase/NEPA document expected complete within 24 months; construction scheduled to begin FY 20

I-85 Widening from White Horse Road to Woodruff Road, and improve I-85/Laurens Road interchange: widen selected segments of I-85 to 8 lanes from White Horse Road to Woodruff Road, and upgrade the I-85/Laurens Road interchange; includes the replacement of the Ridge Road bridge over I-85, and 50% funding participation in the replacement of the Salters Road bridge over I-85; began preliminary engineering (HDR/ICA Engineering is consultant) late 2015, with environmental phase/NEPA document expected complete within 24 months; construction scheduled to begin FY 20

I-385 Pavement Rehabilitation: rehabilitate and resurface I-385 from near Stone Avenue to Roper Mountain Road; construction scheduled to begin summer 2016; expect some extended lane closures (over weekend) for southbound outside lane on I-385

I-85/SC 290 Interchange: convert the existing diamond interchange to a diverging diamond type interchange and improve the ramps; began preliminary engineering (Kimley-Horn is consultant) late 2015 with construction scheduled to begin FY 19

I-85 Widening in Spartanburg/Cherokee Counties: widen 16 miles of I-85 to 6 lanes from Gossett Road, Exit 79, to SC 18, Exit 96; includes preliminary engineering for the final 10 miles from SC 18 to the NC line; began preliminary engineering in FY 14; short-listed three teams March 2016: Archer Western/Sloan, Blythe/Zachry, and Lane Construction, with design-build bid opening scheduled for fall 2016; total estimated budget of \$320 million

I-85 Park and Ride Lot: SCDOT has selected AECOM to assist with the identification and design of a park and ride facility along the I-85 corridor; R/W is scheduled for FY 19 and construction for FY 20

Bridges

S-164 Gibbs Shoals Road over Enoree River, south of Greer: replace bridge; PE began late 2015 with R/W in FY 17 and construction in FY 19

S-42-75 Mt. Lebanon Church Road bridge replacements over M. Tyger River and tributary of M. Tyger River in Spartanburg County: began PE in late 2015 with R/W in FY 18 and construction in FY 19

S-272 W. Georgia Road over Reedy River, west of Simpsonville: begin PE in FY 15 with R/W in FY 17 and construction in FY 18

US 29 Church Street bridge over S-75 McBee Avenue in the City of Greenville: rehab bridge deck and paint steel beams; PE began late 2015 with construction scheduled to begin spring 2017; expect lane closures

S-335 Edwards Road over tributary to Enoree River, west of Taylors: Act 98 special bridge replacement program, open bids May 2015, with a 4/30/16 completion date (for 5 bridges)

S-191 Jones Mill Road over Howard Branch, north of Ft. Inn: Act 98 program, open bids May 2015, with a 4/30/16 completion date (for 5 bridges)

S-384 Shannon Drive over Brushy Creek, north of GSP Airport between E. North Street and Edwards Road: Act 98 program, construction schedule pending

S-154 Tall Pines Road over Payne Branch, Act 98 program, construction schedule pending

S-903 Willis Road over Beaverdam Creek, northwest of Sandy Flat: Act 98 program, construction schedule pending

S-160 Jones Mill Road over Six Mile Creek, southwest of Six Mile in Pickens County: emergency bridge replacement scheduled for construction in 2015

S-318 Lakeshore Drive over Lake Lanier Dam/Spillway, northwest of Landrum in Greenville County: bridge replacement scheduled for construction in 2016/2017

Safety

SC 146 @ SC 417: improve the intersection of Woodruff Road and Lee Vaughn Road in Greenville County; a roundabout is proposed; construction scheduled to begin late 2016

SC 101 @ S-135: improve the intersection of Saluda Gap Road and N. McElhaney Road near the Lake Cunningham Fire Department in Greenville County; roundabout design stopped due to local opposition; alternative designs will be investigated

TAP

Swamp Rabbit Trail Extension, from Trade Street to Loma Street in the City of Simpsonville: 2,700' multi-use path to be constructed between S. Main Street and the railroad tracks; PE scheduled to begin April 2016, with R/W in FY 18 and construction in FY 19

Woodruff Road Sidewalk, along the north side of Woodruff Road from Roper Mountain Road to Old Country Road, near I-85; administered by the City of Greenville; environmental document scheduled for April 2016, with R/W acquisitions summer 2016, and construction late FY 2016

Federal Earmark

Fairforest Way Phase 2 improvements between Ridge Road and Laurens Road: project management provided by the City of Greenville; funding is federal earmark funds with the City of Greenville providing the 20% matching funds (since Fairforest Way is a city-maintained road); R/W acquisitions complete with construction scheduled to begin mid-2016

Guideshare Projects

GPATS TIP

SC 101/290 N. Buncombe Road in Greer: widen N. Buncombe to 5 lanes from Wade Hampton Blvd to the intersection of Locust Hill and Saluda Gap Roads; construction bids opened October 2014 with only two bids received; re-bid February 2015, with Eagle Construction the low bidder at \$4,221,145.18, with a 5/31/16 completion date

S-164 Batesville Road in Greenville County: widen 2.2 miles of Batesville Road to 3 lanes with curb, gutter, sidewalks and bike lanes from SC 14 to Roper Mountain Road; includes new traffic signals at Pelham Falls, Anderson Ridge Road and Roper Mountain Road, and relocating 2,200-ft. of Batesville Road at Ebenezer UMC to avoid impacts to cemetery; R/W acquisition process begun September 2014, with construction scheduled to begin summer 2017

SC 183/Jim Hunt Road Intersection in Pickens County: provide turning lanes on SC 183 (Farrs Bridge Road) at Jim Hunt Road; scheduled for April 2016 bid opening, with construction beginning summer 2016; a crest vertical curve on SC 183 will have to be lowered about 3 feet (via a temporary detour) due to the crash history and to meet sight distance requirements

SC 183/Jameson Road Intersection in Pickens County: construct roundabout at the intersection of SC 183 (Farrs Bridge Road) and Jameson Road; R/W acquisition process currently on hold; construction scheduled to begin spring 2018

Roper Mountain Road in Greenville County: widen Roper Mountain Road between Garlington and Feaster Roads to three lanes with curb, gutter and sidewalks; opened bids November 2014 with only 2 bids received; re-bid March 2015, with Sloan Construction the only bidder at \$5,564,915.82, with a mid-November 2016 completion date

US 178/SC 93 Intersection in Liberty: provide turning lanes at the intersection of US 178 and SC 93; opened bids 2/9/16, with Thrift Development low bidder at \$1,367,895.02; sewer upgrades by City of Liberty contractor scheduled for mid-April to mid-June; construction scheduled to begin June 2016, with completion expected by summer 2017

SC 153 Extension in Easley: extend SC 153 from US 123 to Saluda Dam Road, a distance of 3 miles, including new bridges over the railroad and Hamilton Creek; R/W acquisition process began mid-2014; anticipate securing Corps of Engineer's permit late 2016, with construction beginning May 2017

Salters Road in Greenville: widen Salters Road from Verdae Blvd. to Millennium Blvd., including a new bridge over I-85; opened bids November 2015 with Flatiron-Zachry joint venture low bidder at \$12,858,515.28; expect to close the road and bridge beginning May 2016, with re-opening August 2017; funding for the I-85 bridge replacement is shared 50/50 by this project and the I-85 widening project (White Horse Rd. to Woodruff Rd.)

Woodruff Road/I-85 Ramp Modifications in Greenville: improve the NB I-85 exit ramp at Woodruff Road, the Woodruff Road/Carolina Point Parkway intersection and the WB Woodruff Road entrance ramp to I-85; R/W acquisition and construction will be accomplished as a part of the I-85/385 design-build project

Woodruff Road @ Garlington/Miller Roads in Greenville: improve the intersection of Woodruff Road at Garlington/Miller Roads by providing additional turning lanes; R/W acquisition and construction will be accomplished as a part of the I-85/385 design-build project

SC 290 @ SC 253 in northern Greenville County: improve the intersection of Locust Hill Road and Mountain View Road in the Sandy Flat community; construction bids opened June 2015, with Eagle Construction the low bidder at \$1,263,973, with expected completion summer 2016

Brushy Creek Road @ Strange/Kimbrell Roads adjacent to Eastside HS: improve the intersection of Brushy Creek Road at Strange/Kimbrell Roads by providing additional turning lanes; opened bids November 2014, with Eagle Construction the low bidder at \$1,675,405.19. Contract completion was 10/31/15.

US 178 Ann Street in the City of Pickens: this is a jointly funded project with the Pickens CTC; the intent is to improve US 178 from Main Street to just beyond the Jones Street intersection; the CTC through their consultant (Transystems) will prepare R/W and construction plans utilizing CTC funds, and contribute approx. \$1.4 million towards construction; SCDOT will prepare the environmental document, and manage the R/W, utility relocation and construction phases; a public information meeting was held Feb. 2, 2012; R/W acquisition process is underway with construction beginning early 2017

SC 146 Woodruff Road Widening in Greenville County: widen Woodruff Road from Scuffletown Road to Bennetts Bridge Road (SC 296) and improve Scuffletown Road between Woodruff Road and Adams Mill Road; public information meeting held 3/17/15; R/W acquisition process initiated September 2015, with construction scheduled to begin by summer 2017

SC 14 improvements between Five Forks Road and Bethel Road in Greenville County; add dual left turn lanes at Five Forks Road and at Bethel Road, improve the Five Forks Rd/Parkside Drive intersection, and add one lane in each direction to SC 14 between the 2 intersections; R/W acquisition process scheduled to begin fall 2016 with construction beginning fall 2017

Roper Mountain Road Extension (S-547) improvements between Pelham Road and Roper Mountain Road in Greenville County; widen to 3 lanes with curb/gutter/sidewalk; \$1,496,391 consultant agreement with ICA Engineering executed 1/29/13; public information meeting held 12/4/14; R/W acquisition process initiated September 2015 with construction beginning spring 2018

Roper Mountain Road (S-183/S-548) improvements between Roper Mountain Road Ext. and I-85; widen to 5 lanes with curb/gutter/sidewalk from near RMR Extension to Blacks Drive, and to 3 lanes for the remainder; \$1,114,188 consultant agreement executed with ICA Engineering executed 1/29/13; public information meeting held 12/4/14; R/W acquisition process initiated September 2015 with construction beginning spring 2018

Woodruff Road Parallel: new location, 4-lane divided roadway with multi-use path, from Miller Road to Verdae Boulevard; includes new bridge over I-85; begin preliminary engineering 2016, with the R/W acquisition phase scheduled to begin FY 18 and construction in FY 21

SC 153 Corridor Improvements in Powdersville: various corridor improvements including turning lanes and median crossover reconstruction along SC 153 from I-85 to Old Pendleton Road; median crossover reconstruction would allow left turns from SC 153 onto the side road but would prohibit left turns from the side road onto SC 153; begin preliminary engineering fall 2015 with R/W acquisitions scheduled for FY 18 and construction for FY 19/20

Please contact SCDOT Program Manager Tommy Elrod with any questions or comments.
elrodit@scdot.org 864-239-6098 office 864-982-0080 cell



Greenville County Planning Department

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Attachment 3

MEMORANDUM

TO: GPATS Policy Committee

FROM: GPATS Staff

DATE: April 18, 2016

SUBJECT: GPATS 2016 Transportation Alternatives Program Update

In February, GPATS Staff issued the Call for Projects for the FY 2016 Cycle for the Transportation Alternatives Program.

Staff has received two applications:

- City of Greenville – Haywood Road Sidewalk - \$400,000 + match
 - May request increase to fill available funding
- City of Mauldin – Fowler Circle Multi-Use Path - \$63,050 + match
 - Amendment to existing TAP Project (FY13)

These two applications, fitting within the allocated amount of \$643,694, will both be accepted. Final inclusion of the projects into the GPATS TIP will occur in June.

This information is being provided for informational purposes only, and no action by the Policy Committee is required at this time.



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Attachment 4

MEMORANDUM

TO: GPATS Policy Committee

FROM: GPATS Staff

DATE: April 18, 2016

SUBJECT: GPATS 2016-2021 TIP Amendment AC#3

Please find attached, **Attachment 4.2**, the GPATS 2016-2021 Transportation Improvement Program Financial Statement reflective of changes to be included in Amendment/Correction #3.

Changes to be made include:

- Breakout of GTA FY2015 Allocation of Section 5307 funding of \$2,070,333 into categories for FTA drawdown.
 - o Capital: \$142,597
 - o Operating: \$1,000,000
 - o Enhancements: \$20,703
 - o ADA: \$207,033
 - o Maintenance: \$700,000

The Policy Committee is being asked to approve the aforementioned changes, allowing adoption into the SCDOT State Transportation Improvement Program (STIP). This amendment will be noted as Amendment/Correction #3 or AC#3.

GPATS TRANSPORTATION IMPROVEMENT PROGRAM - FY 2016-2021 FINANCIAL STATEMENT

Amendment Version AC#3 - 3/28/2016

TIP Approved -- 6/15/2015 | AC#2 Approved -- 2/22/2016

(COST IN THOUSANDS)		TIP								
		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TIP COST (2016-2021)	
GUIDESHARE ALLOCATION		\$18,078	\$18,078	\$18,078	\$18,078	\$18,078	\$18,078	\$18,078	\$108,468	
DEBT SERVICE		(\$3,705)	(\$3,660)	(\$3,604)	(\$3,552)	(\$3,500)	(\$3,434)	(\$3,439)	(\$21,189)	
SCDOT SIGNAL RETIMING		(\$150)	(\$150)	(\$150)	(\$150)	(\$150)	(\$150)	(\$150)	(\$900)	
ALLOCATION AVAILABLE FOR PROJECTS		\$14,223	\$14,268	\$14,324	\$14,376	\$14,428	\$14,494	\$14,489	\$86,379	
CARRYOVER AVAILABLE FROM PREVIOUS FY		\$24,536	\$20,143	\$16,203	\$8,677	-\$4,047	-\$3,419	\$3,575		
GUIDESHARE SUBTOTALS		(\$18,616)	(\$17,283)	(\$21,850)	(\$27,100)	(\$13,800)	(\$7,500)	(\$21,000)	(\$108,533)	
BALANCE		20,143	17,128	8,677	(4,047)	(3,419)	3,575	(2,936)	(2,936)	
									FY14-19 GUIDESHARE SUMMARY	
KEY: P - PRELIMINARY ENGINEERING, R - RIGHT OF WAY, C - CONSTRUCTION, CA - CAPITAL PURCHASE * - IDENTIFIED IN THE INTERSTATE LONG RANGE PLAN FOR DESIGN PLANS ONLY ** - ENVIROMENTAL TO BE COMPLETED FOR PHASES 1 & 2 (Verdae to Millennium) *** - Projects to me merged with I-85 @ I-385 Design/Build **** - Projects may be combined for cost saving, if possible.		REVENUES		ALLOCATION	\$108,468					
				CARRYOVER	\$20,143					
		EXPENDITURES		PROJECTS	(\$108,533)					
				DEBT	(\$21,189)					
				OTHER	(\$900)					
		BALANCE		(\$2,011)						
		DRAFT CHANGES HIGHLIGHTED								

38119RD01	10	BUTLER ROAD (S-107) MAULDIN HIGH SCHOOL TO BRIDGES RD (FOUR LANES WITH MEDIAN WIDE OUTSIDE LANES AND SIDEWALKS)	300 P 199 R	1,999 C							Fully Obligated		STP
38112RD01	9/12	SALTERS ROAD - PHASE 1 & 2 VERDAE BLVD. TO MILLENIUM BLVD. (FOUR LANES WITH MEDIAN, BIKE LANES AND SIDEWALKS)	1,600 P 1,128 R	5,000 C 3,500 C 1,500 C	5,000 C						\$5,000		STP NHS/IM Local
39660RD01	5	WOODRUFF ROAD (SC-146) IMPROVEMENTS FROM NEAR SCUFFLETOWN RD (S-23-145) TO BENNETTS BRIDGE (SC-296) WITH IMPROVEMENTS TO INTERSECTIONS	400 P	350 PE 1,500 R	1,750 R	6,350 C					\$8,100		STP
TBD	14	US 123 WIDENING/ACCESS MANAGEMENT SC 135 TO SC 93 WIDEN TO 6 LANES W/ RAISED MEDIAN & TURN LANES @ INTERSECTIONS									On Hold		STP
42472RD01	6	ROPER MOUNTAIN EXTENSION (S-547) **** PELHAM ROAD TO ROPER MOUNTAIN ROAD (THREE LANES, BIKE LANES, AND SIDEWALK ON ONE SIDE)	1,550 P	600 R	600 R		2,000 C	3,500 C			\$6,100		STP
41472RD01	7	ROPER MOUNTAIN ROAD (S-548) **** ROPER MOUNTAIN EXT TO GARLINGTON ROAD (THREE LANES, BIKE LANES, AND SIDEWALK ON ONE SIDE)	1,150 P	750 R	750 R		2,500 C	3,500 C			\$6,750		STP
TBD	8	BUTLER ROAD (S-107) BRIDGES RD TO US 276 (FOUR LANES, DIVIDED, BIKE LANES AND SIDEWALKS)						500 P	3,000 R, C	8,500 C	\$12,000	\$5,000	STP
TBD	11	BATESVILLE ROAD (S-164) PELHAM ROAD TO THE PARKWAY (THREE LANES, WIDE OUTSIDE LANES, AND SIDEWALKS)						500 P	2,500 R, C	6,500 C	\$9,500	\$2,500	STP
		WOODRUFF ROAD PARALLEL WOODRUFF ROAD TO MILLER RD (FOUR LANE DIVIDED, PLANTED MEDIAN, AND MULTI-USE PATH)		2,900 P			2,000 R	4,000 R		6,000 C	\$12,000	\$26,400	STP
		SC-153 IMPROVEMENTS I-85 TO SC-123 (INTERSECTION IMPROVEMENTS, TURNING LANES)		500 P			1,000 R	1,800 C	2,000 C		\$4,800		STP
Existing Intersection Projects Currently in the TIP with Updated Schedule and Cost Estimates													
37687RD01		SC 101 AND FEWS CHAPEL	2,137								Complete		STP
37689RD01		WOODRUFF RD/I-85 INTERCHANGE RAMP MODIFICATIONS***	1,781 P										STP
37688RD01		WOODRUFF RD (SC 146) AND GARLINGTON/MILLER***	1,781 P										STP
38113RD01		LOCUST HILL (SC 290) AND MOUNTAIN VIEW (SC 253)	375 P,R	1,600 C									STP
39303RD01		US 178 AND SC 93	300 P 470 R 0 C		2,150 C						\$2,150		STP
37727RD01		FARRS BRIDGE/BLUE FLAME AND JEWEL/JONES	478 P 484 R 3,051 C								Fully Obligated		STP
39301RD01		BRUSHY CREEK AND STRANGE	549 P,R 2,067 C										STP
39542RD01		ANN ST (US 178) AND JONES ST	450 P,R		1,900 C						\$1,900		STP Pickens County CTC
41443RD01	3	SC 14 AT FIVE FORKS ROAD AND BETHEL ROAD	250 P	0 R	500 R	2,000 C					\$2,500		STP

GPATS FINANCIAL STATEMENT (CONT)

FED LIMIT	3,072
HEARMARK	
FED LIMIT	1,000

2016	S-23-22 - NEAR US-25 TO SANDY FLAT	Greenville		10,145 *									RECON &REHAB
2016	S-23-52 - S-570 TO SC-8	Greenville											RECON &REHAB
2016	S-23-104 - HIWASSE DR TO NEAR S-133	Greenville											RECON &REHAB
2016	S-23-170 - OLD BUNCOMBE TO US-25	Greenville											RECON &REHAB
2016	S-23-170 - NEAR US-25 TO US-25	Greenville											RECON &REHAB
2016	SC-253 - CONEST TO REID SCH RD	Greenville											RECON &REHAB
2016	SC-288 - PICKENS CO TO US-276	Greenville											RECON &REHAB
2016	US-25 - NEAR W GA TO WHITEHORSE EXT	Greenville											RECON &REHAB
2016	S-23-21 - US-29 TO US-276	Greenville		2,269 *									RECON &REHAB
2016	S-23-920 - SC 290 TO MILFORD CH RD	Greenville											RECON &REHAB
2016	SC-23-20 BRACKEN TO WHITEHORSE	Greenville											RECON &REHAB
2016	SC-253 - SC 291 TO CONE ST	Greenville											RECON &REHAB
2016	SC-291 - EDWARDS TO PINEY MTN	Greenville											RECON &REHAB
2016	SC- 291 - PINEY MTN TO STATE PARK	Greenville											RECON &REHAB
2016	SC-418 - GREENVILLE CO TO THOMPSON	Laurens		1,065 *									RECON &REHAB
2016	US-29 - GREENVILLE CO TO ARLINGTON	Spartanburg		7,494 *									RECON &REHAB
2016	US-29 - ARLINGTON TO PINE RIDGE	Spartanburg											RECON &REHAB
	BRIDGE US-29 AT S-23-75 - GREENVILLE	REHAB			60 P	2,400 C							BRIDGE REHAB
	BRIDGE US-29 AT US-29 - ANDERSON	REHAB		28 P		730 C							BRIDGE REHAB
	BRIDGE S-4-75 AT US-29 - ANDERSON	REPLACEMENT		543 P, R		1,200 R	8,400 C						BRIDGE REPLACE
	BRIDGE S-39-267 AT 12 MILE CREEK - PKN	REPLACEMENT	499 P		17 R		2,920 C						BRIDGE REPLACE
	BRIDGE S-23-164 AT ENOREE RIVER - GRV	REPLACEMENT		491 P		100 R		2,657 C					BRIDGE REPLACE
	BRIDGE S-42-75 AT TYGER RIVER - SPBG	REPLACEMENT		900 P			24 R	2,360 C					BRIDGE REPLACE
	BRIDGE S-42-75 AT RESIN CREEK - SPBG	REPLACEMENT		900 P			24 R	2,360 C					BRIDGE REPLACE
	BRIDGE S-23-335 AT ENOREE RIVER - GRV	REPLACEMENT	7,773 C										BRIDGE REPLACE
	BRIDGE S-23-164 AT ENOREE RIVER - GRV	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-526 AT N SALUDA - GRVL	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-191 AT HOWARD BR - GRVL	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-384 AT BRUSHY CREEK - GRV	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-270 AT S TYGER RIVER - GRV	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-154 AT PAYNE BRNCH - GRV	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-903 AT BEAVERDAM CR - GRV	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-132 AT ARMSTRONG CR - GRV	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-456 AT HORSE CREEK - GRV	REPLACEMENT											BRIDGE REPLACE
	BRIDGE S-23-272 AT REEDT - GRVL	REPLACEMENT		350 P		400 R	5,500 C						BRIDGE REPLACE
37569	WOODRUFF (SC 146) AND BENNETTS BRIDGE (SC 296) INTERSECTION		625								Complete		SAFETY
	SC 101 @ S-23-135 INTERSECTION		5,720	2,165							Complete		SAFETY
	SC 146 @ SC 417 INTERSECTION												SAFETY
	S-23-50 @ S-23-1912 INTERSECTION												SAFETY
	SC 101 @ S-23-546 INTERSECTION												SAFETY
	SC 290 @ S-23-171 INTERSECTION												SAFETY
	SC-291 @ S-23-7 INTERSECTION												SAFETY
	SC-8 @ S-4-485 INTERSECTION												SAFETY
	US-178 @ S-39-64 & S-39-326 INTERSECTION												SAFETY
	SC-186			1,200	4,364						4,364		SAFETY
	S-4-485												SAFETY
	US-178												SAFETY
	S-39-250												SAFETY
	S-23-46												SAFETY
	S-23-920 (Old Rutherford Rd) @ Old Greer Town Road				150	50	4,375				4,575		SAFETY
	S-23-132 (Old Hunts Bridge Rd)												SAFETY
	S-23-159 (Garrison Rd)												SAFETY
	S-23-22 (State Park Rd)												SAFETY
	S-23-279 (Reid School Rd)												SAFETY
	S-23-310 (Crestwood Rd)												SAFETY
	S-23-543 (Fairview St Ext/Greenpond Rd)												SAFETY
	S-23-84 (Standing Springs Rd)												SAFETY
	S-23-139 (Thomas Mill Rd)												SAFETY
	S-23-140 (Winding Creek Rd)												SAFETY
	US-29 CORRIDOR SIGNAL RETIMING		3,000										NHS/IM
	I-85 CORRIDOR MANAGEMENT PLAN				2,100 P								NHS/IM
38110	I-85 (WIDEN TO 8 LANES FROM US 25 TO SC 129)	21,050 P	6,995 P		24,325 P,R,C	3,580 P,R,C	10,220 R,C	185,180 P,C			\$ 223,305	\$0	NHS/IM
	I-85 REHAB FROM MM 47-49, MM 54-56	3,617 C									Complete		NHS/IM
	I-85 REHAB FROM MM 56-68	48,680 P,C									Complete		NHS/IM
P027223	I-385 REHAB FROM MM 36.69-42.1				30,000 P,C								NHS/IM
	I-385 (WIDEN TO 6 LANES FROM NORTH OF S-272 TO I-85)	80,600									Fully Obligated		NHS/IM
38111	I-85 @ I-385 (EXIT 51)	7,000 P 180,000 C	90,000 C								Fully Obligated		NHS/IM S/B
EXEMPT SUBTOTAL			\$507,926	\$151,014	\$62,816	\$7,730	\$32,193	\$192,930			\$295,669		

* - Funding amounts are shown for full rehab packages, which include segments outside of GPATS, not shown.

Transit Projects													
PIN #	FEDERAL TRANSIT ADMINISTRATION	FY 2013	FY 2014	FY 2015	TIP							REMAINING COST (2022+)	FUNDING
					FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TIP COST (2016-2021)		
	GREENVILLE URBANIZED AREA (CA)	2,771	2,959	3,052									FTA SECTION 5307 & 5340
	Greenville Transit Authority		1,980	2,070									
	Capital			143									
	Operating	1,508	1,062	1,000									
	Enhancements/Improvements	28	20	21									
	ADA	277	198	207									
	Planning Administration												
	Preventative Maintenance	958	700	700									
	Clemson Area Transit		979	981									
	Capital												
	Operating		630	616									
	Enhancements/Improvements		10	10									
	ADA												
	Planning Administration/Security			10									
	Preventative Maintenance		339	346									
	GREENVILLE URBANIZED AREA (PL)	79	91	100	100						\$100		FTA SECTION 5303
	MAULDIN-SIMPSONVILLE URBANIZED AREA (CA)	1,464	1,497	1,494									FTA SECTION 5307
	MAULDIN-SIMPSONVILLE URBANIZED AREA (PL)	24											FTA SECTION 5303
	JOB ACCESS AND REVERSE COMMUTE AND NEW FREEDOM	612	N/A	N/A									FTA SECTION 5316/5317
	GREENVILLE - ELDERLY AND DISABLED TRANSIT PROGRAM (CA)	321	358	357									FTA SECTION 5310
	GREENVILLE - BUS AND BUS FACILITIES PROGRAM (CA)	274	291	303									FTA SECTION 5339
	-- GTA Capital Purchase	146	155	162									
	-- CAT Capital Purchase	128	136	141									
	SCDOT Vehicle Replacement Initiative				2,134						\$5,260		FTA SECTION 5307
	-- GTA Capital Purchase				377								SMTF
	-- CAT Capital Purchase				2,338								5037
					413								SMTF
	FTA SUBTOTAL	5,821	5,486	5,609	\$100						\$100		

Transportation Alternatives Program Projects													
PIN #	TA Program		Previous Obligations	FY 2015	TIP							REMAINING COST (2022+)	FUNDING
	Priority	Jurisdiction/Projects			FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TIP COST (2016-2021)		
	1	Anderson County SC 81 Sidewalks	240										TAP 20% Local Match
	2	City of Clemson/Pickens CTC Berkely Drive Shared Use Path	800										TAP 20% Local Match
	3	City of Simpsonville Simpsonville Swamp Rabbit Trail	280										TAP 20% Local Match
	4	Anderson School District One Ragsdale Road Sidewalks	200										TAP 20% Local Match
	5	City of Easley Brushy Creek Greenway Phase 1&2	534										TAP 20% Local Match
	6	City of Mauldin Fowler Circle Multi-Use Path	260										TAP 20% Local Match
	3	City of Greenville Woodruff Road Sidewalks	361										TAP 20% Local Match
	4	Anderson School District Four Riverside Middle School Sidewalks	250										TAP 20% Local Match
	1	Greenville County Poinsett Corridor Pedestrian and Landscaping	795	450									TAP 20% Local Match
	2	Town of Williamston Minor Street Sidewalk Project - Phase I		200									TAP 20% Local Match
		TAP OBLIGATION	(3,720)	(650)	0	0	0	0	0	0			
		ANNUAL TAP ALLOCATION		631	622	622	622	622	622	622	3,731		
		FUNDING ADVANCEMENT	1,244	631	622	622	622	622					
		ADVANCEMENT REPAYMENT		622 (13)	622 (13)	622 (13)	622 (13)	622 (14)	622 (15)	622 (16)			
		BALANCE	(2,477)	(2,486)	(1,864)	(1,243)	(621)	1	1	1			
		TAP TOTAL		650	0	0	0	0	0	0			
FY 2014-2019 TIP GRAND TOTAL				\$178,294	\$83,859	\$33,184	\$62,845	\$210,230	\$10,934	\$24,439	\$425,491	\$34,320	

KEY: P - PRELIMINARY ENGINEERING, R - RIGHT OF WAY, C - CONSTRUCTION



Greenville County Planning Department

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Attachment 5

MEMORANDUM

TO: GPATS Policy Committee

FROM: GPATS Staff

DATE: April 18, 2016

SUBJECT: East Butler Road Corridor Plan

In the FY 2015 Unified Planning Work Program, GPATS funded the City of Mauldin's "East Butler Road Corridor Plan" as a Special Study utilizing PL Grant Carryover.

The Plan was funded at \$21,783 PL, with a \$5,445.75 local match from the City of Mauldin.

Mauldin retained Toole Design Group and Sprague & Sprague Consulting Engineers to complete the Plan, which is now ready to be presented and endorsed by GPATS.

John Gardner with the City of Mauldin will present the Final Plan to the Policy Committee.

Please find **Attachment 5.2 in your electronic packet**, the Final Report for the Plan. Any member wishing to receive a hard copy of the Final report, or the Appendices of the Traffic Analysis Report and Summary of Public Input, please let staff know and they will be sent in a separately.

The Policy Committee will be asked to Endorse the East Butler Road Corridor Plan. Endorsement will allow Staff and SCDOT, along with the City of Mauldin, to assess the project currently in the GPATS TIP, and bring recommendations for scope change to the Policy Committee in June. Endorsement of the Plan alone does not commit GPATS to any additional policies or funding.

East Butler Road Corridor Study

Final Report

January 2016

prepared for



prepared by



and



East Butler Road Corridor Study Final Report

City Council

Dennis Raines, Mayor

Taft Matney

Carol King

Terry Merritt

Scott Crosby

Dale Black

Larry Goodson

City Administrator

Trey Eubanks

City Planning and Economic Development

John F. Gardner, AICP

Consultants

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Table of Contents

I	Introduction	I
1.1	Plan Overview	1
1.2	Area of Interest.....	2
1.3	Public Participation.....	4
1.4	Guiding Principles	5
2	Baseline Review	7
2.1	Planning Context	7
2.2	Land Use Context	14
2.3	Transportation Context	16
2.4	Bicycle and Pedestrian Facilities	18
3	Traffic Analysis.....	19
3.1	Intersection Level of Service.....	20
4	Recommendations	29
4.1	Cross Section Recommendations.....	30
4.2	Intersection Recommendations	34

List of Tables

<u>Table</u>	<u>Page</u>
Table 3-1 Historic Average Daily Traffic	19
Table 3-2 Intersection Level of Service Criteria.....	21
Table 3-3 Capacity Analysis – East Butler Road/Owens Lane	23
Table 3-4 Capacity Analysis – East Butler Road/Murray Drive/Fairfield Drive.....	25
Table 3-5 Capacity Analysis – East Butler Road/Old Mill Road	26
Table 3-6 Capacity Analysis – East Butler Road/Bethel Drive.....	27

List of Figures

<u>Figure</u>	<u>Page</u>
Figure 1-1 East Butler Road Corridor Study Area of Interest.....	2
Figure 2-1 East Butler Road Existing Cross Section.....	9
Figure 2-2 East Butler Road SCDOT APPR Proposed Cross Section	9
Figure 2-3 Rendering of Vision for Downtown Mauldin	11
Figure 2-4 Existing Zoning.....	12
Figure 2-5 Existing Land Use.....	14
Figure 2-6 Crash Locations 2009-2014	17
Figure 4-1 Cross Section Limits.....	30
Figure 4-2 Cross Section A.....	32
Figure 4-3 Cross Section B	33
Figure 4-4 Cross Section C.....	33
Figure 4-5 East Butler Road at Owens Lane and Murray Drive/Fairfield Drive Recommended Improvements.....	35
Figure 4-6 East Butler Road at Old Mill Road and Bethel Drive Recommended Improvements.....	36
Figure 4-7 East Butler Road at Brookbend Road Recommended Improvements	37

Appendices

Appendix A Traffic Analysis Report

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I Introduction

The purpose of the East Butler Road Corridor Study is to determine the most appropriate design solutions that meet future transportation needs of East Butler Road but are also responsive to the desires of the community. The City of Mauldin undertook the East Butler Road Corridor Study to consider viable alternatives to the five-lane cross section originally proposed by the South Carolina Department of Transportation (SCDOT). The focus of the planning process was to **make people priority** – people of all ages, abilities, and incomes who drive cars, walk, bike, ride transit, and live and work along/near the street – and create an environment where **the trip is as enjoyable as the destination**.

The East Butler Road Corridor Study seeks to balance transportation needs with the community's desires for the future.

I.1 Plan Overview

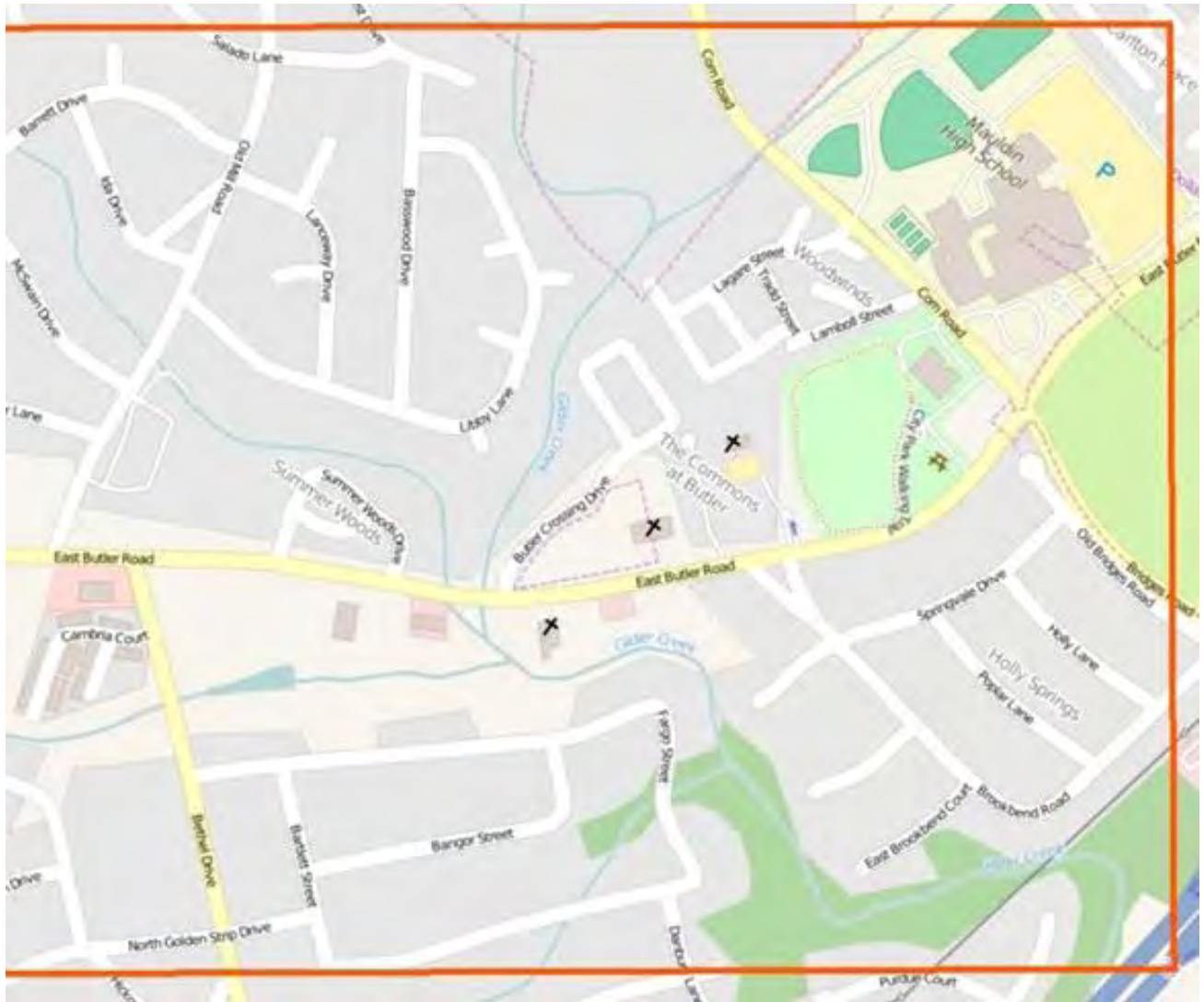
This report is divided into four sections. This **Introduction** provides information regarding the purpose of the Study and public participation process. **Baseline Review** summarizes existing conditions and planning considerations. The third section is entitled **Traffic Analysis** and presents the evaluation of the existing transportation network. Finally, solutions and strategies for moving forward are included in **Recommendations**.

1.2 Area of Interest

As depicted in **Figure I-1**, the East Butler Road Corridor Study area of interest consists of an approximate 1.7-mile segment between Main Street (US 276) and Corn Road/Bridges Road.



Figure I-1: East Butler Road Corridor Study Area of Interest



1.3 Public Participation

The East Butler Road Corridor Study was crafted through a process that included meaningful public participation. While the public participation process was continuous, several distinct opportunities for involvement were offered:

- **Project Website** – The City of Mauldin dedicated a page on its website to the provision of updates and the dissemination of information on the East Butler Road Corridor Study. The site included links to the online interactive map, comment forms, and materials used at public workshops and meetings.
- **Interactive Online Map** – WikiMap, an interactive online map was utilized for the Study. While it received only modest input, it did provide an avenue for the public to document their concerns geographically. A brief survey was included.
- **Planning Workshop** – On the evening of July 7, 2015, a planning workshop was held at the Mauldin Cultural Center. This workshop offered interactive activities for participants to receive information on the project, express concerns about the corridor, and contribute ideas to the planning process. Included were display boards with background information on existing conditions and the goals of the Study, mapping exercises, visual preference survey, a video of the corridor from a bicyclist's perspective, and comment forms.
- **Stakeholder Interviews** – As a complement to the planning workshop, a series of stakeholder interviews were conducted to gain a better understanding of the goals of the community. Various groups were engaged, including elected officials, business leaders, residents, property owners, active transportation advocates, and SCDOT.
- **Alternatives Meeting** – Based on the input received during the planning workshop and stakeholder interviews, alternatives were developed and presented at a public meeting on the evening of July 21, 2015 at the Mauldin Cultural Center. Questions and comments were received from attendees and these influenced refinements to the alternatives.
- **Council Presentation** – On the evening of November 16, 2015, the recommendations for the East Butler Road Corridor Study were presented during a City Council meeting. Opportunity was provided for the public in attendance to provide comments on the recommendations and the planning process as a whole.

by the numbers

2 public meetings

5 stakeholder meetings

130 participants

1.4 Guiding Principles

Based on public input received, a series of Guiding Principles were established to direct the East Butler Road Corridor Study, and ultimately the development of recommendations:

- Minimize impacts on adjacent properties
- Mitigate congestion
- Address safety
- Address drainage
- Enhance character
- Balance mobility and access
- Ensure quality design



Participants providing mapping comments at July 7, 2015 Planning Workshop

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2 Baseline Review

Prior to developing alternatives and recommendations, it was important to establish a baseline for analysis and discussion with project stakeholders and the general public. This section presents that review, summarizing existing land use and transportation conditions within the corridor and establishing a baseline of information for further consideration.

Existing planning, land use, and transportation contexts were examined to gain an understanding of baseline conditions in the corridor.

The information that follows is the result of field research, GIS data review, and a review of previous and ongoing planning and design initiatives.

2.1 Planning Context

A number of reports and planning documents have been prepared at the local, regional, and state levels that have relevance to the East Butler Road corridor. To better understand the impact each document has on the area of interest, applicable recommendations and supporting documentation have been summarized in the sections below. Documents reviewed include the following:

- South Carolina Department of Transportation Advanced Project Planning Report
- Greenville-Pickens Area Transportation Study Transportation Improvement Program
- City of Mauldin Comprehensive Plan
- City of Mauldin Downtown Master Plan
- City of Mauldin Zoning Ordinance, Zoning Map & Land Development Standards

South Carolina Department of Transportation Advanced Project Planning Report

In 2008, the South Carolina Department of Transportation (SCDOT) developed an Advanced Project Planning Report (APPR) for improvement to East Butler Road. The purpose of the APPR report was to identify potential benefits, impacts and areas of concern to the human and natural environment caused by proposed improvements.

The purpose and need as stated in the APPR was to provide additional capacity to address existing and future traffic congestion and to provide for improved bicycle access to the adjacent high school. To meet these goals, SCDOT proposed to widen the existing three-lane roadway (i.e., one travel lane in each direction with a continuous center turn lane) (see **Figure 2-1**) to a five-lane cross section that would include two travel lanes in each direction, continuous center turn lane, bike lanes, and sidewalks (see **Figure 2-2**), similar to the existing cross-section between Mauldin High School and I-385. If implemented, this widening would take East Butler Road from its current variable right-of-way of 50-60 feet to a right-of-way of approximately 100 feet. The report also calls for further studies to the signalized intersections to determine impacts and appropriate design. The proposed facility would operate at a level of service B, carrying 24,800 vehicles per day.

The public was not receptive to the proposed changes recommended in the APPR, citing that it would encourage more through traffic and higher speeds while significantly damaging the character of the City of Mauldin. Therefore, the City of Mauldin received funding through GPATS to conduct the East Butler Road Corridor Study to gain a better understanding of future travel demand as well as document citizen desires to develop a context sensitive design alternative to the five-lane cross section previously proposed by SCDOT.

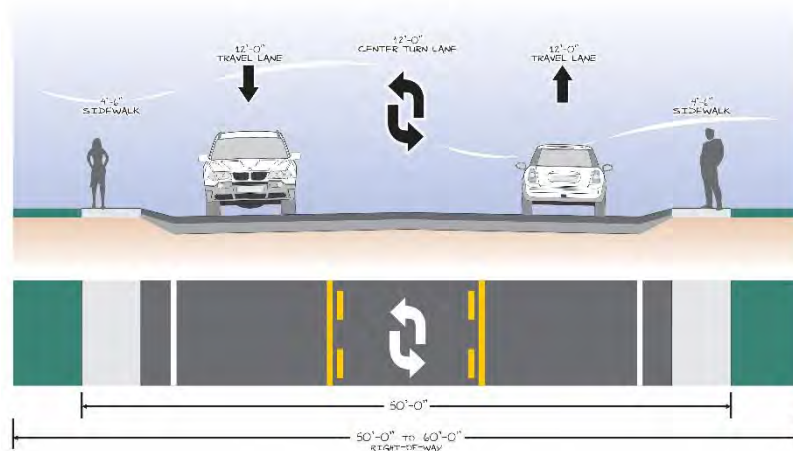


Figure 2-1: East Butler Road Existing Cross Section

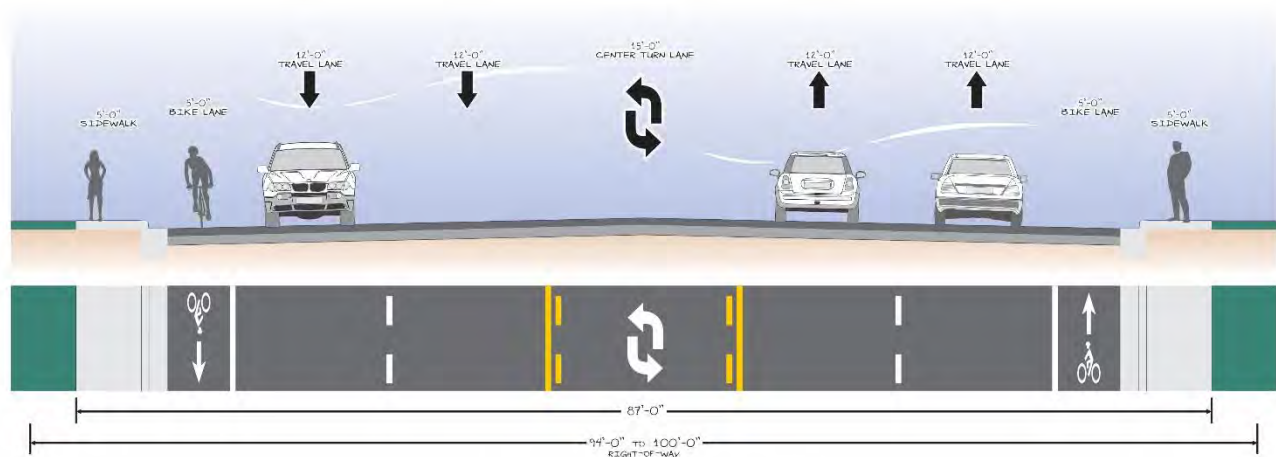


Figure 2-2: East Butler Road SCDOT APPR Proposed Cross Section

Greenville-Pickens Area Transportation Study Transportation Improvement Program

The Greenville-Pickens Area Transportation Study (GPATS) is the Metropolitan Planning Organization (MPO) for the Greenville urbanized area. The MPO is tasked, as per federal requirements, with creating a Long-Range Transportation Plan (LRTP), a Transportation Improvement Program (TIP), as well as developing a Unified Planning Work Program (UPWP). The TIP serves as the region's short-range program that schedules funding for transportation projects to be implemented over a six-year cycle.

The most recent TIP for fiscal years 2014-2019 identifies East Butler Road as a project to receive \$17M in funding beginning in the year 2019. That funding is currently set at \$1M for planning, environmental, and engineering services (PE). An additional \$16M is shown as being beyond 2019. The TIP describes the project as a roadway widening from the existing two-lane section to a four-lane highway with a raised median, turn lanes at intersections, bicycle lanes, and concrete sidewalk. The purpose and need as stated in the TIP is to “provide additional capacity to address existing and future traffic congestion while improving left turns at intersections.”

Funding sources identified include the Surface Transportation Program (i.e., now called the Surface Transportation Block Grant Program (STBGP)) and Transportation Enhancement (i.e., now called the STBGP Set-Aside) funds under the federal Guideshare program. The Transportation Enhancement monies have been allocated to specifically improve landscaping and pedestrian amenities along the corridor.

City of Mauldin Comprehensive Plan

The City of Mauldin's Comprehensive Plan, originally developed in 2008 and updated in 2014, is a community-wide guiding document that assists citizens, elected officials, appointed board members, staff, and other interested stakeholders in establishing a vision and defining concrete goals to focus future growth of the community. The plan is intended to chart a course in a number of governing areas and includes sections specific to population, housing, natural resources, land use, and transportation, among others.

Future land use along East Butler Road is depicted in the Comprehensive Plan as a mixture of commercial and medium-high density residential uses, surrounded by the prevailing single-family residential developments found adjacent to the corridor.

Several recurring themes were found in the plan with regard to key land use issues including a call for more “complete streets” that include accommodations for all street users, reinforce appropriate vehicle speeds and enhance the aesthetic character of the streetscape. Infill development and neighborhood-scale commercial areas are also encouraged where undeveloped properties are sited close to schools, shopping, and employment centers.

The Land Use section of the Comprehensive Plan also calls out three distinct corridor types for major roadways in the community. Much of East Butler Road is identified as a “Community Corridor” which is defined as “appropriate for less intense commercial uses, such as professional offices, office parks, mixed-use developments, restaurants, and small retail centers. Big-box retail centers are inappropriate in these corridors. Schools, churches, and residential areas will fit well in these areas.

Good interconnections among properties should be pursued as well to create a local circulation network and reduce local traffic use of the arterial streets.”

The Transportation section of the plan addresses all modes of transportation and identifies needs for streets and highways, pedestrian and bicycle facilities, and public transportation. A strength, weaknesses, opportunities, threats (SWOT) analysis performed during the planning process found several weaknesses and opportunities related to transportation issues. Weaknesses include the appearance of commercial areas, fragmented/inadequate bicycle and pedestrian facilities, bottlenecks on major roads, including East Butler Road, and a weak community identity. The intersections of Bethel Drive, Old Mill Road, Owens Lane, and Murray Drive with East Butler Road were all cited as the top intersections in the City with “additional problems.” Opportunities found in the SWOT analysis include the chance to create a city-wide greenway system and enhance regional and local bus services.

Downtown Mauldin Master Plan

The Downtown Mauldin Master Plan is a development plan created by the City that envisions the potential for a twelve-block area located just north of the City’s municipal complex between North Main Street and Murray Road.

Among the traffic system recommendations found in the plan, there are a number with direct relevance to East Butler Road. One recommendation calls for a dedicated left-turn lane to allow for eastbound traffic on East Butler Road to turn into the City Hall complex. The plan also calls for the creation of a pedestrian crossing and bus stop on Murray Drive to provide cross-access between the downtown area and the Cultural Center.

The Downtown Mauldin Master Plan also describes a new street connecting East Butler Road to the downtown that would run generally across from the current Owens Lane alignment. This intersection is recommended to be signalized. Additional transportation improvements recommended include enhanced design features like decorative lamp posts, sidewalks, transit stops, and other pedestrian and bicycle facilities to create active transportation connections between the downtown and surrounding neighborhoods.



Figure 2-3: Rendering of Vision for Downtown Mauldin

City of Mauldin Zoning Ordinance & Zoning Map

The current zoning map designates a mixture of zoning districts along the East Butler Road corridor. The primary zoning district adjacent to East Butler Road between North Main Street and Bethel Drive is Highway Commercial (C-2). This district is intended to provide goods and services oriented to customers traveling by automobile along major transportation routes through the city. There are also three individual parcels along the corridor with General Commercial (C-1) zoning. The C-1 district provides for the establishment of convenience services for local residents.

In addition to commercial districts, the corridor also includes a number of low-density and moderate density residential zoning districts. The primary residential zoning districts along the corridor include R-20, R-12, and R-M. The R-20 and R-12 categories permit residential lots with minimum acreages of 0.5-acre and 0.25-acre, respectively. The R-M district is a multi-family designation that provides for a full range of medium to high density residential development that serves as a transitional area between single-family and commercial districts. **Figure 2-4**, presented at the bottom of this page and the opposite page, illustrates the existing zoning within the area of interest.

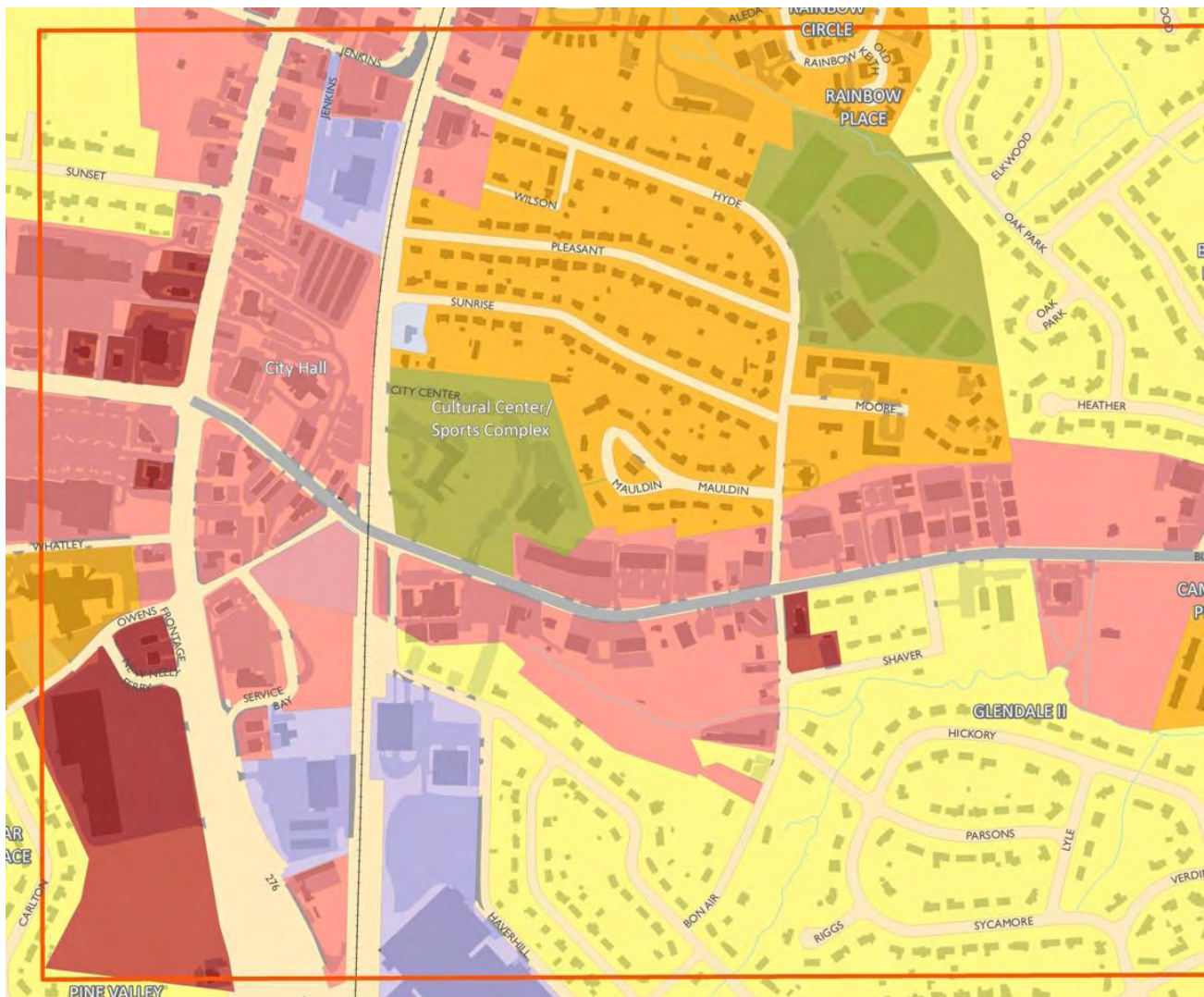
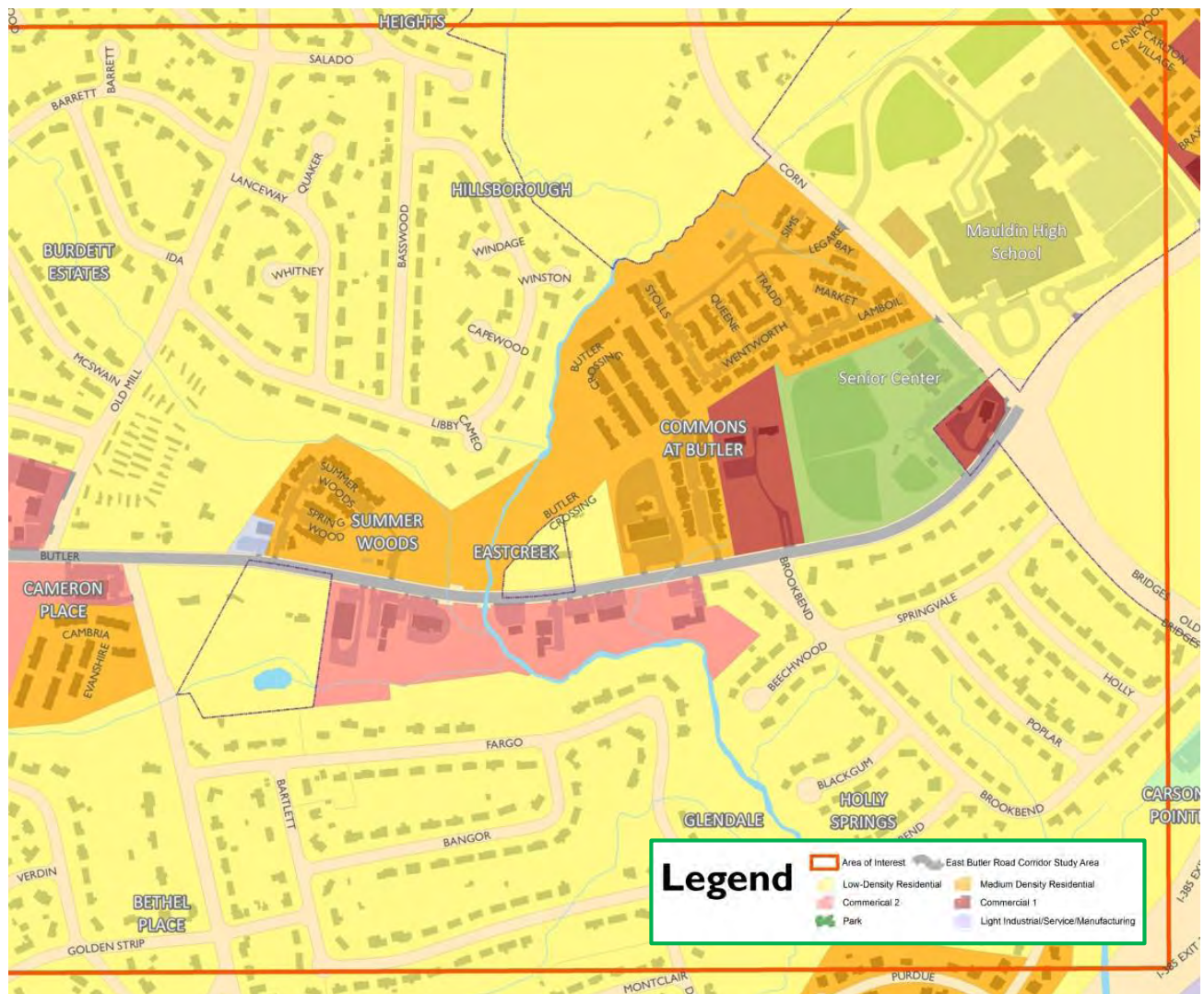


Figure 2-4: Existing Zoning

The City Zoning Ordinance also outlines development and design standards required for all new development, including development affecting streetscapes. Landscaping standards require street trees as part of new development/redevelopment to create an attractive streetscape and provide for a pedestrian friendly environment. Street trees are required along all public and private street frontages and must be planted in a planting strip that is no less than seven feet in width.



2.2 Land Use Context

While a variety of land uses exist along East Butler Road, the corridor's land use character is predominantly suburban with buildings set back from the street and large surface parking lots. In addition to commercial uses, single-family homes, churches, schools, and municipal/civic uses are present. Most properties are provided with multiple driveways for exclusive access and very few properties have any level of parcel interconnectivity.

Existing Land Use

Greenville County classifies each parcel with a land use code to describe the current use of the property for tax purposes. Generally, these land use classifications can be broken into six major categories: Residential, Commercial, Institutional, Industrial, Recreational, and Vacant. Each of these categories can be further subcategorized for more specific uses.

East Butler Road contains a mixture of existing uses along the study corridor, including each of the major categories listed above. **Figure 2-5** illustrates existing land uses along the corridor.

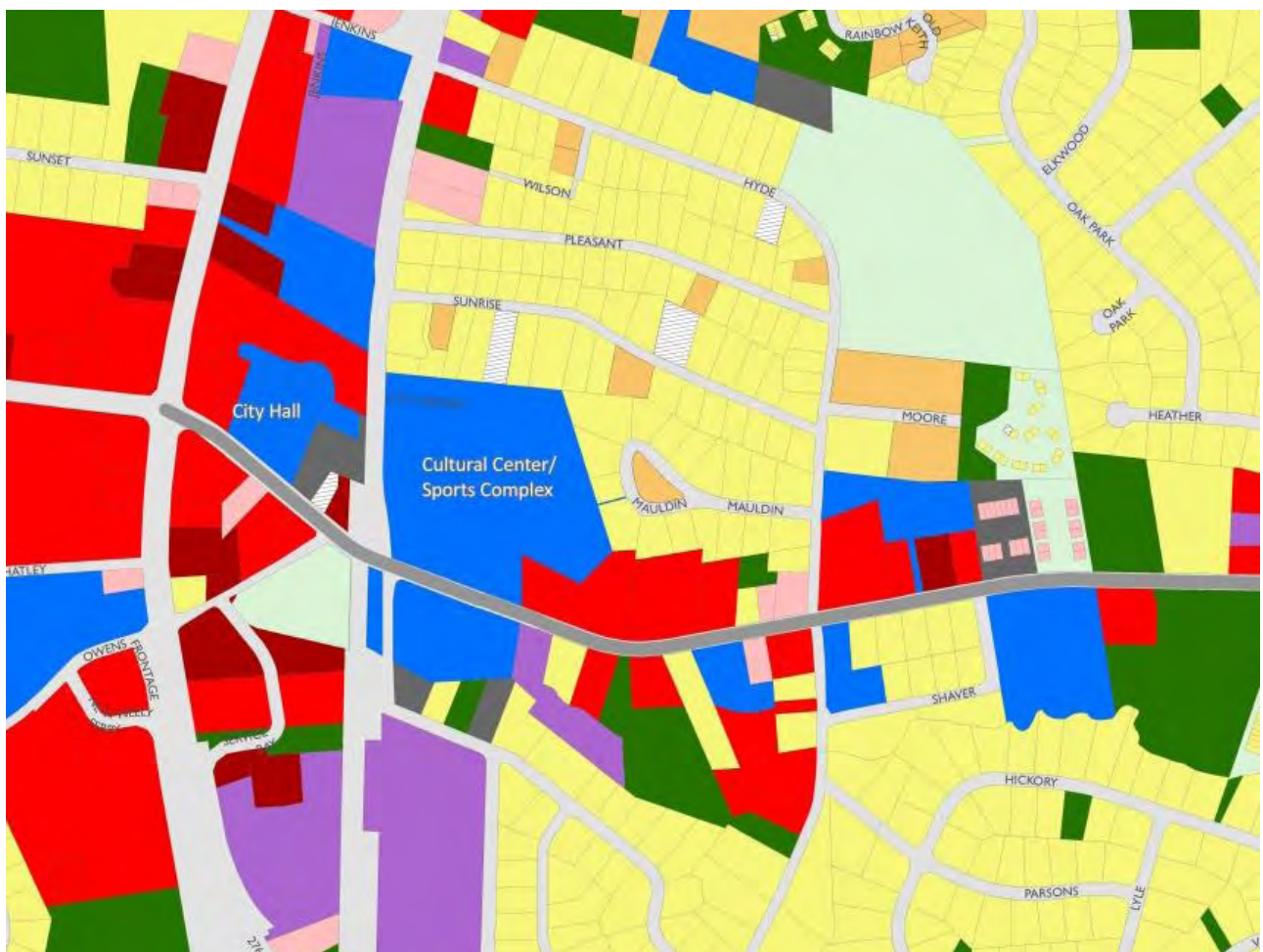


Figure 2-5: Existing Land Use



2.3 Transportation Context

This section reviews the existing transportation context along East Butler Road, including street characteristics, historical crashes, and bicycle and pedestrian facilities. Detailed traffic analysis is presented in Section 3 of this report.

Roadway Characteristics

East Butler Road is the central east-west connector in the City of Mauldin. The portion of East Butler Road between Main Street (US 276) and Corn Road/Bridges Road is generally a three-lane road (i.e., one travel lane in each direction and a continuous center turn lane) (see graphic depiction of cross section presented previously in Figure 2-1). West of Main Street, Butler Road is generally a five-lane road (i.e., two travel lanes in each direction with a continuous center turn lane). East of Corn Road/Bridges Road, Butler Road is also generally a five-lane road. The speed limit along the corridor is 35 miles per hour but vehicle speeds are well in excess of this posted speed limit.

Crash Data

SCDOT reports that in the most recent five-year period (2009-2014) for which data is available, a total of 162 crashes occurred along the East Butler Road corridor between Main Street and Corn Road/Bridges Road. These are depicted geographically in **Figure 2-6**. Sixty-five of those crashes occurred at intersection locations that are being considered as part of this study (i.e., for more information, see Section 3 of this report). These intersection crashes represent 40% of the total crashes along the corridor. Of the 162 crashes, a resulting 46 injuries were reported, including one incapacitating injury. Rear-end collisions accounted for 52% of the crashes, 7% were the result of sideswipes, and 25% were head-on collisions. Specific details include:

- There were 21 crashes reported at the intersection of East Butler Road and Bethel Drive, resulting in 6 non-incapacitating injuries. The most frequent collision type (30% of total) was due to rear-end impacts. One crash involved a bicyclist.
- The intersection of East Butler Road and Old Mill Road reported 22 crashes. Seven minor injuries were reported. Rear-end collisions made up 77% of the crashes at this intersection.
- The intersection of East Butler Road and Murray Drive experienced eight crashes. No injuries were reported with the highest rate of incidents (50%) attributed to rear-end collisions.
- The intersection of East Butler Road and Owens Lane contributed to 14 of the 162 total incidents along the corridor, resulting in two minor injuries. Rear-end collisions accounted for 36% of these crashes, 14% were sideswipes, and 36% were angled collisions.

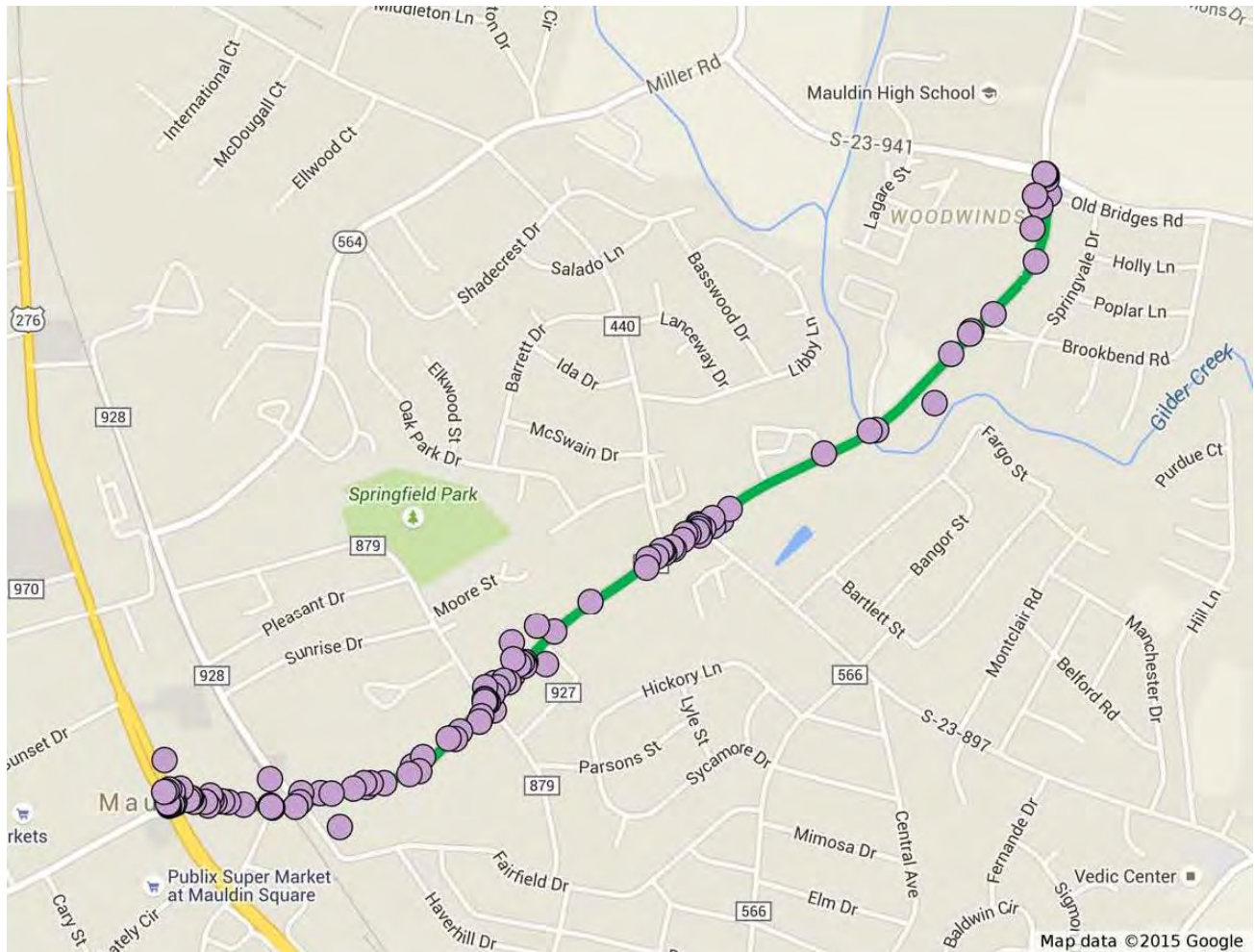


Figure 2-6: Crash Locations 2009-2014¹

¹ Source: SCDOT

2.4 Bicycle and Pedestrian Facilities

While bicyclists are regularly seen along East Butler Road, there are currently no dedicated bicycle facilities within the area of interest.

Sidewalks are currently present along the entire East Butler Road corridor. Generally, these pedestrian facilities can be categorized as a five-foot wide concrete sidewalk located immediately adjacent to the back of the valley gutter. Pedestrian crossing facilities are as follows:

- The intersection of Corn Road/Bridges Road, which is adjacent to Mauldin High School, has enhanced “ladder style” crosswalks and pedestrian signals on all four crossings.
- Standard crosswalks and pedestrian signals are present on the south and west sides of the Bethel Drive intersection.
- The intersection of East Butler Road with Bon Air Street has standard crosswalks and pedestrian signals on all four crossings.
- Standard crosswalks and pedestrian signals exist on all four approaches of East Butler Road’s intersection with Main Street (US 276).
- Unsignalized side streets, including Old Mill Road, Fairfield Drive, Murray Drive, and Owens Lane do not have crosswalks.
- A midblock, “ladder style” crosswalk connects Mauldin United Methodist Church on the south side of East Butler Road to the Mauldin Cultural Center on the north side. This is primarily utilized on Sundays and during special events to allow for overflow parking access for the church and/or Cultural Center.



3 Traffic Analysis

To inform the development of project recommendations, traffic data was collected and subsequently analyzed for East Butler Road and its intersection with several roads along the corridor. Turning movements were counted during the weekday morning and afternoon peak hours in May 2015. To establish a growth rate for the corridor, SCDOT historic average daily traffic counts were utilized, as shown in **Table 3-1**.

Existing and projected traffic conditions were analyzed to inform the development of recommendations.

Table 3-1: Historic Average Daily Traffic

Count Location	2014	2013	2012	2011	2010	2009	2008	2007	2006
Butler Road East of Murray Drive	15,900	17,200	16,300	17,100	17,000	17,700	17,600	17,100	17,100
Butler Road East of Bethel Drive	15,900	14,700	16,000	14,800	14,300	14,000	n/a	n/a	n/a

Source: SCDOT

Future year traffic is made up of existing traffic and any increase or decrease in volumes which might occur from general growth trends in the surrounding area or from nearby specific developments. Recent traffic growth trends can be determined from the SCDOT annual traffic counts, as shown above in Table 3-1. Daily volumes at many locations across South Carolina went up and down during the recent economic downturn which occurred during this period. An indication of sustained growth would be volumes in 2011 or 2012 that had recovered to 2008 levels and have increased since then. However, there is no such pattern on East Butler Road.

As is the case in many mature, developed areas, traffic volumes, with an occasional exception, have remained mostly constant. It would be reasonable, therefore, to assume no sustained traffic growth in the East Butler Road corridor. However, redevelopment of parcels just off the corridor is anticipated, so some traffic growth will certainly occur. Between 2006 and 2009, traffic east of Murray Drive grew at 1.1 percent per year. The City of Mauldin provided the GPATS 2025 model projections of 18,456 east of Murray Drive and 18,062 east of Bethel Drive. These volumes indicate growth rates between 2014 and 2035 of 0.7 percent per year east of Murray Drive and 0.6% east of Bethel Drive. Based on these inputs, a sustained growth rate of 1.0 percent per year was used in this study to project 2040 peak hour traffic volumes at the study intersections.

3.1 Intersection Level of Service

Level of Service (LOS) is a metric used to describe the amount of delay a vehicle may typically experience at a given intersection. As shown in **Table 3-2**, LOS is a letter designation that corresponds to a certain range of roadway operating conditions, with A signifying the best operating condition and F indicating the worst, or a failing, operating condition. For reference, it is considered acceptable for a signalized intersection to operate at LOS D or E during peak periods. At unsignalized intersections, it is not unusual for side streets to experience LOS E or F during peak periods.

Highway Capacity Manual (HCM) methodology was employed to analyze the capacity of two intersection pairs on the East Butler Road corridor. In addition to existing conditions, future operational scenarios were evaluated as part of this process: 2040 conditions based on existing intersection configuration; and 2040 conditions based on intersection reconfigurations recommended in Section 4 of this report. The results of this analysis for each intersection are presented below; detailed HCM worksheets are included in **Appendix A**.

Table 3-2: Intersection Level of Service Criteria

Level of Service	Description	Control Delay Range (seconds/vehicle)	
		Unsignalized Intersection	Signalized Intersection
A	Operations with very low control delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0	≤ 10.0
B	Operations with low control delay occurring with good progression and/or short cycle lengths.	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
C	Operations with average control delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	Operations with longer control delays due to a combination of unfavorable progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
E	Operations with high control delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay for a signalized intersection.	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	Operation with control delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths. This can be considered reasonable for short periods of time on unsignalized side streets during peak hours.	> 50.0	> 80.0

Source: 2010 Highway Capacity Manual

East Butler Road at Owens Lane and Murray Drive/Fairfield Drive

While being two distinct intersections, due to their close proximity to one another, the East Butler Road intersections at Owens Lane and Murray Drive/Fairfield Drive should be considered in connection with each other from a traffic operations standpoint. Both intersections are stop sign controlled with East Butler Road having the free-flow movement. Between Owens Lane and Murray Drive, the middle lane on East Butler Road is marked as a back-to-back left-turn lane with storage of about 90 feet westbound and about 60 feet eastbound. Owens Lane, Murray Drive, and Fairfield Drive are two-lane streets, and there is a short left-turn lane on Owens Lane at East Butler Road. A railroad crosses East Butler Road between the intersections.

The spacing between Owens Lane and Murray Drive/Fairfield Drive does not currently accommodate the required left-turn storage, and the situation will worsen by 2040. Westbound through queues on East Butler Road will extend from Owens Lane to Murray Drive, causing gridlock. Widening of East Butler Road to provide side-by-side left turn lanes of about 170 feet would nearly accommodate the westbound left-turn queue at this intersection, but westbound through queues will still extend to Murray Drive. Any opportunity to further separate Owens Lane and Murray Drive/Fairfield Drive should be pursued. The northbound left-turn lane storage should be extended to at least 70 feet.

As shown in **Table 3-3**, from a capacity standpoint this intersection currently operates acceptably and will operate with reasonable delay in 2040. The capacity analysis results shown in Table 3-3 indicate the proposed side-by-side left-turn lane revisions on East Butler Road have little effect on the operation of the intersection from a capacity standpoint but do allow for more adequate left-turn storage on East Butler Road.

Table 3-3: Capacity Analysis – East Butler Road/Owens Lane

Movement	Level of Service/Delay (seconds/vehicle)		
	Existing Volumes Existing Geometry	2040 Volumes Existing Geometry	2040 Volumes Side-by-Side Lefts on East Butler
AM Peak Hour			
Westbound - Left	A/10	B/11	B/11
Northbound - Left	C/19	D/26	D/26
Right	C/22	F/70	F/70
PM Peak Hour			
Westbound - Left	B/11	B/14	B/14
Northbound - Left	D/27	E/46	E/46
Right	C/16	D/26	D/26

As shown in **Table 3-4**, Murray Drive and Fairfield Drive already operate at LOS E and F in the afternoon peak hour. By 2040 delay on the sides streets will be very high without a change in traffic control, but signalization of the intersection would be difficult this close to the railroad. Other options such as rerouting Murray Drive behind the Mauldin Cultural Center were considered but have significant disadvantages, including adding traffic to City Center Drive, which has on-street parking.

The projected queue for the eastbound left will exceed the existing left-turn storage. As mentioned above, a widening of East Butler Road between Owens Lane and Murray Drive to provide side-by-side left turn lanes with storage of at least 170 feet was considered. The capacity analysis results shown in Table 3-4 indicate the proposed revisions have little effect on the operation of the intersection from a capacity standpoint but do allow for more adequate left-turn storage on East Butler Road.

Because the proposed revision at this intersection will not address side street delay and because other options such as signalization and diversion of left turns from the side street will be difficult, it is suggested that additional width be reserved at this intersection for a center median in case left turns from these side streets have to be prohibited in the future.

**Table 3-4: Capacity Analysis –
East Butler Road/Murray Drive/Fairfield Drive**

Movement		Level of Service/Delay (seconds/vehicle)		
		Existing Volumes Existing Geometry	2040 Volumes Existing Geometry	2040 Volumes Side-by-Side Lefts on East Butler
AM Peak Hour				
Eastbound -	Left	B/10	B/12	B/12
Westbound -	Left	A/10	B/11	B/11
Northbound -	Left/through/right	F/65	F/278	F/278
Southbound -	Left/through/right	D/26	F/98	F/98
PM Peak Hour				
Eastbound -	Left	B/11	B/14	B/14
Westbound -	Left	A/9	B/10	B/10
Northbound -	Left/through/right	F/149	F/1420	F/1420
Southbound -	Left/through/right	E/41	F/233	F/233

East Butler Road at Old Mill Road and Bethel Drive

While being two distinct intersections, due to their close proximity to one another, the East Butler Road intersections at Old Mill Road and Bethel Drive should be considered in connection with each other from a traffic operations standpoint. The intersection with Old Mill Road is stop sign controlled with East Butler Road having the free-flow movement. Bethel Drive is a signalized intersection. At Old Mill Road and Bethel Drive there are left-turn lanes on East Butler Road and separate left- and right-turn lanes on Bethel Drive. Although a two-lane approach is not marked on Old Mill Road, the approach is wide enough for two narrow lanes and was examined for that geometry.

As shown in **Table 3-5**, the left turn from Old Mill Road already operates with high delay in the peak hours. By 2040, left turns from this side street will be nearly impossible in the peak hours. A new connector from Old Mill Road north of East Butler Road to the East Butler Road/Bethel Drive intersection was considered and this would result in reasonable delay at this intersection.

Table 3-5: Capacity Analysis – East Butler Road/Old Mill Road

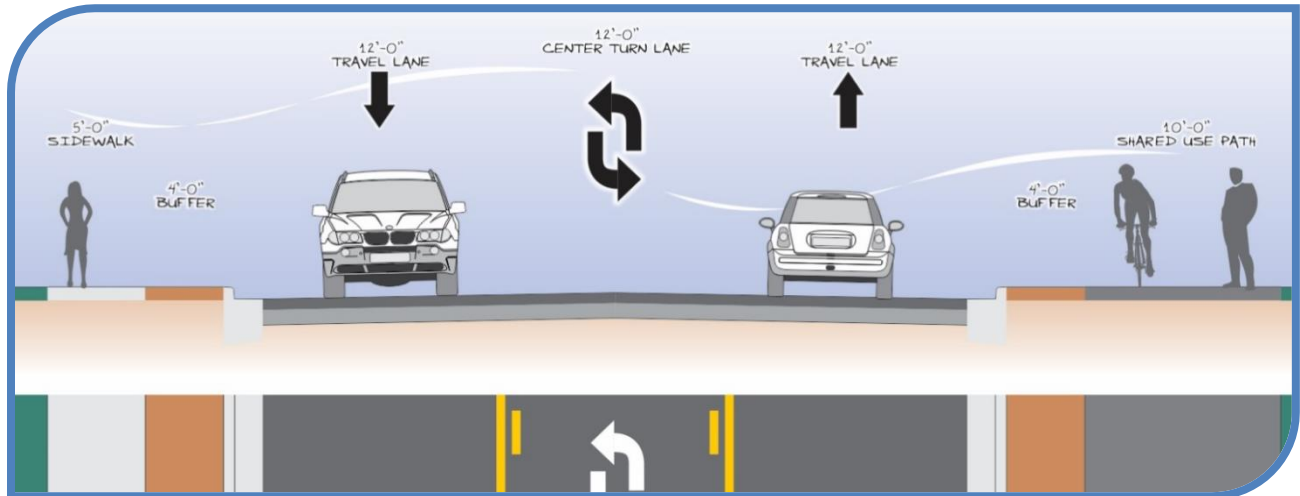
Movement	Level of Service/Delay (seconds/vehicle)		
	Existing Volumes Existing Geometry	2040 Volumes Existing Geometry	2040 Volumes Connector to East Butler/Bethel Intersection
<i>AM Peak Hour</i>			
Eastbound - Left	B/11	B/13	B/11
Southbound - Left	F/115	F/719	F/111
Right	C/17	C/24	C/21
<i>PM Peak Hour</i>			
Eastbound - Left	B/10	B/12	B/11
Southbound - Left	F/188	F/1048	F/98
Right	C/20	E/42	E/37

As shown in **Table 3-6**, the intersection of East Butler Road/Bethel Drive currently operates acceptably and will continue to do so in the afternoon peak hour in 2040, (i.e., a signal timing change is necessary with 2040 volumes to achieve acceptable operation). In the morning peak hour, however, the intersection will operate at LOS E if no changes are made (i.e., the opportunity to move green time is less in the morning when the side street demand is high). As described above, the provision of a new connector from Old Mill Road north of East Butler Road to the East Butler Road/Bethel Drive intersection would allow acceptable operation during both peak hours at this intersection.

Table 3-6: Capacity Analysis – East Butler Road/Bethel Drive

Movement	Level of Service/Delay (seconds/vehicle)		
	Existing Volumes Existing Geometry	2040 Volumes Existing Geometry	2040 Volumes Connector to East Butler/Bethel Intersection
AM Peak Hour			
Eastbound - (Left)	-	-	C/28
Through/right	C/28	F/97	D/48
Westbound - Left	B/16	C/22	C/32
Through/(right)	A/10	B/13	B/18
Northbound - Left	D/45	F/96	E/71
(Through)/right	C/21	C/23	D/40
Southbound - Left	-	-	E/59
Through/right	-	-	E/55
Overall	C/25	E/64	D/41
PM Peak Hour			
Eastbound - (Left)	-	-	C/32
Through/right	B/19	C/32	D/37
Westbound - Left	B/12	C/32	D/40
Through/(right)	A/5	A/8	B/18
Northbound - Left	C/35	D/46	D/46
(Through)/right	C/26	C/33	D/42
Southbound - Left	-	-	E/60
Through/right	-	-	E/55
Overall	B/14	C/24	C/32

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4 Recommendations

Based on technical analyses performed and public input received through the public participation process, recommendations were crafted for the East Butler Road Corridor Study. Emphasis was placed on remaining true to the Guiding Principles that were established in collaboration with the public and stakeholders to ensure that recommendations are in harmony with community desires for the future while also meeting the transportation needs of the corridor. Recommendations have been broken into two categories: 1) Cross Section Recommendations; and 2) Intersection Recommendations. These are presented on the following pages.

Public desires and technical analyses were balanced to produce recommendations for the East Butler Road corridor.

4.1 Cross Section Recommendations

In response to present and future travel demand, need for dedicated bicycle and pedestrian facilities, public comments received, and the Guiding Principles of the project, three distinct cross sections for East Butler Road have been developed. Each is shown graphically and are briefly described in the sections that follow. The geographic limits for each cross section type is shown in **Figure 4-1** below. Improvements would stop short of East Butler Road's intersection with Corn Road/Bridges Road, as all four quadrants of this intersection have been previously improved. At this level of planning, the limits presented in Figure 4-1 should be considered general in nature; the design process should determine the most appropriate origins and termini for each cross section.



Figure 4-1: Cross Section Limits



Cross Section A: Four-Lane with Bike Lanes and Sidewalk

In the area just east of the Main Street (US 276) intersection, a four-lane cross section is required to address left-turning traffic. Two travel lanes (i.e., one in each direction) and two side-by-side left-turn lanes to accommodate long turning queues are provided. Additionally, bike lanes and sidewalks are present. Cross Section A is graphically shown in **Figure 4-2**.

Cross Section B: Three-Lane with Bike Lanes and Sidewalks

From Murray Drive to Bethel Drive, a three-lane cross section is proposed (see **Figure 4-3**). Coupling this with recommended intersection improvements, traffic needs will be addressed today and in the future. Two travel lanes (i.e., one in each direction) and a continuous center turn lane are provided. Where possible, the center turn lane could double as a planted median for traffic calming, access management, and beautification. Bike lanes and sidewalks are also included.

Cross Section C: Three-Lane with Shared Use Path and Sidewalk

Between Bethel Drive and west of Corn Road/Bridges Road, bike lanes transition off the road to a buffered (i.e., hardscape or grass) shared use path on the north side of East Butler Road; a buffered (i.e., hardscape or grass) sidewalk is provided on the south side. The lane configuration has two travel lanes (i.e., one in each direction) and a continuous center turn lane. **Figure 4-4** graphically depicts Cross Section C. As mentioned previously, improvements would stop short of East Butler Road's intersection with Corn Road/Bridges Road, as all four quadrants of this intersection have been previously improved.

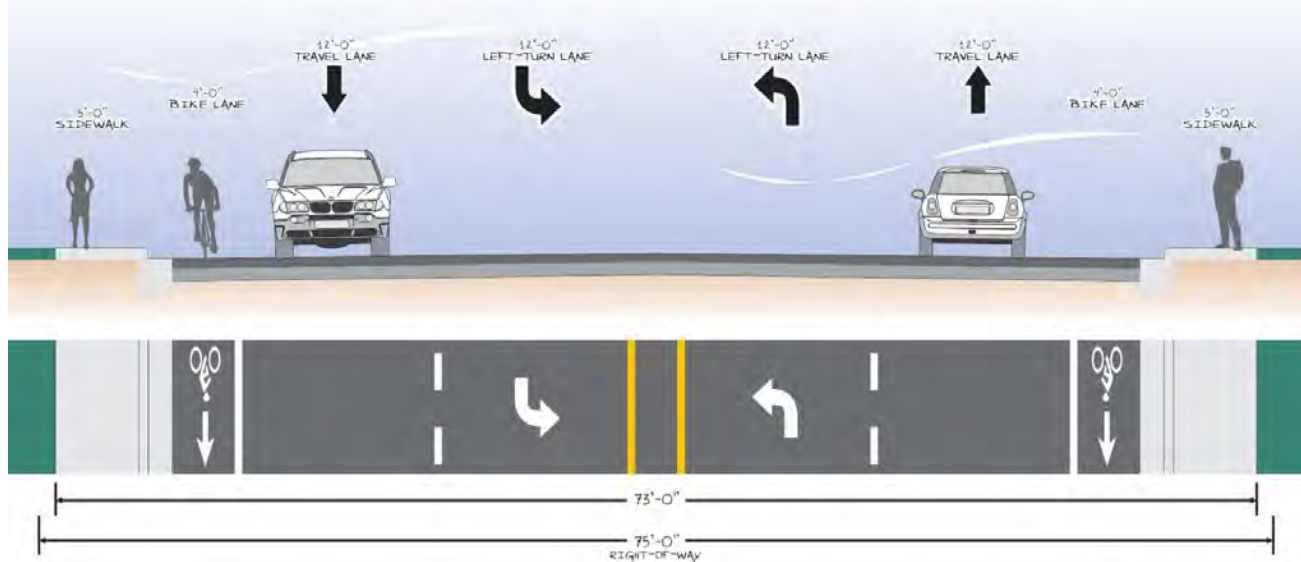


Figure 4-2: Cross Section A

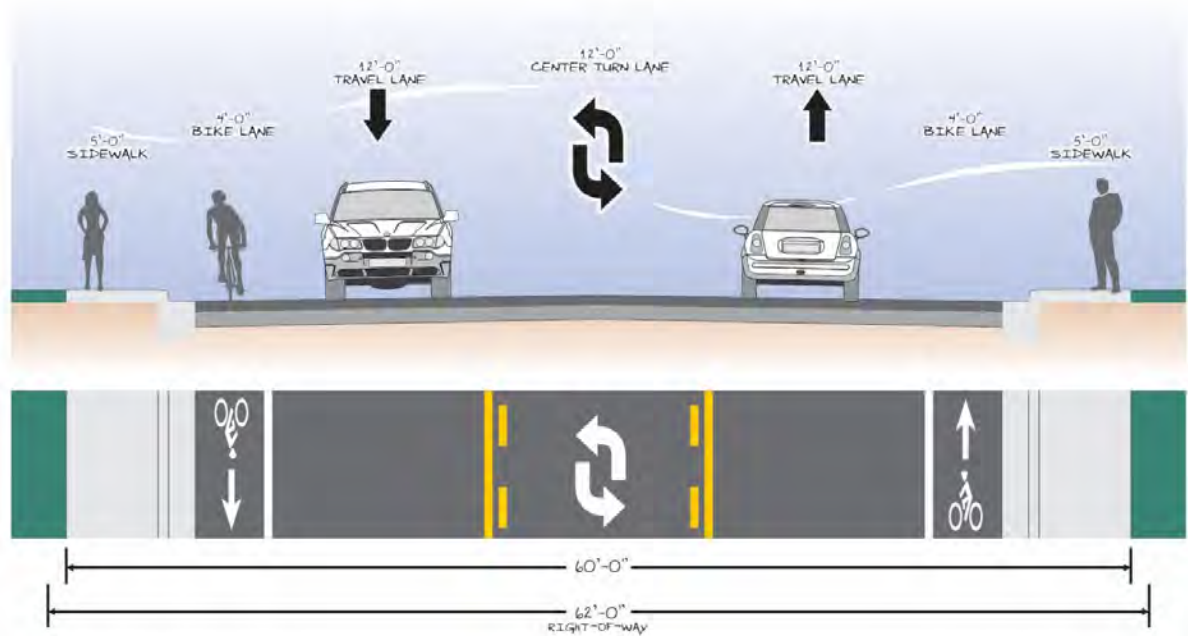


Figure 4-3: Cross Section B

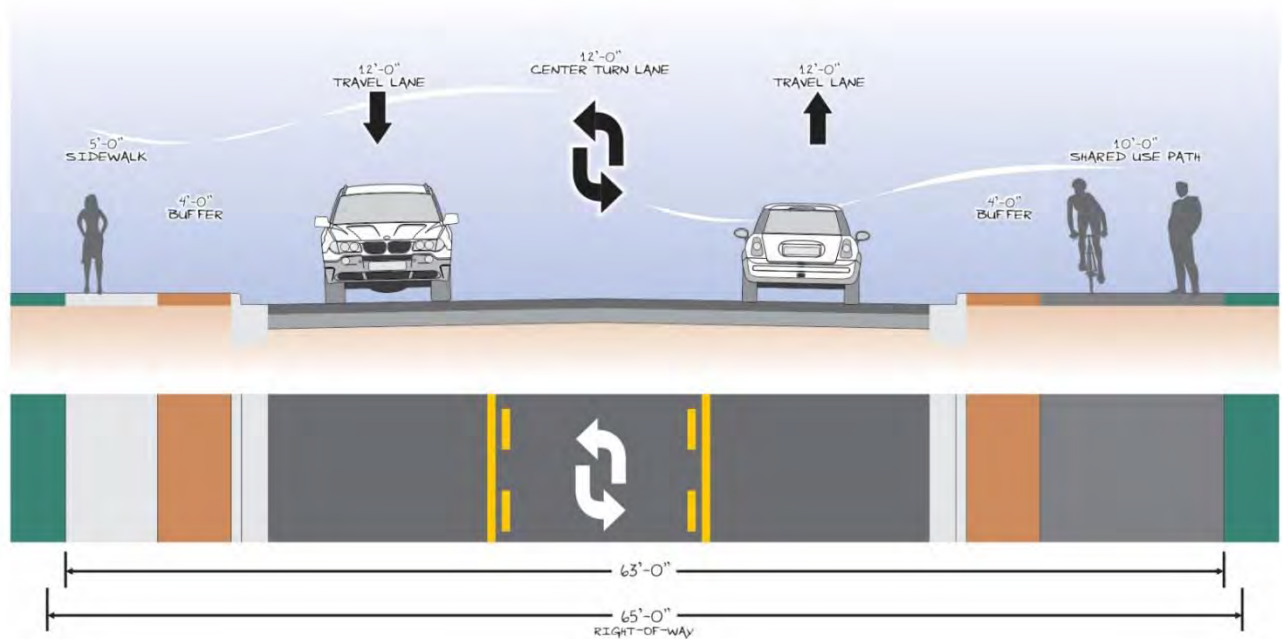


Figure 4-4: Cross Section C

4.2 Intersection Recommendations

As described in Section 3 of this report, several intersection improvements are needed to provide better traffic operations today and in the design year of 2040. The following sections describe the recommended intersection improvements.

East Butler Road at Owens Lane

From a capacity standpoint, this intersection currently operates acceptably and will operate with reasonable delay in 2040. However, the projected queue (i.e., stacking traffic) for the westbound left will exceed the existing left-turn storage, and westbound through queues will extend to Murray Drive/Fairfield Drive. A widening of East Butler Road between Owens Lane and Murray Drive, as illustrated in **Figure 4-5**, would provide side-by-side left-turn lanes with storage adequate to meet future needs. Additionally, it is recommended that Owens Lane be relocated approximately 200 feet to the west of its present location to align with the driveway that accesses the existing BB&T ATM and City Hall parking area. This will increase the stacking length of the new side-by-side left-turn lanes on East Butler Road to provide the needed queuing area for turning traffic.

East Butler Road at Murray Drive/Fairfield Drive

The side streets at this intersection already experience delay in the afternoon peak hour. By 2040, delay will be very high without signalization, but signalization of the intersection is problematic so close to the railroad. It is anticipated that motorists will begin to rely more on the signalized intersection at Hyde Circle/Bon Air Street to the west, as this intersection's delay increases. Similar to Owens Lane above, the eastbound left-turn queue will exceed available storage in 2040, but the recommendations presented in Figure 4-5 will resolve this issue.

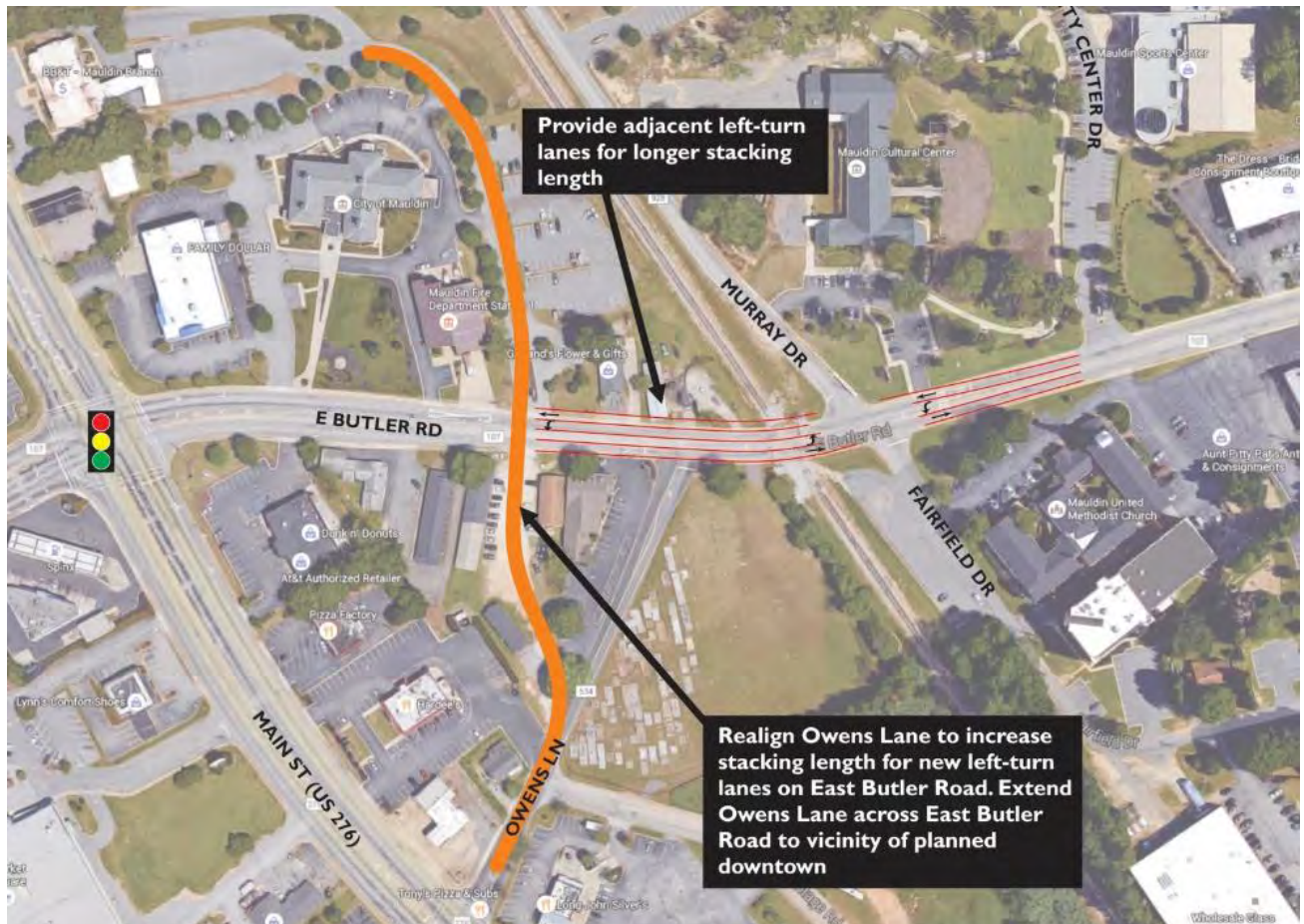


Figure 4-5: East Butler Road at Owens Lane and Murray Drive/Fairfield Drive Recommended Improvements

East Butler Road at Old Mill Road

The left-turn from Old Mill Road already operates with high delay in both the morning and afternoon peak hours. By 2040, left-turns from Old Mill Road will be nearly impossible at peak hours. As shown in **Figure 4-6**, provision of a new connector from Old Mill Road north of East Butler Road to the East Butler Road/Bethel Drive intersection would result in acceptable traffic flow. Left turns from southbound Old Mill Road onto East Butler Road would no longer be permitted; however, left turns from eastbound East Butler Road onto Old Mill Road would still be allowed.

East Butler Road at Bethel Drive

This intersection currently operates acceptably and will continue to do so in the afternoon peak hour in 2040. In the morning peak hour, however, long delays will occur in the future if no changes are made. Creation of the full intersection with a connector to Old Mill Road (see Figure 4-6) will allow for acceptable operation during both peak hours. Additionally, turn lane lengths on Bethel Drive should be extended per the detailed analysis presented in Appendix A.



Figure 4-6: East Butler Road at Old Mill Road and Bethel Drive Recommended Improvements

East Butler Road at Brookbend Road

The “Y” configuration of Brookbend Road currently creates confusion and conflicts for motorists, as both legs provide two-way travel. In many instances, motorists desiring to turn right onto East Butler Road from Brookbend Road will utilize the southern leg to avoid left-turning vehicles at the northern leg. This exacerbates traffic flow issues. As shown in **Figure 4-7**, it is recommended that the southern leg be converted to a cul-de-sac and the northern leg be improved to allow for dedicated right-turn and left-turn lanes.

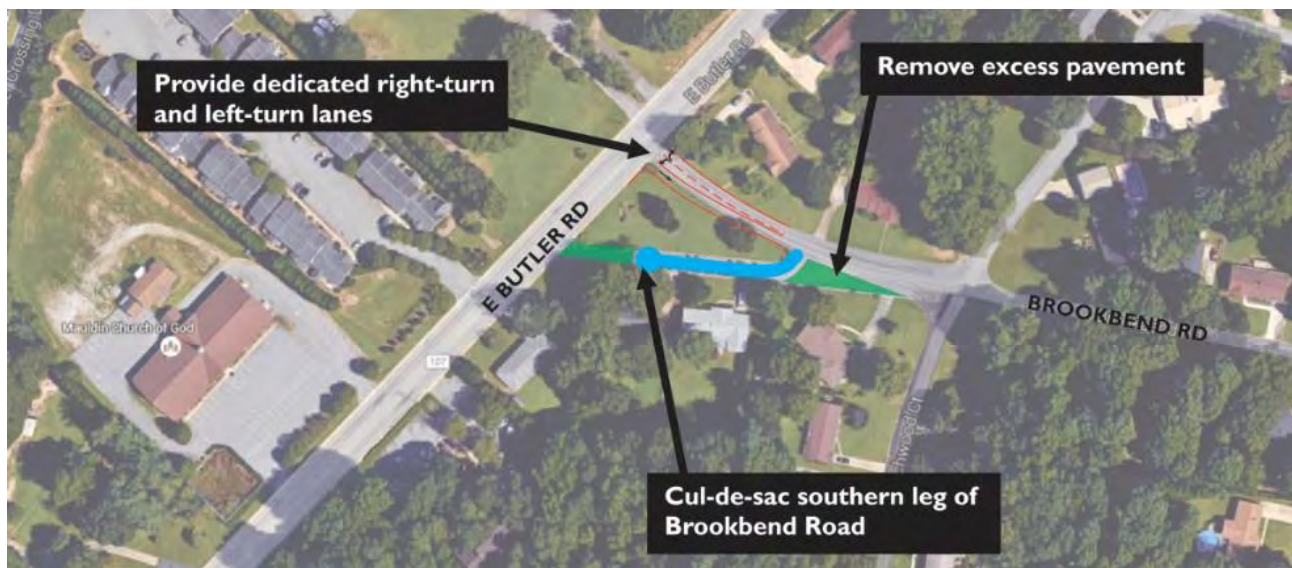


Figure 4-7: East Butler Road at Brookbend Road Recommended Improvements

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Attachment 6

MEMORANDUM

TO: GPATS Policy Committee

FROM: GPATS Staff

DATE: April 18, 2016

SUBJECT: GPATS 2040 LRTP Kick-off Update

GPATS is gearing up to begin the 2040 Long-Range Transportation Plan in earnest this spring! The advertising period for consultants ended on January 26th, and the review and selection process is nearing completion.

It is anticipated that the contracts will be signed in mid-April, and formal kickoff of the LRTP will happen on May 1st, hitting the ground running. GPATS Staff has already spent the last few months gathering data and holding internal discussions to prepare.

The expected schedule for the LRTP is tentatively as follows:

- Spring 2016 – Policy Committee Coordination Meeting
- Spring 2016 – Kick-off
- Summer 2016 – Initial Rounds of Public Involvement
- Fall/Winter 2016 – Travel Model, Data Processing
- Spring 2017 – Follow-up Rounds of Public Involvement
- Summer 2017 – Project/Document Finalization
- Fall 2017 – LRTP Adoption

The locations of the public meetings are not yet set, but Staff is preparing to hold at least seven (7) meetings per Round, reaching all major areas of the GPATS region.

Chairman Kirven has requested that prior to the Kick-off Meeting, the Policy Committee will be given the opportunity to meet with the consultants to coordinate LRTP expectations and ideas. This meeting will be set within the first month or so of the process and all Policy Committee members will be encouraged to attend.

This information is being provided for informational purposes only, and no action by the Policy Committee is required at this time.



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Attachment 7

MEMORANDUM

TO: GPATS Policy Committee

FROM: GPATS Staff

DATE: April 18, 2016

SUBJECT: TIGER VIII Grant Application Status

In 2015, the City of Greenville and Greenville County submitted an application for the USDOT TIGER Grant, the VII (7th) round. The application was widely praised and supported locally, and was very nearly accepted and funded by USDOT Secretary Foxx.

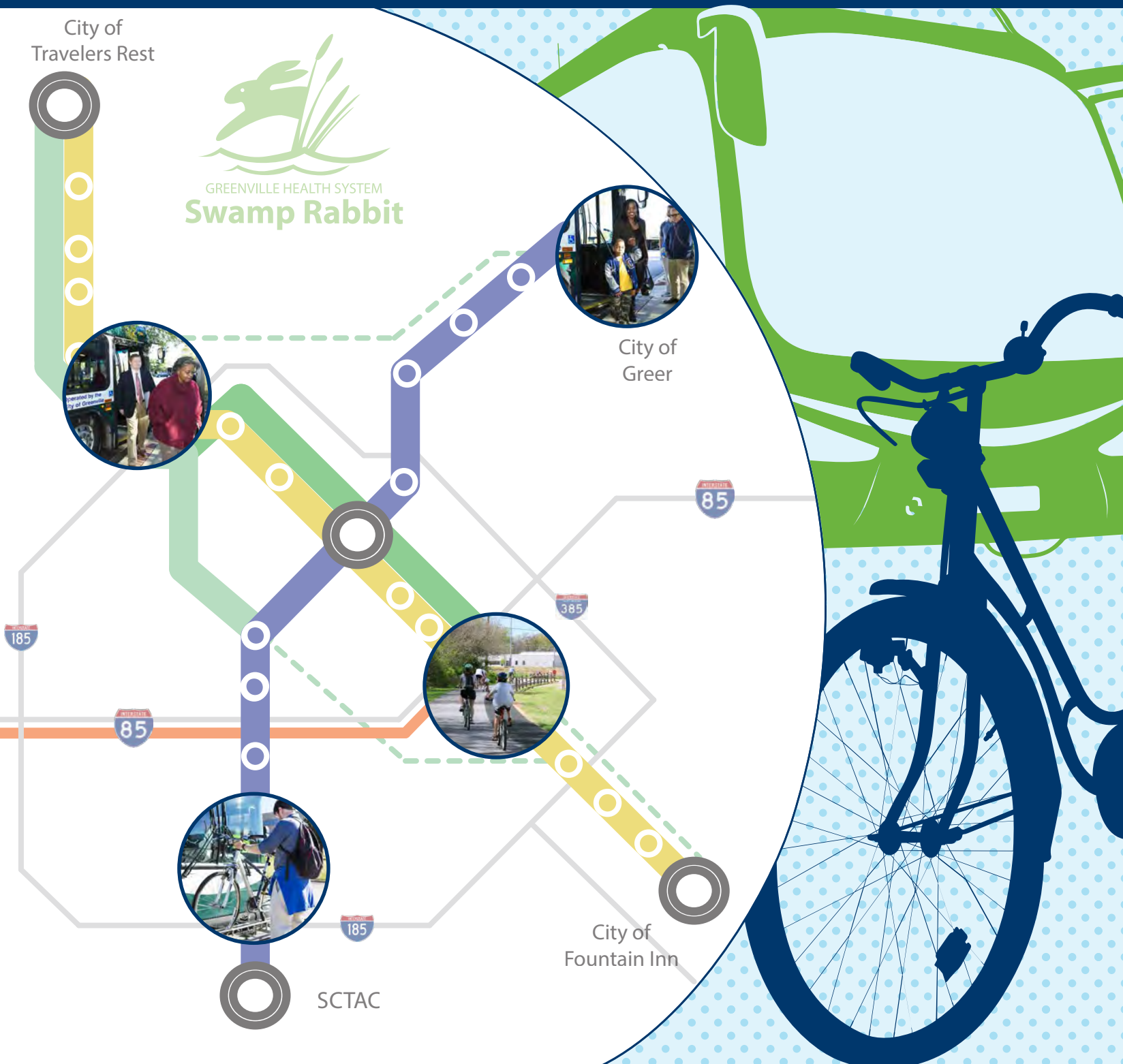
Building on that momentum and near-success, the City and County of Greenville are once again applying for TIGER VIII. The application is very similar to the previous application, taking into consideration the lessons learned, refining budgets and details, and overall strengthening the application.

Please find **Attachment 7.2**, the summary document of the TIGER VIII application. Staffs from the City and County of Greenville have been working diligently for the last 6 weeks on the application and in gaining local support, with the application due by the end of April.

Keith Brockington, Transportation Planning Manager for Greenville County and Executive Director for GPATS, will present in detail the work that has been done to this point, and request Endorsement of the TIGER VIII application from the GPATS Policy Committee.

The Policy Committee will be asked to Endorse the TIGER VIII Application. Endorsement of the Plan alone does not commit GPATS to any additional policies or funding.

GREENLINK: CREATING CIRCUITS FOR ECONOMIC SUCCESS



Submitted by: City of Greenville, SC; Greenville County, SC; and Greenlink Transit

TIGER 8 Grant Summary

Based on positive feedback from their TIGER 7 application, the City of Greenville, Greenlink and Greenville County will be re-applying for more than \$11 million in TIGER 8 Discretionary Grant funding this April from the United States Department of Transportation. This grant application brings together more than 40 regional partners including municipalities, private corporations, non-profit organizations, business associations and others to address one of the region's biggest barriers to economic and workforce development.

If received, this grant will transform the current Greenlink transit system into a regional transportation network designed to reach the farthest points of the county with express bus routes served by zero-emission, electric buses. The transformed system will feature express lines with enhanced rider amenities from Travelers Rest to Fountain Inn, and from Greer to Donaldson Center, with reduced headways and expanded hours of service to better accommodate flexible work schedules and manufacturing shift changes. Procurement of 8 zero-emission, electric buses and two EV charging stations will create the core of an innovative transportation network that not only makes jobs, health care and education more accessible to all Greenville County residents, but also addresses road congestion, air quality and oil dependency issues.

Along two corridor express routes –the Gold Line and the Blue Line - will be 24 multimodal transit stations equipped with electronic pay equipment and bike-share systems. Proposed transit stations include:

GOLD Line:

Travelers Rest CBD
Furman University
Cherrydale Shopping Center
West Greenville Neighborhood / Amtrak
Greenlink Transfer Center
East Washington Neighborhood
Ackley/Nicholtown Neighborhood

University Center Midtown Transfer

Haywood Shopping Center
Verdae Neighborhood
CU-ICAR (Clemson Transfer)
Mauldin City CBD
Simpsonville City CBD
Hillcrest Hospital
Fountain Inn City CBD

BLUE Line:

Greer City CBD
Taylors Neighborhood
Hampton Village Shopping Center
Bob Jones University
TD Convention Center

University Center Midtown Transfer

Greenville Technical College
Augusta Road Neighborhood
Mauldin Road Neighborhood
Donaldson Center (SCTAC)

This TIGER 8 proposal also calls for the creation of circulator routes to connect West Greenville and other underserved neighborhoods within the City of Greenville, as well as the municipalities of Travelers Rest, Greer, Mauldin, Simpsonville and Fountain Inn to the greater Greenlink system's proposed express routes and existing fixed routes.

Additionally, this grant requests funding for activation of Greenville County's railroad corridor to extend the Swamp Rabbit Trail from E. Washington Street to CU-ICAR. This greenway activation complements a regional transit system by providing a multimodal, 'last-mile' connection to jobs and educational opportunities along a major county thoroughfare. Activation of this corridor includes a connection to the community of Arcadia Hills, a redeveloped neighborhood in a distressed area of the county made possible by two federal HOPE VI grants, as well as Verdae, a master-planned, mixed-use neighborhood. The connection to Arcadia Hills will serve as a pilot safety program and working model for future community connections to the transportation corridor.

Greenlink: Creating Circuits of Economic Success

TIGER VIII Concept Map

Electric Express Bus Routes

- New
- Existing
- Existing
- Greenway/Trail**
- New
- Existing
- Future

Trail-Transit Connections

- New
- Existing
- Future
- Transfer Station / Park & Ride
- Electric Bus Station
- Electric Bus Station
- Bike Share Station
- Circulator Service



How to Get Involved

Historically, USDOT has selected TIGER projects that leverage significant local funding. Thanks to the support of regional partners, the Greenville team was able to raise more than \$10 million, or 43% of the total cost, in cash and in-kind services for TIGER 7. This year, the application team is hoping to strengthen their proposal by increasing Greenville's local match contribution to exceed 50% of the total project costs.

TIGER 7 Budget

<i>Description</i>	<i>Cost</i>	Local Match		TIGER	
		<i>Total Match</i>	<i>Local (%)</i>	<i>Total Request</i>	<i>TIGER (%)</i>
Zero emission buses and equipment	\$ 9,215,000	\$ 1,926,000	20.90%	\$ 7,289,000	79.10%
Circulator buses and equipment	\$ 865,000	\$ 250,000	28.90%	\$ 615,000	71.10%
Bus station property, equipment, and installation	\$ 3,152,283	\$ 1,248,255	39.60%	\$ 1,904,028	60.40%
Multimodal corridor construction	\$ 7,881,685	\$ 4,078,676	51.75%	\$ 3,803,009	48.25%
Multimodal corridor property	\$ 1,922,252	\$ 1,922,252	100.00%	\$ -	0.00%
Multimodal station property, equipment, and installation	\$ 1,000,000	\$ 1,000,000	100.00%	\$ -	0.00%
TOTAL PROJECT COST	\$ 24,036,220	\$ 10,425,183	43.37%	\$ 13,611,037	56.63%

To meet that goal, Greenlink is offering a variety of sponsorship packages to organizations that are interested in contributing to the TIGER 8 project and raising awareness of their brand or mission. Potential benefits include:

- Naming rights of transit and/or bike share stations
- Exterior bus wraps
- Interior bus advertisements
- Transit station advertisements
- Advertisements on B-Cycle bikes
- Transfer Center advertising
- Free or reduced fares for employees
- Branding transit smart cards
- GPS-triggered audio advertisements in the buses
- Wifi mobile banner advertisements
- And more!

If your organization is interested in discussing TIGER 8 sponsorship opportunities please call Nicole McAden at 864-298-2756 or email her at nmcaden@greenvillesc.gov.