



**Transportation Improvement Program Project Selection  
FY 2017-2022**

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## **Acknowledgment**

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This publication addresses four important questions of the Transportation Improvement Program (TIP) project selection process: What is Transportation Improvement Program? How is the Program funded? How did the TIP project get selected? How much does the project cost?

## **Transportation Improvement Program**

Transportation Improvement Program (TIP) is a federal funding program for improvement of transportation system such as transit and roadway. The funding is offered with local match portion of 20%. In accordance with the federal transportation regulations, the Transportation Improvement Program is an essential component of the transportation planning process. TIP is developed cooperatively among the Metropolitan Planning Organization (MPO), State DOT and Federal Highway Administration (FHWA)/Federal Transit Administration (FTA). The TIP provides a list of priority projects for four-year period. TIP requirements include:

- Administered by MPO
- Covers a four-year period
- Updated at least once every four years
- Individually identifies regionally significant project(s)
- Public Participation
- The project(s) selected for implementation are/is consistent with the Statewide STIP and Long Range Transportation Plan (LRTP)

The SUATS MPO, in cooperation with the SCDOT and the SWRTA (Santee Wateree Regional Transportation Authority), must develop a fiscally constrained priority list of federally-funded projects for a minimum three-year period. The TIP must be updated at least every two years. In South Carolina, TIP(s) reflect the required three program years, plus two additional planning years and are jointly approved by the MPO and SCDOT. The rural Council of Government (COG) programs are formatted in the same manner as the MPO TIPs.

For the Transportation Management Area (TMA),( area with more than 200,000 population) projects are selected by the MPO (excluding National Highway System, Bridge and Federal lands projects) in consultation with the State. For MPOs not designated as TMAs, such as SUATS (population: 85,635), projects shall be selected by the State, in cooperation with the MPO. Outside of MPOs, projects shall be selected by the State, in cooperation with affected local officials.

TIPs are then submitted to SCDOT for approval and inclusion in the Statewide Transportation Improvement Program (STIP).

The TIP projects are funded by the federal highway bill and annual appropriation act with the requirement of a matching portion (usually 20%) by local government. The South Carolina

Department of Transportation (SCDOT) Commission determines the funding priorities for the federal-aid program. This includes the funding level allocated to MPOs and COGs. Since the mid 1990s, the allocation between urban and rural federal-aid funds for MPOs and COGs, called *Guideshares*, has been based upon study area population. (However, in May 2014, the SCDOT Commission voted to eliminate the 20% Guideshares requirement for *system preservation and intersection improvement projects*, as dated in the Memo of May 19, 2014 by Mark Lester to MPO and COG Directors)

## Source of Program Funding

Sumter Urban Area Transportation Study (SUATS) Guideshares are the federal highway funds, with appropriate State Match, allocated *each year* to the SUATS area by the SCDOT Commission for transportation improvements projects. The yearly apportionment to SUATS Guideshares is approximately \$2,500,000 (See the table below). The SCDOT will assist in financing the improvement projects by requesting the issuance of State Highway bonds and the debt service (principal and interest) on which are repaid entirely with SUATS Guideshares.

In December 1997, the SCDOT and the SUATS entered into an agreement, *inter alia*, a State Highway bonds were issued and its total debt service (principal and interests) in the total amount of \$23,779,000 would be repaid by SUATS Guideshares in 20 years starting 2001. The maximum amount of SUATS Guideshares for debt service would be no more than \$1,352,000 annually until the debt is paid in full. To this end, as of Calendar Year of 2015, the 4<sup>th</sup> quarter, the Guideshares financial status is show in the table below:

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Guideshares	2,478	2,536	2,536	2,536	2,536	2,537
Carryforward	0	0	1,161	215	1,755	3,308
Advancement (SCDOT)	0	0	0	0	0	1
<b>Program Funds</b>	<b>2,478</b>	<b>2,536</b>	<b>3,698</b>	<b>2,751</b>	<b>4,291</b>	<b>5,846</b>
Total Debt Service	(1,053)	(823)	(1,008)	(996)	(984)	(738)
Total Payback (SCDOT)	(707)	(538)	0	0	0	0
Total Available funds for Projects	718	1,175	2,690	1,755	3,308	5,107
Total Project Costs	(718)	(14)	(2,475)	0	0	0
<b>Balance</b>	<b>0</b>	<b>1,161</b>	<b>215</b>	<b>1,755</b>	<b>3,308</b>	<b>5,107</b>

The SUATS Guideshares funded the last cycle TIP project (FY 2014-FY2019) for Broad Street (US 521) resurfacing and intersections improvement from Bultman Drive to near Market Street. \$250,000 was spent on preliminary engineering in FY2014. \$14,000 will be spent this year (FY 2016) for right of way acquisition and \$2,475,000 will be spent on construction in FY 2017.

## Project Selection for FY 2017- 2022

Choosing where and what intersection to improve is a methodological process. A number of guidelines must be followed to select project for roadway improvements. The following is the process:

- Sufficient funding is required in the Guidesare for TIP project in each new cycle. An estimated project cost is necessary.
- The project must be selected from the intersection or roadway improvement projects listed in the SUATS Long Range Transportation Plan (LRTP)
- The project selected must be in the priority project list which was evaluated in accordance with the SCDOT Act 114. Justification is required if the selected project is out of ranking order of the priority list.
- The SUATS Study Team must convene to discuss the proposed TIP project.
- Then, recommendation for approval TIP project sent to SUATS Policy Committee.
- The TIP project will then be open for public comments
- A public meeting will be held for project presentation and discussion before the Policy Committee
- Upon approval, the project will be placed in the SUATS TIP and eventually adopted in the State TIP (STIP).

On April 6, 2016, SUATS Study Team convened to discuss the Pinewood and McCrays Mill Rd intersection improvement project which is ranked #3 in the SUATS Long Range Transportation Plan Priority Project list. Accident data, access vehicle movements and traffic volume and related issues were discussed. (See attachment A for detail, *Development of SUATS Transportation Improvement Program (TIP) project for FFY 2017-2022*) The improvement will reduce the number of incidents occurred at the intersection. Ranking priority Project #1 and #2 were selected in 2014 for the last cycle TIP project, FFY 2015-2019.

On June 6, 2016, SUATS Policy Committee convened and voted unanimously to approve this TIP project for intersection improvements.

On July 21, 2016, SCDOT revised and adopted SUATS TIP project into its STIP. \$300,000 is budgeted for the preliminary engineering for FY 2016, \$200,000 for the right of way purchase for FY 2017, and \$1 million dollar for construction in FY 2018. The table with highlighted area reflects the project's budget.

Project			MPO / COG	STIP Category	Federal Program	FY 2014 Planned	FY 2015 Planned	FY 2016 Planned	FY 2017 Planned	FY 2018 Planned	FY 2019 Planned	2014-2019 Project Cost	Remaining Cost
Description	Length	Rank											
Section/Corridor Improvements				Safety	Safety	Funding information can be found in the Safety portion of the Commission Approved Categories section							
S-370 (Canes Savannah Road)			SUATS										
US 521 (Camden Hwy)			SUATS										
S-458 (Cains Mill Rd)			SUATS										
S-25 (Old Manning Rd)			SUATS										
S-528 (Kolb Rd)			Santee Lynches										
S-40 (St. Paul's Church Rd.) MP 3.46 to MP 4.80 and MP 5.72 to MP 8.23			SUATS										
S-402 (Tindal Rd.) MP 0.00 to MP 1.70			SUATS										
S-645 (Cockerill Rd.) MP 0.00 to MP 2.49			SUATS										
US 521 (Broad Street) (Near Bultman Road to near Market Street)			SUATS-01	SUATS	System Upgrade	NHPP	250 P		25 R	2,475 C			\$2,750
Improvements													
Intersection Improvements	2013-03		SUATS	System Upgrade	STP			300 P	200 R	1,000 C			\$1,500
Pinewood @ McCray's Mill Road													

### Project Cost

The Pinewood and McCray’s Mill Road intersection improvement project was estimated for \$886,739 for the project cost. (See SUATS LRTP page10-3, Financial Plan) However, the SCDOT has included inspection and contingency costs with an estimated of \$1.5 million. As shown in the table above, Preliminary Engineering, Right of Way purchase and construction are included in the estimate.

### Conclusion

Transportation Improvement Program (TIP) is a federally funded program that financially subsidizes local government to improve the transportation infrastructures such as roadways, corridors or intersections. Project selected for the TIP improvement must be listed on the priority project ranking list on the SUATS LRTP. The ranking order determines the project selection process. SUATS has selected Pinewood and McCray’s Mill Road for the intersection improvement after the SUATS Study Team convened, discussed and recommended the project for SUATS Policy Committee for approval. The project cost is about \$1.5 million.

**Attachment A**



**Development of SUATS Transportation Improvement Program (TIP)  
Project for FFY 2017-2022**

**June, 2016**

**Allan Yu, Senior Transportation Planner**

# **Development of Sumter Transportation Improvement Program (TIP) Project for FFY 2017- 2022**

## **Introduction**

**The Sumter Transportation Improvement Program(TIP) is funded by the SCDOT Guideshare program in which the SC State DOT allocates the federal transportation funding to 11 Metropolitan Planning Organizations (MPO) and 10 Council of Governments (COG) statewide by a formula which is based upon the latest 2010 population Census. For the period of FFY 2017-2022, Guideshare amount for SUATS is slightly more than \$2.5 million yearly with almost half of this amount repaying to debt service.**

**Collective of all 11 MPOs and 10 COGs TIP projects are organized under the State Transportation Improvement Program (STIP). Each recipient must update their own TIP by July 2016 for FFY 2017 – 2022 and then all projects will be submitted to the State Commission for approval and adoption in August 2016.**

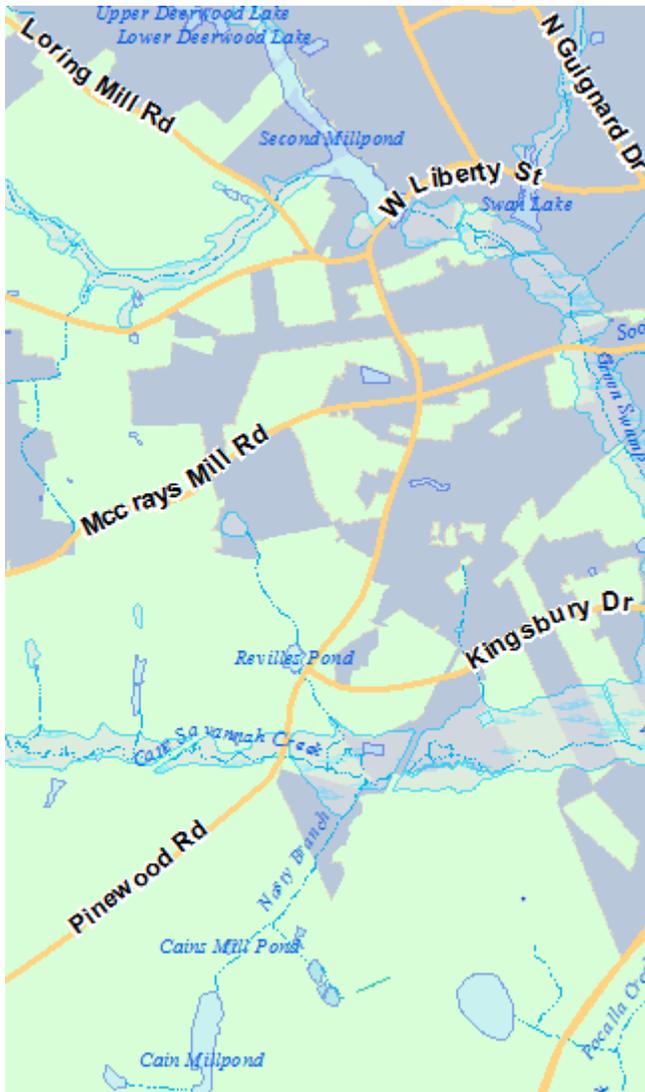
**Each funding recipient must select a project or projects from its Long Range Transportation Plan (LRTP) by July this year. Sumter Urban Area Transportation Study (SUATS) MPO in 2013 selected a roadway resurfacing and intersections improvement project on Broad Street between Wesmark Blvd and Bultman Drive. These were the Project Priority Ranking #1 and #2 projects in SUATS, LRTP 2010-2040.**

**In late January 2016, SCDOT requested SUATS to update the TIP for FFY 2017-2022. To this end, a candidate project was identified from the priority list of LRTP for the SUATS Technical Coordinating Committee (Study Team) to review for SUATS TIP implementation. The candidate project is ranked the top third of the Project Priority Lists. The other top two projects were selected to for intersection improvements and roadway resurfacing in 2013.**

**Upon consensus from the Study Team, the candidate project will then be recommended to Policy Committee to adopt the project into SUATS TIP.**

## Candidate Project

### Safety Improvements on Pinewood/McCrays Mill Road near intersection corridor



#### Existing Conditions

##### Pinewood Road (SC Route 120)

Pinewood Road (SC- Route 120) is an arterial running north and south. This road intersects with McCrays Mill Road (Route 33) which runs east and west and is controlled by traffic signal lights. Located at the northern leg of this intersection are retail and commercial establishments with

two major grocery supermarkets, two gas stations, a fast food restaurant, a pharmacy store and several retail stores. On the southern leg of this intersection on Pinewood is a gas station, bank, fast food restaurant, single family homes, Tuomey Outpatient clinic and other retail stores.

Due to the concentration of these commercial entities, heavy traffic volume is expected on this corridor and will continue to grow. In accordance with the SCDOT traffic volume data, the average annual daily traffic volume (AADT) in 2015 was 18,700 on the northern leg and 9,600 on the southern leg. Furthermore, the projection of growth rate to 2040 on this corridor is 1% and 1.41% on the northern and southern legs respectively. There were 25 accidents on Pinewood in 2015 almost a double the number of incidents of 13 in 2014. All these accidents were near or at the access points on Pinewood Road.

Currently there are 15 curb cuts on the northern leg within 0.2 mile from the intersection whereas there are 12 curb cuts on the southern leg.

### McCrays Mill Road (Route 33)

McCrays Mill Road (Route 33) is an arterial and intersects Pinewood Road running east and west. The eastern leg of this road carries AADT 8,000 traffic volume whereas the western leg of this road carries about AADT 11,600 traffic volume in 2015. The projected growth rate on this road to 2040 is 2.5% and 1% per annum on eastern and western legs respectively. The eastern leg of this road connects with numerous retail stores, banks and a pharmacy store. The western leg of McCrays Mill Road gives access to gas station, a grocery supermarket, several fast food restaurants, a bank and retail stores. There were 14 crashes on McCrays Mill Road in 2015. All these accidents were near or at the access points on McCrays Mill road.

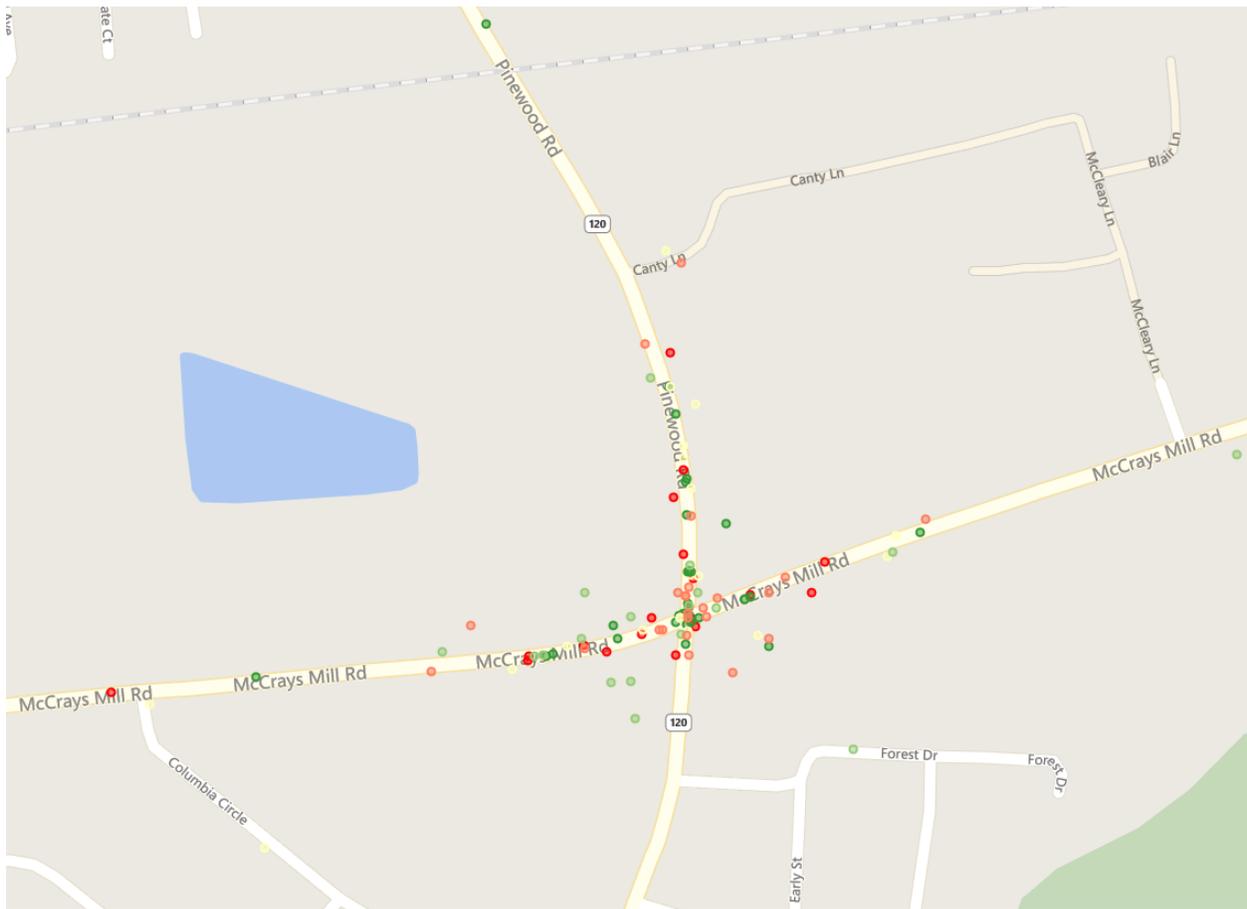
Currently there are 20 curb cuts on the eastern leg and 14 on the western leg within 0.2 mile from the intersection.

### Traffic Problems

In accordance with the Public Safety Department crash data, the total number of crashes from 2012 to 2015 is 110 at or near this intersection. A 52% increase in the number of accidents was found from 2014 to 2015.

The posted speed limit is 45 mph on McCrays Mill Road and 40 mph on Pinewood.

On an average day, 47,900 vehicles enter the intersections of McCrays Mill Road and Pinewood Road in 2015 and this number is projected to increase to 63,500 in 2040. While the number of accidents cannot be projected for the future for such high volume traffic, the past history at the intersection (2012 to 2015) reveals the trend of collisions has been increasing.



Accident Locations Map

For the past four years, 2012 to 2015, there were a total of 110 incidents of crashes with no fatal injuries but 51 non-fatal injuries. The month of January has the highest accident occurrences and Friday is the day of the week with most accidents. Nearly half of the crashes were caused by “failure to yield Right of Way” and “Distraction/Inattention” such as using cell phones is the second highest cause and “Improper Lane Usage/Change” is the third. The majority of accidents occurred between noon and 6 PM.

As identified in the SUATS LRTP, the access points at and near the intersections create many conflict movement points. As shown in the map above, majority of accidents occur along the access points on the commercial corridor on Pinewood Road and McCrays Mill Road.

## **Recommendations for Roadway Function and Safety Improvements**

Improvements recommended to the commercial corridor on both Pinewood Road and McCrays Mill Road could reduce the number of crashes and improve the function of roadway:

- Consolidate and better define driveways with curb and gutter to combine turning movements, increase safety, limit driver confusion and ease congestion
- Move or consolidate driveway access away from intersections
- Improve on-site traffic circulation
- The median turn lanes both on Pinewood and McCrays Mill should be replaced with landscaped or raised median with U-turn and right-in/right-out access to control access and increase safety.
- Install barriers (on marked Chevron signs on roadway surface pavement) to separate the exclusive left turn lanes and the thru movement lanes
- Retime the traffic signal lights to accommodate current moving and turning traffic volumes.