



MOVING STARK FORWARD 2050

Draft 2, May 2025
Stark County's
Transportation Plan

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Transportation Study

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INTRODUCTION

The Stark County Area Transportation Study (SCATS) was formed in November of 1962 in order to prepare a long-range transportation plan that would meet the requirements of the Federal-Aid Highway Act of 1962. The act required the development of a comprehensive transportation plan coordinated with land use and other planning elements. The law also required a continuing transportation planning process where traffic and land use changes are monitored and periodic revisions to the Plan are made to keep abreast of changing conditions and maintain a 20-year planning horizon. The original SCATS Transportation Plan was adopted in 1971 with a target date of 1985. The table below documents the various Plans over the years:

Table 1.1 Plan Years

Plan Adoption	
Year	Horizon Year
1971	1985
1979	2000
1985	2010
1995	2010
1999	2020
2002	2030
2005	2030
2009	2030
2013	2040
2017	2040
2021	2050
2025	2050

SCATS is the Metropolitan Planning Organization (MPO) for Stark County and is designated by the Governor of Ohio as the entity responsible for transportation planning in Stark County. This document updates the previous transportation plan, which had extended the horizon year to 2050. The Transportation Plan is then incorporated as an element of the Stark County Regional Planning Commission (SCRPC) Comprehensive Plan.

SCATS Organization

Three committees and the staff comprise the organization of SCATS. They are the Policy Committee, the Technical Advisory Committee (TAC), and the SCRPC Citizens Advisory Council (CAC).

The Policy Committee

The Policy Committee is composed of county officials, mayors, a township representative, and representatives from Ohio Department of Transportation (ODOT), the Stark Area Regional Transit Authority (SARTA), the Stark County Park District, the TAC Chair, and the CAC Vice-Chair. This committee is responsible for the basic non-technical policies, adopts the Transportation Plan and Transportation Improvement Program, and approves the budget.

The Technical Advisory Committee

The Policy Committee is assisted by the TAC, which reviews technical decisions and is composed of professionals in the fields of traffic, engineering, transportation, planning, and mass transit.

The Citizens Advisory Council

The third committee is the CAC. The SCATS Citizens Advisory Committee was formed in 1968. During 1976, a Citizens Advisory Council was formed to provide citizen participation for the SCATS program, as well as for the Stark County Regional Planning Commission (SCRPC). The CAC membership is open to all persons living or working in Stark County. Currently the CAC meets on an as needed basis, usually for specific issues. Special meetings are also called in order to satisfy public participation requirements.

SCATS Staff

The staff performs the day-to-day work of the study and prepares plans, reports and recommendations for review and adoption by the Policy Committee, TAC, and CAC. The staff also provides information as requested to the public.

Summary

The primary objectives of SCATS, as the MPO for Stark County, is to develop the Long Range Transportation Plan and Transportation Improvement Program (TIP) for Stark County in accordance with federal regulations. This plan is completed not only with the cooperation of the above groups and SCATS and SCRPC staff, but through contributed efforts of ODOT, SARTA, FHWA and FTA staff as well.

PLAN SUMMARY

The 2050 Transportation Plan continues to address issues such as traffic congestion and delays identified by local officials, as well as ease of mobility and accessibility identified by Stark County residents. In addressing these issues, SCATS intends to continually improve a balanced multimodal system. This is accomplished through highway rehabilitation, intersection safety improvements, signalization coordination, reduced trip demand through improved public transportation, enhancements to pedestrian and bicycle transportation, and other projects. One of the plan's goals is to provide a balanced multimodal transportation system that considers the social, economic, and environmental concerns of the region's citizens.

Plan Components

The 2050 Transportation Plan consists of three major components: highways, transit, and bicycle/pedestrian facilities. Projects will be described in three time periods: projects proposed for completion between 2026 and 2030 (including TIP projects), projects from 2031 to 2040, and projects from 2041 to 2050. These time periods were chosen to facilitate air quality calculations.

Highways

Freeways and Expressways – High-speed, long-distance trips in and through Stark County and the surrounding region will use the freeway and expressway system, which includes I-77, US 30, and portions of US 62 and SR 21. The main improvements planned for this system are the extension of US 30 East from Trump Avenue to SR 11 in Columbiana County and the construction of an interchange at US 62 and Harmont Avenue east of Canton.

Arterial highways – high-capacity urban roads that connect local collector roads to freeways and expressways. The Plan includes projects to improve traffic flow in and around major traffic generators. These projects include improvements to the West Tuscarawas Street Corridor in the City of Canton, road widening, intersection, and safety improvements on SR 44, SR 93, SR 153, SR 172, SR 241, SR 619, and SR 627.

Several safety improvements have been made, including many intersection improvements. Numerous bridge and resurfacing projects listed in the early portion of the plan (some of which are included in the FY 2026-2029 TIP) highlight the cost of system preservation.

Public Transit

The public transit system serves an important role in meeting the transportation needs of Stark County residents. The Stark Area Regional Transit Authority (SARTA), Stark County's public transit agency, has seen continual growth in the past several years with infrastructure and other improvements to promote

ridership. SARTA provided approximately two million trips per year through fixed-route bus service, paratransit demand-response, special shuttles, and other operations.

SARTA, as well as other for-profit and non-profit transportation providers assists in providing a balanced transportation system available to all residents of Stark County.

The following general categories of transit capital improvements are in the Plan:

- Buses and Paratransit Vehicles Replacement – due to age, excessive mileage, wear and conversion to alternate fuels, like Compressed Natural Gas (CNG) and hydrogen.
- Bus Rapid Transit (BRT) Corridors – in high-ridership corridors improvements are being made to encourage and improve ridership. Bus pull-off lanes, shelters, and pedestrian and bicycle facilities are being added to facilitate intermodal transportation. The Mahoning BRT has been completed. Several other corridors (Tuscarawas Street, Whipple Avenue, and Harmont Avenue) are planned for the future.
- Completion of improvements and capacity increases for CNG and Hydrogen Fuel projects at the Gateway Facility.
- Equipment and Preventive Maintenance – equipment purchases and capitalized preventive maintenance of SARTA vehicles and facilities.
- SARTA is the designated recipient of pass-through sub-allocated funds for the Enhanced Mobility for Seniors and Individuals with Disabilities Program (5310). Various programs operated by SARTA derive from the locally-developed Coordinated Public Transit-Human Services Transportation Plan:
 - Assisting veterans in their transportation needs;
 - Assisting returning ex-offenders with transportation to work or interviews;
 - Transporting low-income dialysis patients not meeting Medicaid transport qualifications;
 - Transporting excessive weight persons not able to use conventional handicap vehicles;

Bikeways and Pedestrian Facilities

Bicycle and pedestrian facilities are a valuable resource for short-distance transportation as well as recreation and tourism. Long-distance facilities, such as bike lanes, are in high demand as the public becomes more interested in sustainability, green living, and low-impact lifestyles. Since the construction of the Congressman Ralph Regula Towpath Trail on the Ohio and Erie National Heritage Canalway, Stark Parks has completed a number of bicycle and pedestrian facilities. These include major projects in the cities of Canton, North Canton, Plain Township, and Lexington Township. Interconnections between many of these trails are under construction and included in the plan.

The City of Canton has completed several of Stark County's first Complete Streets projects, including the Mahoning BRT Corridor and 12th Street Rehabilitation. The city has also developed a comprehensive plan for bicycle lanes and has begun implementing and planning additional projects. These developments serve as examples of similar facilities in Stark County. Stark Parks has completed an update to the Stark County Trail and Greenway Plan, which significantly enhances the bicycle and pedestrian sections of this plan.

2050 Plan Listing

Moving Stark Forward 2050 includes a financially constrained list of projects, which are recommended for implementation by the Year 2050.

For ease of locating projects, this list includes all projects included in Moving Stark Forward, except for specific transit-related projects which are broken down further by SARTA in Chapter 4.

Table 2.1 Projects 2026-2030

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
3 rd St SW from McKinley and Market	On Road Bike Infrastructure	\$15,000	2030
3 rd St SW from Tuscarawas to Cherry	Minor widening, curb, gutter, modified lane configuration	\$5,000,000	2030
4 th St SE Bridge west of Warner	Bridge Rehabilitation	\$2,000,000	2026
12 th St NW & Perry Dr	New roundabout	\$4,335,710	2029
12 th St NW from Monument to Walnut	Resurfacing	\$2,165,804	2028
19 th St NW from Cleveland to Harvard	Brick Reconstruction	\$3,300,266	2030
25 th NW from Cleveland to Market	Streetscaping	\$825,000	2030
30 th St NW from Cleveland to Market	Minor widening, curb, gutter, modified lane configuration	\$5,000,000	2030
Alabama Ave & Orrville St	New roundabout	\$3,500,000	2030
Alabama Ave & Stanwood St	Intersection Improvements	\$800,000	2030
Applegrove St & Freedom Ave Intersections	New turn lanes	\$5,290,000	2030

Applegrove St & Whipple Ave from Freedom to Portage	Resurfacing	\$1,120,000	2030
Applegrove St from Frank to Whipple	Widen to 5 lanes	\$13,000,000	2030
Applegrove St from Pittsburg to N Main	Resurfacing	\$934,375	2027
Beech St & Beechwood Ave	Intersection Improvements	\$2,500,000	2030
Beech St at Oakhill Ave	Intersection Improvements	\$2,000,000	2030
Beechwood Ave & Georgetown St	Intersection Improvements	\$1,500,000	2030
Belden SE Bridge south of Ed Stein	Bridge Replacement	\$2,000,000	2030
Cherry Ave/Earl Rd/Wooster St/17 th St	New roundabout	\$4,000,000	2030
Clarendon Ave Pedestrian Bridge Demo	Bridge Demolition	\$300,000	2030
Cleveland Ave & State St	New roundabout	\$4,910,000	2028
Cleveland Ave & Wright St	Intersection Improvements	\$2,400,000	2030
Cleveland Ave from Orion to Wright	Resurfacing	\$2,125,000	2028
Cleveland Ave from Wright to Pontius	Resurfacing	\$2,950,000	2030
Cleveland Ave NW Phase 1 from 7 th to 25 th	Streetscaping	\$1,000,000	2026
Cleveland Ave SW (Market to Ridge)(SBR 77 TEMP)	On Road Bike Infrastructure	\$20,000	2030
Colonial Blvd Complete Streets Phase 2	Berm, sidewalk, trail in boulevard, street parking	\$2,151,000	2026
Columbus Rd & Paris Ave	Intersection Improvements	\$1,250,000	2030
Covered Bridge Park Trail near 47 th ST NW	Off Road Path	\$500,000	2030
E Maple St Phase 2 from Woodside to Marquardt	Streetscaping	\$1,235,100	2028
E State St Signals at Arch, Seneca, and Mahoning	New coordinated traffic signals	\$718,000	2030
Easton at Glen Oak Entrance & Rosedown	New roundabout	\$3,140,000	2028
Easton St & Bentler Ave	Intersection Improvements	\$1,500,000	2030
Easton St Bridge west of Pinetree	Bridge Replacement	\$1,930,000	2027
Erie St (US 62) and Navarre Rd SW	Intersection Improvements	\$2,700,000	2030
Erie St from Lincoln Way to North Ave	Minor widening, modified lane configuration	\$1,500,000	2030

Erie St from Tremont to Lincoln Way	Minor widening, modified lane configuration	\$1,500,000	2030
Everhard Rd from Brunnerdale to Fulton	Resurfacing	\$1,322,500	2027
Fohl St & Dueber Ave	Intersection Improvements	\$2,500,000	2030
Fohl St from Naverre to I-77	2-lane improvements, minor widening, turn lanes	\$5,230,000	2030
Frank Ave from Applegrove to Shuffel	Widen to 5 lanes	\$6,000,000	2030
Fulton Dr Bridge south of Stadium Park	Bridge Replacement	\$5,000,000	2030
Fulton Dr Streetscape Phase 2	Intersection Improvements	\$5,000,000	2026
Fulton Dr, 25 th St, & Harrison Ave Roundabout	New roundabout	\$8,313,115	2029
Hess Blvd & Tremont Ave	New roundabout	\$5,000,000	2030
Hills & Dales Rd from Dressler to Whipple	Resurfacing	\$675,000	2028
Hoover Trail from E Maple to Marquardt	Trail paving	\$423,869	2028
Lake Ave Traffic Calming from SR 21 to SR 241	Minor widening, curb, gutter, modified lane configuration	\$5,187,500	2027
Lesh Realignment Safety Project Phase 2	Realignment of Lesh connection to Harmont	\$1,000,000	2030
Lincoln Way & Main Ave	Intersection Improvements	\$1,000,000	2030
Lincoln Way from 1 st NE to 3 rd NE	Streetscaping	\$1,500,000	2030
Lincoln Way from 1 st NE to Wales	Minor widening, curb, gutter, modified lane configuration	\$1,500,000	2030
Lincoln Way from 1 st NW to 1 st NE	Streetscaping	\$1,500,000	2030
Main Ave W from Tremont to Lincoln Way	Minor widening, modified lane configuration	\$1,000,000	2030
Main St and Tremont Ave	New roundabout	\$1,028,274	2026
Market Ave S from 11 th to Cleveland (SBR 77 TEMP)	On Road Bike Infrastructure	\$100,000	2030
Middlebranch Trail from 55 th to Easton	Trail paving	\$469,063	2030
Minerva Connector Trail	New Trail from Minerva to Nickelplate Trail	\$2,500,000	2030
Monument from 7 th to McKinley Monument	Berm/Sidewalk	\$50,000	2030
Navarre Rd & Main St	Intersection Improvements	\$2,500,000	2030

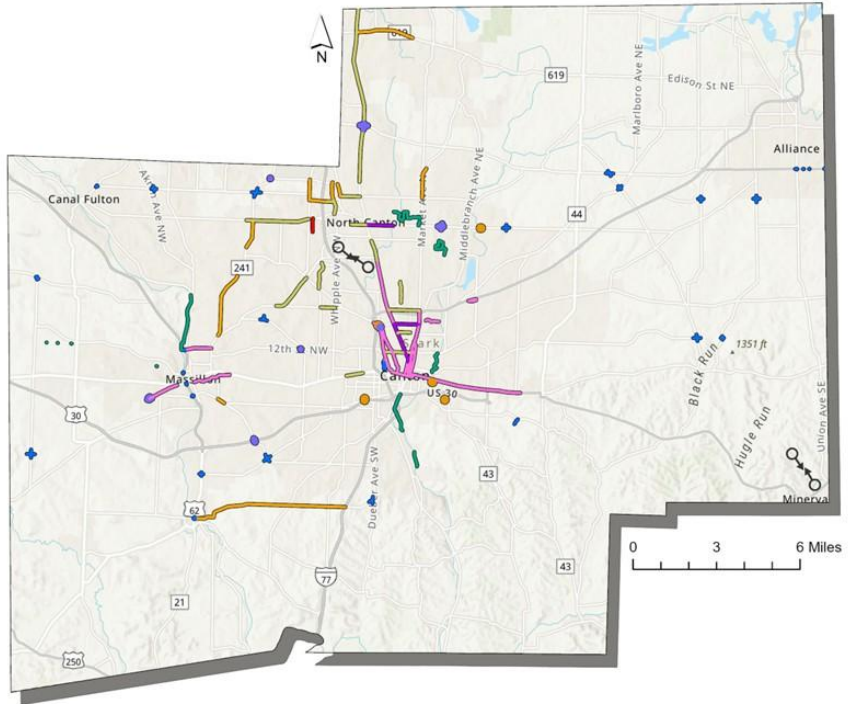
Navarre Rd SW at Millennium & Sterillite	Intersection Improvements	\$1,500,000	2030
Nimishillen Trail from 8 th NE to 12 th NE	Off Road Path	\$200,000	2030
Norman Ave from 34 th NW to 44 th NW	Minor widening, modified lane configuration	\$4,000,000	2026
Orchard View Dr & Argyle Rd	Intersection Improvements	\$1,000,000	2030
Park Drive Phase 2 from Tuscarawas to 7 th	Minor widening, curb, gutter, modified lane configuration	\$10,000,000	2030
Perry Dr & Harris Ave	Intersection Improvements	\$2,000,000	2030
Pittsburg Ave from Applegrove to Shuffel	Widen to 3 lanes	\$1,000,000	2030
Portage St from Lorraine to Frank	Resurfacing	\$2,100,000	2029
Portage St-Mega st Connector	New road	\$5,000,000	2030
SARTA Bus Purchases	Purchase of three buses	\$535,000	2027
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #1	Trail bridge replacement	\$320,160	2027
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #2	Trail bridge replacement	\$900,000	2030
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #3	Trail bridge replacement	\$789,728	2029
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #8	Trail bridge replacement	\$450,000	2026
South Main St from Knoll to Rose Lane	Resurfacing	\$1,265,000	2029
SR 21 & Cherry Ave	Intersection Improvements	\$2,500,000	2030
SR 21 & Lake Ave	Intersection Improvements	\$2,500,000	2030
SR 21 & Lillian Gish	Intersection Improvements	\$2,500,000	2030
SR 21 & Walnut	Intersection Improvements	\$2,500,000	2030
SR 43 (Market Ave) from Applegrove to Mt Pleasant	Widen to 4 lanes	\$3,500,000	2030
SR 93 & Strausser St	Intersection Improvements	\$2,000,000	2030
SR 173 (State St) & Paris Ave	New roundabout	\$3,500,000	2030
SR 183 & US 62 (State St)	Intersection Improvements	\$2,000,000	2030
SR 236 & Strausser St	Intersection Improvements	\$2,000,000	2030
SR 241 & Hills & Dales Rd	New roundabout	\$400,000	2030
SR 241 & Shuffel St	New roundabout	\$7,714,074	2027
SR 241 & Strausser St	Intersection Improvements	\$2,000,000	2030
SR 241 from Hills & Dales to Portage	Widen to 4 lanes	\$8,935,000	2030

SR 619 from Cleveland to SR 43	Widen to 4 lanes	\$5,000,000	2030
SR 627 & Navarre Rd	Intersection Improvements	\$2,500,000	2030
SR 627, US-30 Ramps, & Nave St	New roundabouts	\$3,026,910	2029
Towpath Trail (USBR-1, SBR-21)	Trail paving from Lake Ave to 40 Corners	\$651,408	2029
Tremont Ave SE from 1 st SE to Lincoln Way	Minor widening, curb, gutter, modified lane configuration	\$1,500,000	2030
W Maple St from Lindy Lane to Main	Resurfacing	\$330,000	2026
W Tuscarawas St Phase 1 from Broad to I-77	Road reconstruction, median barrier, roundabouts	\$19,590,278	2026
W Tuscarawas St Phase 2 from Raff to Broad	Safety Improvements, median barrier, roundabouts	\$15,000,000	2030
Walnut Rd from Southway St to 16 th St	2-lane improvements, minor widening, turn lanes	\$800,000	2030
Warmington St from Massillon WCL to SR 21	Minor widening, turn lanes	\$2,500,000	2030
Whipple Ave from Applegrove to Shuffel	Widen to 5 lanes	\$3,000,000	2030

Map 2.1 Projects 2026-2030

Map 2.1 Projects 2026-2030

- Bike/Pedestrian
- Bridge
- Intersection
- New Road
- Resurfacing
- Roundabout
- Transit Corridor
- Streetscaping
- Widening
- Potential Stark Parks Connection & Direction



Tables 2.2 Projects 2031-2040

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
3 rd St NW from James to State	Minor widening, curb, gutter, modified lane configuration	\$1,500,000	2040
23 rd St NW Extension from Stadium Park to Fulton	New 2-lane road	\$1,800,000	2040
38 th St NW from Salway to Guilford	On Road Bike Infrastructure	\$5,000	2040
55 th St NE from Johnnycake to Lindford	Berm/Sidewalk	\$5,000	2035
Amherst Rd from State to Taggart	Minor widening, modified lane configuration	\$2,400,000	2040
Applegrove St & Pittsburg Ave	New roundabout	\$5,000,000	2040
Applegrove St & Whipple Ave	New roundabout	\$5,000,000	2040
Arboretum Park from 38 th NW to RR tracks	Off Road Path	\$250,000	2040

Aultman Trail from Maryland to Schroyer	On Road Bike Infrastructure	\$50,000	2035
Babe Stearn Trail from Ivydale to Smith	Off Road Path	\$300,000	2035
Barr Elementary near Lindford Ave	Off Road Path	\$100,000	2035
Beeson St & McCallum Ave	Intersection Improvements	\$2,000,000	2040
Belden Village St from Everhard to Whipple	Access Management	\$3,000,000	2040
Broadway Ave from US 30 to Georgetown	Minor widening, reconstruction	\$2,500,000	2040
Cherry Ave from 3 rd SE to Market	Streetscaping	\$9,000,000	2040
Cleveland Ave & Lake Center St	Intersection Improvements	\$2,000,000	2040
Cleveland Ave NW Phase 2 from 25 th to Canton NCL	Streetscaping	\$8,000,000	2035
Cleveland Ave SW from Mark Ross to Walnut	New road	\$3,000,000	2040
Cleveland Ave SW from Mill to 4 th SW	Streetscaping	\$9,000,000	2040
Columbus Rd, Beeson St, and Reeder Ave	New roundabout	\$5,000,000	2040
Cook's Lagoon Trail from SR 153 to Harrisburg	Off Road Path	\$500,000	2040
Dressler Rd from Belden Village to Strip	Pedestrian improvements	\$1,400,000	2040
E Tuscarawas St from Cherry to Cole	Streetscaping	\$7,000,000	2035
Everhard Rd from Fulton to Dressler	Access management	\$4,000,000	2040
Flyway Byway Trail	Trail from Willowdale Lake to Frank Ave	\$500,000	2040
Frank Ave from Fulton to University	Widen to 5 lanes	\$2,800,000	2040
Georgetown St & Paris Ave	Intersection Improvements	\$1,500,000	2040
Harmont Ave from SR 153 to US 62	Widen to 4 lanes	\$2,800,000	2040
Harmont Ave from SR 153 to US 62	Transit Corridor	\$5,000,000	2040
Harrisburg St NE from 15 th to Spangler	Berm/Sidewalk bike trail	\$1,000,000	2040
Holiday St from Higbee to Whipple	Pedestrian improvements	\$2,000,000	2040
Hoover Trail from Glenwood/Whipple to Walsh University	Trail	\$200,000	2035
Iron Horse Trail / Nickel Plate Trail Connector	Trail from Paris to Alliance	\$2,000,000	2040
Iron Horse Trail in Alliance	Trail	\$1,000,000	2040
Jackson Connector from Hills & Dales to Stark State	Trail	\$1,100,000	2040
Lincoln Way from Bonnieview to Minerva ECL	Streetscaping	\$300,000	2040
Mallonn Park Trail extending into Mallonn Park	Off Road Path	\$10,000	2040

Mallon Park Trail from Raff Rd Trail to Mallonn Park	Off Road Path	\$500,000	2040
Maryland Ave SW Trail from 14 th to 9 th	On Road Bike Infrastructure	\$25,000	2035
McKinley Ave from Cleveland to 12 th NW	Streetscaping	\$5,000,000	2040
Middle Branch Trail from Spangler to 55th	Trail	\$150,000	2035
Millenium Ave extension to Cincinnati	New road	\$5,000,000	2040
North County / Walborn Connector Trail	Trail from Quail Hollow to Walborn Reservoir	\$500,000	2035
North County / Walborn Connector Trail	Trail from Walborn Reservoir to Deer Creek Reservoir	\$750,000	2035
Ohio & Erie Canal Towpath (USBR-1, SBR-21)	Trail Paving from 40 Corners to SR 93	\$1,000,000	2035
Ojays/Rowland/7 th St NE	New roundabout	\$5,000,000	2035
Orion St from Pittsburg to Cleveland	Widen to 3 lanes	\$4,000,000	2040
Phillips Rd Bridge near Sippo Blvd	Bridge Rehabilitation	\$3,000,000	2040
Pontius St & Duquette Ave	Intersection Improvements	\$2,000,000	2040
Portage St from Willaman to Orchard	Minor widening, modified lane configuration	\$2,000,000	2040
Quail Hollow Connector Trail, Phase 2	Trail from Hartville to Quail Hollow	\$750,000	2035
Raff Rd Trail from 11 th SW to 4 th NW	On Road Bike Infrastructure	\$50,000	2040
Richville Dr from Nave to Southway	2-lane improvements, minor widening, turn lanes	\$2,500,000	2040
Shuffel St from SR 241 to Frank	Widen to 3 lanes	\$3,000,000	2040
Sippo Connector Trail from Sippo Lake to Whipple	Trail	\$800,000	2040
Sippo Valley Trail (USBR-1, SBR-21&44)	Trail Paving from county line to Towpath Trail	\$1,100,000	2035
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #10	Trail bridge replacement	\$1,100,000	2035
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #5	Trail bridge replacement	\$750,000	2035
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #6	Trail bridge replacement	\$750,000	2035
Skyland Pines Trail from Lesh to Columbus	Off Road Path	\$750,000	2035
SR 44 (Ravenna Ave) & Orchard View St	Intersection Improvements	\$2,500,000	2040
SR 153 & Beechwood Ave	Intersection Improvements	\$2,500,000	2040
SR 172 from Massillon to Canton	Transit Corridor	\$8,000,000	2040
SR 241 from Portage to Summit County Line	Widen to 4 lanes	\$3,850,000	2040

State St (US 62/SR 172) & Oakhill Ave	Intersection Improvements	\$2,000,000	2035
Strausser St & High Mill Ave	Intersection Improvements	\$3,000,000	2040
Strausser St from SR 241 to Frank	Widen to 3 lanes	\$3,000,000	2040
Timken Company Trail from Harrison SW to Market	On Road Bike Infrastructure	\$20,000	2035
Trail Off Of 55 th St NE east of Upper Middlebranch Trail	Off Road Path	\$50,000	2035
Trump from SR 43 to New US 30	Minor widening, modified lane configuration	\$4,000,000	2040
Upper Middlebranch Trail	Trail from 55 th to Hartville	\$750,000	2035
US 30 Connector from SR 44 to SR 172	New 2-lane road	\$4,000,000	2040
US 30 extension from Trump to SR 44	New 4-lane expressway	\$120,000,000	2035
US 30 from SR 183 to East Rochester	New super 2-lane	\$4,300,000	2040
US 30 from SR 44 to SR 183	New 4-lane road	\$800,000,000	2040
W Tuscarawas St Phase 3 from Whipple to Raff	Safety Improvements, median barrier, roundabouts	\$15,000,000	2035

Map 2.2 Projects 2031-2040

Map 2.2 Projects 2031-2040

- Bike/Pedestrian
- Bridge
- Intersection
- New Road
- Resurfacing
- Roundabout
- Transit Corridor
- Streetscaping
- Widening
- Potential Stark Parks Connection & Direction

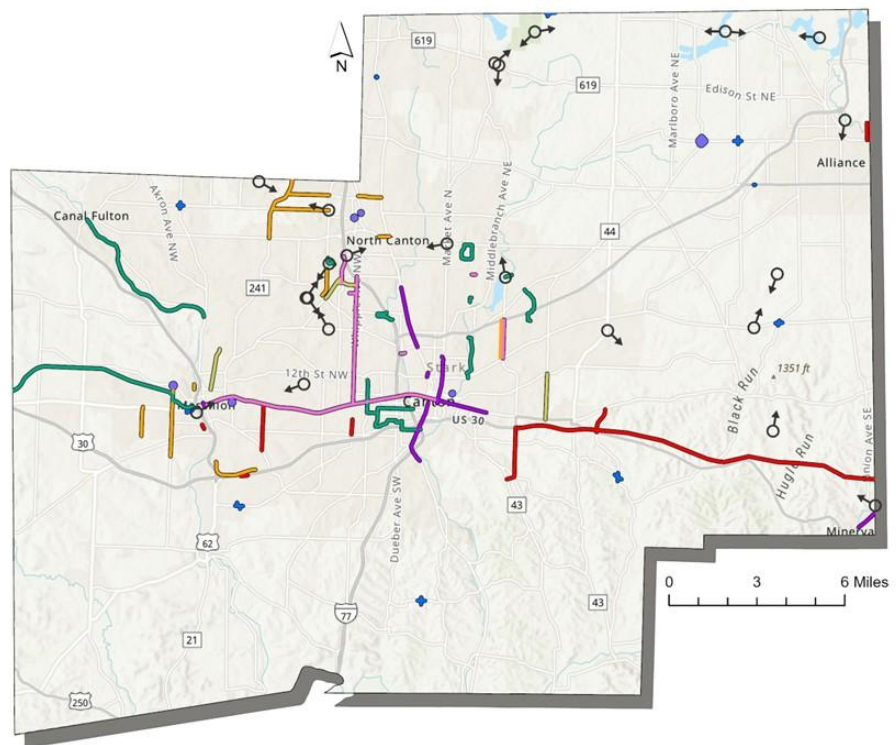


Table 2.3 Projects 2041-2050

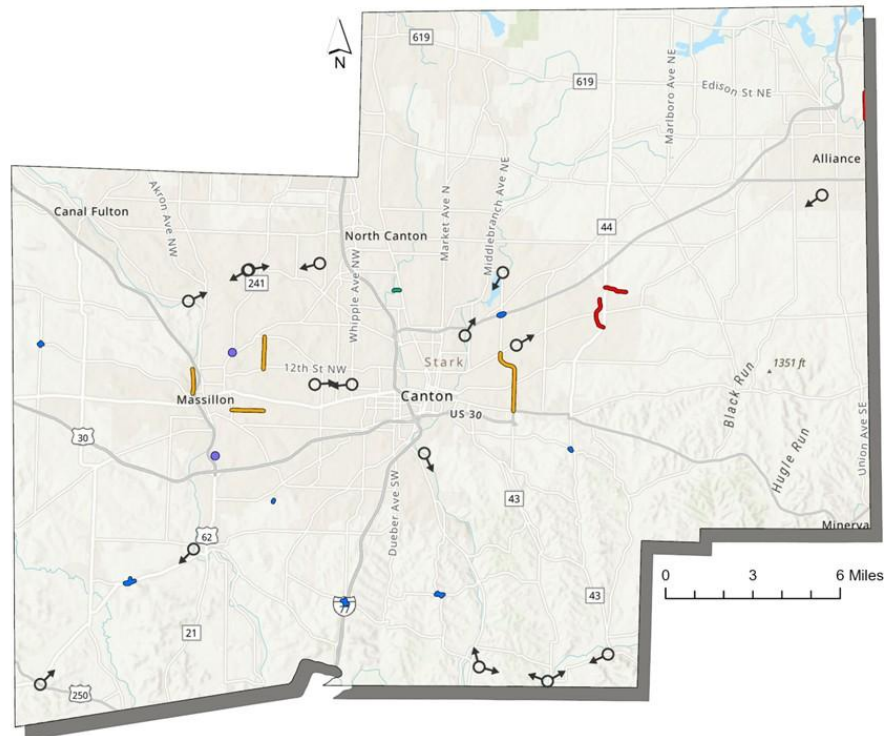
NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
3 rd St NW from Cherry to Lake	Minor widening, curb, gutter, modified lane configuration	\$1,000,000	2050
17 th St SW from SCL to NCL	2-lane improvements, minor widening, turn lanes	\$4,500,000	2050
29 th St SW from Millersburg to Lincoln Way	Minor widening, curb, gutter, modified lane configuration	\$680,000	2050
Alabama Ave & Wooster St	Intersection Improvements	\$2,000,000	2045
Battlesburg St & Briggie Ave	Intersection Improvements	\$2,000,000	2045
Battlesburg St & Ridge Ave	Intersection Improvements	\$4,000,000	2045
Covered Bridge Trail from Covered Bridge Park to Linda St	Trail	\$1,000,000	2050
Erie St & Nave St	New roundabout	\$5,000,000	2050
Harsh Ave from 16 th to Elizabeth	Minor widening, curb, gutter, modified lane configuration	\$750,000	2050
Jackson Ave from Richville to Lincoln Way	New 2-lane road	\$8,000,000	2050
Jackson Connector from Towpath to Lake Cable	Trail	\$1,000,000	2045
Jackson from 12 th to Perry	Widen to 3 lanes	\$2,000,000	2045
Mahoning Extension from Patterson to Armour	New 2-lane road, minor widening of existing sections	\$3,950,000	2045
Middle Branch to SERR Connector	Trail from Middle Branch Tr to Stark Electric RR Tr	\$1,000,000	2050
Navarre Rd (US 62) & Pigeon Run Ave/Justus Ave	Intersection Improvements	\$8,000,000	2050
Navarre Rd, Kemary Ave, & Stump Ave	Intersection Improvements	\$3,000,000	2045
Nave St from Erie to ECL	Minor widening, turn lanes	\$3,100,000	2050
Reno Dr Extension from SR 44 to Nickelplate	New 2-lane road	\$2,000,000	2050
Sandy Valley Trail from Magnolia to Waynesburg	Trail	\$2,500,000	2050
Sherman Church Ave & Haut St	Intersection Improvements	\$5,000,000	2045
Sippo Connector Trail from Massillon to Sippo Lake	Trail	\$1,000,000	2045
SR 44 Bypass from SR 153 to SR 44	Minor widening, reconstruction	\$5,500,000	2050
SR 44 Bypass from SR 44 to SR 153	New 2-lane road	\$5,500,000	2050
Stark Electric Railway Trail	Trail from Canton to Alliance	\$1,000,000	2045
Sugar Creek Connector Trail	Trail from Wilmot to Navarre	\$1,000,000	2050

Trump from Lincoln (US 30/SR 172) to 153	Widen to 4 lanes	\$6,500,000	2045
US 62 & Harmont Ave	New interchange	\$50,000,000	2045
West Branch Trail	Trail from East Sparta to Canton	\$800,000	2050
Wood Ave & Orchard View Dr	Intersection Improvements	\$2,500,000	2045

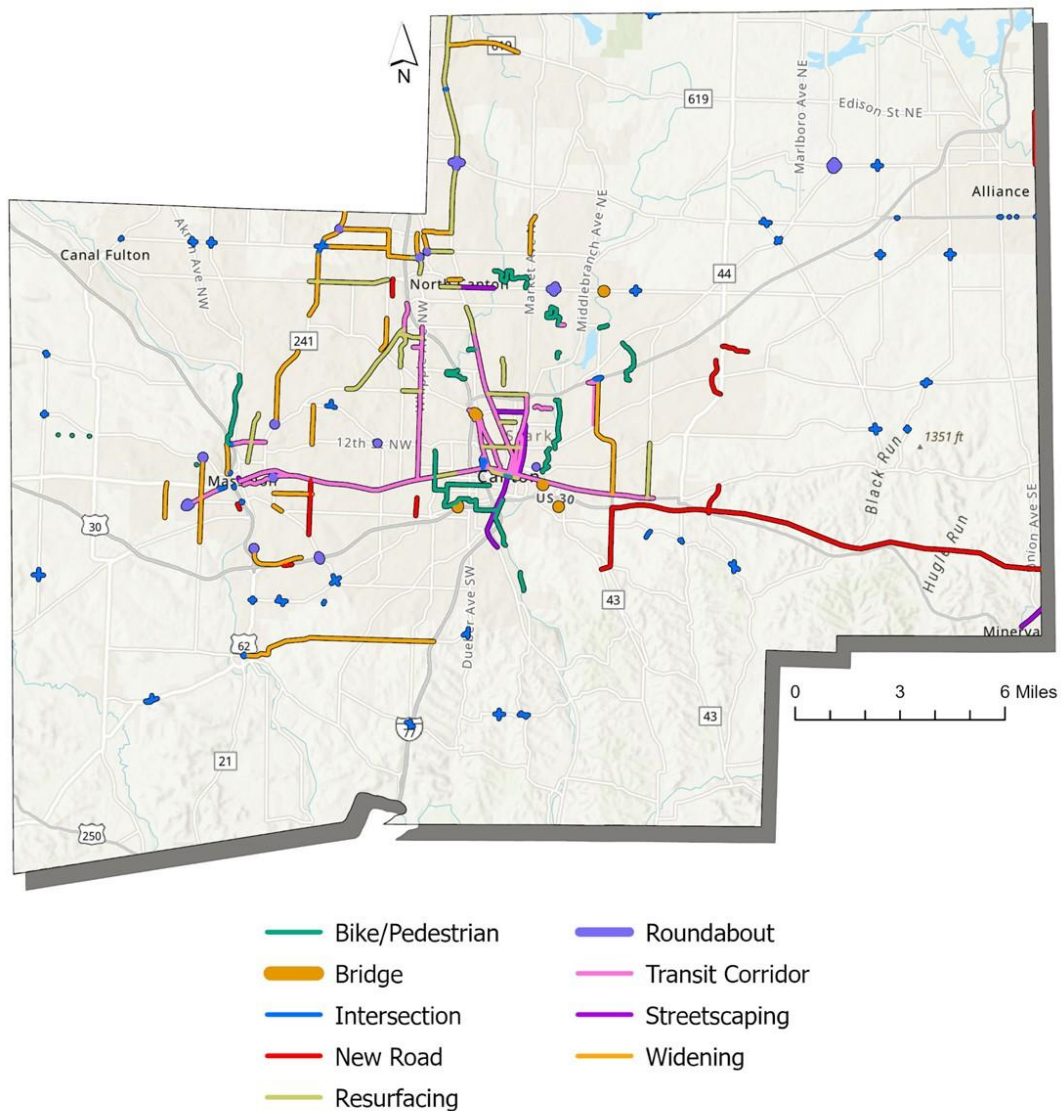
Map 2.3 Projects 2041-2050

Map 2.3 Projects 2041-2050

- Bike/Pedestrian
- Bridge
- Intersection
- New Road
- Resurfacing
- Roundabout
- Transit Corridor
- Streetscaping
- Widening
-  Potential Stark Parks Connection & Direction



Map 2.4 All Moving Stark Forward 2050 Highway Projects



TRANSPORTATION PLANNING PROCESS

Transportation Goals, Objectives and Strategies

The first step in transportation planning is the development of goals and policies to guide the selection of projects and planning recommendations. These goals and policies, while selected locally, also reflect federal and state requirements in the transportation planning process. This includes incorporating comments received through period review by Federal Highway Administration, Federal Transit Administration, and ODOT staff. The full Comprehensive Plan describes and lists the goals, objectives, and strategies for the entire Plan. The transportation specific objectives and strategies are repeated below:

Objective 1: Adopt a “system preservation” policy towards Stark County roadways in conjunction with ODOT’s system preservation policy.

Strategies

- A. Prioritize funding for system preservation;
- B. Implement Intelligent Transportation System strategies such as congestion management, safety planning, and mobility management.

Objective 2: Provide a multi-modal transportation system which includes various modal options, such as pedestrian access, bikeways, mass transit, rail, and air facilities.

Strategies

- A. Evaluate and adjust SARTA’s routes to provide adequate transportation to and from suburbs and city centers;
- B. Support the objectives of the Coordinated Public Transit - Human Services Transportation Plan and SARTA’s continued curb to curb programs to serve transit dependent persons;
- C. Encourage the development and creation of scenic improvements, historic improvements, and pedestrian and bike trails;
- D. Structure new subdivisions to include pedestrian and bicycle facilities (sidewalks and trails), tying into the countywide trail system where possible;
- E. Provide for pedestrian friendly transportation systems where appropriate in response to new demographics and special needs.

Objective 3: Provide a congestion free transportation system.

Strategies

A. Work cooperatively with appropriate agencies to implement access management regulations. The Stark County Engineer adopted access management regulations in October of 2016 for projects and developments in unincorporated areas of Stark County;

B. Address existing congestion before building new roads in undeveloped areas.

Objective 4: Provide an efficient, safe and secure transportation system.

Strategies

A. Identify and target high crash locations for safety improvements for both vehicular and pedestrian/bicycle traffic;

B. Implement intelligent transportation systems;

C. Consult with appropriate agencies to provide for a secure transportation system.

Objective 5: Provide an economically, equitable and environmentally sound transportation system.

Strategies

A. Ensure projects are sensitive to economic, social and environmental factors;

B. Develop fiscally constrained transportation plans and programs;

C. Monitor and assess the cost effectiveness of transportation system components;

D. Encourage projects and programs that minimize the transportation system's impacts on air, water quality and noise levels;

E. Support projects and programs that aim to restore environmental equity to populations that have been disproportionately impacted by environmental hazards, disasters, or pollution.

Performance Measures

Safety

In fiscal year 2018, the federal transportation legislation added Performance Measures to the transportation planning process. The purpose of performance measures is to show quantitative results of the projects and policies implemented under the transportation planning process.

In January of 2018, SCATS supported ODOT's statewide highway safety targets and adopted the same performance measures and targets. SCATS has readopted ODOT's safety targets every year since then. ODOT's safety performance measures are as follows:

- Reduce the number of fatalities by at least 2% per year
- Reduce the number of serious injuries by 2% per year

- Reduce the rate of fatalities (per million vehicles) by 2% per year
- Reduce the rate of serious injuries (per million vehicles) by 2% per year
- Reduce the number of non-motorized fatalities and serious injuries by 2% per year

Stark County Safety Performance Measures					
YEAR	FATALITIES	SERIOUS INJURIES	FATALITY RATE (per 100 Million VMT)	SERIOUS INJURY RATE (per 100 Million VMT)	NON-MOTORIZED FATALITIES & SERIOUS INJURIES
2012	31	227	0.99	7.22	28
2013	26	199	0.82	6.29	24
2014	44	247	1.40	7.84	25
2015	20	210	0.59	6.18	16
2016	32	226	0.97	6.85	15
2017	33	210	0.97	6.19	29
2018	36	203	1.21	6.83	30
2019	29	177	0.97	5.94	19
2020	31	167	1.04	5.61	24
2021	39	185	1.38	6.53	21
2022	30	152	1.06	5.35	21
2023	20	172	0.69	5.93	23

It is not expected that each of these targets will drop by 2% every year. As the table shows, there is a lot of fluctuation from year to year. However, the overall trend should be decreasing gradually.

SCATS has been working to achieve these targets and has made safety a major part of the project scoring in its project selection criteria. Safety makes up 20% of a project's possible score. SCATS ranks locations by a hazard rating in its annual Crash Report and Safety Work Plan. This hazard rating includes the number of crashes at a location, the rate of crashes at a location, and the severity of crashes at a location. Locations with higher hazard ratings receive more points in the project selection scoring system.

Transit

On March 28th, 2018, the Stark Area Regional Transit Authority (SARTA) adopted their Transit Asset Management Plan (TAMP) which established their initial Transportation Performance Management (TPM) rolling stock and infrastructure useful life targets, which support FTA's recommended useful life targets. MPOs are required to establish region-wide useful life targets. Since SARTA is the only transit agency in our region, SARTA's useful life targets are the region's useful life targets. SARTA also periodically adopts a Transit Development Plan, a five-year plan for improvements, last adopted in 2020, as well as an annual Program of Projects.

Transit projects funded through SCATS are mostly through the CMAQ and CRP programs, however, transit projects are also eligible for STBG funding.

Travel Time Reliability

SCATS has chosen to support ODOT's Travel Time Reliability (TTR) targets. The measure used for travel time reliability is Level of Travel Time Reliability (LOTTR). LOTTR is defined as the ratio of longer travel times (80th percentile) to normal travel times (50th percentile) for all vehicles. Likewise, the level of Truck Travel Time Reliability (TTTR) is the ratio of longer travel times (80th percentile) to normal travel times (50th percentile) for trucks only.

ODOT TTR targets are as follows:

- On interstates, LOTTR should be less than 1.50 for 85% of the system in four years.
- On non-interstate NHS roads, LOTTR should be less than 1.50 for 80% of the system in four years.
- On interstates, TTTR should be less than 1.50 in four years.

Air Quality

SCATS has chosen to support ODOT's Air Quality targets. These are the performance measures for Air Quality: emission reduction for nitrous oxide (NO_x) and emission reduction for particulate matter at 2.5 micrometers (PM_{2.5}).

ODOT's Air Quality targets are as follows:

- Reduce total NO_x emissions by at least 537 kg per day in four years.
- Reduce total PM_{2.5} emissions by at least 36 kg per day in four years.

Emission reduction in the SCATS area can be seen in more detail in Appendix A. The following table shows projected emissions through 2050.

SCATS Region On-Road Mobile Emission Conformity Test Results

Table 3.3 PM_{2.5} Finding Budget Tests

Stark Co.	Tons/Year			
	2025 Budget	2030 Emissions	2040 Emissions	2050 Emissions
Direct PM	101.50	35.296	28.397	27.193
NO _x Precursors	4673.83	660.212	315.032	269.845

Between 2030 and 2050 our model shows a reduction of 8.103 tons per year of PM_{2.5}. Between 2030 and 2050 our model shows a reduction of 390.4 tons per year of NO_x Precursors. It should be noted that

ODOT's emissions targets are for the entire state, while the table shows the emissions reduction from Stark County.

Pavement

SCATS has chosen to support ODOT's Pavement Condition (PC) targets. There are four performance measures for pavement conditions: percentage of interstate pavement in good condition, percentage of interstate pavement in poor condition, percentage of non-interstate NHS pavement in good condition, and percentage of non-interstate NHS pavement in poor condition. ODOT's PC targets are as follows:

- The percentage of interstate pavement in good condition should be at least 50% in four years.
- The percentage of interstate pavement in poor condition should be less than 1% in four years.
- The percentage of non-interstate NHS pavement in good condition should be at least 35% in four years.
- The percentage of non-interstate NHS pavement in poor condition should be less than 3% in four years.

Bridges

SCATS has chosen to support ODOT's Bridge Condition targets. There are two performance measures for bridge conditions: percentage of NHS bridges by deck area in good condition and percentage of NHS bridges by deck area in poor condition. ODOT's bridge condition targets are as follows:

- The percentage of NHS bridge deck area in good condition should be at least 50% in four years.
- The percentage of NHS bridge deck area in poor condition should be less than 5% in four years.

Traffic Safety and Congestion Problem Areas

Another step in the planning process is the identification of deficiencies in the existing transportation system. The traffic congestion management process (TCMP) is used to identify congestion deficiencies on the existing transportation system. Results of the latest TCMP analysis were published in the *2024 Congestion Management Process Report*. The report examines highway congestion based average traffic speeds compared to free-flow traffic speeds. SCATS also funds targeted studies for areas selected by policy committee members through our *Community Transportation Planning Study* program as well as areas selected by the policy committee as a whole.

The base highway system includes all highway facilities that currently exist plus those facilities which are under construction or for which construction funding is committed in the immediate future. Congested locations include US 62 between Market Avenue and Harmont Avenue, sections of SR-21 in Massillon, Belden Village Street between Everhard Road and Whipple Avenue, Everhard Road between Dressler Road and Whipple Avenue, Whipple Avenue between Munson Street and Everhard Road, Dressler Road between Belden Village Street and University Street, SR-172 (Tuscarawas Street) between Perry Drive and Woodlawn Avenue, and several streets in downtown Canton. However, the congestion mostly happens during peak travel times.

SCATS also reviews traffic crash records and publishes an annual traffic *Crash Report and Safety Work Plan* identifying and ranking high hazard intersections and roadway sections. Information from these reports is presented to local officials and the general public, who then incorporate this data into their planning processes. The *2023 Stark County Crash Report and Safety Work Plan* and the *2024 Congestion Management Process Report* are available for review on the SCRPC/SCATS website at www.starkcountyohio.gov/regional-planning. SCATS also participates in the Stark County Fatality Review Board, which reviews traffic crashes involving fatalities.

Transportation Security

The security of the transportation system became a stand-alone planning factor under previous legislation and continues with the Bipartisan Infrastructure Law. The goal is to “increase the security of the transportation system for motorized and non-motorized users” and establish regional transportation policies that respond to security threats. Threat assessments of transportation facilities evaluate their vulnerabilities and risks in order to prioritize security improvements.

The Stark County Emergency Management Agency (EMA) is the agency that has the primary responsibility to address emergency preparedness in Stark County and coordinates with other governmental agencies responsible for the security of the region. This includes developing a planning process at the county level that establishes policies and procedures needed to prepare for, respond to, and mitigate the impacts of all types of natural or hostile disasters.

SCATS has met with the Stark County EMA to discuss and review plans and policies already in place to deal with the transportation system in Stark County. This includes the Stark County Emergency Operations Plan. The primary Emergency Support Function is transportation. This chapter of the plan covers the mitigation, preparedness, response, and recovery from damage to land and air routes. The plan is based on the concept that appropriate local authorities will execute initial response. Mutual aid assistance between supporting organizations is implemented as specified by local agreement.

The Stark County Engineer, in coordination with Stark County’s EMA Coordinator, has developed a Stark County Resource Manual. This manual identifies the source, location, and availability of earthmoving equipment, dump trucks, road graders, fuels, etc., and appropriate local contacts. These resources can be used to support response and recovery where needed. Homeland Security funds have been used to purchase directional signs, light towers and other equipment that can quickly be accessed by emergency officials and local road departments.

SCATS will work with the Stark County EMA, the Local Emergency Planning Committee (LEPC), SARTA, and others to coordinate the identification of security needs that can be addressed in the transportation planning process. These groups have plans in place for the protection of public assets, including the transportation system. SCATS will assist and consult the EMA in this process but will not take the lead in planning for a specific event. This group has a process to update the Hazardous Materials Commercial Flow Study as needed and was last completed in 2019. In coordination with State and Federal agencies, High Risk Loads will be monitored in and through the region.

SCATS has included the Stark County Emergency Management Agency and the Local Emergency Planning Committee on the list of coordinating agencies to be contacted for comment and public involvement with the Transportation Plan and Transportation Improvement Program.

Current training programs focus on ethanol transport, via both truck and rail. Mock disasters are staged on a regular basis, and usually involve some aspect of the transportation system. SARTA participates with local Fire departments in mock drills with buses being released from service. With both a weigh station and two large truck stops in the county, EMA encourages long haul truckers to participate in the “See Something, Say Something” campaign.

Critical Facilities

SCATS has identified critical facilities and transportation system elements in Stark County. The continued and uninterrupted operation of these facilities is necessary for the health, safety, and well-being of the general public. The vulnerability of these facilities or systems is due to the potential for any of the following to occur: disruption to emergency response operations; disruption of governmental functions; and threats to the economy of the region. Although the entire highway and railroad network could be considered vulnerable, the following locations have been identified as critical.

Table 3.4 Critical Facilities

Facility	Criteria
US 62 Bridge east of I-77	Major bridge structure and critical freeway interchange
I-77/US 30 interchange	Critical freeway interchange
I-77	NHS Route
US 30	NHS Route
US 62	NHS Route
SR 43	NHS Route
Norfolk Southern RR Junction in Alliance	Critical Junction of two major rail lines
Akron-Canton Airport (CAK)	Regional Airport

In the event of a local disaster, systems are currently in place to provide detour routes. ODOT’s Freeway Incident Management System utilizes preplanned detours in freeway closure situations. The dynamic message signs and web cameras on I-77, placed as part of the Akron-Canton ITS architecture, are available to assist in evacuations and detours. Additionally, the digital application OHGO is designed to report major events that slow or detour traffic on Ohio highways in real time.

Public Transit Security

The Stark Area Regional Transit Authority (SARTA) is the public transportation provider in Stark County. SARTA encourages riders to become part of the Transit Watch campaign. Transit Watch is a nationwide safety and security awareness program designed to encourage the active participation of transit passengers and employees in working together to maintain a safe transit environment. The campaign provides information and instructions to transit passengers and employees so that they know what to do and whom to contact in the event of an emergency in a transit setting. Transit Watch invites riders and employees to be the "eyes and ears" of their local transit system.

SARTA has also cooperated with the Transportation Security Agency (TSA) and local law enforcement agencies on security sweeps of public transit facilities and buses.

SARTA has completed a confidential Security and Emergency Procedures reference guide. The plan deals with responses to emergencies, whether caused by natural or human events. It also outlines recovery after the event to restore SARTA to full function. In the event of incidents in Stark County, SARTA assists in evacuations, the transportation of personnel at the request of the Stark County EMA, and provides temporary shelter in buses where needed. SARTA's plan is also coordinated with the American Public Transportation Association and the Ohio Public Transit Association to initiate an emergency response network in the event of a disaster.

Pedestrian, Bicycle and Equestrian Facility Security

The Stark County Park District (Stark Parks) operates and maintains an ever-growing system of trails and greenways in the county. One of the volunteer programs the District operates is the Trailblazer Program where volunteers provide information and assistance to trail visitors. Stark Parks provides 6 hours of training in park and canal history, CPR and first aid, communication skills, and park regulations. Trailblazers are expected to provide at least 20 hours of service on the trails annually. The Park District provides Trailblazers with identifying volunteer T-shirts, and name badges. Their equipment packs for patrolling include cell phones and first aid kits. Volunteers patrolling on bikes are encouraged to sign up for the bike maintenance program facilitated by a lead volunteer in order to assist with general bike repair along the trail (fixing a flat, repairing a chain).

Numerous law enforcement agencies in Stark County are now equipped with All Terrain Vehicles (ATV's). These ATV's allow for the patrol of the trail system as well as ability to quickly respond to emergency calls on the trail system.

Tourism Destinations

Tourism has become an important industry over the last few decades, and its economic impact, including direct, indirect, and induced effects, has been enormous. Transportation has been an integral part of the tourism industry; transportation links tourists with various tourist attractions. There is a general agreement that tourism expands more when there are better transportation systems. The greatest transportation needs for tourism promotion, and tourism development, are maintenance of the

existing roads and, if needed, construction of more roads. Tourism development could be even bigger if more could be done in various elements of transportation systems. It is important for all stakeholders (government entities and other stakeholders of tourism) to take part to develop the transportation linkage to tourism in the County.

The following are major tourist destinations in Stark County:

Pro Football Hall of Fame Village

The HOF Village is Ohio's only Tourism Improvement District, Enshrinement week brings in nearly 300,000 visitors. In 2017 the SCRPC and SCATS received a FHWA "Every Day Counts" grant that focused on creating community connections to improve quality of life, access to employment and economic development within the region. The purpose of the grant was to consider multiple modes of transportation to better connect the Johnson Controls Hall of Fame Village (HOFV) to the surrounding community and leverage future HOFV development to enhance land use in the surrounding area. Intersection improvements at Harrison/25th NW/Fulton, 23rd St. NW Extension, and Park Dr. Reconstruction best exemplify the proposed changes in the HOFV area. Streetscape and intersection improvements along Fulton Rd. from HOFV into downtown Canton are proposed within the next few years. These improvements along Fulton Rd. will seamlessly connect the HOFV, the Downtown DoubleTree by Hilton Hotels and Centennial Plaza located in downtown Canton, allowing visitors an opportunity to experience both locations easily.

Towpath Trail

26 miles of the iconic Ohio & Erie Canal Towpath Trail are in Stark County and managed by Stark Parks. The trail is a hiking or biking destination with 14 trailheads, as well as a number of canal features, including Lock 4 Park and the St. Helena Canal Boat in the City of Canal Fulton. The shady, flat terrain parallels the Tuscarawas River through deciduous forests and rural and urban landscapes.

Gervasi Vineyard

This attraction won the Tripadvisor Travelers' Choice Award for The Villas & Casa boutique inn for 2020. The award ranks the Canton winery among the top 10% of hospitality businesses around the globe. A portion of Middle Branch Trail leads from the back entrance of the winery and continues southward into the city of Canton. The vineyard includes various restaurants, a distillery, spa, and micro hotel.

Hartville Hardware

One of the nation's largest independently owned hardware stores along with sister companies, the Hartville Kitchen and Hartville Market Place and Flea Market make it a top tourist attraction in Stark County. With nearly 2 million visitors per year, significant upgrades to the roadways have been implemented. Roundabouts installed in 2019 along Edison Rd. (RT619) at Kaufman Ave. and at the front entrance of the Hartville Hardware, as well as, road widening from 2 to 5 lanes were a part of this project.

Demographic Projections

Transportation planning relies on future population, employment and land use projections. The distribution of future population, employment and land use is as important as, or more important than, the total numbers. Population and employment distributions affect the number and lengths of future trips. Transportation also affects the distributions. Where people will live depends in part on access to jobs. Where the jobs are located will be determined to some extent by accessibility to major highways. Thus, most new regional growth in Stark County is projected to take place along major transportation corridors, which is evidence of a strong population / employment / transportation / land use connection.

Table 3-5 Population Projections

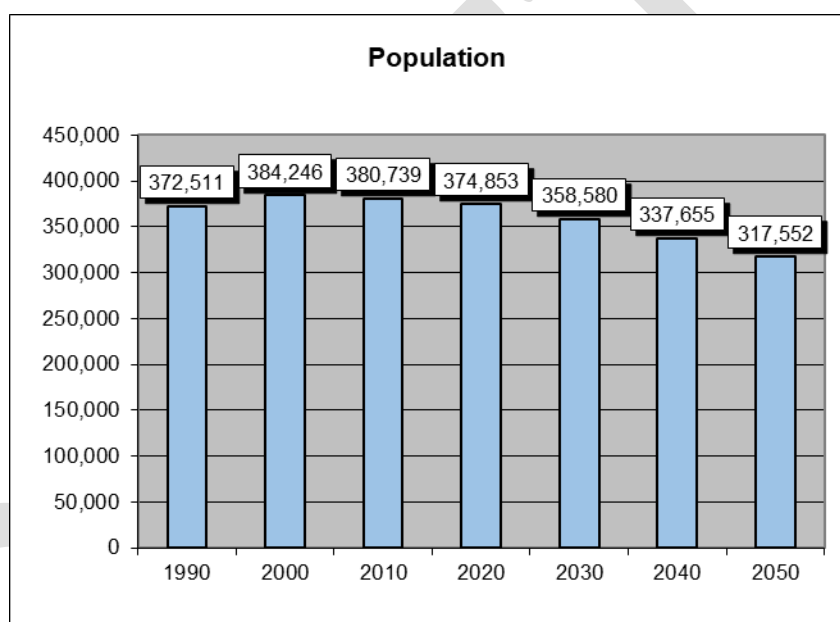


Table 3-5 shows the existing and future totals for population. For the 2050 Plan, demographic projections from the Ohio Department of Development (ODOD) are being used. ODSA is projecting a population of 358,580 in 2030, 337,655 in 2040, and 317,552 in 2050.

Table 3-6 Population under 18 Projections

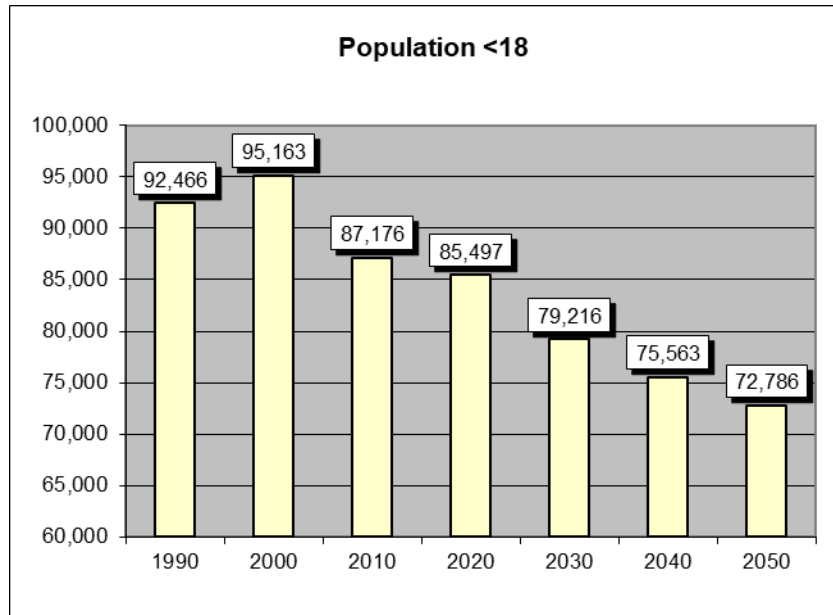


Table 3-6 shows the projections for the portion of the population under age 18. These values also came from ODSA.

Table 3-7 Labor Force Projections

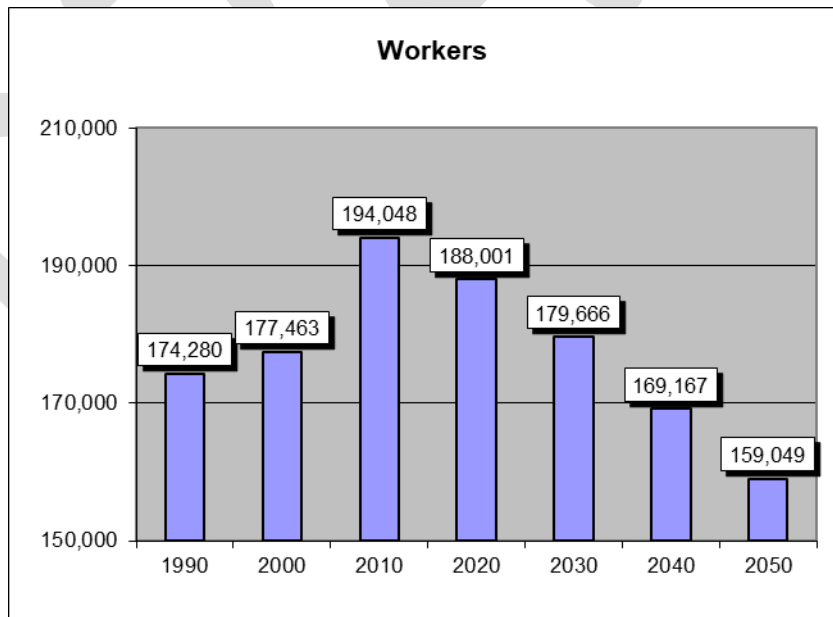


Table 3-7 shows projections for the number of workers living in the Stark County planning area. Worker projections were calculated based on the ODSA population projections.

Table 3-8 Number of Vehicles Projections

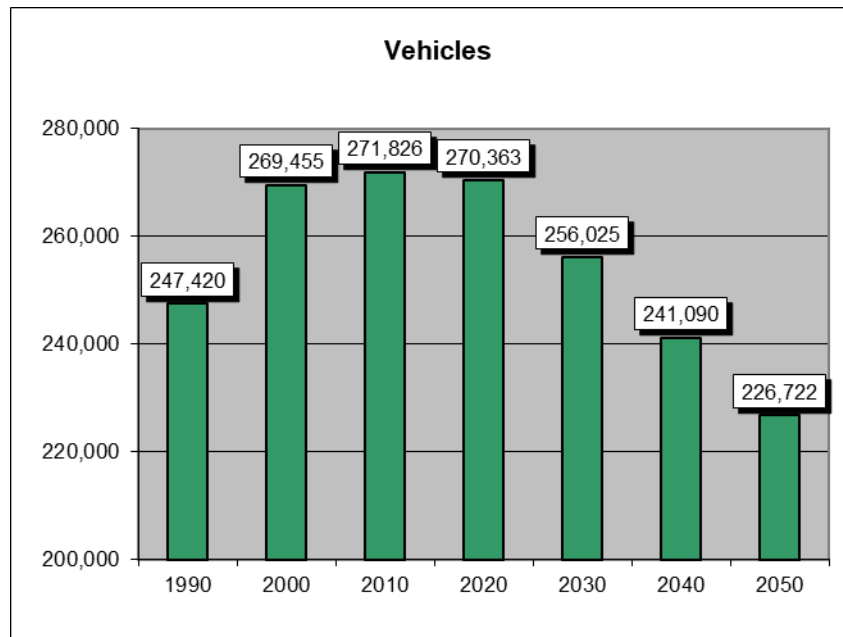


Table 3-8 shows projections for the total number of vehicles in the planning area. These projections were also based on the ODSA population projections.

Table 3-9 Number of Households Projections

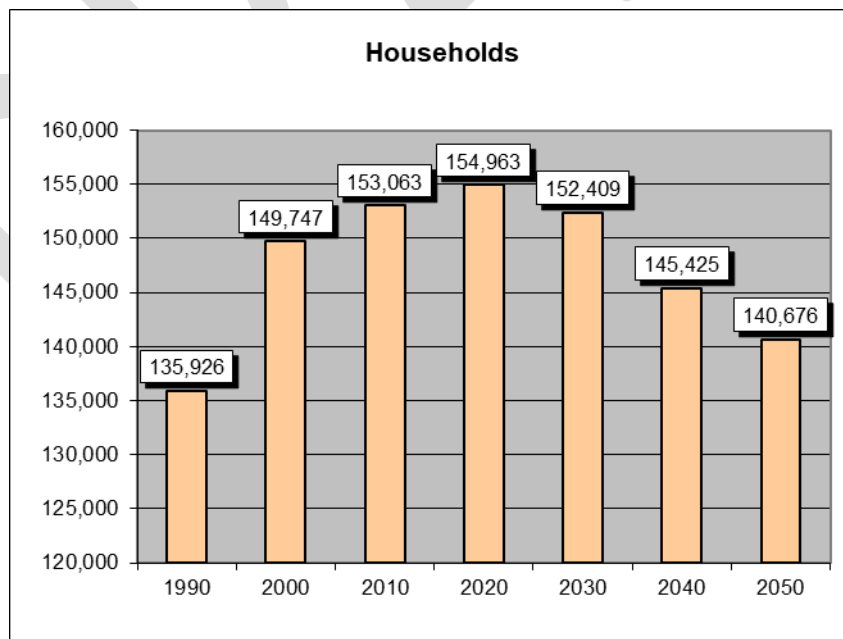


Table 3-9 shows the projections for the total number of households in the Stark County planning area. These projections were also based on the ODSA population projections, as well as, the known planned future housing projects.

Table 3-10 Employment Projections

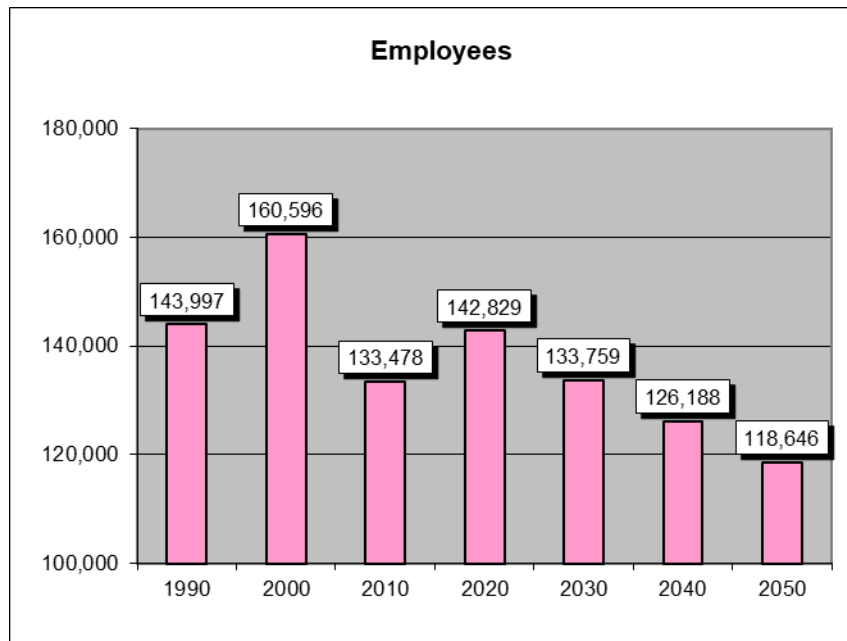


Table 3-10 shows the future projections for the number of persons working in the Stark County planning area. The number of employees is highly dependent on the economy. The employment projections were calculated using the least-squares method based on data from 2015 to 2022.

Traffic Zones

The Land Use Plan provides the overall framework for the Transportation Plan but does not include the detail necessary for travel forecasting purposes. To forecast travel, the transportation planning models require detailed characteristics for small areas. For this reason, the SCATS planning area is divided into 690 traffic zones. Two criteria were used to divide the area into zones:

- Zones should produce a similar amount of activity so similar amounts of trips would be produced;
- The activity in each zone should be relatively homogeneous and special zones should be created for special uses such as hospitals, colleges, shopping centers, tourist destinations and major industrial plants.

Other considerations in creating traffic zones include not allowing travel barriers such as rivers and railroads to cross zones and having zone boundaries that do not cross census tracts to simplify obtaining population and employment data.

Table 3-11 SCATS Independent Variables

Residential	Employment	Special
Population / Population < 18	NAICS categories*	School Enrollment
Households		College Enrollment
Labor Force		Hotel Rooms
Vehicles Available		Average Parking Cost
Median Household Income		

These data sets are referred to as independent variables because they are used as input data in the trip generation models.

*NAICS stands for North American Industrial Classification System.

Travel Forecasting

The next step in the development of the plan is forecasting future travel. This involves the use of the following three mathematical models:

Trip Generation (How Many Trips?)

Trip Generation is the process used to forecast the number of trips generated by each traffic zone. Using the data from the 1965 Origin and Destination survey as a base, equations were developed that relate numbers of trips generated to the population, employment and land use data. These trip generation equations were revised based upon model calibrations several times since then as more household surveys and Origin and Destination surveys have been conducted. The current base year for this plan's model is 2010. Six trip types are used in the process:

- Home-based work trips
- Home-based shopping trips
- Home-based other trips
- Non-home based trips
- Truck trips
- Internal-external trips

Trips originating outside of Stark County are forecast separately. The outputs of the trip generation equations are trip ends, either productions or attractions. For instance, residential zones produce work trip productions based on variables like the number of workers living in a zone. Industrial zones produce work trip attractions based on the employment in the zone. By using these equations and the appropriate forecast data, the number of future trip ends generated by each traffic zone is calculated.

Trip Distribution (Where are the Trips Going?)

Trip Distribution is the process that distributes trips produced in each zone to other zones with trip attractions. This is accomplished using a “gravity” model, which distributes trips in direct proportion to the relative attractiveness of zones and in inverse proportion to the square of the time distance between them. The result of the model is a current or future trip table, which shows how many trips go from each zone to every other zone.

Traffic Assignment (What Route Do the Trips Take?)

Traffic Assignment is the process whereby the trip table is assigned by a computer to a given highway network. The highway network includes all major highway facilities. Each link in the network has a distance and speed coded. The computer assigns the trips between two zones to the highway links that form the minimum time path between those two zones. Two types of traffic assignment are used, "free" and "capacity-restraint." The "free" assignment assigns all trips to the minimum time path while the "capacity-restraint" assignment diverts some trips to alternate paths if the assigned volume reaches the capacity of the links on the minimum time path. The result of the models is a forecast of traffic on each link of a highway network. In 1997, the SCATS travel models were converted to a PC based model called TRANPLAN. In 2006, the SCATS travel models were converted to a CUBE model.

Future traffic is assigned to alternate networks to produce future traffic volumes and evaluate the effectiveness of the projects. The models also provide data for calculating the future air-quality impacts and the energy consumption of each alternative. Finally, the models provide the basic design data used to determine the number of lanes and other features of future highways.

Transportation Plan Development

The SCATS Transportation Plan draws on many different sources. Important sources included ODOT’s *Access Ohio 2045 Statewide Transportation Plan* and the ODOT STIP. Other plans and studies used as input into the Plan include the *Transportation Improvement Program*, *local communities’ capital improvement reports*, the *Transit Development Plan*, the *Canton Active Transportation Plan*, and the *Stark County Park District Trail and Greenway Plan*. Comments from local officials, transportation planners, ODOT staff, local citizens groups, and members of the public also provide crucial input.

Addressing the Ten Metropolitan Planning Factors

Economic Vitality

Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

- a. One intermodal facility is located in Stark County. The Neomodal Terminal, although currently underutilized, offers a direct entry in-gate/out-gate, a 28 acre fully paved facility, three Mi-Jack overhead cranes, a high-speed receipt and dispatch system, computerized inventory control, electronic data interchange, 24-hour access, and Foreign Trade Zone designation. The facility is located on the regional Wheeling & Lake Erie Railway, which offers interconnection to the Canadian National Railway and others. Two full service truck stops are located in Stark County, both on I-77. Numerous heavy truck sales and service locations exist adjoining I-77 and US 30.

Safety

Increase the safety of the transportation system for motorized and non-motorized users.

- a. Transportation Risks; Stark County has a total of 251 miles of state roads that pass through the County. Stark County has the following routes which are commonly used for EHS and non-EHS transportation to and from fixed facilities within the County: Interstate 77, State/US Routes 21, 30, 43, 44, 62, 93, 153, 171, 172, 173, 183, 225, 236, 241, 250, 297, 619, 687 and 800.
- b. Airport Risks; Due to runway extensions, a portion of the airport is now within the boundary of Stark County. The airport is an HS site due to the storage of large quantities of fuel, but does not file Tier II reports with Stark County LEPC as the storage location is not within the county borders. Additional hazards are associated with the airport and air transport of hazardous substances in that Federal regulations do not require aircraft to be labeled as containing hazardous substances as surface transportation vehicles are required to be placarded externally.
- c. Overall goals;
 - Minimize roadway accidents and provide safe travel routes
 - Minimize pedestrian, bicycle, train, and vehicle conflicts
 - Improve the safety of transit facilities and operations
 - Improve the security of the transportation system
 - Minimize traffic congestion
 - Define and Develop Performance Measures to quantitatively document SCATS achievements

Security

Increase the security of the transportation system for motorized and non-motorized users.

- a. SARTA security (bus cameras, Homeland Security training exercise, driver training), Highway Patrol Post – The OSHP Patrol Post is located at the northern end of the County, Stark Parks Trailblazer/Ambassador Program, CAK training exercises, ODOT cameras – A combined 12 ODOT cameras in along the I-77 corridor and US30 within Stark County.

**Accessibility and
Mobility Options**

Increase accessibility and mobility of people and freight.

- a. System Goals:
 - Streamlining Traffic Flow with Adaptive Signal Control Technology
 - Reducing Congestion with Cooperative Adaptive Cruise Control
 - Improving Mobility and Safety with Automated Vehicles
 - Creating a Safer and More Reliable Transportation System

**Environmental Protection,
Energy Conservation &
Sustainable Development**

Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

- a. Traffic Congestion Management Process (TCMP) – Implement a congestion management system with Operation and Management Strategies to meet requirements of the federal planning regulations. The system will include the following activities: data collection and system monitoring, system performance evaluation, development of congestion reduction strategies or projects, and implementation of strategies and projects. The TCMP system covers the entire transportation planning area and includes all interstates, freeways, expressways, arterials and other facilities in the traffic assignment network. Transit and other intermodal facilities such as rail facilities and airports in the area are also analyzed. SCATS utilizes Streetlight data to identify problem areas and evaluate solutions. SCATS began implementation of TCMP in Stark County in FY 97. A TCMP manual of practice was prepared to guide the process. The TCMP provides a baseline look at existing and future congestion on the

transportation system of Stark County. Staff will review potential adjustments to short-range planning activities as guidance for performance measures are disseminated.

**System Integration
and Connectivity**

Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

- a. Data management systems will provide the operational heart of a smarter city's function and operation. Data management centers will include a System Master Controller (SMC), a Traffic Master Controller (TMC), and an Energy Master Controller (EMC). The SMC is a supervisory controller that will coordinate the work of the TMC and the EMC to manage both the transit and energy flows in the system in the best possible way. Data will be analyzed from the system to predict how to best configure both the movement of people and goods, and the movement of energy, so that the renewable energy that is produced is utilized to its best advantage, and people and goods are moved in ways that are the safest, most sustainable, least costly, and most convenient. The TMC will draw on data and feedback provided by the proposed sensor/data collection system, via the SMC. It will implement advanced and flexible algorithms designed to optimize the movement of vehicles within the proposed smart city system. The EMC will seek to configure the energy production, energy storage (in the batteries on board charging vehicles, and in the proposed battery storage system), and energy utilization in such a way that the production and utilization of renewable energy is maximized.

**Efficient System
Management &
Operations**

Promote efficient system management and operation.

- a. SCATS will work with ODOT District and Central Offices, SARTA, and local officials on maintaining a Canton Area ITS system. The ITS regional architecture has been completed for Stark County. SCATS will continue to be an advocate for ITS in Stark County (traffic signals, traveler information, transit ITS, etc.). SCATS will also work toward incorporating ITS considerations in implementing projects within Stark County and will work with adjacent areas that have completed ITS studies. Staff will work to update the regional architecture to incorporate transit ITS components. Staff will continue to provide outreach for ODOT and SARTA ITS information systems.

**Preservation of
Existing System**

Emphasize the preservation of the existing transportation system.

- a. The majority of federal transit funding will be used to preserve the existing transit network, assets and supporting facilities in the SCATS region. Transit service is not useful unless it is predictable and dependable. Moving Stark Forward 2050 continues SCATS' longstanding policy of working with SARTA to ensure that they have the resources necessary to maintain their existing levels of service and to serve their existing customer base efficiently. SCATS will continue to support the preservation and maintenance of SARTA's bus fleets and other capital assets and facilities.
- b. System preservation projects off the state highway system do not rely on the federal funding programs for funding. The project listings include some system preservation projects that local communities have identified in their capital improvement reports as candidates for federal funding. Other system preservation projects, especially resurfacing projects are funded with local funds. The County Engineer and the municipalities and townships in Stark County depend on the gas tax, vehicle registration fees, municipal income taxes, and local road and bridge levies to maintain roads in the county. These funds are supplemented by Ohio Public Works Commission funds to pay for some system preservation projects on the roads and bridges in Stark County.

Resiliency

Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation

- a. Abandoned Underground Mines – See map in Appendix D
- b. Flood Plain Mapping – See map in Appendix D
- c. Bolivar Dam Impoundment area – Local Hazard Mitigation Program (LHMP) Data – According to flood studies on file with the Stark County EMA, many communities in the county could be affected by a dam failure event. In an event that the Dover and Bolivar dams are at the emergency spillway, back up flooding along the Tuscarawas River through Stark County would significantly impact the Village of Navarre, as well as affect the cities of Massillon and Canal Fulton. Flooding in Navarre would far surpass 500-year flood levels, placing much of the village's downtown under water. Similar

studies for Atwood Lake and the Beach City Dam, on file with the county EMA, indicate similar concerns. After an extensive examination of spreadsheet calculations, vulnerability assessments show that 28,288 structures could be damaged with an estimated loss of \$1,019,132,000.

- d. Other resiliency problems: Land subsidence – is a spatial hazard, but is spatial-specific in that it would only affect very small areas given an occurrence. Therefore, this hazard has a very limited potential of affecting any state-owned or state-leased facilities. However, it should be noted that such events could impact lifelines, which could have significant effects on the functionality of various state facilities.
- e. *Mitigation of Stormwater Impacts*: Needs are incorporated into existing projects and we've had no applications for projects for remediation at this time but it is listed as an approved project type.

Tourism

Enhance travel and tourism.

- a. Pro Football Hall of Fame Village – HOF Village is Ohio's only Tourism Improvement District, Enshrinement week brings in nearly 300,000 visitors.
- b. Towpath trail – 26 miles of the iconic Ohio & Erie Canal Towpath Trail in Stark Parks. Begin your hiking or biking adventure at any one of the 14 trailheads. The shady, flat terrain parallels the Tuscarawas River through deciduous forests and rural and urban landscapes.
- c. Gervasi Vineyard – Won Tripadvisor Travelers' Choice Award for The Villas & Casa boutique inn for 2020. The award ranks the Canton winery among the top 10% of hospitality businesses around the globe.

HIGHWAY PLAN

This chapter outlines the Highway Plan for Stark County, organized by major corridors and geographic regions to provide a clear visualization of proposed projects. The key highway corridors highlighted in this plan include Interstate 77 (I-77), U.S. Route 30 (US 30), and U.S. Route 62 (US 62). The geographic regions referenced in this chapter align with those established in the Comprehensive/Transportation Plan, a collaborative study developed in partnership with the Stark County Regional Planning Commission.

I-77 Corridor

The I-77 Corridor in Stark County, Ohio, is on the National Highway System and serves as a key connection for maritime freight between the Ohio River and Lake Erie. This vital north-south route supports regional transportation, economic activity, and freight mobility.

US 30 Corridor

U.S. 30 in Stark County, Ohio, is a vital east-west route on the National Highway System. ODOT has recommended upgrades to all segments of U.S. 30 in the state that are not yet 4-lane, fully-access-controlled freeways. In Stark County, this includes the section from Trump Avenue to the Columbiana County line.

Traffic assignments, economic development considerations, system continuity, and strong community support all justify improvements to US 30. However, completing it as a freeway connecting Trump Avenue to SR 9 in Columbiana County is prohibitively expensive. As a result, SCATS recommends constructing U.S. 30 as a freeway from SR 44 to SR 183, with the extension built as a super-two-lane road. This staged approach allows for initial construction with the opportunity of later expansion to a full freeway.

Table 4.2 US 30 Corridor Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
US 30 extension from Trump to SR 44	New 4-lane expressway	\$120,000,000	2035
US 30 from SR 183 to East Rochester	New super 2-lane	\$4,300,000	2040
US 30 from SR 44 to SR 183	New 4-lane road	\$800,000,000	2040

US 62 Corridor

U.S. 62 in Stark County, Ohio, runs from I-77 to the Mahoning County line east of Alliance and is identified by ODOT as a Statewide Secondary Highway Corridor. A 2012 planning study for the section between Market Avenue and SR 44 generated scenarios for safety improvements, some of which have been implemented or are planned:

- **Harmont Avenue:** SCATS recommends bridging US 62 over Harmont Avenue due to its high crash hazard ratings. Access would be provided via ramps to Lesh Avenue and Commercial Road. Lower-cost alternatives include modifying access and rerouting service roads. Offset turn lanes have already reduced some crashes.
- **SR 183 (Union Ave) and U.S. 62 in Alliance:** Intersection upgrades are recommended to improve safety and circulation.

Table 4.3 US 62 Corridor Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
E State St Signals at Arch, Seneca, and Mahoning	New coordinated traffic signals	\$718,000	2030
SR 183 & US 62 (State St)	Intersection Improvements	\$2,000,000	2030
State St (US 62/SR 172) & Oakhill Ave	Intersection Improvements	\$2,000,000	2035
US 62 & Harmont Ave	New interchange	\$50,000,000	2045

Alliance/Marlington Planning Areas

SCATS recommend several key projects to improve traffic flow, safety, and support development in the Alliance/Marlington area:

- **Mahoning Avenue Extension:** To reduce truck traffic and improve access to the U.S. 62 extension at SR 225, SCATS proposes extending Mahoning Avenue across the river to Armour Road. This project will also support planned industrial development in Lexington Township.
- **Roundabout at Columbus, Beeson, and Reeder:** A roundabout is recommended at this intersection to enhance safety, improve air quality, and align the intersection more effectively.
- **Intersection Improvements:** Four additional intersection upgrades are included in the plan to address safety and efficiency concerns.
- **State Street and Union Avenue:** This intersection improvement, described in the U.S. 62 corridor section, remains a priority for enhancing traffic circulation in Alliance.
- **Iron Horse Trail:** Proposed Stark Parks connector trail between Alliance and Nickel Plate Trail.
- **North County / Walborn Connector Trail:** Proposed Stark Parks connector trail between Quail Hollow State Park and Deer Creek Reservoir.

These projects aim to foster economic growth, improve connectivity, and ensure safer and more efficient transportation in the region.

Table 4.4 Alliance/Marlington Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Beech St & Beechwood Ave	Intersection Improvements	\$2,500,000	2030
Beech St at Oakhill Ave	Intersection Improvements	\$2,000,000	2030
Beeson St & McCallum Ave	Intersection Improvements	\$2,000,000	2040
Columbus Rd, Beeson St, and Reeder Ave	New roundabout	\$5,000,000	2040
Iron Horse Trail / Nickel Plate Trail Connector	Trail from Paris to Alliance	\$2,000,000	2040
Iron Horse Trail in Alliance	Trail	\$1,000,000	2040
Mahoning Extension from Patterson to Armour	New 2-lane road, minor widening of existing sections	\$3,950,000	2045
North County / Walborn Connector Trail	Trail from Quail Hollow to Walborn Reservoir	\$500,000	2035
North County / Walborn Connector Trail	Trail from Walborn Reservoir to Deer Creek Reservoir	\$750,000	2035

SR 153 & Beechwood Ave	Intersection Improvements	\$2,500,000	2040
Stark Electric Railway Trail	Trail from Canton to Alliance	\$1,000,000	2045

Canal Fulton/Lawrence Planning Area

The major highway facility in this area is SR 21. Four intersection improvements are planned in this area, 3 of which occur along Strausser Ave.

Table 4.5 Canal Fulton/Lawrence Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Alabama Ave & Orrville St	New roundabout	\$3,500,000	2030
Ohio & Erie Canal Towpath (USBR-1, SBR-21)	Trail paving from 40 Corners to SR 93	\$1,000,000	2035
SR 93 & Strausser St	Intersection Improvements	\$2,000,000	2030
SR 236 & Strausser St	Intersection Improvements	\$2,000,000	2030
Strausser St & High Mill Ave	Intersection Improvements	\$3,000,000	2040

Canton/Canton Township Planning Area

Major highways in this planning area include I-77, US 30, and US 62. Projects for these facilities are detailed in the corridor descriptions.

Three projects are recommended in the Trump Avenue corridor:

- At the southern end, Trump Avenue is recommended to be connected to SR 43, improving its connection to the US 30 interchange.
- North of Lincoln Street, SCATS recommends widening Trump Avenue to four lanes to SR 153.
- From SR 153 to US 62, Harmont Avenue is recommended to be widened to four lanes. These upgrades provide a cost-effective alternative to a limited-access connection between US 30 and US 62.

Bridge Work Rehabilitation and Replacement includes projects such as 4th St SE Bridge Rehab, Belden SE Bridge Replacement, and Fulton Bridge Replacement, addressing aging infrastructure and safety.

Streetscaping projects like Cleveland Ave Streetscape Phases 1 and 2, East Tuscarawas Streetscape, and Cherry Ave Streetscape improve aesthetics, pedestrian access, and safety.

Road Reconstruction and Realignment at Norman Reconstruction, 30th St NW Reconstruction, and Lesh Realignment improve traffic flow, safety, and road conditions.

Intersection and Roundabout Improvements projects like Fulton, Harrison, & 25th St NW Roundabout and Ojays/Rowland/7th St NE Roundabout address traffic safety and efficiency.

Trail and Path Development projects with Stark Parks include Iron Horse Trail, Skyland Pines Path, and Nimishillen Trail, expanding off-road and on-road bike infrastructure.

Safety and Transit Corridor Improvements at West Tuscarawas Safety Project Phases 2 and 3 aim to reduce accidents and improve roadway functionality. Transit corridor enhancements like Harmont from Mahoning to US 62 support public transportation.

Widening and Lane Additions projects like Harmont from SR 153 to US 62 and Trump from Lincoln to SR 153 improve traffic flow by adding lanes.

Miscellaneous Improvements include on-road bike lanes, small trail extensions, and localized safety projects, such as 3rd St. SW, Bike Improvements, and Timken Co Trail.

These projects aim to enhance transportation infrastructure, improve safety, support active transportation, and promote regional connectivity.

Table 4.6 Canton/Canton Twp Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
3 rd St SW from McKinley and Market	On Road Bike Infrastructure	\$15,000	2030
3 rd St SW from Tuscarawas to Cherry	Minor widening, curb, gutter, modified lane configuration	\$5,000,000	2030
4 th St SE Bridge west of Warner	Bridge Rehabilitation	\$2,000,000	2026
12 th St NW from Monument to Walnut	Resurfacing	\$2,165,804	2028
19 th St NW from Cleveland to Harvard	Brick Reconstruction	\$3,300,266	2030
23 rd St NW Extension from Stadium Park to Fulton	New 2-lane road	\$1,800,000	2040
25 th NW from Cleveland to Market	Streetscaping	\$825,000	2030
30 th St NW from Cleveland to Market	Minor widening, curb, gutter, modified lane configuration	\$5,000,000	2030
38 th St NW from Salway to Guilford	On Road Bike Infrastructure	\$5,000	2040
55 th St NE from Johnnycake to Lindford	Berm/Sidewalk	\$5,000	2035

Arboretum Park from 38 th NW to RR tracks	Off Road Path	\$250,000	2040
Aultman Trail from Maryland to Schroyer	On Road Bike Infrastructure	\$50,000	2035
Babe Stearn Trail from Ivydale to Smith	Off Road Path	\$300,000	2035
Barr Elementary near Lindford Ave	Off Road Path	\$100,000	2035
Belden SE Bridge south of Ed Stein	Bridge Replacement	\$2,000,000	2030
Cherry Ave from 3 rd SE to Market	Streetscaping	\$9,000,000	2040
Clarendon Ave Pedestrian Bridge Demo	Bridge Demolition	\$300,000	2030
Cleveland Ave NW Phase 1 from 7 th to 25 th	Streetscaping	\$1,000,000	2026
Cleveland Ave NW Phase 2 from 25 th to Canton NCL	Streetscaping	\$8,000,000	2035
Cleveland Ave SW (Market to Ridge)(SBR 77 TEMP)	On Road Bike Infrastructure	\$20,000	2030
Cleveland Ave SW from Mill to 4 th SW	Streetscaping	\$9,000,000	2040
Colonial Blvd Complete Streets Phase 2	Berm, sidewalk, trail in boulevard, street parking	\$2,151,000	2026
Cook's Lagoon Trail from SR 153 to Harrisburg	Off Road Path	\$500,000	2040
Covered Bridge Park Trail near 47 th ST NW	Off Road Path	\$500,000	2030
E Tuscarawas St from Cherry to Cole	Streetscaping	\$7,000,000	2035
Fohl St & Dueber Ave	Intersection Improvements	\$2,500,000	2030
Fulton Dr Bridge south of Stadium Park	Bridge Replacement	\$5,000,000	2030
Fulton Dr Streetscape Phase 2	Intersection Improvements	\$5,000,000	2026
Fulton Dr, 25 th St, & Harrison Ave Roundabout	New roundabout	\$8,313,115	2029
Harmont Ave from SR 153 to US 62	Widen to 4 lanes	\$2,800,000	2040
Harmont Ave from SR 153 to US 62	Transit Corridor	\$5,000,000	2040
Harrisburg St NE from 15 th to Spangler	Berm/Sidewalk bike trail	\$1,000,000	2040
Lesh Realignment Safety Project Phase 2	Realignment of Lesh connection to Harmont	\$1,000,000	2030
Mallonn Park Trail extending into Mallonn Park	Off Road Path	\$10,000	2040
Mallonn Park Trail from Raff Rd Trail to Mallonn Park	Off Road Path	\$500,000	2040
Market Ave S from 11 th to Cleveland (SBR 77 TEMP)	On Road Bike Infrastructure	\$100,000	2030
Maryland Ave SW Trail from 14 th to 9 th	On Road Bike Infrastructure	\$25,000	2035

McKinley Ave from Cleveland to 12 th NW	Streetscaping	\$5,000,000	2040
Middle Branch to SERR Connector	Trail from Middle Branch Tr to Stark Electric RR Tr	\$1,000,000	2050
Middle Branch Trail from Spangler to 55 th	Trail	\$150,000	2035
Monument from 7 th to McKinley Monument	Berm/Sidewalk	\$50,000	2030
Nimishillen Trail from 8 th NE to 12 th NE	Off Road Path	\$200,000	2030
Norman Ave from 34 th NW to 44 th NW	Minor widening, modified lane configuration	\$4,000,000	2026
Ojays/Rowland/7 th St NE	New roundabout	\$5,000,000	2035
Park Drive Phase 2 from Tuscarawas to 7 th	Minor widening, curb, gutter, modified lane configuration	\$10,000,000	2030
Raff Rd Trail from 11 th SW to 4 th NW	On Road Bike Infrastructure	\$50,000	2040
SARTA Bus Purchases	Purchase of three buses	\$535,000	2027
Skyland Pines Trail from Lesh to Columbus	Off Road Path	\$750,000	2035
Timken Company Trail from Harrison SW to Market	On Road Bike Infrastructure	\$20,000	2035
Trail Off Of 55 th St NE east of Upper Middlebranch Trail	Off Road Path	\$50,000	2035
Trump from Lincoln (US 30/SR 172) to 153	Widen to 4 lanes	\$6,500,000	2045
Trump from SR 43 to New US 30	Minor widening, modified lane configuration	\$4,000,000	2040
W Tuscarawas St Phase 1 from Broad to I-77	Road reconstruction, median barrier, roundabouts	\$19,590,278	2026
W Tuscarawas St Phase 2 from Raff to Broad	Safety Improvements, median barrier, roundabouts	\$15,000,000	2030
W Tuscarawas St Phase 3 from Whipple to Raff	Safety Improvements, median barrier, roundabouts	\$15,000,000	2035

Fairless Planning Area

Three intersection improvement projects are set for Navarre Rd, Sherman Church at Haut and Pigeon Run at US 62. One project will improve Fohl Street from the Village of Navarre east to I-77. This would tie into an extension of Sterilite Ave through the county farm property, connecting Navarre Road to Fohl Street. These improvements will provide better access to this area from I-77. One Stark Parks proposed project, the Sugar Creek connector trail, would connect the two villages of Navarre and Wilmot.

Table 4-7- Fairless Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Fohl St from Navarre to I-77	2-lane improvements, minor widening, turn lanes	\$5,230,000	2030
Navarre Rd & Main St	Intersection Improvements	\$2,500,000	2030
Navarre Rd (US 62) & Pigeon Run Ave/Justus Ave	Intersection Improvements	\$8,000,000	2050
Sherman Church Ave & Haut St	Intersection Improvements	\$5,000,000	2045
Sugar Creek Connector Trail	Trail from Wilmot to Navarre	\$1,000,000	2050

Hartville/Lake Planning Area

The Route 619 corridor has experienced traffic growth due to residential development in Lake Township and commercial development on the west side of Hartville. Traffic problems are especially acute on days when the Hartville Flea Market is in operation. Two roundabouts have recently been completed in this corridor, one at SR 619 and King Church Avenue and one at SR 619 and Kaufman Avenue. Cleveland Avenue through the Township is also becoming congested and safety has become a concern at several intersections. SCATS recommends improving SR 619 between Cleveland Avenue and Kaufman Avenue by widening it to three or four lanes. Four intersections are also recommended for improvement. Stark Parks and SCATS have proposed two connector trails in this area. The Middle Branch trail would connect the northeast area of Plain Township to the Village of Hartville. The Quail Hollow trail would grant access between the State Park and the center of the village.

Table 4-8- Hartville/Lake Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Cleveland Ave & Lake Center St	Intersection Improvements	\$2,000,000	2040
Cleveland Ave & State St	New roundabout	\$4,910,000	2028
Cleveland Ave & Wright St	Intersection Improvements	\$2,400,000	2030
Cleveland Ave from Orion to Wright	Resurfacing	\$2,125,000	2028
Cleveland Ave from Wright to Pontius	Resurfacing	\$2,950,000	2030
Pontius St & Duquette Ave	Intersection Improvements	\$2,000,000	2040
Quail Hollow Connector Trail, Phase 2	Trail from Hartville to Quail Hollow	\$750,000	2035
SR 619 from Cleveland to SR 43	Widen to 4 lanes	\$5,000,000	2030
Upper Middlebranch Trail	Trail from 55 th to Hartville	\$750,000	2035

Jackson Planning Area

In 2013, SCATS conducted a study of the northern portion of this area. Resulting in several key recommendations included in the plan. These recommendations propose widening Applegrove Street to five lanes between Whipple Avenue and Frank Avenue, as well as widening both Shuffel Street and Strausser Street to three lanes between SR 241 and Frank Avenue. Additionally, the plan suggests connecting Portage Street and Mega Street just north of Stark State College. Several intersection improvements are also recommended to enhance safety and traffic flow.

The Jackson Planning Area also features multiple arterial widening projects. SCATS recommend, widening SR 241 (Wales Avenue) to four lanes from Hills & Dales to the county line. Other widening projects include Whipple Avenue from Applegrove Street to Shuffel Drive and Jackson Avenue from 12th Street to Perry Drive.

Further, the plan includes a project to widen Frank Avenue to three or five lanes between Fulton Road and University Street.

The area also incorporates two proposed Stark Parks connector trails. The Jackson Connector trail would connect the Erie to Ohio Trail / Towpath Trail to Stark State College and Kent State at Stark Campus. The Flyway Byway Trail would serve the northern part of the area connecting to Summit Metro Park –

Boettler. Additionally, several smaller projects are planned to resurface existing roads and improve intersections.

Table 4.9 Jackson Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Applegrove St & Freedom Ave Intersections	New turn lanes	\$5,290,000	2030
Applegrove St & Whipple Ave	New roundabout	\$5,000,000	2040
Applegrove St & Whipple Ave from Freedom to Portage	Resurfacing	\$1,120,000	2030
Applegrove St from Frank to Whipple	Widen to 5 lanes	\$13,000,000	2030
Belden Village St from Everhard to Whipple	Access Management	\$3,000,000	2040
Dressler Rd from Belden Village to Strip	Pedestrian improvements	\$1,400,000	2040
Everhard Rd from Brunnerdale to Fulton	Resurfacing	\$1,322,500	2027
Flyway Byway Trail	Trail from Willowdale Lake to Frank Ave	\$500,000	2040
Frank Ave from Applegrove to Shuffel	Widen to 5 lanes	\$6,000,000	2030
Frank Ave from Fulton to University	Widen to 5 lanes	\$2,800,000	2040
Hills & Dales Rd from Dressler to Whipple	Resurfacing	\$675,000	2028
Holiday St from Higbee to Whipple	Pedestrian improvements	\$2,000,000	2040
Jackson Connector from Hills & Dales to Stark State	Trail	\$1,100,000	2040
Jackson Connector from Towpath to Lake Cable	Trail	\$1,000,000	2045
Perry Dr & Harris Ave	Intersection Improvements	\$2,000,000	2030
Pittsburg Ave from Applegrove to Shuffel	Widen to 3 lanes	\$1,000,000	2030
Portage St from Lorraine to Frank	Resurfacing	\$2,100,000	2029
Portage St-Mega st Connector	New road	\$5,000,000	2030
SR 241 & Shuffel St	New roundabout	\$7,714,074	2027
SR 241 & Strausser St	Intersection Improvements	\$2,000,000	2030
SR 241 from Hills & Dales to Portage	Widen to 4 lanes	\$8,935,000	2030
SR 241 from Portage to Summit County Line	Widen to 4 lanes	\$3,850,000	2040
Whipple Ave from Applegrove to Shuffel	Widen to 5 lanes	\$3,000,000	2030

Louisville/Nimishillen Planning Area

SCATS recommends the construction of a new two-lane road featuring a railroad grade separation at Constitution Avenue, along with relocation of SR 44 to create a bypass around the downtown center. Additionally, SCATS proposes extending Reno Drive to establish a connection between SR 44 and Nickelplate Avenue. The plan also includes improvements to three key intersections to enhance safety and traffic flow.

Table 4.10 Louisville/Nimishillen Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Columbus Rd & Paris Ave	Intersection Improvements	\$1,250,000	2030
Easton St & Bentler Ave	Intersection Improvements	\$1,500,000	2030
Reno Dr Extension from SR 44 to Nickelplate	New 2-lane road	\$2,000,000	2050
SR 44 Bypass from SR 153 to SR 44	Minor widening, reconstruction	\$2,000,000	2050
SR 44 Bypass from SR 44 to SR 153	New 2-lane road	\$5,500,000	2050
SR 173 (State St) & Paris Ave	New roundabout	\$3,500,000	2030

Massillon/Perry Planning Area

Two projects in this area will improve access from US 30 to southeast Massillon. The first project would improve Richville Drive from Nave St to Southway Street. This project would include minor realignment of the intersection at Southway Street. Another project would improve traffic flow along Walnut Avenue to 16th Street SE.

There are no railroad grade separations on the Norfolk Southern System railroad between Erie Avenue in Massillon, and Harrison Avenue in Canton. This results in a potentially hazardous condition where the north/south movement of safety forces could be impeded by a stopped train. Therefore, Jackson Avenue is recommended to be extended between Southway Ave and Lincoln Way as a 2-lane improvement with a grade separation. The Whipple Avenue project will provide another grade separation.

On SR 241 (Wales Road), between Lincoln Way and Hills & Dales Road, the addition of turn lanes is recommended to supplement the existing two lanes. Another recommendation is for an upgrade of the Lake Avenue intersection.

South of US 30, Navarre Road would be widened from SR 21 to Sterilite Street. This project will serve future traffic from the industrial and commercial development of the old county farm and other properties in this area.

Other projects in the Massillon/Perry area include intersection improvements, bridge rehabilitations, and system preservation projects.

Table 4.11 Massillon/Perry Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
3 rd St NW from Cherry to Lake	Minor widening, curb, gutter, modified lane configuration	\$1,000,000	2050
3 rd St NW from James to State	Minor widening, curb, gutter, modified lane configuration	\$1,500,000	2040
12 th St NW & Perry Dr	New roundabout	\$4,335,710	2029
17 th St SW from SCL to NCL	2-lane improvements, minor widening, turn lanes	\$4,500,000	2050
29 th St SW from Millersburg to Lincoln Way	Minor widening, curb, gutter, modified lane configuration	\$680,000	2050
Amherst Rd from State to Taggart	Minor widening, modified lane configuration	\$2,400,000	2040
Cherry Ave/Earl Rd/Wooster St/17 th St	New roundabout	\$4,000,000	2030
Cleveland Ave SW from Mark Ross to Walnut	New road	\$3,000,000	2040
Erie St & Nave St	New roundabout	\$5,000,000	2050
Erie St (US 62) and Navarre Rd SW	Intersection Improvements	\$2,700,000	2030
Erie St from Lincoln Way to North Ave	Minor widening, modified lane configuration	\$1,500,000	2030
Erie St from Tremont to Lincoln Way	Minor widening, modified lane configuration	\$1,500,000	2030
Harsh Ave from 16 th to Elizabeth	Minor widening, curb, gutter, modified lane configuration	\$750,000	2050
Hess Blvd & Tremont Ave	New roundabout	\$5,000,000	2030
Jackson Ave from Richville to Lincoln Way	New 2-lane road	\$8,000,000	2050
Jackson from 12 th to Perry	Widen to 3 lanes	\$2,000,000	2045

Lake Ave Traffic Calming from SR 21 to SR 241	Minor widening, curb, gutter, modified lane configuration	\$5,187,500	2027
Lincoln Way & Main Ave	Intersection Improvements	\$1,000,000	2030
Lincoln Way from 1 st NE to 3 rd NE	Streetscaping	\$1,500,000	2030
Lincoln Way from 1 st NE to Wales	Minor widening, curb, gutter, modified lane configuration	\$1,500,000	2030
Lincoln Way from 1 st NW to 1 st NE	Streetscaping	\$1,500,000	2030
Main Ave W from Tremont to Lincoln Way	Minor widening, modified lane configuration	\$1,000,000	2030
Main St and Tremont Ave	New roundabout	\$1,028,274	2026
Millenium Ave extension to Cincinnat	New road	\$5,000,000	2040
Navarre Rd SW at Millennium & Sterilite	Intersection Improvements	\$1,500,000	2030
Navarre Rd, Kemary Ave, & Stump Ave	Intersection Improvements	\$3,000,000	2045
Nave St from Erie to ECL	Minor widening, turn lanes	\$3,100,000	2050
Phillips Rd Bridge near Sippo Blvd	Bridge Rehabilitation	\$3,000,000	2040
Richville Dr from Nave to Southway	2-lane improvements, minor widening, turn lanes	\$2,500,000	2040
Sippo Connector Trail from Massillon to Sippo Lake	Trail	\$1,000,000	2045
Sippo Connector Trail from Sippo Lake to Whipple	Trail	\$800,000	2040
Sippo Valley Trail (USBR-1, SBR-21&44)	Trail Paving from county line to Towpath Trail	\$1,100,000	2035
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #1	Trail bridge replacement	\$320,160	2027
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #10	Trail bridge replacement	\$1,100,000	2035
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #2	Trail bridge replacement	\$900,000	2030
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #3	Trail bridge replacement	\$789,728	2029
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #5	Trail bridge replacement	\$750,000	2035
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #6	Trail bridge replacement	\$750,000	2035
Sippo Valley Trail (USBR-1, SBR-21&44) Bridge #8	Trail bridge replacement	\$450,000	2026
SR 21 & Cherry Ave	Intersection Improvements	\$2,500,000	2030
SR 21 & Lake Ave	Intersection Improvements	\$2,500,000	2030

SR 21 & Lillian Gish	Intersection Improvements	\$2,500,000	2030
SR 21 & Walnut	Intersection Improvements	\$2,500,000	2030
SR 172 from Massillon to Canton	Transit Corridor	\$8,000,000	2040
SR 241 & Hills & Dales Rd	New roundabout	\$400,000	2030
SR 627 & Navarre Rd	Intersection Improvements	\$2,500,000	2030
SR 627, US-30 Ramps, & Nave St	New roundabouts	\$3,026,910	2029
Towpath Trail (USBR-1, SBR-21)	Trail paving from Lake Ave to 40 Corners	\$651,408	2029
Tremont Ave SE from 1 st SE to Lincoln Way	Minor widening, curb, gutter, modified lane configuration	\$1,500,000	2030
Walnut Rd from Southway St to 16 th St	2-lane improvements, minor widening, turn lanes	\$800,000	2030
Warmington St from Massillon WCL to SR 21	Minor widening, turn lanes	\$2,500,000	2030
Whipple Ave from Southway to 13th SW	New road, RR overpass	\$8,000,000	2035

Minerva/Paris Planning Area

The US 30 extension projects are the primary focus within this planning area. Additionally, the plan includes a streetscape project along US 30 (Lincoln Way) in the Village of Minerva, aimed at enhancing the aesthetic and functional qualities of the corridor. Two intersection safety improvements along Georgetown Street are also recommended to address safety concerns and improve traffic flow.

Table 4.12 Minerva/Paris Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Beechwood Ave & Georgetown St	Intersection Improvements	\$1,500,000	2030
Georgetown St & Paris Ave	Intersection Improvements	\$1,500,000	2040
Lincoln Way from Bonnieview to Minerva ECL	Streetscaping	\$300,000	2040
Minerva Connector Trail	New Trail from Minerva to Nickelplate Trail	\$2,500,000	2030

North Canton/Plain Planning Area

Within this planning area, SCATS recommends widening SR 43 to four lanes from Applegrove Street to the intersection of Market and Kent, located just south of Mt. Pleasant Street. Other significant widening projects include Portage Street/Charlotte Street from Willaman Avenue to Orchard Avenue in North Canton, as well as widening Orion Street to three lanes between Cleveland Avenue and Pittsburg Avenue. The plan also includes various intersection improvements to enhance safety and traffic efficiency.

Table 4.13 North Canton/Plain Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Applegrove St & Pittsburg Ave	New roundabout	\$5,000,000	2040
Applegrove St from Pittsburg to N Main	Resurfacing	\$934,375	2027
Covered Bridge Trail from Covered Bridge Park to Linda St	Trail	\$1,000,000	2050
E Maple St Phase 2 from Woodside to Marquardt	Streetscaping	\$1,235,100	2028
Easton at Glen Oak Entrance & Rosedown	New roundabout	\$3,140,000	2028
Easton St Bridge west of Pinetree	Bridge Replacement	\$1,930,000	2027
Hoover Trail from E Maple to Marquardt	Trail paving	\$423,869	2028
Hoover Trail from Glenwood/Whipple to Walsh University	Trail	\$200,000	2035
Middlebranch Trail from 55 th to Easton	Trail paving	\$469,063	2030
Orion St from Pittsburg to Cleveland	Widen to 3 lanes	\$4,000,000	2040
Portage St from Willaman to Orchard	Minor widening, modified lane configuration	\$2,000,000	2040
South Main St from Knoll to Rose Lane	Resurfacing	\$1,265,000	2029
SR 43 (Market Ave) from Applegrove to Mt Pleasant	Widen to 4 lanes	\$3,500,000	2030
W Maple St from Lindy Lane to Main	Resurfacing	\$330,000	2026

Osnaburg Planning Area

Major highway projects planned for the Osnaburg Planning Area include the extension of US 30 to SR 44 and beyond. A related project involves constructing a new connector from the US 30 interchange with SR 44 to the intersection of SR 172 at Miday Avenue. Given that SR 44 is expected to serve as the terminus of the US 30 freeway for the foreseeable future, this connector will provide US 30 traffic with options to continue south, east, or north via US 30, SR 44, or SR 172. These projects are detailed further in the US 30 corridor section. Additional projects in this area include intersection upgrades at Wood Avenue and Orchard View Drive, as well as SR 44 and Orchard View Drive.

Table 4.14 Osnaburg Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Broadway Ave from US 30 to Georgetown	Minor widening, reconstruction	\$2,500,000	2040
Orchard View Dr & Argyle Rd	Intersection Improvements	\$1,000,000	2030
SR 44 (Ravenna Ave) & Orchard View St	Intersection Improvements	\$2,500,000	2040
US 30 Connector from SR 44 to SR 172	New 2-lane road	\$4,000,000	2040
Wood Ave & Orchard View Dr	Intersection Improvements	\$2,500,000	2045

Sandy Valley Planning Area

Two improvements are planned for Battlesburg Street in this area, one on Ridge Avenue and the other on Briggie Avenue. Additionally, three proposed Stark Parks connector trails are included in the plan, which would enhance connectivity and accessibility throughout the area.

Table 4.15 Sandy Valley Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Battlesburg St & Briggie Ave	Intersection Improvements	\$2,000,000	2045
Battlesburg St & Ridge Ave	Intersection Improvements	\$4,000,000	2045
Sandy Valley Trail from East Sparta to Waynesburg	Trail	\$2,500,000	2050
West Branch Trail	Trail from East Sparta to Canton	\$800,000	2050

Tuscarawas Planning Area

In the Tuscarawas Planning Area, two intersection improvements are recommended on Alabama Avenue—one at Stanwood Street and another at Wooster Street.

Table 4.16 Tuscarawas Planning Area Projects

NAME/LOCATION	TYPE OF WORK	ESTIMATE	YEAR
Alabama Ave & Orrville St	New roundabout	\$3,500,000	2030
Alabama Ave & Stanwood St	Intersection Improvements	\$800,000	2030
Alabama Ave & Wooster St	Intersection Improvements	\$2,000,000	2045

System Preservation Projects

The Highway Plan does not include a comprehensive list of individual system preservation projects. SCATS acknowledges the importance of allocating funding for system preservation but recognizes the challenges in accurately forecasting these needs. System preservation projects encompass a wide range of initiatives, including safety improvements, resurfacing, bridge rehabilitation and replacement, guardrail upgrades, pavement markings, lighting, and traffic signal enhancements. ODOT has prioritized system preservation in its budget, addressing these needs through district allocations for resurfacing and bridge projects. ODOT is committed to utilizing its management systems to evaluate current conditions and adjust funding levels to ensure the highway system meets established standards.

To ensure adequate funding for these critical projects, SCATS has included the following categories in the project listings:

- ODOT System Preservation Projects
- Local System Preservation Projects
- Various Safety Improvements

Table 4.17 System Preservation Projects

Source	Type	Amount	Period
State/Fed. System Preservation 2026-2030	<i>System Preservation</i>	\$51,373,041	2026-30
State/Fed. System Preservation 2031-2040	<i>System Preservation</i>	\$117,652,653	2031-40
State/Fed. System Preservation 2041-2050	<i>System Preservation</i>	\$141,173,508	2041-50
Safety Projects 2026-2030	<i>Safety Projects</i>	\$9,760,878	2026-30
Safety Projects 2031-2040	<i>Safety Projects</i>	\$22,354,004	2031-40
Safety Projects 2041-2050	<i>Safety Projects</i>	\$26,822,966	2041-50
Local System Preservation 2026-2030	<i>System Preservation</i>	\$36,792,604	2026-30
Local System Preservation 2031-2040	<i>System Preservation</i>	\$76,395,846	2031-40
Local System Preservation 2041-2050	<i>System Preservation</i>	\$80,302,740	2041-50

System preservation projects off the state highway system are not reliant on federal funding programs. The project listings in this chapter include select system preservation projects identified by local communities in their capital improvement reports as potential candidates for federal funding.

Many other system preservation projects, particularly resurfacing initiatives, are funded through local resources. The County Engineer, municipalities and townships in Stark County rely on revenue from gas taxes, vehicle registration fees, municipal income taxes, and local road and bridge levies to maintain the county's road network. These funds are further supplemented by Ohio Public Works Commission allocations, which help finance system preservation projects for roads and bridges across Stark County. For additional details on funding, refer to Chapter 6.

OTHER TRANSPORTATION MODES

Introduction

In the past, transportation planning was almost done in a vacuum, concentrating solely on the each particular mode of transportation and cite specific problems and the project needed to resolve it. Was a road congested? Add lanes. Was the pavement deteriorating? Repave it. Are there multiple accidents? Signalize the intersection. Need more port or rail capacity? Expand the facilities. Too many automobile and pedestrian encounters? Add a crosswalk or sidewalk.

As data and data analysis have become more sophisticated and simpler to acquire and use, planning has expanded beyond the myopic past into a future recognizing that everything functions as a system, and that solutions to problems have a myriad of resolutions. This has led a new vocabulary for transportation planners: livability, sustainability, context sensitivity, multi-modalism, resiliency, and a number of additional terms as planning emphasizes the interconnectedness of the transportation system, and that all modes should be considered when planning improvements.

A transportation system that considers the various modes of transportation, as well as its surrounding, can be more efficient, safer, and less expensive to build, as well as have more positive impacts, than a system where only one mode of transportation is given priority. This chapter discusses the modes of transportation that should be considered when planning and designing roads that typically prioritize automobiles and trucks: public transportation; bicycle and pedestrian movement; and freight movement by highway, rail, and air.

Public Transportation

Stark County has access to multiple modes of public transportation: rail, through AMTRAK; air, through providers at the Akron-Canton Airport (CAK); taxi services located throughout the county; ride and car sharing services such as Lyft and Uber; intercity bus services operated out of Stark Area Regional Transit Authority's (SARTA's) Cornerstone Transit Center (currently a stop for Greyhound and GoBus); paratransit operations by for-profit, non-profit providers, and SARTA; and fixed-route bus service by SARTA.

Coordinated Public Transit-Human Services Transportation Plan

SAFTEA-LU required the creation of a locally developed Coordinated Public Transit-Human Services Transportation Plan in order to receive FTA Section 5310 grant funds. SARTA became the designated recipient responsible for sub-allocating these funds in 2014.

In 2007 the Stark County Mobility Coordination Committee was formed from members of local non-profit, for-profit and governmental agencies, and transportation providers who participated in the opening meeting for coordination planning. SARTA led the development of the first Coordination Plan

Needs and gaps in service identified as priorities in the first plan include:

- Demand response services (immediate transportation needs for unexpected doctors' appointments, etc.)
- 24/7 availability of transit services
- Additional service to rural areas
- Additional types of transportation services such as family coverage to multiple destinations, transportation for frail persons unable to utilize existing vehicles (such as cancer patients and the elderly)
- Transportation to out-of-county medical appointments
- Lack of information about available services

The awarding of a Veteran's Administration grant led the impetus for updating the plan to focus particular attention to veterans' needs and the adoption of MAP-21 resulted in expanding its scope to more fully involve seniors and other fragile populations.

Needs and gaps identified in the plan presented in January 2014 include:

- Establish a one-call/one-click transportation center
 - Develop a center, NEO Ride, in close collaboration with the Portage Area Regional Transit Authority, Stark Area Regional Transit Authority and Akron Metro RTA
 - Create center through expansion and growth of SARTA's customer service center
 - Be as comprehensive and inclusive as possible with agencies that need access to transportation services and agencies and others that have transportation resources to make available
 - Embrace agencies and others that would prefer to get out of the business of transportation service delivery and purchase transportation services instead
 - All participation will be defined in partnership agreements which would express the duties and responsibilities of all parties, and the costs associated with participation
 - Be clear that there are costs and that partnerships include a value exchange
 - Take maximum advantage of technology in developing and maintaining the center
 - Extend access to and benefits of technology to center partners
 - Embrace the reality that not all people in need have the technology access that others have; low tech is a key element in access to services
- Reach out to all parties and educate about the transportation services available and how to take maximum advantage of available services

- Educate agency staff so that they are able to educate agency clients
- Educate agency clients directly where opportunities present themselves
- Take maximum advantage of SARTA's travel training program, maximizing the opportunity for people in need to use SARTA's services effectively and services provided by partner agencies
- Work closely with communities of advocates in training people with needs
- Develop transportation services in creative and non-traditional ways
 - Look for opportunities to collaborate with Stark County Educational Service Center, Colleges, Universities and school districts
 - Look for opportunities to collaborate with the Stark DD Board
 - Understand how transportation services can be integrated with those provided in the managed care network
 - Find effective ways to take advantage of private transportation services
 - Take maximum advantage of sources of funding available at state and federal levels
 - Consistent with funding program regulations, use program funds to support and strengthen one-call/one-click transportation services
- Focus particular attention on hard to meet transportation needs
 - Out of county travel
 - Trips requiring multiple stops
 - Rural areas of Stark county

The FAST Act, signed in December of 2015, consolidated several of the funding categories, combining New Freedom operating projects into the 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program. Specific funding for the Job Access and Reverse Commute (5316) Program was eliminated but became a fundable category for 5307 funds at the discretion of the recipient.

Projects that have been funded through past rounds of grants include: subsidized rides for ADA passengers that SARTA cannot accommodate due to weight; a travel training program to assist ADA passengers in using the more efficient fixed-route bus service; a program to transport returning ex-offenders to their workplace; out of county medical transportation; door to door medical transportation for the frail (elderly) and numerous paratransit vehicles to transport the elderly and disabled beyond services provided by SARTA.

Stark Area Regional Transit Authority Projects

SARTA is the primary public transportation provider in Stark County. SARTA provided approximately 2.8 million rides annually prior to the COVID-19 pandemic, falling to around 1 million rides per year during the pandemic, and is slowly recovering ridership. The Canton Regional Transit Authority (CRTA) began operating as SARTA in 1997 following the successful passage of a ¼ percent sales tax levy which replaced Canton's Municipal RTA property tax. The continued renewal of the ¼ percent sales tax, most recently approved in 2016 for a ten-year period, continues to be the primary source of funding for SARTA.

In almost a quarter of a century, SARTA's expansion to countywide service has included:

- Establishing transit centers in Stark County's three largest cities (Canton in 2003, Massillon in 2001, and Alliance in 2008 (replaced a 2002 building) and at Belden Village in Jackson Township in 2011, Stark County's largest retail destination;
- Expanding Paratransit service county-wide;
- Expanding service to late nights;
- Expanding service to include express service to Akron (which connects with Greyhound Lines, Metro (Summit County) and PARTA (Portage County) fixed-route services;
- Completed a major rebuilding and expansion at Gateway, SARTA's office and maintenance facility in 2005 and 2024;
- Installed bicycle racks on all buses in 2009;
- Expanding service to include express service to Cleveland in cooperation with the Stark County Veterans Commission in 2013;
- Completing installation of a compressed natural gas (CNG) station and the conversion of a substantial part of the bus fleet to operate on CNG in 2012;
- Completing installation of Ohio's first hydrogen station and the began purchasing fuel cell buses in 2018;
- Initiated creating an integrated communications data system to streamline operations, including providing route/bus information via mobile apps;
- Initiated creating a one/click one call cooperative dispatch and information center in cooperation with non-profit and for-profit transportation providers;
- Provided a record-setting 2.8 million rides in 2014 (averaging almost 2.6 million per year 2013-19);
- Implemented Pin-Point and GoLine & started having trip info available on Google Transit, began implementation of app based fare payment systems;

- Outreach Specialists have trained more than 15,000 people in the Travel Training program to travel on our fixed routes, plan trips, purchase bus fares and utilize PinPoint, GoLine and Proline;
- Introduced Medicaid Services that provides free non-emergency medical transportation to medical appointments, and free non-medical transportation to adult day support and to work or vocational training for individuals with I/O or level 1 waivers;
- Opened the first publicly-accessible CNG fueling station in Ohio, outside of Columbus;
- Secured competitive funds from federal and state grants that will enable us to add 10 hydrogen fuel cell-powered buses to our fleet by the end of 2018. Creating a fuel cell training and research program with Ohio State and Stark State;
- Installed free Wi-Fi at all Transit Center and on the bus islands at Cornerstone;
- Initiated an express service between Akron and the Stark State Campus in cooperation with Stark State College;
- Started an Employment Success route loop for early employee start times in 2020;
- Installed an EZFare touchless ticketing system in 2020.

SARTA service reductions due to COVID-19 ridership losses and recent inflationary and income tax receipt reductions.

Ridership fare losses due to COVID-19 as well as respective formulary grant reductions have eaten into SARTA's fiscal reserves. Recent inflationary trends, coupled with respective decreases in sales tax receipts, have resulted in SARTA proposing and instituting service reductions in order to maintain fiscal responsibility. These changes include:

- Paratransit service reduction to federally mandated 2-mile radius from fixed routes. SARTA had been the only RTA in Ohio that provided curb to curb ADA service throughout the entire county, irrespective of distance to fixed-routes. SARTA will now only provide countywide service if resources are available;
- Ended Massillon Area On-Demand service test in December 2024.
- Late-Night Routes ended. SARTA provided several late-night routes as a last resort to service workers and others with late and early work hours. These routes have been ended;
- Success-Express routes ended. SARTA provided several special runs for employment centers which have now been ended;
- Community Circulators ended. Several community circulation routes with low ridership have been ended;
- Staff reductions of at least 30 personnel in February of 2025;

- Additional reductions in service are planned if downward trends continue. SARTA will usually adjust route head times and frequencies based on ridership and fiscal conditions. Some routes could be truncated, service hours reduced, and/or frequencies adjusted for further cost savings.

Alternately, SARTA, is continually reviewing additional services if funding becomes available. These include:

- Increase service on key routes from 60 minutes to 30 minutes in order to increase connectivity within our system;
- Expand services with Colleges and Universities to provide transportation for their students;
- Develop an Employment on Demand service that would be an express or direct route from a Transit Center to a specific employer;
- Explore a “Childcare Express” service, similar to the employment on demand. The draft idea is to take riders from a Transit Center to a specific child care center and back to the Transit Center;
- Create a Wheelchair repair program that would assist a rider with wheelchairs with repairs;
- Work with the Pro Football Hall of Fame Village as they continue development to provide transportation services for the Johnson Controls Hall of Fame Village (a \$1 billion sports and entertainment venue);
- Conduct a pilot for a Dial A Ride service in certain areas that will serve the general public that do not have access to our fixed routes;
- Explore Re-instituting Sunday service for riders who rely on public transit to get to work;
- Coordinate with Communities to improve pedestrian access between SARTA bus stops, stores, medical facilities and other destinations within Stark County;
- Create transit corridors connecting Canton with major surrounding cities.

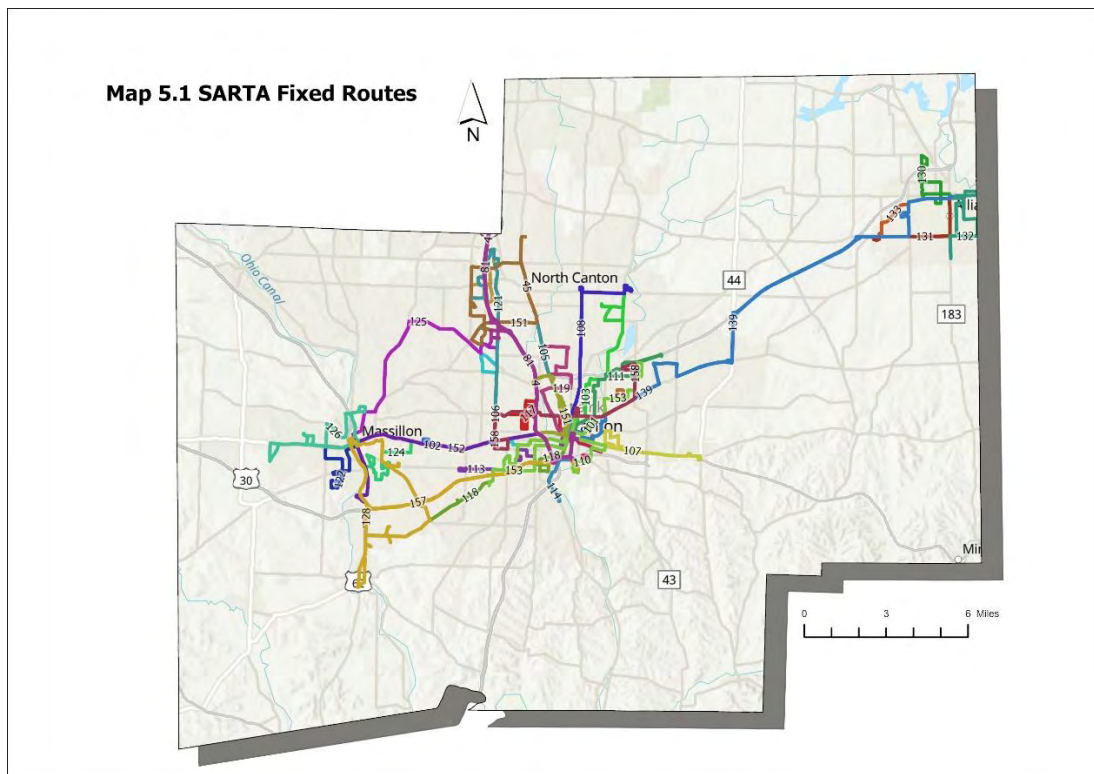
Additional Transit Projects

- Enhanced Mobility of Seniors and Individuals with Disabilities (5310) - funds are distributed through the Federal Transit Administration and the program for Stark County is managed by Stark Area Regional Transit Authority in cooperation with the Stark County Regional Planning Commission. Funds are awarded to non-profit agencies to serve persons with disabilities and the elderly that cannot be adequately served by existing services. For –profit agencies can be funded in partnership with local governments. Awards are granted to those that best fill the transportation needs of Stark County. The amount awarded varies each program year;
- SARTA is involved with the use of hydrogen as a transportation fuel and has rapidly become an advocate for encouraging and demonstrating the adoption of hydrogen as a transportation fuel. Partnering with The Ohio State University’s Center for Automotive Research (CAR), SARTA’s CEO

established the Midwestern Hydrogen Center of Excellence (MHCOE) and Regional Hydrogen Fuel Cell Coalition (RHFCC) to make Ohio a US and global leader in the adoption of renewable hydrogen in the transit sector of transportation. The Centers are devoted to accelerating the deployment of transit related hydrogen fuel cell vehicles and infrastructure through training and education. Grant research funding is being supplied for these projects;

- SARTA has received grant funds to establish a system to create hydrogen on premise by way of electrolysis or steam methane reformation;
- In 2017 SARTA acquired a 40' hydrogen bus from the University of Alabama to use as a hydrogen touring classroom. This bus is used to show students and future hydrogen users of the benefits to being environmentally good stewards. Grant research funding is being supplied for this project. Fleet expansion continues as well as improvements;
- SARTA implementation of a one-of-a-kind program in that would allow any transit dependent organization or transit agency the opportunity to borrow one of SARTA's Zero-Emission Hydrogen Fuel Cell buses. The program, supported by El Dorado National and BAE Power Systems is designed to showcase the innovative technology and to provide a real-world hands-on experience to those that may have an interest in moving toward a zero-emission future;
- Expansion of the existing SARTA facility, adding approximately an additional 85,000 square feet for maintenance and storage vehicles. The expansion, completed in 2024 also added several training rooms for management mobility and a Center of Excellence for training technicians how to work on hydrogen engines.

Map 5.1 SARTA Fixed Routes



As can be seen by the SARTA fixed-transit route map, there is a robust system in place throughout Stark County for bus service. This system includes nineteen regular fixed-routes operating Monday through Saturday from 5-6:00 a.m. through 8:30-9:00 p.m., express runs from Canton to Akron and Cleveland (especially for veterans health care); as well as community shopping runs for seniors from senior housing facilities. Several routes have recently been ended due to fiscal conditions. These include three late-night loops that extended service from 9:45 pm. to 1:30 a.m., and a number of specialty routes. Some specialty routes met employment needs for specific operating hours while other routes improved access to educational facilities;

SARTA's Proline paratransit curb-to-curb on-demand system provides transportation for seniors and ADA-eligible persons throughout Stark County. Additional paratransit services include Medicaid Medline transportation and PASSPORT transport for adult day care. These on-demand/reserved rides are now at the federal minimum requirement requiring a 2-mile proximity to fixed routes.

Another service includes a Travel Training Program to educate potential passengers how to ride buses, read schedules, etc. In addition, SARTA provides assistance to local governments when needed for special circumstances, including evacuations and the use of buses as temporary warming stations during emergencies.

SARTA also assists in the expansion of public transit in Wayne County by providing technical assistance in cooperation with the Wayne County Commissioners and Community Action Wayne/Medina. The Rural Mobility Solutions program will assist those who have no access to transportation to enable them to reach jobs, medical care, and local court systems. The program is funded with grants awarded by ODOT and managed by SARTA as a pass-through entity.

Public Transportation Projects

The tables in the appendices show the approximate breakdown of primarily operating-funds projects by SARTA for the length of the plan. These tables are intended to provide a generalization on funds to be expended. Please refer to the appendices for specific tables on SARTA expenses and extrapolations. Also, bus replacements cited are a generalization, where 30' and larger buses (those typically used for fixed-route service) are usually replaced on a 10-year time frame and less than 30' buses (those typically used for paratransit services) are replaced on a 5-year time frame. The actual bus replacement schedule depends on vehicle use, grant funding, past purchase schedules, and other factors.

Non-SARTA Transit Projects

Enhanced Mobility of Seniors and Individuals with Disabilities (5310) funds are distributed through the Federal Transit Administration and the program for Stark County is managed by Stark Area Regional Transit Authority. Funds are awarded to non-profit agencies to serve persons with disabilities and the

elderly that cannot be adequately served by existing services. Awards are granted to those that best fill the transportation needs of Stark County. The amount awarded varies each program year.

Table 5.1 Public Transportation Projects through 2030

Project Description / Location	Federal	Local	Total	Fiscal Year
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2026
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2026
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2026
Security	\$38,000.00	\$9,500.00	\$47,500.00	2026
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2026
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2026 Total
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2027
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2027
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2027
Security	\$38,000.00	\$9,500.00	\$47,500.00	2027
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2027
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2027 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2028
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2028
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2028
Security	\$38,000.00	\$9,500.00	\$47,500.00	2028
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2028
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2028 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2029
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2029
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2029
Security	\$38,000.00	\$9,500.00	\$47,500.00	2029

Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2029
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2029 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2030
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2030
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2030
Security	\$38,000.00	\$9,500.00	\$47,500.00	2030
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2030
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2030 Total
Total through 2030	\$21,530,000.00	\$3,820,000.00	\$25,350,000.00	

Transit Projects scheduled 2026 through 2030 include:

SARTA Transit Projects

Bus replacements- from 2026 through 2030 SARTA will replace approximately twenty-one (19) 30' and larger buses and thirty-five <30' paratransit buses.

Non-SARTA Transit Projects

Enhanced Mobility of Seniors and Individuals with Disabilities (5310) - funds are distributed through the Federal Transit Administration and the program for Stark County is managed by Stark Area Regional Transit Authority. Funds are awarded to non-profit agencies to serve persons with disabilities and the elderly that cannot be adequately served by existing services. Awards are granted to those that best fill the transportation needs of Stark County. The amount awarded varies each program year.

Table 5.3 Public Transportation Projects through 2040

Project Description / Location	Federal	Local	Total	Fiscal Year
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2031
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2031
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2031
Security	\$38,000.00	\$9,500.00	\$47,500.00	2031
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2031
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2031 Total

SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2032
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2032
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2032
Security	\$38,000.00	\$9,500.00	\$47,500.00	2032
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2032
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2032 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2033
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2033
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2033
Security	\$38,000.00	\$9,500.00	\$47,500.00	2028
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2033
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2033 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2034
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2034
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2034
Security	\$38,000.00	\$9,500.00	\$47,500.00	2034
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2034
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2034 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2035
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2035
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2035
Security	\$38,000.00	\$9,500.00	\$47,500.00	2035
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2035
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2035 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2035
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2035
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2035
Security	\$38,000.00	\$9,500.00	\$47,500.00	2035
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2035
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2035 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2036
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2036
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2036
Security	\$38,000.00	\$9,500.00	\$47,500.00	2036
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2036
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2036 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2037

Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2037
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2037
Security	\$38,000.00	\$9,500.00	\$47,500.00	2037
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2037
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2037 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2038
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2038
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2038
Security	\$38,000.00	\$9,500.00	\$47,500.00	2038
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2038
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2038 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2039
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2039
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2039
Security	\$38,000.00	\$9,500.00	\$47,500.00	2039
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2039
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2039 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2040
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2040
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2040
Security	\$38,000.00	\$9,500.00	\$47,500.00	2040
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2040
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2040 Total
Total through 2040	\$47,366,000.00	\$8,404,000.00	\$55,770,000.00	

Transit Projects scheduled 2031 through 2040 include:

SARTA Transit Projects

Bus replacements- from 2026 through 2030 SARTA will replace approximately thirty-five (35) 30' and larger buses and sixty-five (65) <30' paratransit buses.

Table 5.4 Public Transportation Projects through 2050

Project Description / Location	Federal	Local	Total	Fiscal Year
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2041

Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2041
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2041
Security	\$38,000.00	\$9,500.00	\$47,500.00	2041
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2041
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2041 Total
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2042
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2042
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2042
Security	\$38,000.00	\$9,500.00	\$47,500.00	2042
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2042
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2042 Total
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2043
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2043
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2043
Security	\$38,000.00	\$9,500.00	\$47,500.00	2043
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2043
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2043 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2044
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2044
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2044
Security	\$38,000.00	\$9,500.00	\$47,500.00	2044
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2044
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2044 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2045
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2045
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2045
Security	\$38,000.00	\$9,500.00	\$47,500.00	2045
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2045
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2045 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2046
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2046
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2046
Security	\$38,000.00	\$9,500.00	\$47,500.00	2046
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2046
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2046 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2047
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2047
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2047

Security	\$38,000.00	\$9,500.00	\$47,500.00	2047
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2047
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2047 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2048
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2048
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2048
Security	\$38,000.00	\$9,500.00	\$47,500.00	2048
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2048
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2048 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2049
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2049
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2049
Security	\$38,000.00	\$9,500.00	\$47,500.00	2049
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2049
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2049 Total
SARTA Operating Expenses	\$1,900,000.00	\$475,000.00	\$2,375,000.00	2050
Preventive Maintenance	\$1,950,000.00	\$175,000.00	\$2,125,000.00	2050
ADA Paratransit Service	\$380,000.00	\$95,000.00	\$475,000.00	2050
Security	\$38,000.00	\$9,500.00	\$47,500.00	2050
Transit Enhancements	\$38,000.00	\$9,500.00	\$47,500.00	2050
	\$4,306,000.00	\$764,000.00	\$5,070,000.00	2050 Total
Total through 2050	\$43,060,000.00	\$7,640,000.00	\$50,700,000.00	

Transit Projects scheduled 2041 through 2050 include:

SARTA Transit Projects

Bus replacements- from 2041 through 2050 SARTA will replace approximately forty (40) 30' and larger buses and seventy (70) <30' paratransit buses.

Transit Projects Not Fiscally Constrained

Funding for the following projects, which can occur during any of the four project time frames, has not been secured at this time:

- SARTA and the City of Canton has proposed a streetcar system in order to connect the Pro Football Hall of Fame Village with downtown Canton in order to promote economic development and improve transit options for visitors and employees. The system would

partially use existing rails owned by the Cuyahoga Valley Scenic Railroad as well a limited amount of new track into downtown connecting with tourist, employment, and transit centers. A fuel cell powered streetcar is proposed in order to reduce infrastructure costs.

- Community Circulators- this project would assist in planning and expanding community circulator service in new and existing areas where demand warrants their expansion. These routes (and/or on-demand service) would then tie into express and/or fixed routes that would interconnect the service areas;
- Park and Ride Lots- this project would assist in building four Park-and-Ride lots and the coordination of express runs to service them. Locations would include the IR77 and US30 corridors as well as the proposed Tri-County Service project which would assist Amish community needs;
- Tri-County Service- this project would expand service to Holmes and Wayne counties, including jointly operated bus services and transfer locations between counties. Service would be in the form of community circulators tied to express services originating at park & ride lots;
- Bus Rapid Transit (BRT) Projects- these projects would upgrade corridors similar to what is in progress and planned for the Mahoning Road BRT Corridor for Tuscarawas Street, Whipple Avenue and other corridors. In addition to providing for the replacement of public utilities, road infrastructure and streetscapes, the project would incorporate transit friendly components to encourage the use of public transportation. These would include bus pull-off lanes/passenger shelters and pedestrian improvements;
- Smart Cards & Ticket Vending Machines- this project will implement automated smart card technology for use with fare-boxes. The use of “refillable” plastic smart cards will streamline tickets sales and use, simplify tracking ticket sales and use, and lessen the need for printing paper tickets and transfers. This project is in-progress.

Table 5.5 Public Transportation Projects Not Fiscally Constrained

PROJECT/DESCRIPTION	COST	YEAR
Bus Pull-Off Lanes	\$805,000	By 2050
Community Circulators	\$575,000	By 2050
Improved Shelters/Bus Stops	\$56,000	By 2050
Park and Ride Lots	\$322,000	By 2050
Tri-County Service	\$638,000	By 2050
BRT Corridor Projects @ \$5 million each	\$25,000,000	By 2050
Smart Cards and Ticket Vending Machines	\$350,000	By 2050

Active Transportation

Pedestrians and Bicycles

Stark County Trail and Greenway Plan

The Stark County Trail and Greenway Plan has been the backbone of bicycle and pedestrian planning for Stark County since its publication in March of 1999. The plan was developed by the Stark County Park District (with SCATS participation and assistance) and was adopted as the bicycle and pedestrian plan portion of the SCATS long range plan. Regional meetings throughout the county with local officials, trail advocates, and residents resulted in the creation of an ambitious countywide trail system of more than 300 miles of proposed trails. Today, almost 30% of the system has been completed or is under construction.

The Trail and Greenway Plan, as well as Stark Park's 5-Year Plan, were both updated in 2019 and SCATS continues to work with the Park District to incorporate their plans into both the Long Range Transportation Plan and the TIP.

Although the trail plan was developed by the Park District, it is not just a system of recreational trails. Major portions of the plan follow "historic" transportation routes, such as canal lands and abandoned interurban and intrastate rail lines, as well as following infrastructure (water/sewer lines, etc.). Thus these "recreational" trails serve to connect communities and urban centers inside and outside of Stark County. The Ohio & Erie Canalway Towpath Trail highlights our rich heritage in transportation history and provided a model of trail development that has spurred ancillary developments. It should be noted that the plan was primarily intended to identify general corridors for trails, and detailed planning and construction of specific routes occurs as opportunities arise.

With substantial portions of the trail system completed, public support has increased as usage of trails has grown and the benefits of the trail system have become evident. Support and demand for bicycle and pedestrian trails, as well as bicycle lanes and incorporating bicycle friendly designs into roadways is evidenced by:

- The Stark County Regional Planning Commission's Comprehensive Plan 2040, which incorporates encouraging walkable neighborhoods and includes pedestrian and bicycle facilities as a necessary quality-of-life issue;
- Health providers are encouraging healthy lifestyles, seeking to reverse the trends towards youth and adult obesity. These efforts include programs such as "Healthy Steps" which encourage walking (utilizing the Canal Towpath trail and other trails);
- Stark Parks' "Healthy Adventures" Program, where participants are encouraged to walk, run and ride on Stark Parks trails (and others), and keep track of mileage on their website;
- "Complete Streets", the National Complete Streets Coalition, is an advocacy group calling for the adoption of "complete streets" policies by transportation planning agencies and others. The policies call for constructing streets designed for all potential users, including pedestrians, bicyclists, and others. Many of their policies have been adopted by MPO and other planning agencies;

- Conceptual plans, as well as completed sections by the City of Canton implementing complete streets projects;
- The Safe Routes to School (SRTS) program and SmartMobility pilot programs serve as templates for planning efforts. SCATS has supported SRTS programs by assisting in funding school travel plans through its Community Transportation Planning Studies program;
- The Ohio Department of Natural Resources, recognizing the popularity and multiple benefits of trails, has set a goal for all Ohio residents to be within 10-minutes of a recreational trail;
- Park District support from residential and commercial developers, school districts, local governments and others in providing rights-of-ways. SCATS has recently assisted the district with an ADA review/needs study with a Community Transportation Planning Studies program. The study will assist the district in identifying needs of the aging population for accessing trails. The district is also paving high use trails to improve ADA access.

City of Canton's Active Transportation Plan

SCATS has incorporated the City of Canton's Active Transportation Plan into Moving Stark Forward 2050 as the primary source for bicycle/pedestrian infrastructure within the city's limits. Bicycle route studies have been completed within Canton from as early as 2006, although city-wide maps were not published until 2013. Canton's Comprehensive Plan, approved in 2016, included recommendations from the studies.

Canton renamed the plan to the "Canton Active Transportation Plan" in 2020 in order to modernize the terminology, and the city has kept the plan up to date based on current construction projects with property owner input. The plan now serves as the official framework for which the city manages its complete streets system.

Belden Village Complete Streets Study

Several projects located around the Belden Village Mall area were identified as a result of the Belden Village Complete Streets Study completed by SCATS in 2013. An update and more thorough study is in process in 2024 as a the County Engineers office study being funded as another Community Transportation Planning Study. These studies identified existing pedestrian infrastructure, transit facilities, etc., and provide recommendations for projects to improve pedestrian and bicycle circulation in one of Stark County's most densely developed retail areas. The current study is nearing completion and will primarily provide recommendations for sidewalk improvements.

"Ride Stark"

A number of metropolitan planning agencies have recently produced bicycle user maps that identify bicycle and pedestrian facilities and rate the 'usability' of roads for bicyclists. SCATS developed a printed

map in 2016 called “Ride Stark” and maintains and updates the online map as data is revised. It is available at <http://tinyurl.com/ridestark>.

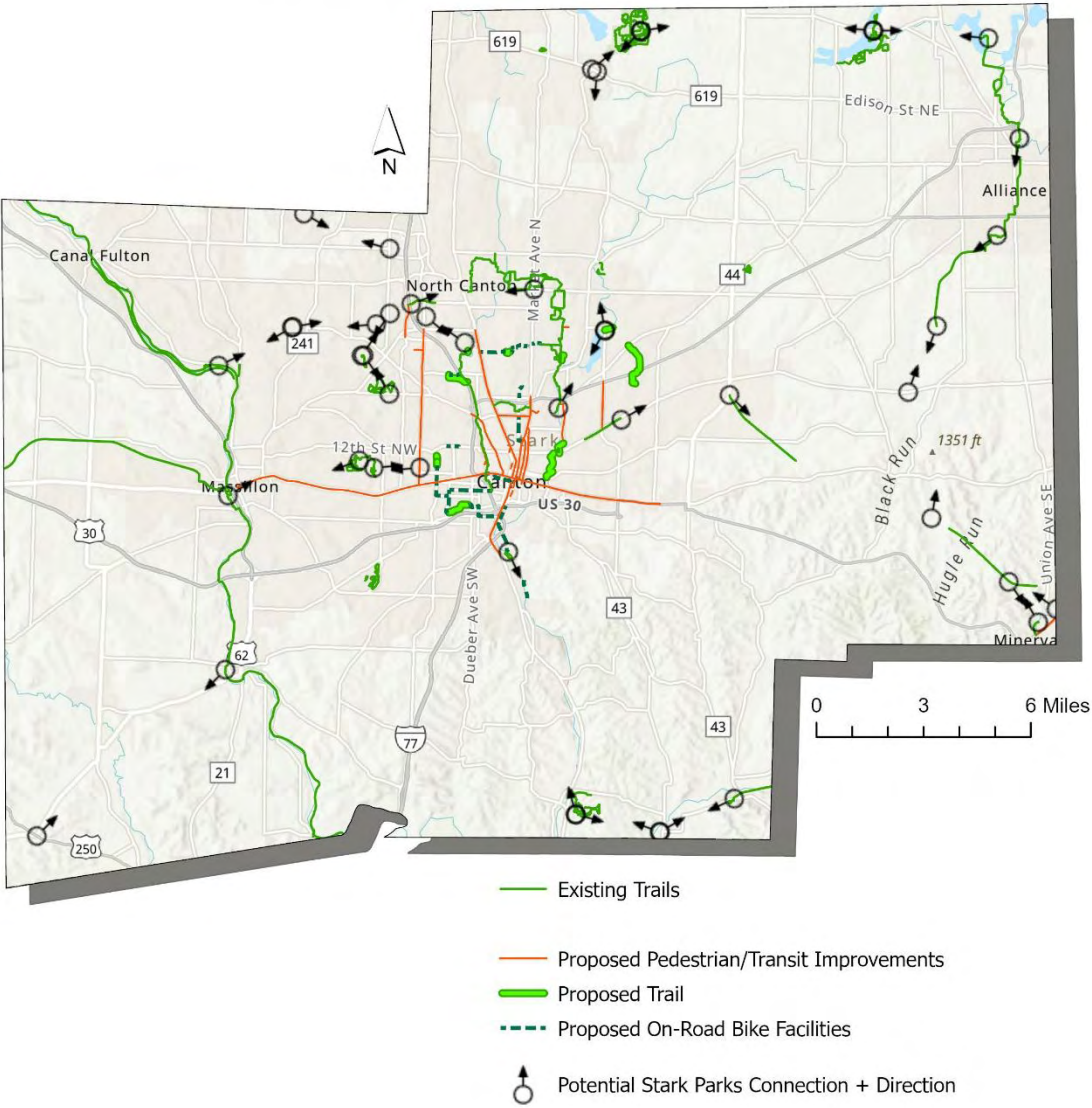
Funding Active Transportation Projects

A limited amount of funding for trails is available through SCATS in the Transportation Alternatives Set-Aside (TASA) Program (formerly Transportation Enhancements) with Federal Highway funds. Due to the limited amount of this type of funding, it has usually been used for high priority projects, such as adding bicycle/pedestrian lanes on bridges that otherwise would not have such access included.

Other sources of funds for active transportation projects are Congestion Mitigation and Air Quality (CMAQ) funds and Carbon Reduction Program (CRP) funds. These funds can be spent on projects that will reduce mobile-source pollution emissions.

A majority of funding and resources for trail construction is obtained by the Stark County Park District through their property tax levy, grant applications and the assistance of local communities. Current District resources are allotted in an amount that typically provides for 6 to 8 miles of trail construction per year. High cost portions of projects, such as major bridges and tunnels, have received congressional funding through specific line items and/or federal and state grants from trail programs, including the Clean Ohio Trail Fund.

Map 5.2 Active Transportation Projects Map



Active Transportation Plan Projects

This section describes the pedestrian and bicycle work to be completed for each of the plan time periods. The plan is based predominantly on the Stark County Trail and Greenway Plan and the city of Canton's Active Transportation Plan. The trails include a mixture of off-road, on-road, and trails on roadway berms.

Projects scheduled between 2026 through 2030 include:

- The completion of the Stark Electric Railway Trail will be broken into 2 phases, the section connecting the cities of Louisville and Alliance, passing through Nimishillen and Washington Townships and the section connecting Canton and Louisville, including the trail through Louisville.
- The Middle Branch Trail will be extended north from Lexington Farms along Easton Street and continue northwest towards Saratoga Farms near Applegrove Street.
- The East Canton Connector Trail will connect the City of Louisville and the Village of East Canton. This trail will follow mostly road rights-of-way from East Canton to the Nickel Plate Trail.
- The Covered Bridge Trail will connect North Canton and the City of Canton. The trail would start in North Canton at Thunderbird Circle NW and continue south-eastwardly, eventually connecting with Covered Bridge Park in Canton.
- Several trails listed in the plan will be revised as other sections are completed. These include the Hartville/Quail Hollow Loop, the Sandy and Beaver Canal Trail, and the Stark Farmland Trail.

Table 5.6 Active Transportation Projects 2026 through 2030

NAME	TYPE	From	To	Estimate	Year	Source	Miles
Minerva Bridge	Bridge Replacement	Brock Park	Over Sandy Creek	\$ 900,000	2025	Stark Parks	0.04
Sippo Valley Trail Bridge #11	Bridge Replacement	Sippo Valley Trail	Near Bison Ave	\$ 450,000	2025	Stark Parks	0.04
49th St NW 2	Off Road Path	47th St NW	47 St NW	\$ 10,000	2026	Canton Active Transportation Plan	0.15

Sippo Valley Trail Bridge #8	Bridge Replacement	Sippo Valley Trail	Near 17 th St	\$ 450,000	2026	Stark Parks	0.04
Sippo Valley Trail Bridge #1	Bridge Replacement	Sippo Valley Trail	Near Ben Fulton Ave	\$ 320,160	2027	Stark Parks	0.04
Hoover Trail	Trail Paving	Marquardt Ave	Market Ave	\$ 423,869	2028	Stark Parks	
Sippo Valley Trail Bridge #3	Bridge Replacement	Sippo Valley Trail	Near Manchester Ave	\$ 789,728	2029	Stark Parks	0.04
Towpath Trail	Trail Paving	Lake Ave	Forty Corners Rd	\$ 651,408	2029	Stark Parks	
Covered Bridge	Off Road Path	Covered Bridge Park	Cleveland Ave NW	\$ 500,000	2030	Canton Active Transportation Plan	0.21
Covered Bridge Park	Off Road Path	Covered Bridge Park	North Lawn Cemetary	\$ 1,000,000	2026	Canton Active Transportation Plan	0.04
Covered Bridge Trail	Trail	East of Thunderbird Cir NW	Canton Corp Limit	\$ 250,000	2030	Stark Parks	1.84
East Canton Connector	Trail	Louisville	East Canton	\$ 50,000	2030	Stark Parks	5.05
Hoover Trail	Trail	Price Park	N. Canton YMCA	\$ 200,000	2030	Stark Parks	9.48
Iron Horse Trail	Trail	State St., Cenfield	Prospect RR Tracks, SR 153	\$ 500,000	2030	Stark Parks	13.82
Jackson Connector Trail	Trail	KSU, Fulton Rd Tunnel	KSU, Jackson Twn North Park	\$ 1,900,000	2030	Stark Parks	14.46
Middle Branch Trail	Trail	55 th St	Schneider St	\$ 469,063	2030	Stark Parks	17.51
Nimishillen Trail (8th to 12th)	Off Road Path	8th St NE	12 St NE	\$ 200,000	2030	Canton Active Transportation Plan	0.92
Sippo Valley Trail Bridge #2	Bridge Replacement	Sippo Valley Trail	Near Ben Fulton Ave	\$ 900,000	2025	Stark Parks	0.04

Projects scheduled between 2031 through 2040 include:

- The Sugar Creek Connector Trail will connect the Wilderness Center located on Alabama Avenue and run north – northeast and the Village of Brewster.
- The Mount Pleasant Dogwood Trail will be completed in two phases, one from Lake Cable to Willowdale Lake and the other from Willowdale Lake to Dogwood Park in North Canton.

- The Flyway Byway Trail is a connecting piece that would service both the Jackson Connector Trail and the Mount Pleasant Dogwood Trail.
- The North Country Loop Trail will interconnect trails in the Deer Creek and Quail Hollow areas, primarily by existing roads, allowing for loop trips.
- The West Branch Trail will connect Arboretum Park in Canton to Price Park in North Canton. This trail could be retained in the future to potentially create a loop trail to connect to the Covered Bridge Trail that has been proposed in the previous section.

Table 5.7 Active Transportation Projects 2031 through 2040

NAME	TYPE	From	To	Estimate	Miles	Year	Source
Arboretum Park	Off Road Path	38th St NW	East of 77	\$ 250,000	0.63	2040	Canton Active Transportation Plan
Babe Stearn Trail	Off Road Path	14th St SW	Anderson Pl SW	\$ 300,000	0.69	2035	Canton Active Transportation Plan
Barr Elementary	Off Road Path	Burnham Hills Condos	Barr Elementary	\$ 100,000	0.20	2035	Canton Active Transportation Plan
Flyway Byway Trail	Trail	Mt. Pleasant/Dogwood Trail	Jackson Connector Trail	\$ 500,000	6.49	2040	Stark Parks
Harrisburg NE	Off Road Path	Mahoning Rd NE	Harrisburg Rd NE	\$ 500,000	0.38	2040	Canton Active Transportation Plan
Hoover Trail	Trail	Price Park	North Canton YMCA	\$ 200,000	0.79	2035	Stark Parks
Iron Horse Trail	Trail	Cenfield St	SR-153	\$1,000,000	2.76	2040	Stark Parks
Iron Horse/Nickel Plate Connector	Trail	Minerva	Louisville/Alliance	\$2,000,000	12.11	2040	Stark Parks
Jackson Connector Trail	Trail	Campus Trail	Tam O'Shanter Park	\$1,100,000	5.06	2040	Stark Parks
Mallonn Park Trail	Off Road Path	550ft north of Raff end	911ft north of Raff end	\$ 10,000	0.17	2040	Canton Active Transportation Plan

Mallonn Park Trail	Off Road Path	North End of Raff	550ft north of Raff end	\$ 500,000	0.10	2040	Canton Active Transportation Plan
Middle Branch Trail	Trail	Schneider St	Easton St	\$ 150,000	1.66	2035	Stark Parks
Mt Pleasant Dogwood Trail	Trail	Lake Cable	Dogwood Park	\$ 150,000	8.10	2040	Stark Parks
North County/Walborn Connector Trail	Trail	Quail Hollow State Park	Deer Creek Park	\$ 400,000	10.61	2040	Stark Parks
Ohio & Erie Canal Towpath	Trail Paving	Forty Corners Rd	Canal Fulton	\$1,000,000	7.86	2035	Stark Parks
Quail Hollow Connector Trail, Phase 2	Trail	Quail Hollow Park	Lake Elementary	\$ 750,000	1.64	2035	Stark Parks
Sippo Valley Connector Trail	Trail	Towpath Trail	Sippo Lake Park	\$ 800,000	12.52	2040	Stark Parks
Sandy Valley Trail	Trail	Gerdanville Ave	Greer Ave	\$3,750,000	13.95	2031	Stark Parks
Sippo Valley Trail (USBR-1, SBR-21&44)	Trail Paving	Wayne County	Massillon	\$1,100,000	3.07	2035	Stark Parks
Sippo Valley Trail Bridge #5	Bridge Replacement	Sippo Valley Trail	Near Bison Ave	\$ 450,000	0.04	2035	Stark Parks
Sippo Valley Trail Bridge #6	Bridge Replacement	Sippo Valley Trail	Near Bison Ave	\$ 450,000	0.04	2035	Stark Parks
Sippo Valley Trail Bridge #10	Bridge Replacement	Sippo Valley Trail	Near Bison Ave	\$ 450,000	0.04	2035	Stark Parks
Skyland Pines	Off Road Path	Columbus Rd NE	Lesh St NE	\$ 750,000	1.41	2035	Canton Active Transportation Plan
Sugar Creek Connector Trail	Trail	Wilderness Center	Brewster	\$ 500,000	21.43	2040	Stark Parks
Trail Off Of 55th St. NE	Off Road Path	55th St NE	Middlebranch Trail	\$ 50,000	0.24	2035	Canton Active Transportation Plan
Upper Middlebranch Trail	Trail	Quail Hollow	Middlebranch Trail	\$ 750,000	1.64	2035	Stark Parks
West Branch Trail	Trail	Arboretum Park	Price Park	\$ 400,000	20.23	2040	Stark Parks

Projects scheduled between 2041 through 2050 include:

- The Nickel Plate Trail will connect the City of Louisville and Village of Minerva. The next phase will provide a connection between Swallen Avenue and Stucky Street in Osnaburg and Paris Townships.
- The Pleasant Valley Trail would have connected the Lower Middle Branch Trail to the Sandy Valley Loop in Magnolia via Howenstine Drive and other roads. This trail could be retained in the future to create a loop trail but its use to connect to the Sandy Valley Trail has been superseded by the extension of the Sandy Valley Trail to the Fry Family Park and East Sparta.

Table 5.8 Active Transportation Projects 2041 through 2050

NAME	TYPE	From	To	Estimate	Miles	Year	Source
Covered Bridge Trail	Trail	Covered Bridge Park	49 th St	\$ 1,000,000	0.82	2050	Stark Parks
Jackson Connector Trail	Trail	Towpath Trail	Devonshire Park	\$ 1,000,000	11.50	2045	Stark Parks
Middlebranch to SERR	Trail	Gervasi Station	SERR Trail	\$ 1,000,000	2.55	2050	Stark Parks
Sandy Valley Trail	Trail	Fry Family Park	Waynesburg/Sandy Valley Trail	\$ 2,500,000	2.32	2050	Stark Parks
Sippo Valley Connector Trail	Trail	Sippo Lake	Canton	\$ 1,000,000	13.76	2045	Stark Parks
Stark Electric Railway Trail	Trail	SERR	Metger Park	\$ 1,000,000	4.38	2045	Stark Parks
Sugar Creek Connector Trail	Trail	Towpath Trail	Wilderness Center	\$ 1,000,000	21.42	2050	Stark Parks
West Branch Trail	Trail	Esmont Park	Fry Park	\$ 800,000	14.71	2050	Stark Parks

Other Trails and Historic Transportation Resources:

A number of small sections of trails that will assist in interconnecting the trail and greenway system have not been listed. Portions of these will be constructed as major trails are completed and other sections will be completed as needs become evident. It is anticipated that additional complete streets type projects will be added to the plan as the City of Canton continues to develop their on-road system. Several on-road routes currently listed in the plan may be dropped from the Trail and Greenway Plan but could be retained as part of a marked on-road bikeway system.

It should be noted that the Buckeye Trail and North Country Trail (a congressionally-designated scenic trail) have routes through Stark County. These State and National trail routes mostly parallel the towpath trail, as well as the Ohio & Erie Canalway America's Byway, which is a State and Federally designated a driving route. The historic Lincoln Highway Scenic Byway (State designated) also crosses Stark County as part of US 30. Several original brick sections remain where road straightening projects have occurred. Other historic transportation routes include Native American routes such as the Great Trail, Muskingham Trail, and the Tuscarawas River and the Great Wagon Trail used by early settlers. These are resources that should not be overlooked for incorporation into planning and tourism and recreational development as well as historic preservation.

Several US Bike Route and Ohio Bike Route Trails pass through Stark County. USBR 21 and Ohio Route 1 primarily follows the towpath trail and Sippo Valley Trail. Ohio Route 77 follows the towpath trail. The in process (non-designated) USBR 44 and Ohio Route 85 follows the Sippo Valley trail and continues east towards Alliance and into Mahoning County. A mix of other Ohio Routes crisscross Stark County.

Tremendous progress has been made in developing pedestrian and bicycle facilities in Stark County over the past twenty years. The benefits of incorporating pedestrian and bicycle facilities into an intermodal system have been demonstrated by the support of Stark County residents and elected officials as the trail system continues to grow throughout the county.

Freight

Logistics is necessary for a community to maintain and grow its commercial, retail and manufacturing industries. Without an efficient interplay between transporting raw materials and components, warehousing parts and products, and properly managing this process, a community and its businesses can find themselves at an economic disadvantage.

Major Highway Routes and Facilities- As identified in Access Ohio, Stark County has one National Highway Corridor (I-77 North of US 30), two State-wide Highway Corridors (I-77 South of US 30 and US 30 West of I-77) and two Statewide Secondary Highway Corridors (SR21 and US 62). Interstate 77 is listed as a maritime freight highway corridor. Proposed projects to alleviate shipping bottlenecks include the extension of US-30 and several bypasses. Recently completed was a perennial bottleneck due to low bridge clearance in the City of Alliance. The lowering of Union Avenue (SR-183) under the Norfolk and Southern RR now allows semi traffic with trailers to safely pass under the bridge without becoming stuck.

One intermodal facility is located in Stark County. The Neomodal terminal, although currently underutilized, offers a direct entry in-gate/out-gate, a 28-acre fully paved facility, three Mi-Jack overhead cranes, a high-speed receipt and dispatch system, computerized inventory control, electronic

data interchange, 24-hour access, and Foreign Trade Zone designation. The facility is located on the regional Wheeling & Lake Erie Railway, which offers interconnection to the Canadian National Railway and others. Two full service truck stops are located in Stark County, both on I-77. Numerous heavy truck sales and service locations exist adjoining I-77 and US 30.

Rail Shipment

Major routes and facilities include the Wheeling & Lake Erie Railway, with more than 800 miles of track stretching from Western Ohio into Pennsylvania and multiple Class 1 connections (with trackage rights to Hagerstown, Maryland); The Norfolk Southern System with service to Cleveland, Zanesville, Toledo, Wheeling, West Virginia and Norfolk, Virginia; and the CSX Transportation System with routes both to Chicago through Pittsburgh, PA. The Ohio Freight Rail Choke Point Study identifies the W & LE Spencer to Brewster Line as a choke point due to the lack of a passing siding on the forty-mile single track line. Estimates in 2007 placed a 41.5 million dollar cost on adding a passing siding.

Air Shipment

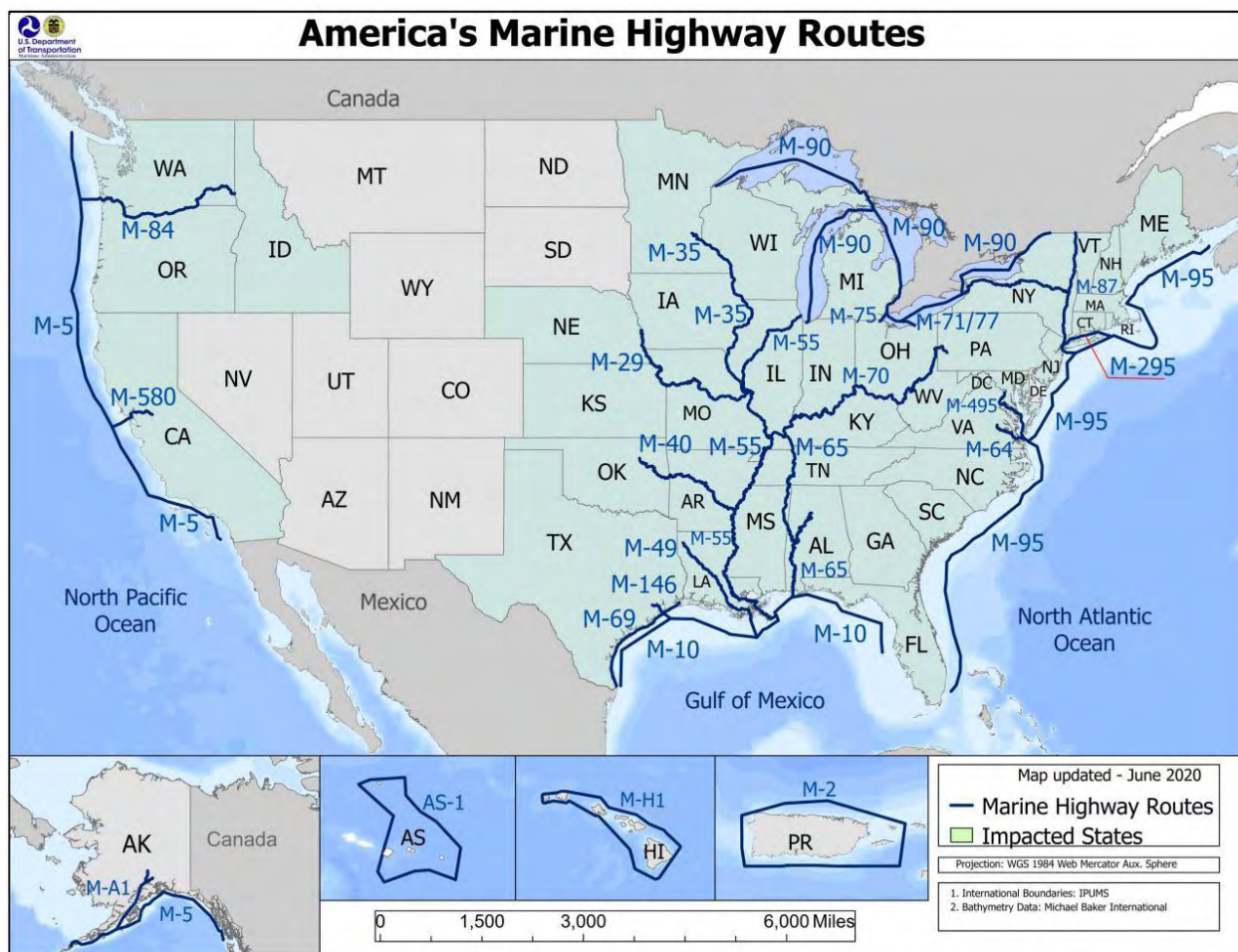
Akron-Canton Airport is predominantly a passenger airport although several air cargo operations and charter companies service the airport. Recent runway extensions as part of the airports long range improvement plan have resulted in two runways approximately 7,600' long, allowing for larger aircraft operations. The Airport's implementation of its 2018 Plan has resulted in numerous other improvements including deicing, terminal, and safety systems. Akron-Canton Airport also services corporate fleets for business executives.

Maritime Shipment

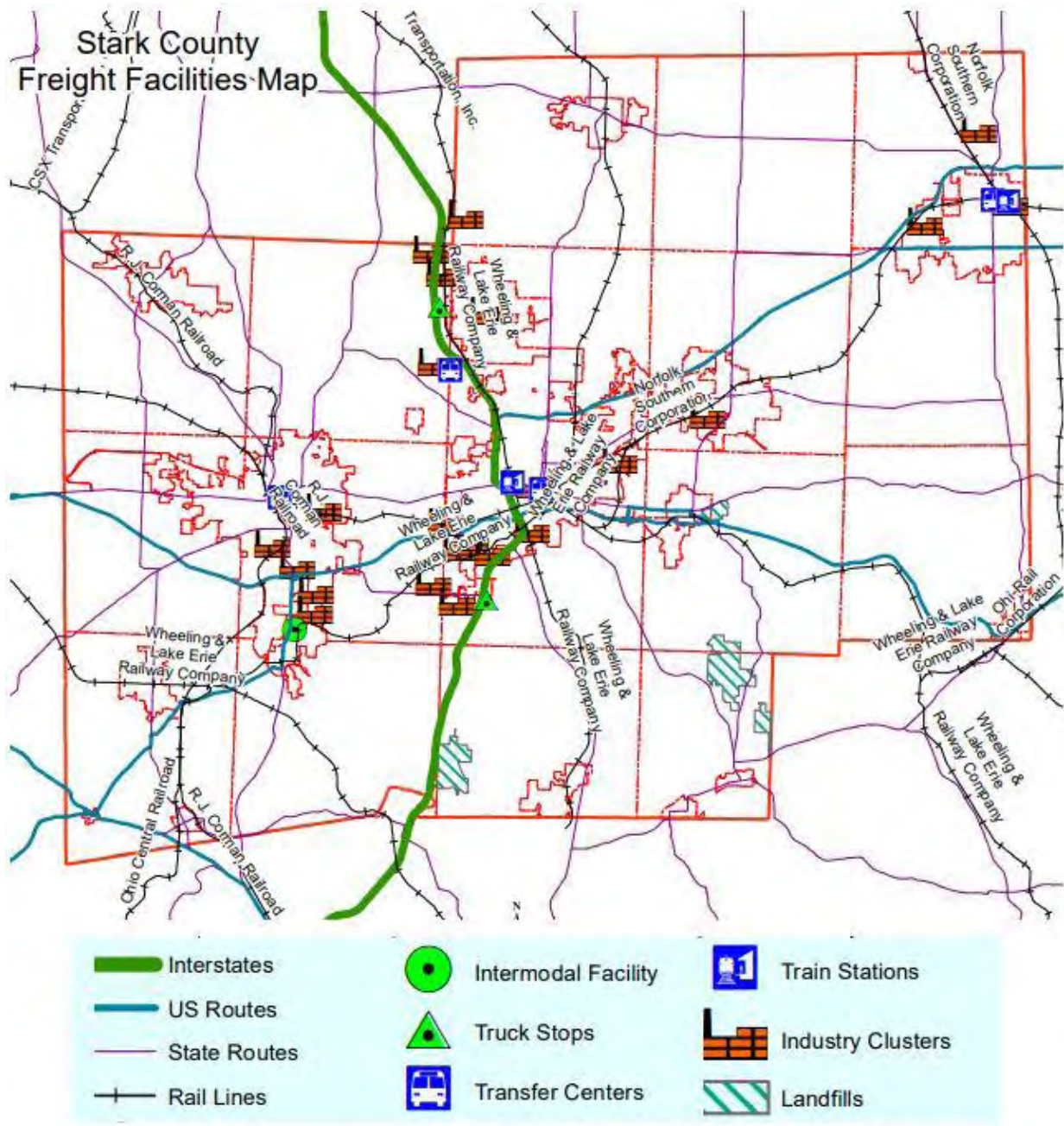
Stark County has a long history in making connections with freight shipping between the Gulf of Mexico and the Atlantic seaboard. Although the connection directly via water was broken with the destruction of the Ohio & Erie Canal by the 1913 flood, it continues by land routes with I-77. Interstate 77 serves as a major North/South highway corridor connecting Marine Highway 70 (the Ohio and Mississippi Rivers) and Marine Highway 90 (Lake Erie and the St. Lawrence Seaway).

Part of the impetus for extending US-30 as a divided highway to SR-11 is the fact that it would serve as a major (and convenient) East/West Connection to the terminus of M-70 as evidenced by the Maritime Highway Map.

Map 5.3 Maritime Highway Corridors



Map 5.4 Stark County Freight Facilities



Port Authority and Foreign Trade Zone

Port Authorities are a tool that can assist in business development, offering innovative financing programs to create or retain jobs through the issuance of bonds. They can also create Foreign Trade Zones, which can be tremendous generators of shipments that benefit from coordination between various modes of transportation.

The Stark County Port Authority (SCPA) offers: Off-Balance Sheet and Synthetic Leases, Conduit Bond Issues and Qualified Small Issue Bonds for manufacturers and 501 (c) (3) bonds for nonprofit organizations and operates U.S. Foreign Trade Zone #181 in Stark County.

The Zone includes more than 800 acres of general purpose zone and sub-zone land which offers the following benefits: deferral, reduction, and/or elimination of duties; elimination of drawback; labor overhead and profit not calculated in dutiable sale of zone merchandise; excise tax reductions; inventory is tax exempt while stored in an activated FTZ and others. The Authority is part of the Northeast Ohio Trade and Economic Consortium.

Map 5.5 Foreign Trade Zones



Transportation as a Service (TaaS)

Transportation as a Service (TaaS) refers to the buying of miles, trips, and/or experiences and none of the hassle of ownership: The buying and financing of vehicles, maintenance, gas, insurance, traffic, actual driving, and sometimes even finding and paying for storage. Using TaaS means not having to put up with any of the headaches of current vehicle ownership, while still having access to the necessary transportation.

TaaS, sometimes called Mobility as a Service (MaaS), refers to widespread deviation away from personal vehicles and towards service-based transportation. This includes rideshare options like Uber and Lyft, e-scooters, bike sharing, and many more.

TaaS has numerous benefits, from economic to social, environmental, and geopolitical. Savings include vehicle registration and maintenance, as well as fuel and parking costs. Further, TaaS may dramatically lower transportation costs, increase mobility and access to jobs, education, and healthcare; all the while contributing to cleaner, safer, and more walkable communities.

What Companies are Adopting TAAS Today?

- Delivery services: Amazon Prime Delivery, Grubhub, Postmates, and DoorDash all deliver services right to your door.
- Rideshare services: Uber, Lyft, Ridesharing, Zimride, GoNanny will take you where you want to go, so you don't have to worry about owning a car to get around.
- Rental transportation: Companies like Turo and WaiveCar can help you lease out your own vehicle (or find one to lease), similar to having an Airbnb for your vehicle.
- Car subscription services: lets you swap vehicles when you need a change.
- Car rental: You can also rent a car right when you need it from a home post in your neighborhood with the help of apps like aGO, Getaround, and Zipcar.

Advances won't end with food being delivered to your door. Experts predict that one day (in the not-so-distant future) you will be able to summon a car exactly when you need it (with or without a driver) and/or turn what once was a backseat into a boardroom as you make your way to a business trip.

Electric Vehicle (EV) and EV Infrastructure

In 2018 AEP Ohio announced an incentive program to encourage the installation of electric vehicle (EV) charging stations at public sites, workplaces and apartment complexes. The \$10 million program provides funding for up to 375 EV charging stations throughout the AEP Ohio service territory. As of 2020, public accessible charging included 746 electric stations and 1,623 charging outlets in Ohio; 7 Level 1 chargers, 1,287 Level 2 chargers, 329 Level 3 chargers. As of 2021, there are 20 charging stations in Stark county - *excluding private stations. The best way to reduce carbon emissions is to utilize the cleaner, greener, more renewable electric grid to power transportation. Only grid-rechargeable cars can attain the end goal of zero-emissions and ensure fuel price stability. In addition, plug-in electric cars make an investment in solar panels even more economically compelling.

- The near-term goal of true zero-emission driving can only be achieved with electricity into batteries. Fuel cells, even with hundreds of millions of dollars in public and private investment, remain decades from marketability for cars. Hydrogen will require hundreds of billions of dollars in infrastructure development, will be generated with fossil fuels for the foreseeable future, is less efficient than electricity, and presents storage and pressurization challenges.

- True zero emission driving can only be achieved near-term with renewably generated electricity, like solar, wind, and hydro. Biofuels can never achieve zero-emissions and require massive amounts of electricity and fossil fuels to be created. In addition, evidence suggests biological matter is more efficiently used for electricity generation than liquid fuel creation.
- Of all the alternative transportation fuels, only electricity is infrastructure-ready.
- Cost per mile will always be cheaper with electricity. An Ohio household with one EV will see an average increase of \$11 per month in electricity costs. Initial cost for a plug-in electric vehicle can be offset by fuel cost savings, lower maintenance costs, and a federal tax credit.
- Electricity generation and distribution is publicly regulated. Public and citizen involvement in pricing and rule-making is not possible with petroleum or bio-fuels.
- Electric cars accelerate quickly, with responsive handling and performance, and they're smart. With fewer moving parts, plug-in cars require less maintenance- in fact, almost half the cost of maintaining a traditional gas vehicle.
- Electric Vehicles reduce carbon-based greenhouse gases that cause climate change and contribute to health issues.
- Plug in cars meet the same federal safety standards as conventional vehicles, with plenty of room for passengers and cargo.
- EV's are practical for everyday use, with options for convenient charging. According to the U.S. Department of Transportation, 85% of Ohioans commute less than 50 miles per day.

Types of Public Charging

Public Charging

Public charging typically occurs under sub-optimal conditions for charge efficiency. Vehicle owners commonly use public charging locations to gain a small amount of additional energy but not to reach a full charge. Public charging infrastructure is also often located in parking lots which are directly exposed to the elements and are most subject to extreme variations in ambient temperature. Efficiency measures would yield the greatest benefit in public charging locations where expected charging times are the lowest and frequency of usage is the highest.

“Level 2” Charging

Some home chargers and most public charging stations are “Level 2.” These stations can add 12 to 25 Range per Hour (RPH), depending on the type of EV and its on-board charger. Level 2 charging stations are ideal for times when you’ll be parked for at least an hour, such as at work, restaurants, movie theaters, sporting events or longer shopping trips. Level 2 charging will generally give you enough juice to get around town, and works up to six times faster than Level 1 charging.

“DC Fast” Charging

On long trips or when you're pressed for time, you'll probably want a faster charge to get where you're going. DC (Direct Current) fast charging can deliver 100 RPH or more, charging some EVs to 80 percent in 20-30 minutes. DC fast charging stations have various power levels. In general, higher power levels charge EVs faster. Check each DC fast charging station to find its power level. Charging speed may also depend on the type of charging port your EV has. Note that not all plug-in cars on the road today have a DC fast charging port. Most plug-in hybrids can only charge at Level 1 or 2.

Potential Electric Vehicle Infrastructure for Stark County

Electric Public Transportation

SARTA is committed to utilizing clean fuel buses and looking towards the future of zero-emission transportation. Currently, SARTA operates with multiple diesel/electric hybrid buses and Compressed Natural Gas (CNG) buses to transport throughout Stark County. In 2017 SARTA introduced a new alternative method of transportation; the Hydrogen Fuel Cell, to the riders of Stark County.

Electric School Buses

A key part of being able to establish electric school buses as viable alternatives to diesel school buses is the ability to identify ongoing revenue generating opportunities, or a bus's ability to provide additional benefits to the community that are valued at or near the incremental cost of the electric school bus. However, because many of the benefits of electric school buses are less tangible, such as the health benefits from reduced diesel emissions, an important part of this analysis is determining if the direct financial benefits are substantial enough to offset the higher initial investment costs.

Potential Charging Station Locations

Largest Employers in Stark County

The Timken Company, Aultman Hospital, Diebold, Inc., Cleveland Clinic Mercy Hospital, Fisher Foods, Freshmark, Inc., Synchrony Financial, Alliance Community Hospital, Canton City Schools, HeinzKraft Foods, Nickles Bakery, Republic Steel, Shearer's Foods, Stark County Government, Stark State College, and Wal-Mart Store Inc. are some of the largest employers in Stark County.

Largest School Districts in Stark County

Canton City, Plain Local, Jackson Local, Perry Local, Massillon Local, Lake Local, Louisville Local are among the largest school districts.

Universities in Stark County

Brown Mackie College - North Canton, Kent State University at Stark, Malone University, Stark State College, University of Mount Union, and Walsh University are education centers in Stark County.

Other Potential Locations

Other potential locations include Assisted Living Centers, Business/Corporate Parks, Churches, Community Centers, Shopping Areas, Museums, Gyms/Fitness Centers, Hall of Fame Village, Hospitals, Golf Courses, Libraries, Parks, Hotels, Apartment/Condo Complexes, CBDs, Government Buildings, Parking Decks, Restaurants.

Tech Policy

As MPOs wrestle with these challenges, a greater tolerance for ambiguity and uncertainty may be required as they explore, test, and evaluate different policy approaches to new technologies. Succeeding in this kind of environment will require SCATS to create an agile policy-making framework that sets in place a continual “look ahead” assessment. At the same time, MPOs should find some comfort in the expectation that the benefits align with traditional objectives of shared vehicle use, strong urban centers, efficient travel corridors and inclusive access. SCATS should pursue policies that are likely to yield benefits under a wide range of future deployment scenarios. Technological impacts can be focused on specific considerations in the areas of engagement, fiscally constrained financial planning, infrastructure programming, transportation planning and modeling, and policy.

SCATS faces an unprecedented amount of change as they plan for Stark County’s transportation needs between now and 2050. MPOs need to decide how best to address opportunities presented to them by automated, connected, electric and shared-use vehicles. After all, these changes may improve personal productivity while traveling, increase road capacity and better utilize urban spaces. They may dramatically reduce negative outcomes associated with mobility systems on which our society currently relies by reducing injuries and fatalities due to human error while expanding mobility options for those who do not or cannot drive. At the same time, advances may also introduce as-yet-unknown system costs, social inequities and new planning demands.

Summary on Electric Vehicles

The general public has been a bit hesitant about purchasing an all-electric vehicle, which has created a standard “chicken or the egg” problem. Many manufactures are building electric vehicles, however the infrastructure is lacking in order to support these vehicles. Electric vehicles limit the freedom that petroleum engines provide, simply due to the lack of charging stations and outlets. Electric vehicles can support about roughly 90% of American driving habits. Workplace charging, public charging in high-demand locations (parks, entertainment locations, grocery stores, etc.) and fast charging stations would help alleviate apprehension when it comes to purchasing an all-electric vehicle. Currently in the US there are 3 different types of plugs for charging an electric vehicle. If that number can be reduced down to 1 plug for all, much like petroleum vehicles, electric vehicles would see a possible increase in usage. Of the 4,911 fast-charging stations in the United States, 3,523 have CHAdeMO connectors (Japanese and Asian-

made vehicles), 3,378 have SAE CCS connectors (American and German vehicles) and 2,406 have Tesla connectors (Tesla vehicles), according to the Department of Energy's Alternative Fuels Data Center.

Having visible public charging infrastructure helps raise awareness about electric vehicles and increases consumer confidence in the idea of driving electric. In that sense, every public charging station helps drive adoption of plug-in vehicles. However, there's a downside to putting in charging without some thought and commitment. If an EV driver knows there's no charging available to help with an extended trip, they'll choose a different option, but counting on a charging station that turns out to be unusable can mean a potentially huge inconvenience. To be useful, charging stations need to be reliable and accessible. Site owners should be careful to choose reliable vendors, reserve charging stations for charging, and post signage to make it easy to find stations. Free charging is great for encouraging use of electric vehicles, but when there's enough demand that people charging just because it's free are blocking access by drivers who really need the charge, it's time to turn on billing. Local governments need to adopt regulations that allow and encourage enforcement of "no parking except for charging" policies.

In order to achieve the goals of this EV Plan, building off of the data collected, stakeholder and community feedback, county/municipality guidance, and industry best practices, the following six key recommendations emerged for consideration/implementation. These recommendations are listed below in priority:

1. Develop and implement EV education and awareness programs.
2. Build and strengthen local and regional partnerships as it relates to EVs.
3. Implement EV charging-specific time of use (TOU) rates.
4. Adopt a "Zero Emission Vehicle (ZEV) first" fleet replacement policy.
5. Adopt codes and policies that support transportation electrification.
6. Expand public charging infrastructure to meet demand.

CHAPTER 6 – FINANCIAL PLAN

Introduction

The Financial Plan demonstrates how the adopted transportation plan can be implemented, indicates resources from public and private sources available to carry out the plan and recommends any additional financing strategies for needed projects and programs. The Bipartisan Infrastructure Law (BIL) requires a financial plan that demonstrates fiscal constraint. A more detailed presentation of available resources is contained in Appendix B FINANCIAL RESOURCES FORECAST report.

Financial Resources

SCATS completed a Financial Resources Forecast in January, 2025. The forecast is based on the Stark County share of funding from a variety of sources. A complete analysis of available funding is shown in the FINANCIAL RESOURCES FORECAST in Appendix B of this document.

Fiscal Constraint

Year of Expenditure Costs

Fiscal constraint requires a comparison of the total cost of all planned projects against the total forecast of available funding. BIL requires that a demonstration of fiscal constraint include estimates of project costs in terms of Year-of-Expenditure (YOE) dollars based on reasonable financial principles and information. Year of expenditure cost estimation requires a current-year cost estimate, the expected year of project implementation along with the application of an appropriate rate of inflation for the period of time leading up to implementation. With input from project sponsors, this plan utilizes the best estimate of present project costs.

Year of Project Implementation

The year in which a project is expected to be implemented has been estimated by SCATS staff with input from project sponsors. BIL permits the financial plan to group project completion times into aggregate ranges or bands. This update of SCATS 2050 plan shows projects being completed within 3 time bands – 2026 to 2030, 2031 to 2040, and 2041 to 2050.

Rate of Inflation

For the first time band (2026 – 2030), the cost of implementation for each project has been estimated at the year of expenditure cost for the year the project is expected to be built. As a result, the project costs shown in this time band have not been additionally inflated. Beyond 2030 in time bands 2031 thru 2040 and 2041 thru 2050 an annual compounded inflation rate of 2% has been applied to the current estimate.

Summary

SCATS is required to demonstrate the projects recommended in the 2050 plan are fiscally constrained, meaning that funding sources can be reasonably expected to be available to finance the project costs. The 2050 Plan for Stark County reflects the needs of the county through the year 2050, as local officials are able to perceive those needs at this time. Many of the recommendations will take many years to

implement. This chapter presents a financial plan to implement the adopted Plan. Resources available to fund the Plan are difficult to predict. However, this financial plan presents a reasonable projection of funding sources and compares it to the transportation needs in order to achieve a fiscally constrained Transportation Plan.

Appendix A – Air Quality

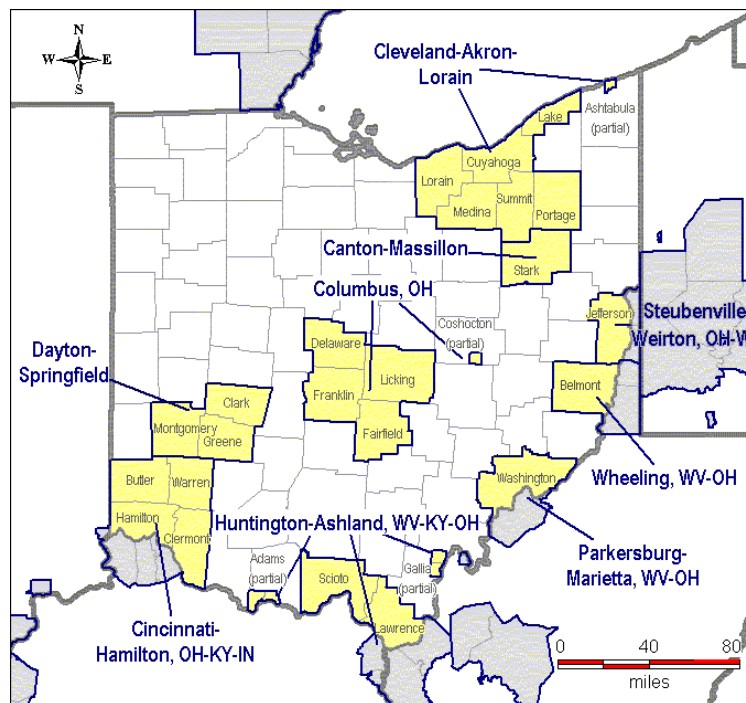
Transportation Air Quality Analysis and Technical Documentation For the Canton/Massillon Metropolitan Statistical Area State Implementation Plan Inventory Mobile Emission Estimates For the U.S. EPA 2006 Daily PM_{2.5} & 1997 8-Hour Ozone National Ambient Air Quality Standard

INTRODUCTION

This memorandum documents the air quality analysis and underlying planning assumptions performed for the 2006 Daily PM_{2.5} on-road mobile source emission inventories for the Canton/Massillon Metropolitan Statistical Area State Implementation Plan (SIP). The Ohio Department of Transportation (ODOT), Division of Transportation System Development-Modeling and Forecasting Section and the Stark County Area Transportation Study (SCATS) completed this analysis in coordination with the Ohio Environmental Protection Agency (OEPA).

The SCATS Region is comprised of Stark County, Ohio. The Canton/Massillon Metropolitan Statistical Area (MSA) was classified as nonattainment for PM_{2.5} in the Federal Register on December 18th, 2014. Although the MSA area also includes Carroll County, OEPA and USEPA concurred that only Stark County is designated as the nonattainment area within the MSA as Carroll County is rural in nature with a population of less than 30,000. SCATS is the MPO (Metropolitan Planning Organization) for this county. The SCATS MPO boundary and urban planning model cover the entire nonattainment area. This area is shown on the following map as prepared by the USEPA.

Figure 1 – Location of Massillon/Canton MSA



Map as shown at: <http://www.epa.gov/pmdesignations/states/Ohio.htm>

SCATS submitted the necessary Travel Demand Model networks along with all land use and socio-economic demographics to ODOT Modeling and Forecasting. ODOT performed the MOVES runs to generate travel-demand-model-based emission factors as well as the complete air quality analyses for the metropolitan area.

Stark County is a US EPA designated 1997 Ozone Standard “Orphan” area and has been determined in conformity based on a qualitative conformity determination consistent with US EPA’s November 29, 2018 guidance resulting from the South Coast II Court Decision.

ON-ROAD MOBILE EMISSION CONFORMITY TEST RESULTS

Table 1 below presents a summary of the pollutant emissions including Fine Particulate Matter (PM_{2.5}) and Nitrogen Oxides (NO_x) modeled for the SCATS Region. The Model Years for the demonstration includes the Budget Year 2025 compared to Interim Years 2030 and 2040, and Maintenance Year 2050.

Table 1
SCATS REGION ON-ROAD MOBILE EMISSION CONFORMITY TEST RESULTS

Stark County	Tons Per Year			
	2025 Budget	2030 Emissions	2040 Emissions	2050 Emissions
Direct PM _{2.5}	101.50	35.296	28.397	27.193
NO _x Precursors	4673.83	660.212	315.032	269.845

The SCATS model shows on-road PM_{2.5} emissions and NO_x precursor emissions at less than the allowed budget in every year of the Plan. The model shows PM_{2.5} emissions of 35.296 tons in 2030, 28.397 tons in 2040, and 27.193 tons in 2050. The model shows NO_x Precursor emissions of 660.212 tons in 2030, 315.032 tons in 2040, and 269.845 tons in 2050.

LATEST PLANNING ASSUMPTIONS

The annual PM_{2.5} inventory runs meet the latest planning-assumption requirements. This report presents the latest population and land use data available that calibrated the modeling process used to calculate the vehicle emissions for the mobile-emissions budgets, as well as, the input values for U.S. EPA’s most recent emissions software MOVES for this air-quality determination.

This determination utilizes the U.S. EPA’s most recent emissions software, MOVES, for all mobile-source-emission analyses, and the annual emissions estimates are based on a single-season approach. Since travel demand models produce average daily conditions, the daily emissions estimates are multiplied by 365 days to produce annual emissions estimates expressed in tons per year.

TRAVEL DEMAND MODELING - ANALYSIS YEARS

A Travel Demand Model (TDM) is the traditional forecasting tool used to examine potential changes in future travel patterns for a specific study area, in this case the Canton/Massillon Metropolitan Statistical Area. The SCATS MPO, with the assistance of ODOT Modeling & Forecasting, maintains a validated region-wide TDM that employs a four-step modeling process consisting of trip generation, trip distribution, mode choice, and route assignment performed with the Cube Voyager software package. The model outputs generated from the TDM are link-by-link directional traffic volumes for four time

periods, morning, mid-day, evening, and night-time. The outputs are used for simulating Base Year and Horizon Year travel patterns generated by the LRTP transportation network.

The current SCATS TDM Validation Year is 2010. The model uses comparable Average Daily Traffic count data, updated socio-economic variables for each of the analysis years by projecting land use commitments for 2030, 2040, and 2050 variables based on the Ohio Department of Development's population projections for those years. These networks represent all planned federal-aid projects as well as any regionally significant projects found in the SCATS TIP and LRTP expected to be open for traffic by the end of each respective analysis year.

The interagency consultation process, established the following model years for the analysis that reflected the most recent correspondence from the U.S. EPA:

- Budget Year 2025 – Budget Year
- Analysis Year 2030 – Interim Year
- Analysis Year 2040 – Interim Year
- Analysis Year 2050 – Maintenance Year

SOCIO-ECONOMIC DEMOGRAPHICS

Identifying projected growth centers and understanding urban and rural population changes are essential to determining future transportation needs in a given study area. Critical elements include an understanding of the past and anticipated future shifts in the region's economy, population, land use patterns, and other environmental factors over time. In turn, these factors are useful for predicting future transportation patterns and justifying transportation improvements over the next twenty-plus years.

Travel forecasting procedures require the user to delineate the TDM study area into geographic areas called Traffic Analysis Zones (TAZs). Typically, TAZs are based on factors such as land use, area types (urban, suburban or rural), or political government units such as cities, villages, or townships. TAZs represent centers of travel generators or attractors based on a set of demographic variables. The SCATS MPO collects and reviews the TDM independent variables that characterize current and future estimates of the metropolitan area's social and economic activity that may influence land-use development patterns. In all, there are 696 TAZs in the SCATS model. Figure 2 displays the SCATS MPO geography covered by the travel demand model including the Traffic Analysis Zone structure. The computer-based TDM for the SCATS highway network employs the following land use variables:

- [AREA_TYPE] ≡ Area Type
- [AVG_PARK] ≡ Average parking cost
- [ENROLL] ≡ School enrollment classified by Private [ENROLL_PRIV], Public [ENROLL_PUB] and Post-secondary [ENROLL_UNIV] schools
- [HOTEL_RM] ≡ Hotel Rooms
- [MED_HHINC] ≡ Median household income
- [POP] ≡ Population
- [POP_18] ≡ Population 18 years or less
- [POP_GRP] ≡ Population residing in Group Quarters
- [TOTEMP] ≡ Total Employment grouped by the North American Industrial Classification System (NAICS)
- [TOT_HH] ≡ Occupied housing
- [TOT_VEH] ≡ Vehicles available per household

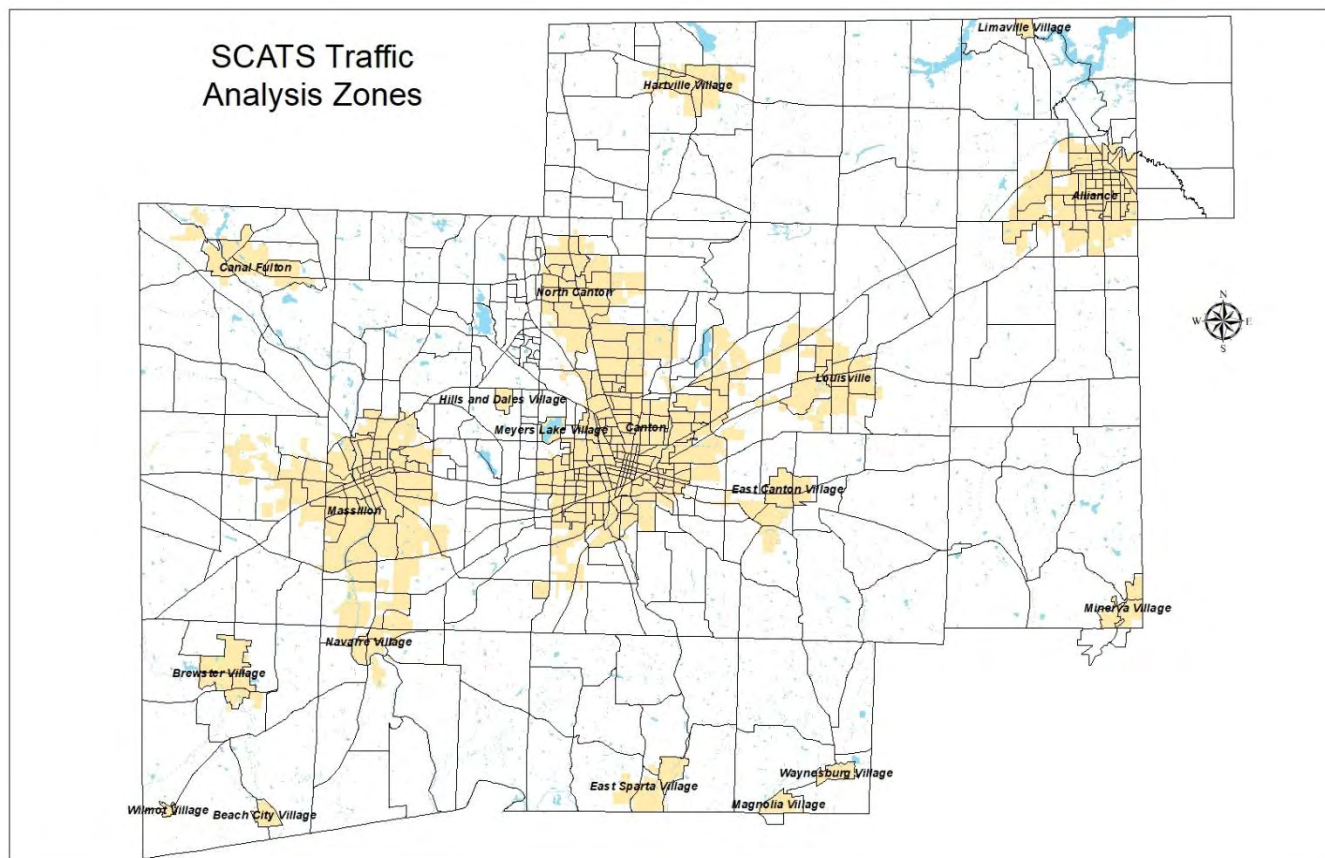
- [WORKERS] $\equiv$ Workers per household

Table 2 is a set of demographic variables developed for the most recent Long-Range Transportation Plan update for the SCATS area compiled in November, 2024.

Table 2
SCATS REGION
REPRESENTATIVE SOCIO-ECONOMIC DEMOGRAPHIC
VARIABLES 2020-2050

	2030	2040	2050
Population	358,580	337,655	317,552
Workers	179,666	169,167	159,049
Vehicles	256,025	241,090	226,722
Households	152,409	145,425	140,676
Employees	133,470	125,830	118,189

Figure 2
SCATS GEOGRAPHIC AREA
COVERED BY TRAVEL DEMAND MODEL
AND TRAFFIC ANALYSIS ZONE STRUCTURE



EMISSION-FACTOR GENERATION

The MOVES model generated the emission factors for the budget year 2025. The model also generated emission factors for three future-year scenarios 2030, 2040, and 2050.

Table 3 summarizes the settings used in the MOVES run specification file and the MOVES County-Data Manager. The subsequent tables provide the specific inputs that are not using the MOVES default values.

Table 3
MOVES INPUTS

RunSpec Parameter Settings	
MOVES Version	MOVES3.2
Scale	Custom Domain
MOVES Modeling Technique	Emission Factor Method Rates per Distance Rates per Vehicle
Time Span	Time Aggregation: Hour 1 Month representing average annual temperatures All hours of day selected 16 speed bins Weekdays only
Geographic Bounds	Stark County
Vehicles/Equipment	All source types, gasoline and diesel
Road Type	All road types including off-network
Pollutants and Processes	NO _x , All PM _{2.5} categories, SO ₂ , Total Energy Consumption
Strategies	None
General Output	Units = grams, joules and miles
Output Emissions	Time = hour, Location = custom area, on-road emission rates by road type and source use type
Advance Performance	None

Table 3 (continued)
MOVES INPUTS

County Data Manager Sources	
Source Type Population	Combination of local and default data Local data from motor vehicle registration Default data used for source types 51, 52, 53, 61, and 62 Future year growth rate based on MPO model Household growth rate
Vehicle Type VMT	Combination of local and default data HPMSVTypeYear VMT = daily VMT from travel demand model monthVMTFraction = default dayVMTFraction=default hourVMTFraction=local
I/M Program	None
Fuel Formulation	Default
Fuel Supply	Default
Metereology Data	Local data obtained from NOAA National Climatic Data Center. Data will consist of monthly high and low temperatures and daily relative humidity for 2002.
Ramp Fraction	Using the base year travel demand model for VHT fractions. Future fractions will be assumed constant
Road Type Distribution	Use ODOT county summary VMT categorized by federal functional classes
Age Distribution	Combination of local and default data. Local data from motor vehicle registration Default data used for source types 41, 42, 43, 51, 52, 53, 61, and 62 The same age distribution will be used for all analysis years
Average Speed Distribution	Default
Alternative Fuel Type	Default

TEMPERATURE AND RELATIVE HUMIDITY

The single season approach for temperature and relative humidity uses weather data collected by the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center (NCDC). Temperature data for the MOVES emission factors came from the Akron Canton Airport and are shown in Table 4. Data entered into a spreadsheet, provided by U.S. EPA, converted the Mobile6 data to get the correct data for the MOVES model. Annual PM_{2.5} emissions data were established using the single season methodology. The standard emissions modeling routines establish daily pollutant burdens. Annual direct PM_{2.5}, NO_x precursor, and SO₂ emissions for the PM_{2.5} conformity tests were established by multiplying the daily model results by 365.

Table 4 – Temperature and Relative Humidity Data

Hour	Average Temperature	Average Relative Humidity
1	60.8	82
2	57.2	93
3	57.2	93
4	60.8	82
5	60.8	87
6	62.6	82
7	62.6	82
8	64.4	77
9	66.2	72
10	66.2	72
11	68.0	68
12	69.8	64
13	69.8	64
14	71.6	60
15	69.8	60
16	69.8	60
17	69.8	64
18	66.2	68
19	66.2	63
20	66.2	68
21	66.2	68
22	64.4	72
23	64.4	72
24	60.8	82

RAMP FRACTION

The Base-Year Travel Demand Model used the Vehicles Hour of Travel (VHT) fractions to derive the Ramp Fractions shown in Table 5. The future-year networks also used the base-year fractions.

Table 5
RAMP FRACTIONS

roadTypeID	roadDesc	rampFraction
2	Rural Restricted Access	0.05
4	Urban Restricted Access	0.13

SOURCE-TYPE POPULATION

A combination of local and MOVES default data is the Source-Type Population for vehicle classifications. The MOVES default values provided the data for Source-Type Population 51, 52, 53, 61, and 62 while local data from Ohio motor vehicle registrations accounted for all other Source-Type

Population needed to run the MOVES model. Table 6 shows the Source-Type Population identifications, the corresponding Source-Type Name, and the number of vehicles analyzed for Stark County.

Table 6
SOURCE-TYPE POPULATION FOR YEAR 2005

sourceTypeID	sourceTypeName	sourceTypePopulation
11	MotorCycle	24,199
21	Passenger Car	282,913
31	Passenger Truck	129,129
32	Light Commercial Truck	2,916
41	Intercity Bus	129
42	Transit Bus	19
43	School Bus	744
51	Refuse truck	86
52	Single Unit Short-haul Truck	182
53	Single Unit Long-haul Truck	138
54	Motor Home	418
61	Combination Short-haul Truck	1,063
62	Combination Long-haul Truck	1,223

VEHICLE-AGE DISTRIBUTION

A grouping of data from Ohio sources along with the MOVES model defaults make up the Vehicle-Age Distribution. MOVES default values included Vehicle-Type ID 41, 42, 51, 52, 53, 61, and 62. Local data from Ohio motor vehicle registrations accounted for all other Vehicle-Type ID. Table 7 shows the Vehicle-Age Distribution for Stark County.

Table 7
VEHICLE-AGE DISTRIBUTION FOR STARK COUNTY, OH

Year	Source Type	Age	Fraction	Year	Source Type	Age	Fraction
2005	11	0	0.0015	2005	21	0	0.0060
2005	11	1	0.0214	2005	21	1	0.0238
2005	11	2	0.0508	2005	21	2	0.0362
2005	11	3	0.0633	2005	21	3	0.0440
2005	11	4	0.0790	2005	21	4	0.0471
2005	11	5	0.0733	2005	21	5	0.0510
2005	11	6	0.0719	2005	21	6	0.0491
2005	11	7	0.0794	2005	21	7	0.0530
2005	11	8	0.0576	2005	21	8	0.0562
2005	11	9	0.0530	2005	21	9	0.0545
2005	11	10	0.0446	2005	21	10	0.0624
2005	11	11	0.0365	2005	21	11	0.0613
2005	11	12	0.0260	2005	21	12	0.0562
2005	11	13	0.0217	2005	21	13	0.0543
2005	11	14	0.0203	2005	21	14	0.0487
2005	11	15	0.0210	2005	21	15	0.0500
2005	11	16	0.0167	2005	21	16	0.0398
2005	11	17	0.0114	2005	21	17	0.0337
2005	11	18	0.0087	2005	21	18	0.0282
2005	11	19	0.0077	2005	21	19	0.0215
2005	11	20	0.0073	2005	21	20	0.0178
2005	11	21	0.0088	2005	21	21	0.0150
2005	11	22	0.0091	2005	21	22	0.0111
2005	11	23	0.0103	2005	21	23	0.0082
2005	11	24	0.0177	2005	21	24	0.0069
2005	11	25	0.0159	2005	21	25	0.0057
2005	11	26	0.0135	2005	21	26	0.0045
2005	11	27	0.0162	2005	21	27	0.0026
2005	11	28	0.0241	2005	21	28	0.0017
2005	11	29	0.0186	2005	21	29	0.0017
2005	11	30	0.0927	2005	21	30	0.0478

ROAD-TYPE DISTRIBUTION

The ODOT Division of Highways produced a summary of Vehicle Miles Traveled (VMT), categorized by federal functional class, for Stark County. This summary was used as the basis for the Road-Type-Distribution Fractions. Table 8 illustrates Road-Type Distribution.

Table 8
**ROAD-TYPE DISTRIBUTION FOR STARK COUNTY
NON-ATTAINMENT AREA**

Source Type	Road Type	Road Description	Road-Type VMT Fraction		Source Type	Road Type	Road Description	Road-Type VMT Fraction
11	1	Off-Network	0		43	4	Urban Restricted Access	0.19
11	2	Rural Restricted Access	0.01		43	5	Urban Unrestricted Access	0.62
11	3	Rural Unrestricted Access	0.18		51	1	Off-Network	0
11	4	Urban Restricted Access	0.19		51	2	Rural Restricted Access	0.01
11	5	Urban Unrestricted Access	0.62		51	3	Rural Unrestricted Access	0.18
21	1	Off-Network	0		51	4	Urban Restricted Access	0.19
21	2	Rural Restricted Access	0.01		51	5	Urban Unrestricted Access	0.62
21	3	Rural Unrestricted Access	0.18		52	1	Off-Network	0
21	4	Urban Restricted Access	0.19		52	2	Rural Restricted Access	0.01
21	5	Urban Unrestricted Access	0.62		52	3	Rural Unrestricted Access	0.18
31	1	Off-Network	0		52	4	Urban Restricted Access	0.19
31	2	Rural Restricted Access	0.01		52	5	Urban Unrestricted Access	0.62
31	3	Rural Unrestricted Access	0.18		53	1	Off-Network	0
31	4	Urban Restricted Access	0.19		53	2	Rural Restricted Access	0.01
31	5	Urban Unrestricted Access	0.62		53	3	Rural Unrestricted Access	0.18
32	1	Off-Network	0		53	4	Urban Restricted Access	0.19
32	2	Rural Restricted Access	0.01		53	5	Urban Unrestricted Access	0.62
32	3	Rural Unrestricted Access	0.18		54	1	Off-Network	0
32	4	Urban Restricted Access	0.19		54	2	Rural Restricted Access	0.01
32	5	Urban Unrestricted Access	0.62		54	3	Rural Unrestricted Access	0.18
41	1	Off-Network	0		54	4	Urban Restricted Access	0.19
41	2	Rural Restricted Access	0.01		54	5	Urban Unrestricted Access	0.62
41	3	Rural Unrestricted Access	0.18		61	1	Off-Network	0
41	4	Urban Restricted Access	0.19		61	2	Rural Restricted Access	0.01
41	5	Urban Unrestricted Access	0.62		61	3	Rural Unrestricted Access	0.18
42	1	Off-Network	0		61	4	Urban Restricted Access	0.19
42	2	Rural Restricted Access	0.01		61	5	Urban Unrestricted Access	0.62
42	3	Rural Unrestricted Access	0.18		62	1	Off-Network	0
42	4	Urban Restricted Access	0.19		62	2	Rural Restricted Access	0.01
42	5	Urban Unrestricted Access	0.62		62	3	Rural Unrestricted Access	0.18
43	1	Off-Network	0		62	4	Urban Restricted Access	0.19
43	2	Rural Restricted Access	0.01		62	5	Urban Unrestricted Access	0.62
43	3	Rural Unrestricted Access	0.18					

POST PROCESSING

Several custom programs created by ODOT were used to compute the total emissions. The process uses data on daily and directional traffic distributions as well as more up-to-date volume/delay functions from the 2010 Highway Capacity Manual (HCM). This process, described below and illustrated in Figure 4, also uses rewritten code able to handle the newer model network formats and MOVES-generated emission factors.

The first step in the process involves running `postcms.exe` to calculate hourly link volumes based on the percentage of the daily volume (travel demand model output) determined by a link's facility and area type. The analysis does not use the link speeds from the travel demand model. Using a link's volume-to-capacity ratio and link group code, a post-process to the model based on HCM methods estimates the link speeds.

The second step (`mmoves.exe`) uses a combination of the MOVES emission factors and the hourly link volumes that are output of the `postcms.exe` program. The hourly volumes are multiplied by the MOVES emission factor for the corresponding hour of day, speed bin, and road type to calculate emissions for every network link for each hour. The total link on-road vehicle emissions for the area are the sum of all individual link-hour emissions.

The third step, (`vehcalm.exe`), calculates vehicle-based emissions for each source type for each hour of the day. A combination of local and default data is the source for the vehicle source type. The final vehicle emissions are the sum of all individual hourly emissions for all vehicle types.

Since the intrazonal trips are not loaded onto the network, the fourth step in the process requires a separate method to account for those trips that use local roads to travel within a zone. The `intracalm.exe` program uses intrazonal trips to estimate VMT using the area in square miles and intrazonal trips of each zone. The computer program assumes that the zone is circular and uses the radius of the circle as the average trip length for these intrazonal trips. By combining MOVES-generated emissions with estimated intrazonal VMT, the intrazonal emissions are then calculated. The emission rates are the same as those used to calculate link-based emissions.

The final step is to summarize link, vehicle, and intrazonal emissions for each pollutant, and analyzed year, and to multiply annual average daily emissions by 365 to produce an annual estimate.

INTERAGENCY CONSULTATION DOCUMENTATION

Overview:

The Canton MPO (Stark County, Ohio) is initiating a new transportation conformity determination for its updated 2050 Transportation Plan and new 2026 – 2029 Transportation Improvement Program (TIP).

Stark County is a US EPA designated 1997 Ozone Standard “Orphan” area and a 2006 PM_{2.5} Standard Maintenance area.

SCATS proposes advancing a new 2050 MTP and 2026 – 2029 TIP conformity determination based on budget-year comparisons.

Interagency consultation topics:

1. Latest planning assumptions -

- a. Latest planning assumptions – SCATS maintains current travel demand model socio-economic variables and highway/transit networks used to develop the SCATS Transportation Plan.
- b. The socio-economic variables were updated in the fall of 2024 to reflect the latest future population estimates generated by the Ohio Department of Development.
- c. The highway/transit networks will be updated in December, 2024, to reflect the latest project plans of the political subdivisions in Stark County.

2. Latest emission modeling -

- a. SCATS and ODOT will use MOVES3.1

3. SIP TCM Status -

- a. The Ohio SIP does not include any TCM

4. Conformity process schedule -

- a. Public involvement effort - SCATS attended several public events in the fall of 2024, engaging directly with citizens of Stark County and taking their comments on the MTP and TIP. SCATS is soliciting online comments with an interactive online map showing projects from TIP years 2026-2029 and MTP projects through 2050. SCATS will seek additional online comments after a draft TIP is completed. SCATS will hold public meetings between March 11 and April 11, 2025.
- b. Draft completed - January, 2025.
- c. Board approval date - April 28th, 2025.

5. Conformity data/information included in TIP and MTP? -

- a. YES

6. Conformity Tests:

Ozone	
Attainment status:	1997 8-Hour Ozone Standard Maintenance “Orphan” Area
Geography:	Stark County, Ohio
Conformity status:	Qualitative Conformity Determination consistent with US EPA’s November 29, 2018 guidance resulting from the South Coast II Court Decision.
Conformity Tests:	NA
SIP Commitments:	NA
Analysis Years:	NA

PM _{2.5}	
Attainment status:	1997 PM _{2.5} (Annual) Standard and 2006 PM _{2.5} (Daily) Standard Maintenance area 78 FR 62459, effective 10/22/2013
Geography:	Stark County, Ohio
Conformity status:	The table below reflects the PM _{2.5} SIP budget tests that will be conducted for the SCATS 2024 – 2027 TIP.
Conformity Tests:	PM _{2.5} SIP Budget tests
SIP Commitments:	
Analysis Years:	2030, 2040, 2050

PM _{2.5}	<u>2025</u> <u>Budget</u>	<u>2030</u>	<u>2040</u>	<u>2050</u>
Direct PM _{2.5} (Tons/Year)	101.50			
NOx Precursors (Tons/Year)	4673.83			

The interagency consultation process was accomplished through a series of electronic mail messages (email). The relevant emails have been reproduced below in reverse chronological order.

From: Nino.Brunello@dot.ohio.gov <Nino.Brunello@dot.ohio.gov>
Sent: Thursday, March 6, 2025 7:47 AM

To: Dan K. Slicker <dkslicker@starkcountyohio.gov>

Subject: RE: Moves analysis

Dan,

Here is the summary report for the updated emissions totals, using the newer MOVES4 emissions model. I deleted the information for years 2021 and 2025 since they were done with MOVES3, but it was just easier for me to reuse the spreadsheet. The results are lower than last time, and I think the reduction is mostly due to a decrease in model VMT. (and the new MOVES model could also have something to do with it.)

If anyone questions why we didn't use the latest MOVES5 model, it is because you started the IAC process before the new version was released. This was confirmed by USEPA.

Let me know if you have any questions.

Thanks,
Nino

[Nino Brunello, P.E.](#)

Transportation Engineer

ODOT Office of Statewide Planning & Research

1980 W. Broad Street, Mail Stop 3280, Columbus, Ohio 43223

C: 614-214-6438

(W:614-752-5742, but currently not responding due to working from home)

transportation.ohio.gov

From: Dan K. Slicker <dkslicker@starkcountyohio.gov>

Sent: Wednesday, March 5, 2025 8:28 AM

To: Brunello, Nino <Nino.Brunello@dot.ohio.gov>

Subject: RE: Moves analysis

The public comment period for the TIP starts next Tuesday. We don't absolutely need this done by then, but if we can put out a draft that includes the AQ numbers some time next week, that would be great.

Dan Slicker, P.E.

SCATS Technical

Director

t:330-451-7346

f:330-451-7990

From: Nino.Brunello@dot.ohio.gov <Nino.Brunello@dot.ohio.gov>

Sent: Wednesday, March 5, 2025 8:24 AM

To: Dan K. Slicker <dkslicker@starkcountyohio.gov>

Subject: RE: Moves analysis

So I was wrong about the turnaround time. I will have to run the new version of MOVES for all years. I do have everything I need from you though.

I'm currently working at home, and it takes a lot of time to run things over VPN. I'm not sure when I'll be allowed to back into the office since I just had the flu. When do you have to have this stuff completed?

[Nino Brunello, P.E.](#)

Transportation Engineer

ODOT Office of Statewide Planning & Research

1980 W. Broad Street, Mail Stop 3280, Columbus, Ohio 43223

C: 614-214-6438

(W:614-752-5742, but currently not responding due to working from home)

transportation.ohio.gov

From: Dan K. Slicker <dkslicker@starkcountyohio.gov>

Sent: Wednesday, March 5, 2025 7:35 AM

To: Brunello, Nino <Nino.Brunello@dot.ohio.gov>

Subject: RE: Moves analysis

Yes, those are the correct years.

Thanks,

Dan Slicker, P.E.

SCATS Technical

Director

t:330-451-7346

f:330-451-7990

From: Nino.Brunello@dot.ohio.gov <Nino.Brunello@dot.ohio.gov>

Sent: Wednesday, March 5, 2025 7:32 AM

To: Dan K. Slicker <dkslicker@starkcountyohio.gov>

Subject: RE: Moves analysis

Sorry, I just got back from the flu. I have a bit of catching up to do, but I should be able to knock this out quick if I have everything. I just want to verify the years first. 2030, 2040, 2050, correct?

[Nino Brunello, P.E.](#)

Transportation Engineer

ODOT Office of Statewide Planning & Research

1980 W. Broad Street, Mail Stop 3280, Columbus, Ohio 43223

C: 614-214-6438

(W:614-752-5742, but currently not responding due to working from home)

transportation.ohio.gov

From: Dan K. Slicker <dkslicker@starkcountyohio.gov>
Sent: Tuesday, March 4, 2025 10:17 AM
To: Brunello, Nino <Nino.Brunello@dot.ohio.gov>
Subject: Moves analysis

Nino,

Do you think you could run the Moves AQ analysis some time this week? Do you have everything you need from me?

Thanks,



201 3rd. St. NE, STE. 201, Canton
OH 44702-1211

Dan Slicker, P.E.
SCATS Technical Director
t:330-451-7346
f:330-451-7990
e:dkslicker@starkcountyohio.gov
www.rpc.starkcountyohio.gov
f in

From: Dan K. Slicker <dkslicker@starkcountyohio.gov>
Sent: Tuesday, December 24, 2024 9:00 AM
To: Maietta, Anthony (he/him/his) <maietta.anthony@epa.gov>; Nino.Brunello@dot.ohio.gov; Kane, Mark (FTA) <Mark.Kane@dot.gov>; jocelyn.johnson@dot.gov; Randy.Lane@dot.ohio.gov; ANTHONY.HILL@dot.ohio.gov; Nathaniel.Vogt@dot.ohio.gov; Graham.Johnson@epa.ohio.gov; Johnson, Daniel (FHWA) <daniel.j.johnson@dot.gov>; Kenny, William <William.Kenny@epa.ohio.gov>; Nallaballi, Neena <Nallaballi.Neena@epa.gov>
Subject: RE: SCATS Interagency Consultation

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Good morning all,

I just wanted to provide an update of the Conformity Summary, which has been changed to reflect Anthony's comments. Thank you Anthony!

Dan Slicker, P.E.
SCATS Technical Director
t:330-451-7346
f:330-451-7990

From: Maietta, Anthony (he/him/his) <maietta.anthony@epa.gov>

Sent: Thursday, December 19, 2024 2:29 PM

To: Nino.Brunello@dot.ohio.gov; Dan K. Slicker <dkslicker@starkcountyohio.gov>; Kane, Mark (FTA) <Mark.Kane@dot.gov>; jocelyn.johnson@dot.gov; Randy.Lane@dot.ohio.gov; ANTHONY.HILL@dot.ohio.gov; Nathaniel.Vogt@dot.ohio.gov; Graham.Johnson@epa.ohio.gov; Johnson, Daniel (FHWA) <daniel.j.johnson@dot.gov>; Kenny, William <William.Kenny@epa.ohio.gov>; Nallaballi, Neena <Nallaballi.Neena@epa.gov>

Subject: RE: SCATS Interagency Consultation

Nino and all,

That was faster than I anticipated: I did indeed misinterpret the guidance—EPA concurs with the use of MOVES3.1. Please disregard the first bulleted comment in my 1pm central email below and apologies for the confusion. Here's EPA's revised comments:

- In the PM_{2.5} table, there's a number missing from that FR cite, it should be 78 FR 62459
- Happy to take a look at budget/analysis years once you've proposed them. Since the TIP starts the year after the only SIP budget year, you wouldn't have to test for 2025 but would use that 2025 budget to test against the to-be-determined analysis years
 - The reason 2025 is there as a budget year is because in the maintenance plan for PM, there is an established horizon year 2025 budget/onroad inventory. While final approval at 78 FR 62459 does establish the effective date of the attainment year and horizon year budgets, the proposal for that action has a discussion noting the year and (I'm pretty sure) listing out the budgets for the area. So that's why it needs to be used. The proposal is here, just for FYI: <https://www.govinfo.gov/content/pkg/FR-2013-08-07/pdf/2013-18951.pdf>
 - It's just how EPA produces our proposed/final notices...the bulk of the information about the action is in the proposal while the final action establishes the dates and requirements, officially.
 - But the baseline year for each pollutant is indeed codified into law at 40 CFR 93.119. See here for those dates: <https://www.epa.gov/state-and-local-transportation/baseline-year-baseline-year-test-40-cfr-93119> since that year is so far in the past now, it's really just the horizon year maintenance plan budget we're dealing with at this time
 - Then for the no-more-than-10 year increments, that's established through section 93.106 of the transportation conformity rule. So long as the no-more-than-10-years-apart condition is met, there can be other analysis years added in, should an MPO (or MPOs) need to coordinate on other air quality standards or just plain coordinating timing for areas with more than one MPO.

I do not have any other comments at this time from EPA. Other than the above it looked good to me; the data and assumptions are up to date/very recent. Please let me or Neena know if you have any questions.

-Tony

Anthony Maietta |he/him|
EPA Region 5

maietta.anthony@epa.gov

(312) 353-8777

From: Maietta, Anthony (he/him/his)

Sent: Thursday, December 19, 2024 1:21 PM

To: Nino.Brunello@dot.ohio.gov; dkslicker@starkcountyohio.gov; Kane, Mark (FTA)

<Mark.Kane@dot.gov>; jocelyn.johnson@dot.gov; Randy.Lane@dot.ohio.gov;

ANTHONY.HILL@dot.ohio.gov; Nathaniel.Vogt@dot.ohio.gov; Graham.Johnson@epa.ohio.gov;

Johnson, Daniel (FHWA) <daniel.j.johnson@dot.gov>; Kenny, William

<William.Kenny@epa.ohio.gov>; Nallaballi, Neena <Nallaballi.Neena@epa.gov>

Subject: RE: SCATS Interagency Consultation

Hey Nino,

Just want to send an email to say to the group that I'm double-checking to see whether I misinterpreted the MOVES5 guidance/MOVES3 grace period. I will respond shortly here with an update. Thanks Nino for bringing this up

-Tony

Anthony Maietta |he/him|

EPA Region 5

maietta.anthony@epa.gov

(312) 353-8777

From: Nino.Brunello@dot.ohio.gov <Nino.Brunello@dot.ohio.gov>

Sent: Thursday, December 19, 2024 1:07 PM

To: Maietta, Anthony (he/him/his) <maietta.anthony@epa.gov>; dkslicker@starkcountyohio.gov; Kane, Mark (FTA) <Mark.Kane@dot.gov>; jocelyn.johnson@dot.gov; Randy.Lane@dot.ohio.gov;

ANTHONY.HILL@dot.ohio.gov; Nathaniel.Vogt@dot.ohio.gov; Graham.Johnson@epa.ohio.gov;

Johnson, Daniel (FHWA) <daniel.j.johnson@dot.gov>; Kenny, William

<William.Kenny@epa.ohio.gov>; Nallaballi, Neena <Nallaballi.Neena@epa.gov>

Subject: RE: SCATS Interagency Consultation

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Hey Tony,

Since MOVES5 was just released last week and we need to have the draft done in January, do you think we will be able to use MOVES4 since the grace period just started? I don't even have the software installed yet, and I would like to have some time to get our IT team do the installation, learn any differences, update data formats, etc.

Thanks,

Nino

Nino Brunello, P.E.

Transportation Engineer

ODOT Office of Statewide Planning & Research

1980 W. Broad Street, Mail Stop 3280, Columbus, Ohio 43223

C: 614-214-6438

(W:614-752-5742, but currently not responding due to working from home)

transportation.ohio.gov

From: Maietta, Anthony (he/him/his) <maietta.anthony@epa.gov>

Sent: Thursday, December 19, 2024 1:00 PM

To: Dan Slicker <dkslicker@starkcountyohio.gov>; Kane, Mark (FTA) <Mark.Kane@dot.gov>; jocelyn.johnson@dot.gov; Lane, Randy <Randy.Lane@dot.ohio.gov>; Hill, Anthony <ANTHONY.HILL@dot.ohio.gov>; Vogt, Nathaniel <Nathaniel.Vogt@dot.ohio.gov>; Brunello, Antonino <Nino.Brunello@dot.ohio.gov>; Johnson, Graham <Graham.Johnson@epa.ohio.gov>; Johnson, Daniel (FHWA) <daniel.j.johnson@dot.gov>; Kenny, William <William.Kenny@epa.ohio.gov>; Nallaballi, Neena <Nallaballi.Neena@epa.gov>

Subject: RE: SCATS Interagency Consultation

(fixed William's email address)

Hey Dan,

I saw your more recent email asking about the budget years and will include that answer in EPA's comments here.

On the conformity analysis summary document I only saw a couple things that I want to provide EPA comment on.

- For the latest emissions model, I'd revise the language to reflect the newest MOVES version, MOVES5
- In the PM_{2.5} table, there's a number missing from that FR cite, it should be 78 FR 62459
- Happy to take a look at budget/analysis years once you've proposed them. Since the TIP starts the year after the only SIP budget year, you wouldn't have to test for 2025 but would use that 2025 budget to test against the to-be-determined analysis years
 - The reason 2025 is there as a budget year is because in the maintenance plan for PM, there is an established horizon year 2025 budget/onroad inventory. While final approval at 78 FR 62459 does establish the effective date of the attainment year and horizon year budgets, the proposal for that action has a discussion noting the year and (I'm pretty sure) listing out the budgets for the area. So that's why it needs to be used. The proposal is here, just for FYI: <https://www.govinfo.gov/content/pkg/FR-2013-08-07/pdf/2013-18951.pdf>
 - It's just how EPA produces our proposed/final notices...the bulk of the information about the action is in the proposal while the final action establishes the dates and requirements, officially.
 - But the baseline year for each pollutant is indeed codified into law at 40 CFR 93.119. See here for those dates: <https://www.epa.gov/state-and-local-transportation/baseline-year-baseline-year-test-40-cfr-93119> since that year is so far in

the past now, it's really just the horizon year maintenance plan budget we're dealing with at this time

- Then for the no-more-than-10 year increments, that's established through section 93.106 of the transportation conformity rule. So long as the no-more-than-10-years-apart condition is met, there can be other analysis years added in, should an MPO (or MPOs) need to coordinate on other air quality standards or just plain coordinating timing for areas with more than one MPO.

I do not have any other comments at this time from EPA. Other than the above it looked good to me; the data and assumptions are up to date/very recent. Please let me or Neena know if you have any questions.

Just FYI I will be on holiday leave starting next Monday the 23rd and will be on leave and then on work travel until Friday, January 10. But the week of January 6-10 I will have access to my email and should be able to respond to anything then.

-Tony

Anthony Maietta |he/him|
EPA Region 5
maietta.anthony@epa.gov
(312) 353-8777

From: Dan K. Slicker <dkslicker@starkcountyohio.gov>
Sent: Wednesday, December 11, 2024 7:08 AM
To: Kane, Mark (FTA) <Mark.Kane@dot.gov>; jocelyn.johnson@dot.gov; Maietta, Anthony (he/him/his) <maietta.anthony@epa.gov>; Randy.Lane@dot.ohio.gov; ANTHONY.HILL@dot.ohio.gov; Nathaniel.Vogt@dot.ohio.gov; nino.brunello@dot.ohio.gov; graham.johnson@epa.ohio.gov; Johnson, Daniel (FHWA) <daniel.j.johnson@dot.gov>; william.kenny@epz.ohio.gov
Subject: RE: SCATS Interagency Consultation

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Good morning everyone,

Let's try this again. I think we have all of the right people included now.

This email is the initiation of the Interagency Consultation process for SCATS's upcoming 2026-2029 TIP and update of our 2050 MTP.

Please see the attached summary sheet. The budget years and analysis years still need to be updated.

Please give feedback on anything that looks incorrect or on anything that has been left out. If no response is given, concurrence will be assumed.

Also, please note that this IAC is for both the TIP and MTP.

Thank you.

Dan Slicker

Dan Slicker, P.E.
SCATS Technical
Director
t:330-451-7346
f:330-451-7990

From: ANTHONY.HILL@dot.ohio.gov <ANTHONY.HILL@dot.ohio.gov>
Sent: Tuesday, December 10, 2024 3:10 PM
To: Dan K. Slicker <dkslicker@starkcountyohio.gov>
Cc: Randy.Lane@dot.ohio.gov
Subject: RE: SCATS Interagency Consultation

Dan,

I saw your email come in regarding IAC for SCATS's upcoming TIP and LRTP. There are a few items that you may want to consider.

- 1.) You may want to send out an email that asks the IAC group to respond by a certain date.
 - I would also put into that email a disclaimer that states "If no response is given, concurrence will be assumed." This just allows the transportation conformity process to progress in case someone doesn't respond.
- 2.) I noticed a few things with your IAC contact group:
 - Mark Kane is down as your FTA contact. You may want to include Jocelyn Hoffman (jocelyn.johnson@dot.gov) since Mark has started to transition to another role at FTA. Jocelyn would just ensure someone at FTA gets the IAC request.
 - Please remove Jordan Whisler and replace with Randy Lane (randy.lane@dot.ohio.gov).
 - Please also include William Kenney (OEPA) (william.kenny@epa.ohio.gov) in the IAC group as I have not heard that Graham has completely taken over the role yet
 - You will want to also include your Ohio FHWA contact – DJ Johnson (daniel.j.johnson@dot.gov). I know you have Andy Johns, but DJ is your FHWA liaison.

Let me know if there is anything you need from ODOT.

Have a good day,

Anthony Hill

Transportation Planner

Office of Statewide Planning and Research

1980 West Broad Street Columbus, Ohio 43223

Phone: 614-752-2965

Email: Anthony.Hill@dot.ohio.gov



From: Dan K. Slicker

Sent: Tuesday, December 10, 2024 1:50 PM

To: Johns, Andy (FHWA) <Andy.Johns@dot.gov>; Kane, Mark (FTA) <Mark.Kane@dot.gov>; maietta.anthony@epa.gov; Jordan.Whisler@dot.ohio.gov; ANTHONY.HILL@dot.ohio.gov; Nathaniel.Vogt@dot.ohio.gov; nino.brunello@dot.ohio.gov; graham.johnson@epa.ohio.gov

Subject: SCATS Interagency Consultation

Good afternoon everyone,

This email is the initiation of the Interagency Consultation process for SCATS's upcoming 2026-2029 TIP and update of our 2050 MTP.

Please see the attached summary sheet. The budget years and analysis years still need to be updated. Please give feedback on anything that looks incorrect or on anything that has been left out.

Also, please note that this IAC is for both the TIP and MTP.

Thank you.

Dan Slicker

Appendix B: Financial Resources Forecast

Introduction

This document was created as a planning tool to assist in estimating the availability of funding for future transportation projects in Stark County and to demonstrate compliance with Federal Highway Administration requirements for financial resources forecasting. This report will be used with the Stark County Area Transportation Study's *Moving Ahead to 2050 Transportation Plan* to demonstrate that the Plan is fiscally constrained in year of expenditure dollars.

Federal Legislation

The history of federal legislation that funds highway projects illustrates the advances made in the planning process required to effectively utilize those funds. Each Federal authorization and reauthorization bill has included expanded requirements for planning how those dollars are spent. As competition for funding grows and costs escalate, it becomes increasingly imperative to effectively utilize these funds. Major funding acts history and requirements include:

- **The *Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)*.** This legislation changed federal transportation philosophy from one of stressing construction of new roadways by including an emphasis on an increased use of mass transit, making existing roadways more efficient, mitigating congestion, mandating more planning at the state and metropolitan level, and encouraging alternative forms of transportation such as pedestrian and bicycle facilities. ISTEA provided flexibility to state and local officials in choosing among highway, transit, and other transportation alternatives and expanded the types of projects and activities that were eligible for funding, created new highway funding classifications, and changed funding participation rates. ISTEA also required a financially constrained plan.
- The ***Transportation Equity Act for the 21st Century (TEA-21)***, enacted June 9, 1998, continued trends established by ISTEA and, with technical corrections included in the TEA-21 Restoration Act enacted July 22, 1998, added additional requirements to strengthen planning efforts. Tea-21 required the development of a financial plan to identify funding sources and to demonstrate the ability for projects identified in the plan to be completed.
- The ***Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU)*** was signed into law on August 10, 2005 and included a number of changes including emphasizing planning requirements for environmental consultations, congestion and safety planning, among others. The most relevant change regarding fiscal planning and forecasting were the requirements to account for inflation and ensure that the plan is fiscally constrained by showing projects costs and income in “year of expenditure dollars”.

- ***Moving Ahead for Progress in the 21st Century*** (MAP-21), signed into law on July 6, 2012, MAP-21 provided funding for transportation improvements until September 30, 2014. MAP 21 reauthorized the Federal -aid highway program at levels equal to current funding levels plus inflation over two fiscal years, eliminated earmarks and consolidates the number of core federal programs to four – National Highway Performance Program, Transportation Mobility Program (similar to current Surface Transportation Program), Highway Safety Improvement Program (HSIP) and Congestion Mitigation and Air Quality Program (CMAQ).
- ***Fixing America’s Surface Transportation Act*** (FAST), was signed into law on December 4, 2015 and authorized \$305 billion beginning fiscal year 2016, through fiscal year 2020, for funding transportation improvements. The FAST Act retained the previous funding structure (with the former STP becoming the Surface Transportation Block Grant and TA becoming a set-aside of STBG). For the first time a dedicated source of funds for freight projects was added as part of the Act. There remains the impetus to continue efforts to streamline the delivery of projects as well as the adoption of performance measures.
- ***A Continuing Resolution*** was passed by the 116th Congress (2nd Session) in Sept. 2020. The one year FAST Act extension provides: an Obligation limitation through December 11, estimated to be \$9.1 billion for the Federal-aid Highway Program, an extension of FAST Act funding and provisions from FY 2020 to all of FY 2021, including contract authority formula apportionments to states; a \$10.4 billion general fund transfer to the HTF’s Highway Account and a \$3.2 billion transfer to the Mass Transit Account; a \$14 billion general fund transfer to the Airport and Airway Trust Fund, making up for the aviation excise tax holiday included in the \$2 trillion CARES Act passed in March; a suspension of the Rostenkowski fiscal solvency test for the Mass Transit Account for FY 2021; increased the “multimodal cap” within the U.S. Department of Transportation’s Infrastructure for Rebuilding America or INFRA discretionary grant program from \$500 million to \$600 million; and extended the Better Utilizing Investments to Leverage Development or BUILD grant program obligation deadlines through September 30, 2021.
- ***Coronavirus Response and Relief Supplemental Appropriations Act, 2021 (HIP-CRRSAA)*** Title IV of the Coronavirus Response and Relief Supplemental Appropriations Act, 2021 (CRRSAA), division M, Public Law (Pub. L. No. 116-260), enacted on December 27, 2020, appropriated an additional \$10,000,000,000 for Highway Infrastructure Programs (HIP). The funds are apportioned as other FHWA programs to areas with 200,000 population, with the Federal share, at the option of the State, up to 100% (although HIP-CRRSAA funds may not be used as the non-Federal match for other Federal programs).
- ***Infrastructure Investment and Jobs Act (IIJA)***. The IIJA was signed into law by President Biden on November 15, 2021. The law authorized \$1.2 trillion for transportation and infrastructure spending with \$550 billion of that figure going towards "new" investments and programs. This bipartisan law strengthened the Pipeline and Hazardous Materials Safety Administration's (PHMSA) safety authority and included many provisions that help PHMSA fulfill its mission of protecting people and the

environment by advancing the safe transportation of energy and other hazardous materials.

-

Forecast Methodology and Assumptions

The Financial Resources Forecast projects available resources that will fund transportation improvements in the SCATS area through fiscal year 2050. Accurate financial forecasting requires the analysis of historic trends and assumptions regarding future events. The following assumptions will be applied to this forecast:

- Forecast revenues are based on projected historical data and inflationary rates estimated by the ODOT Office of Contract Sales & Estimating;
- Federal funding through the Highway Trust Fund will remain viable and will continue over the forecast period;
- ODOT will continue to allocate funds with the same methodology used in the past;
- Local funding to meet match requirements will continue to be made available.

Federal Formula Funding Categories

National Highway Performance Program (NHPP)

The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS. The NHPP funding is made available through the State transportation agencies. NHPP is an apportioned (formula) program, which means the funds are only made available to the States by a formula contained in law, which is different than a discretionary grant program where eligible applicants may competitively seek funding through a Notice of Funding Opportunity (NOFO). If an entity believes they have a project that may be eligible under the NHPP, they should contact their respective State Department of Transportation (DOT) for additional information on projects and project funding. The Federal Highway Administration provides NHPP funding to States by formula, yet the selection of projects for funding under the NHPP is the decision of the State DOT, in accordance with applicable Federal requirements.

Surface Transportation Block Grant Program (STBG)

Highways eligible for STBG funding include highways having a federal functional classification of collector or higher in urbanized areas and major collector or higher in rural areas. STBG funds may also be used for other modal projects such as capital transit projects, commuter rail, bus terminals and facilities, carpool projects, traffic monitoring, regional planning, advanced truck

stop electrification systems, improvements to high congestion/accident rate intersections on the federal-aid highway system, bicycle and pedestrian facilities and some environmental restoration and pollution abatement.

ODOT retains a portion of the remaining STBG funds and sub allocates the balance to the MPOs and the County Engineers (through the County Engineers Association of Ohio).

Funding participation rates for STBG projects are 80% federal and 20% state and/or local (high occupancy lanes can qualify for up to 90% federal). Some safety improvements qualify for 100% funding.

Transportation Alternatives Set-Aside (TA)

Transportation Alternatives set-aside (TA) program represent a funding source created in MAP-21 and it replaces the former Transportation Enhancements program. TA funding consolidates the 12 programs funded through the Transportation Enhancements into 6 programs to fund non-vehicular transportation projects. TA funds are available at a ratio of 80% federal and 20% local.

Highway Bridge Program (BR)

Under this program, bridges over twenty feet in length on public roads are eligible to receive funding for replacement, rehabilitation, or systematic preventive maintenance. USDOT distributes these funds to states partially based on deck area and requires that 15% of the funds be used on off-system routes. Ohio distributes BR funds through the following programs: City Bridge, Local Major Bridge, County Bridge, State Bridge and Major High Cost Bridge programs. The funding participation rate for projects using BR funding is 80% federal and 20% state and/or local except for bridges on the Interstate System which have a 90% federal share.

Congestion Mitigation/Air Quality (CMAQ)

CMAQ funding was a new funding category established by ISTEA and is intended to lessen congestion and air pollution. Both highway and transit projects and programs are eligible for CMAQ funds if they meet specific criteria and have documented emission reductions associated with them. The funding participation rates for CMAQ projects are 80% federal and 20% local except for projects on the Interstate System which have a 90% federal share. Certain other activities, including carpool/vanpool projects, priority control systems for emergency vehicles and transit vehicles and traffic control signalization receive a Federal share of 100 percent. The CMAQ program in Ohio, for MPO's with populations over 200,000 transitioned from distributions based on population to a hybrid competitive program under the Ohio Statewide Urban Congestion Mitigation and Air Quality (CMAQ) Program. The program is managed by the Ohio Association of Regional Councils (OARC) Executive Directors Ohio Statewide Urban CMAQ Committee (OSUCC). Although initially strictly a competitive program, it evolved into a hybrid "fair share", where awards are based on population, and receiving higher amounts for large projects will result in some years with no funding.

Carbon Reduction Program

The BIL established the Carbon Reduction Program (CRP), which provides funds for projects designed to reduce transportation emissions, defined as carbon dioxide (CO₂) emissions from on-road highway sources. Funding participation rates for STBG projects are 80% federal and 20% local. Eligible projects for CRP funds are very similar to projects eligible for CMAQ funds.

Highway Safety Improvement Program (HSIP)

This is a category implemented by SAFETEA-LU that replaced the previous Hazard Elimination and Safety Program that was funded through a set-aside percentage of STBG monies. Funds for this program are distributed based on lane miles of Federal-aid highways, vehicle miles traveled on Federal-aid highways and number of fatalities on the Federal-aid system.

The funding participation rates for HSIP projects are 90% federal except for certain safety improvements listed in 23 USC 120(C) which are eligible for 100%.

FTA Section 5307 and 5340 Urbanized Area Formula Program

FTA section 5307 funds are available to urbanized areas for transit capital and operating assistance based on urbanized area population. 5340 is an additional apportionment added with SAFETEA-LU. Eligible applications include planning, engineering design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement and rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities. The funding rate for 5307 funds is 80%.

FTA Section 5309 Bus and Bus Facilities Program

FTA section 5309 funds can be used for capital projects including the purchase of buses for fleet and service expansion, bus maintenance and administrative facilities, transfer facilities, transportation centers, acquisition of replacement vehicles, bus rebuilds, bus preventive maintenance, passenger amenities, and miscellaneous equipment. The funding rate for 5309 funds is 80%.

FTA Section 5310 Specialized Transportation Program

This program is jointly managed in Stark County by the Stark County Area Transportation Study and the Stark Area Regional Transit Authority (SARTA). Grants are available for the purchase of vehicles, mobility management services, or other transportation related equipment to support transportation services for the elderly and people with disabilities where existing transportation is unavailable, inappropriate, or insufficient as well as for operating costs for programs. A minimum of 55% of the annual appropriation must be expended on equipment. Up to 45% of the annual appropriation can be expended on operating costs. The funding rate for capital projects is 80%, while operating is 50%.

Additional Federal Funding Categories

Discretionary and other Funding

A number of competitive grant programs and additional funding opportunities can occur on an irregularly basis, especially with transit funding. Various programs for funding alternate fuels and capital projects include: Low or No Emission Vehicle Program - 5339c by FTA; Diesel Emissions Reduction Grant (DERG) by Ohio EPA; Volkswagen Mitigation Grants by Ohio EPA; Capital Investment Grants Program for New Starts, Small Starts and Core Capacity Improvements; and a number of others, including various economic stimulus funding programs.

This makes it particularly difficult for estimating Transit spending since a high proportion of their capital projects are funded through grants. These types of awards frequently result in the need to amend the Stark County Transportation Improvement Program (TIP) as well as the state TIP (STIP).

Additional Funding Categories

ODOT TRAC: The Transportation Review Advisory Council (TRAC) was established by the Ohio General Assembly in 1997, and charged with developing and overseeing a project selection process for major new transportation capacity projects (ORC 5512.02), or projects in what is now known as the “Major New Capacity program.” These are projects costing more than \$12 million which add transportation capacity, and are critical to the mobility, economic development, and quality of life of the citizens of Ohio.

Projects receiving TRAC funding in Stark County in the past 10 years include the US30 Trump to SR44 project and the Mahoning Road Transit Corridor.

ODOT State Infrastructure Bank: The Ohio Department of Transportation maintains a direct loan and bond financing program, authorized under the Ohio Revised Code, Chapter 5531, for the purpose of developing transportation facilities throughout Ohio. The State Infrastructure Bank (SIB) is used as a method of funding highway, rail, transit, intermodal, and other transportation facilities and projects which produce revenue to amortize debt while contributing to the connectivity of Ohio's transportation system and further the goals such as corridor completion, economic development, competitiveness in a global economy, and quality of life.

The Shuffel Interchange project was funded by a SIB loan to SCATS which was repaid over a 10-year period with a portion of SCATS STBG funds.

Revenue Sources for Transportation Improvements

Federal Funds for various transportation programs are derived mostly from the levied federal fuel tax of 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel fuel, which was set on October 1, 1993.

State Funds for highway programs are also primarily derived from fuel taxes and license and registration fees. Ohio increased the state fuel tax for gasoline in 2019 to 38.5 cents per gallon. The funds, divided by percentages set by the legislature, are used by ODOT for debt service, operating and capital expenditures and in varying amounts to counties, townships, municipalities and the Ohio Public Works Commission (OPWC). Local government agencies and OPWC utilize the funds for improvements to the transportation system at the local level both as match for federal funds and as the primary funding source. The Ohio diesel fuel tax was also increased in 2019 to 47 cents per gallon, as well an increase in registration fees for electric vehicles to \$200 and hybrid vehicles to \$100.

Local Funds are needed not only for use as matching funds for various programs but also to maintain roads not on the Federal aid network, which is composed of the Interstate Highway System, primary highways and secondary local roads. In addition to the fuel, registration, and licensing fees distributed to local government by the state, they have the ability to add permissive amounts on registration fees and can enact local property taxes. Municipalities can also utilize funds from income taxes.

Public transportation in Ohio relies primarily on sales taxes, in addition to passenger fares. SARTA's locally approved transit dedicated 0.25% county sales tax was passed for a 10-year term in 2016. In 2019, according to the latest Comprehensive Annual Financial Report available from SARTA, the sales tax brought in slightly more than \$15 million annually.

Forecasting Future Revenue and Costs

Long term forecasting for revenue and costs, while becoming increasingly sophisticated, still cannot foresee crises, the adoption rate of technological advances, social changes or any number of additional factors affecting our lives and costs. Who could foresee the effects of fracking, a pandemic, various economic crashes, the Arab Spring, global warming carbon sequestration plans, the planned manufacturing shift to electric vehicles?

As drastic as some of these events and changes have been, over the long term, trends even out, adjustments are made in taxes and fees, sources of funds are identified, demand and needs change, high priority projects proceed as needed. As project costs increase due to inflation, funding levels also tend to increase, although the funding increases tend to lag behind inflation.

A number of methodologies are used in forecasting. On the cost side, especially for types of pavement, bridges, etc. the Bid Analysis & Review Team, Office of Estimating at ODOT, track a number of factors such as: state, national and international economic trends; labor trends, contractor and supplier margins; competition in bidding; oil, diesel and natural gas costs; and costs for steel asphalt binder, concrete, aggregate, among others. Their most recent report was released in January, 2024, and provides estimates for inflation rates for calendar years 2024 through 2028. Also released on that date was a business plan calculator for estimating project costs in a manner that meets FAST Act requirements (year of dollar expenditure and based on the midpoint of construction). This calculator is operable for projects with a midpoint extending through 2046.

Estimating revenues over the long term vary a great deal between plans and MPO's. A number of calculations are based on analyzing past trends, calculating "fair" shares based on population and lane mile estimates, etc. SCATS, in its previous plan, examined 10-year trends, determined a modest growth rate and applied that to the plan years. In this 2050 plan we are using the latest TIP estimates as a base. Federal and State funds are averaged for the four years of the program to create a base year figure, the base year for OPWC/LTIP funds is based on the actual 2021 program year funding, base year income from fuel taxes is based on the Ohio Department of Transportation-Estimate of Local Gas Tax Revenues (State FY 2021) calculator, and the base year for license and registration is based on 2020 funds with a 5% growth rate applied.

There are challenges in any methodology chosen for estimating funding. SCATS previous plans based fuel vehicle tax income only on that provided to the county, not accounting for municipal (and township) funds. The current TIP used to calculate base figures in this plan incorporates a large CMAQ to STBG transfer. This plan also does not estimate earmarks, discretionary programs, economic stimulus efforts or other programs that often result in funding multi-million dollar projects or repairing an abandoned mine collapse under a roadway.

Table 1 shows a history of federal, state and local funds applied to highway projects in the SCATS area. Targeted one time spending such as earmarks and state and federal stimulus funding are excluded from the table. **Table 1a** shows the calculations for the **SCATS 2026-29 Transportation Improvement Program** which was used to estimate the base amount for the 2050 transportation plan. **Table 2** displays a history of spending by SARTA.

Appendix B, Table-1- Historic Highway Spending History

Table 1 - Historical Highway Spending						
Year	Federal	State of Ohio		Local		
	(Excluding Earmarks, etc.)	ODOT	OPWC (Fuel Tax & Bonds)*	License & Permissive Fees	Fuel Tax	Total License Fees and Local Fuel Tax
2003	\$27,957,800	\$1,733,200				
2004	\$46,456,360	\$2,817,840				
2005	\$49,986,314	\$691,000	\$7,754,000			
2006	\$46,064,200	\$2,007,400	\$6,470,000			
2007	\$20,604,200	\$3,932,400	\$6,261,000			
2008	\$20,747,100	\$4,548,000	\$7,457,000	\$11,119,169	\$2,415,819	\$13,534,988
2009	\$20,156,900	\$4,162,800	\$6,269,000	\$11,165,696	\$2,331,703	\$13,497,399
2010	\$7,108,300	\$565,000	\$6,746,000	\$11,333,653	\$2,366,745	\$13,700,398
2011	\$8,103,400	\$348,000	\$6,951,000	\$11,256,733	\$2,310,207	\$13,566,940
2012	\$15,806,400	\$2,685,000	\$5,236,200	\$11,442,606	\$2,290,682	\$13,733,288
2013	\$28,840,507	\$7,210,127	\$6,852,000	\$12,082,203	\$2,343,172	\$14,425,375
2014	\$10,510,733	\$2,627,683	\$6,951,000	\$11,431,306	\$2,334,894	\$13,766,200

2015	\$12,053,260	\$3,013,315	\$7,907,000	\$11,727,879	\$2,356,713	\$14,084,592
2016	\$43,964,981	\$11,498,190	\$8,157,000	\$18,667,610	\$2,338,616	\$14,420,819
2017	\$47,921,428	\$16,270,526	\$8,221,000	\$18,176,267	\$10,268,906	\$28,445,173
2018	\$43,025,822	\$8,641,168	\$8,824,000	\$18,489,426	\$10,538,506	\$29,027,932
2019	\$15,693,747	\$4,579,087	\$8,434,000	\$18,690,026	\$13,021,250	\$31,711,276
2020	\$31,831,637	\$32,277,505	\$8,285,000	\$18,166,689	\$16,332,380	\$34,499,069
2021	\$18,993,355	\$9,882,890	\$8,434,000	\$19,793,041	\$16,959,794	\$36,752,835
2022	\$43,775,684	\$12,642,600	\$8,285,000	\$19,491,420	\$16,791,630	\$36,283,049
Average	\$24,568,884	\$8,063,459	\$7,533,947	\$14,868,915	\$7,000,068	\$21,429,956

NOTES: The average calculation is based on the years 2008 through 2022; OPWC year 2008 and 2009 stimulus funds are excluded from the average calculation; fuel tax amounts from 2003 to 2016 reflect funds distributed to the county only, excluding municipal and township distributions.

Appendix B, Table-1a- SCATS 2026-29 Transportation Improvement Program Spending

SCATS Estimated Federal Spending Over TIP Period				
	2026	2027	2028	2029
STBG	\$5,173,968	\$7,315,500	\$6,052,643	\$4,192,000
TASA	\$1,041,210	\$232,848	\$988,080	\$548,929
CR	\$822,619	\$422,650	\$929,496	\$477,699
CMAQ	\$800,000	\$500,000	\$4,654,406	\$7,539,496
Total Federal	\$7,837,797	\$8,470,998	\$12,624,625	\$12,758,124

Appendix B, Table-2- Transit (SARTA) Spending History

SARTA Spending (2002 - 2023)			
Year	Federal	Local	Total
2002	\$6,913,000	\$13,891,000	\$20,804,000
2003	\$9,718,000	\$13,847,000	\$23,565,000
2004	\$4,414,000	\$12,583,000	\$16,997,000
2005	\$3,942,000	\$14,151,000	\$18,093,000
2006	\$3,804,000	\$13,759,000	\$17,563,000
2007	\$4,748,000	\$13,273,000	\$18,021,000
2008	\$4,815,000	\$13,035,000	\$17,850,000
2009	\$3,444,000	\$13,268,000	\$16,712,000
2010	\$4,781,000	\$12,724,000	\$17,505,000
2011	\$967,000	\$11,745,000	\$12,712,000
2012	0	0	0
2013	\$7,723,576	\$12,621,827	\$20,345,403
2014	\$7,123,577	\$16,002,954	\$23,126,531

2015	\$6,638,304	\$16,591,591	\$23,229,895
2016	\$20,150,058	\$16,831,304	\$36,981,362
2018	\$7,159,742	\$17,635,353	\$24,795,095
2019	\$5,937,117	\$18,078,225	\$24,015,342
2020	\$10,078,854	\$17,231,669	\$27,310,523
2021	\$12,958,803	\$19,667,889	\$32,626,692
2022	\$6,912,719	\$19,960,427	\$26,873,146
2023	\$15,172,921	\$22,214,345	\$37,387,266
2024	\$17,626,280	\$24,105,635	\$41,731,915
TOTAL	\$165,027,951	\$333,217,219	\$498,245,170
Yearly Average	\$7,501,271	\$15,146,237	\$22,647,508
NOTE: Local funds includes local sales tax, fares, and State Funds, Data from Nat'l Transit Database (2012 no longer listed)			

The SCATS 2050 Long Range Plan future highway and transit revenues can be determined by projecting the average historical federal, state and local information identified in Tables 1, 1a and 2. In each instance, an average historical spending amount has been established. This average amount provides a base for projecting expected spending into the future using an appropriate estimated growth rate.

Determining the growth rate for transportation funding over the 25-year planning period of the Long Range Plan requires researching possible effects on growth and the application of a rate that is most appropriate. For this analysis, two growth rates were applied as determined appropriate. For federal, ODOT, and SARTA transit funding, (the last of which includes both federal and local funds) the Consumer Price Index was applied. In the near term from 2013 to 2015 this rate varies from 1.9 to 2.0 percent and over the remaining of the planning period the rate is estimated to be 2.1%. For state and local highway funding sources a more moderate rate of 0.5% was applied because the sources do not provide the expectation for growth over time. **Table 3** displays estimated projected highway funding, **Table 4** shows projected highway expenditures, **Table 5** shows projected operating Transit funding over the long-range planning time frame, and **Table 6** shows recent capital activity.

Summary and Conclusion

Planning for transportation improvements over a 25-year horizon requires assumptions as to the continued availability and amount of funding as well as the identification of the needs beyond the short term. This analysis estimates the funding that will be available to meet the transportation needs for the planning period extending through fiscal year 2050. To do so, assumptions were made for available funding over the planning period. The results of this projection will be applied to the transportation needs over the same period to produce a fiscally constrained list of improvements in the SCATS planning area through the year 2050.

Appendix B, Table-3- Highway Funding Projections

SCATS 2050 Highway Funding Projections										
Year	Federal	Growth Rate	State of Ohio				Local		TRAC	Row Totals
			ODOT	Growth Rate	OPWC/LTIP	Growth Rate	Fuel Tax & License Fees	Growth Rate		
2026	\$25,459,132		\$13,458,300		\$9,155,000		\$36,426,513			
2027	\$25,993,774	2.1%	\$13,525,592	0.5%	\$9,200,775	0.5%	\$36,608,646	0.5%		
2028	\$26,539,643	2.1%	\$13,593,219	0.5%	\$9,246,779	0.5%	\$36,791,689	0.5%		
2029	\$27,096,976	2.1%	\$13,661,186	0.5%	\$9,293,013	0.5%	\$36,975,647	0.5%		
2030	\$27,666,012	2.1%	\$13,729,491	0.5%	\$9,339,478	0.5%	\$37,160,525	0.5%		
2026-30	\$132,755,536		\$67,967,788		\$46,235,044		\$183,963,020			\$430,921,389
2031	\$28,246,998	2.1%	\$13,798,139	0.5%	\$9,386,175	0.5%	\$37,346,328	0.5%		
2032	\$28,840,185	2.1%	\$13,867,130	0.5%	\$9,433,106	0.5%	\$37,533,060	0.5%		
2033	\$29,445,829	2.1%	\$13,936,465	0.5%	\$9,480,272	0.5%	\$37,720,725	0.5%		
2034	\$30,064,192	2.1%	\$14,006,148	0.5%	\$9,527,673	0.5%	\$37,909,329	0.5%		
2035	\$30,695,540	2.1%	\$14,076,178	0.5%	\$9,575,311	0.5%	\$38,098,875	0.5%		
2036	\$31,340,146	2.1%	\$14,146,559	0.5%	\$9,623,188	0.5%	\$38,289,370	0.5%		
2037	\$31,998,289	2.1%	\$14,217,292	0.5%	\$9,671,304	0.5%	\$38,480,817	0.5%		
2038	\$32,670,253	2.1%	\$14,288,378	0.5%	\$9,719,660	0.5%	\$38,673,221	0.5%		
2039	\$33,356,328	2.1%	\$14,359,820	0.5%	\$9,768,259	0.5%	\$38,866,587	0.5%		
2040	\$34,056,811	2.1%	\$14,431,619	0.5%	\$9,817,100	0.5%	\$39,060,920	0.5%	\$800,000,000	
2031-40	\$310,714,571		\$141,127,729		\$96,002,048		\$381,979,230		\$800,000,000	\$1,729,823,579
2041	\$34,772,004	2.1%	\$14,503,778	0.5%	\$9,866,185	0.5%	\$39,256,224	0.5%		
2042	\$35,502,216	2.1%	\$14,576,296	0.5%	\$9,915,516	0.5%	\$39,452,505	0.5%		
2043	\$36,247,763	2.1%	\$14,649,178	0.5%	\$9,965,094	0.5%	\$39,649,768	0.5%		
2044	\$37,008,966	2.1%	\$14,722,424	0.5%	\$10,014,919	0.5%	\$39,848,017	0.5%		
2045	\$37,786,154	2.1%	\$14,796,036	0.5%	\$10,064,994	0.5%	\$40,047,257	0.5%		
2046	\$38,579,663	2.1%	\$14,870,016	0.5%	\$10,115,319	0.5%	\$40,247,493	0.5%		
2047	\$39,389,836	2.1%	\$14,944,366	0.5%	\$10,165,896	0.5%	\$40,448,731	0.5%		
2048	\$40,217,023	2.1%	\$15,019,088	0.5%	\$10,216,725	0.5%	\$40,650,974	0.5%		
2049	\$41,061,580	2.1%	\$15,094,183	0.5%	\$10,267,809	0.5%	\$40,854,229	0.5%		
2050	\$41,923,874	2.1%	\$15,169,654	0.5%	\$10,319,148	0.5%	\$41,058,500	0.5%		
2041-50	\$382,489,080		\$148,345,020		\$100,911,605		\$401,513,698			\$1,033,259,404
Column Totals	\$825,959,188		\$357,440,538		\$243,148,698		\$967,455,948		\$800,000,000	\$3,194,004,372

Appendix B, Table-4- Highway Expenditures

2026-2030 Projected Highway Expenditures	
State/Fed System Preservation	\$51,373,041
Miscellaneous Safety Projects	\$9,760,878
Local System Preservation	\$36,792,604
Planned Projects	\$276,922,134
Total	\$374,848,657
2031-2040 Projected Highway Expenditures	
State/Fed System Preservation	\$117,652,653
Miscellaneous Safety Projects	\$22,354,004
Local System Preservation	\$76,395,846
Planned Projects	\$1,104,465,000
Total	\$1,320,867,503
2041-2050 Projected Highway Expenditures	
State/Fed System Preservation	\$141,173,508
Miscellaneous Safety Projects	\$26,822,966
Local System Preservation	\$80,302,740
Planned Projects	\$134,280,000
Total	\$382,579,214
Grand Total	\$2,078,295,374

SARTA Funding

The following tables extrapolate SARTA operating and capital funds in a similar manner as was estimated for highway funds. Recent fiscal reports and capital programs were used to average out funding for recent years and then applied differing rates of growth as with SCATS estimates.

However, a number of conditions differ between highway and transit funding programs. These result in complications when estimating income and expenditures for any given year.

Major differences include:

- SARTA's primary source of funding is the 0.25% Stark County sales tax that was passed in 2016 for a 10-year period. This tax yields approximately \$15 million annually, providing funds to ensure operating costs are met. While generally stable, a recession can negatively impact SARTA's budget;
- FTA programmatic grants assist SARTA in meeting bus replacement needs but do not provide enough funds to meet all SARTA's capital projects (and bus replacements) or operating needs;
- Discretionary and competitive grants have provided a substantial boost to SARTA in recent years, especially as they have embraced alternative and no and/or low emission vehicles. Thus SARTA will plan for major capital projects and depend upon receiving a discretionary grant. This results in an uncertain time line for projects;
- SARTA's fiscal year is calendar based, SCATS and ODOT is July 1 through June 30th, and the Federal fiscal year is October 1 through September 30. This can result in a certain amount of confusion over which year is being discussed and also creates difficulties due to differing times when fiscal systems shut down for fiscal reporting; and
- Federal Transit Administration grant funds must be obligated within three years of award versus ODOT funds allocated to SCATS, which generally must be obligated with that fiscal year. This means in any given year a SARTA project is utilizing funds obligated from multiple year of grants.

For these reasons it should be recognized that estimating SARTA fiscal resources, especially for capital needs, is based generally on trends and averages and that there can be sudden and dramatic increases and decreases at any time. Awards frequently result in TIP/STIP amendments, even in the month after a new TIP/STIP has been adopted. Thus bus replacement schedules become skewed if some replacements are based on discretionary grants not awarded, projects may be delayed, and bus life extended by additional maintenance, increasing operating costs.

2050 SARTA Capital Expenditures Estimate			
Year	Local Share	Federal Share	Total Projects
2017	\$3,633,071	\$16,725,270	\$20,358,341
2018	\$3,824,990	\$20,883,480	\$24,708,470
2019	\$5,242,456	\$21,392,494	\$26,634,950
2020	\$6,646,496	\$29,441,071	\$36,087,567
2021	\$4,442,642	\$31,390,382	\$35,833,024
TOTAL	\$23,789,655	\$119,832,697	\$143,622,352
5 YR AVE	\$4,757,931	\$23,966,539	\$28,724,470

NOTES: This table was created using SARTA's annual Program of Projects which includes primarily grant funded capital projects

Appendix B, Table-5- Projected Transit Operating Funding

SCATS 2050 SARTA Operating Funding Projections						
	Federal	Growth Rate	SARTA Local Match	Growth Rate	Row Totals	Planned Operating Spending from Chapter 5
2026	\$4,777,522	2.1%	\$847,661	2.1%	\$5,625,183	\$5,070,000
2027	\$4,877,850	2.1%	\$865,462	2.1%	\$5,743,312	\$5,176,470
2028	\$4,980,285	2.1%	\$883,636	2.1%	\$5,863,922	\$5,285,176
2029	\$5,084,871	2.1%	\$902,193	2.1%	\$5,987,064	\$5,396,165
2030	\$5,191,654	2.1%	\$921,139	2.1%	\$6,112,792	\$5,509,484
2026-30	\$24,912,183		\$4,420,090		\$29,332,273	\$26,437,294
2031	\$5,300,678	2.1%	\$940,483	2.1%	\$6,241,161	\$5,625,183
2032	\$5,411,993	2.1%	\$960,233	2.1%	\$6,372,225	\$5,743,312
2033	\$5,525,644	2.1%	\$980,398	2.1%	\$6,506,042	\$5,863,922
2034	\$5,641,683	2.1%	\$1,000,986	2.1%	\$6,642,669	\$5,987,064
2305	\$5,760,158	2.1%	\$1,022,007	2.1%	\$6,782,165	\$6,112,792
2036	\$5,881,122	2.1%	\$1,043,469	2.1%	\$6,924,590	\$6,241,161
2037	\$6,004,625	2.1%	\$1,065,382	2.1%	\$7,070,007	\$6,372,225
2038	\$6,130,722	2.1%	\$1,087,755	2.1%	\$7,218,477	\$6,506,042
2039	\$6,259,467	2.1%	\$1,110,598	2.1%	\$7,370,065	\$6,642,669
2040	\$6,390,916	2.1%	\$1,133,920	2.1%	\$7,524,836	\$6,782,165
2031-40	\$58,307,009		\$10,345,229		\$68,652,238	\$61,876,535
2041	\$6,525,125	2.1%	\$1,157,732	2.1%	\$7,682,858	\$6,924,590
2042	\$6,662,153	2.1%	\$1,182,045	2.1%	\$7,844,198	\$7,070,007
2043	\$6,802,058	2.1%	\$1,206,868	2.1%	\$8,008,926	\$7,218,477
2044	\$6,944,902	2.1%	\$1,232,212	2.1%	\$8,177,114	\$7,370,065
2045	\$7,090,744	2.1%	\$1,258,088	2.1%	\$8,348,833	\$7,524,836
2046	\$7,239,650	2.1%	\$1,284,508	2.1%	\$8,524,158	\$7,682,858
2047	\$7,391,683	2.1%	\$1,311,483	2.1%	\$8,703,166	\$7,844,198
2048	\$7,546,908	2.1%	\$1,339,024	2.1%	\$8,885,932	\$8,008,926
2049	\$7,705,393	2.1%	\$1,367,144	2.1%	\$9,072,537	\$8,177,114
2050	\$7,867,206	2.1%	\$1,395,854	2.1%	\$9,263,060	\$8,348,833
2041-50	\$71,775,824		\$12,734,958		\$84,510,782	\$76,169,904
Column Totals	\$154,995,015		\$27,500,277		\$182,495,292	\$164,483,733

Appendix B, Table 6 Transit Capital Funding Projections

Year	Federal	Growth Rate	Local	Growth Rate	Total	Inflation Factor
2026	\$6,455,737	2.1%	17,960,273	2.1%	24,416,010	1.36
2027	\$6,591,308	2.1%	18,337,438	2.1%	24,928,746	1.39
2028	\$6,729,725	2.1%	18,722,525	2.1%	25,452,250	1.42
2029	\$6,871,050	2.1%	19,115,698	2.1%	25,986,747	1.45
2030	\$7,015,342	2.1%	19,517,127	2.1%	26,532,469	1.48
2026-30	\$33,663,162		\$93,653,061		\$127,316,223	
2031	\$7,162,664	2.1%	19,926,987	2.1%	27,089,651	1.51
2032	\$7,313,080	2.1%	20,345,454	2.1%	27,658,534	1.54
2033	\$7,466,654	2.1%	20,772,708	2.1%	28,239,363	1.57
2034	\$7,623,454	2.1%	21,208,935	2.1%	28,832,389	1.60
2035	\$7,783,547	2.1%	21,654,323	2.1%	29,437,870	1.64
2036	\$7,947,001	2.1%	22,109,064	2.1%	30,056,065	1.67
2037	\$8,113,888	2.1%	22,573,354	2.1%	30,687,242	1.71
2038	\$8,284,280	2.1%	23,047,394	2.1%	31,331,674	1.74
2039	\$8,458,250	2.1%	23,531,390	2.1%	31,989,639	1.78
2040	\$8,635,873	2.1%	24,025,549	2.1%	32,661,422	1.82
2031-2040	\$78,788,691		\$219,195,157		\$297,983,849	
2041	\$8,817,226	2.1%	24,530,085	2.1%	33,347,312	1.85
2042	\$9,002,388	2.1%	25,045,217	2.1%	34,047,605	1.89
2043	\$9,191,438	2.1%	25,571,167	2.1%	34,762,605	1.93
2044	\$9,384,458	2.1%	26,108,161	2.1%	35,492,620	1.97
2045	\$9,581,532	2.1%	26,656,433	2.1%	36,237,965	2.02
2046	\$9,782,744	2.1%	27,216,218	2.1%	36,998,962	2.06
2047	\$9,988,182	2.1%	27,787,758	2.1%	37,775,940	2.10
2048	\$10,197,934	2.1%	28,371,301	2.1%	38,569,235	2.14
2049	\$10,412,090	2.1%	28,967,098	2.1%	39,379,189	2.19
2050	\$10,630,744	2.1%	29,575,408	2.1%	40,206,152	2.24
2041-50	\$96,988,738		\$269,828,846		\$366,817,584	
Totals	\$209,440,589		\$582,677,065		\$792,117,656	

To show fiscal constraint, Table 7 has been included to show future capital project expenditures. So many of SARTA’s capital expenses are the result of successful acquisitions of grants that it is hard to predict what capital projects will happen in the future. For this reason, most of the future expenditures are listed as “Other Projects” in the table. Things that are more predictable, like bus purchases, planned transit corridors, and the annual 5310 Program are listed individually in the table.

Appendix B, Table 7 Future Transit Capital Project Expenditures

SARTA Capital Projects 2026-2030	
Project	Cost
Bus Purchases: 21 Buses greater than 30 feet	\$ 5,250,000
Bus Purchases: 35 Para-Transit Buses	\$ 5,250,000
5310 Program	\$ 12,500,000
Other Projects	\$ 85,000,000
Total	\$ 108,000,000

SARTA Capital Projects 2031-2040	
Project	Cost
Bus Purchases: 35 Buses greater than 30 feet	\$ 9,708,160
Bus Purchases: 65 Para-Transit Buses	\$ 10,817,625
Harmont Ave Transit Corridor from SR 153 to US 62	\$ 5,000,000
Market Ave Transit Corridor from SR 172 to 30th N	\$ 10,000,000
Walnut Ave Transit Corridor from SR 172 to Market	\$ 3,000,000
Cleveland Ave Transit Corridor from SR 172 to Everhard	\$ 12,000,000
Fulton Dr Transit Corridor from SR 172 to George Halas	\$ 10,000,000
SR 172 Transit Corridor from Massillon to Canton	\$ 15,000,000
SR 172 Corridor from Canton to East Canton	\$ 10,000,000
Whipple Ave Transit Corridor from SR 172 to Everhard	\$ 12,000,000
5310 Program	\$ 27,737,590
Other Projects	\$ 150,000,000
Total	\$ 275,263,375

SARTA Capital Projects 2041-2050	
Project	Cost
Bus Purchases: 40 Buses greater than 30 feet	\$ 13,658,000
Bus Purchases: 70 Para-Transit Buses	\$ 14,340,900
5310 Program	\$ 34,144,920
Other Projects	\$ 220,000,000
Total	\$ 282,143,820
Grand Total	\$ 665,407,195

Appendix C - Environmental Justice Assessment

Introduction

Recognizing that the impacts of federal programs and activities may raise questions of fairness to affected groups, this Environmental Justice (EJ) appendix has been created to address any impacts on minority and low-income populations.

The U.S. EPA's Office of Environmental Justice defines EJ as follows: "The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies."

While not a new requirement, EJ amplifies the provisions found in the decades-old Title VI of the Civil Rights Act of 1964. Title VI of the Civil Rights Act of 1964 prohibits discriminatory practices in programs and activities receiving federal funds. The transportation planning regulations issued in October 1993, required that metropolitan transportation planning processes be consistent with Title VI. EJ strengthens Title VI by requiring federal agencies to make achieving EJ part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

SCATS devised a process to assess the impacts of the Transportation Plan on the target populations.

Target Population

Demographic data were sought regarding target populations including minorities, low-income populations, minorities in poverty, and households without cars to address impacts of transportation projects. These target populations were researched for the transportation study area of SCATS, which includes all of Stark County. The data set used to compile these statistics was the Census Transportation Planning Package (CTPP).

SCATS used Traffic Zone data to identify target populations. Traffic Zones are the basic unit of analysis for the SCATS transportation planning process. Census tracts and block groups were both too large an area for the detailed analysis necessary. Census blocks would provide very detailed information, but some demographic information is not available at the block level.

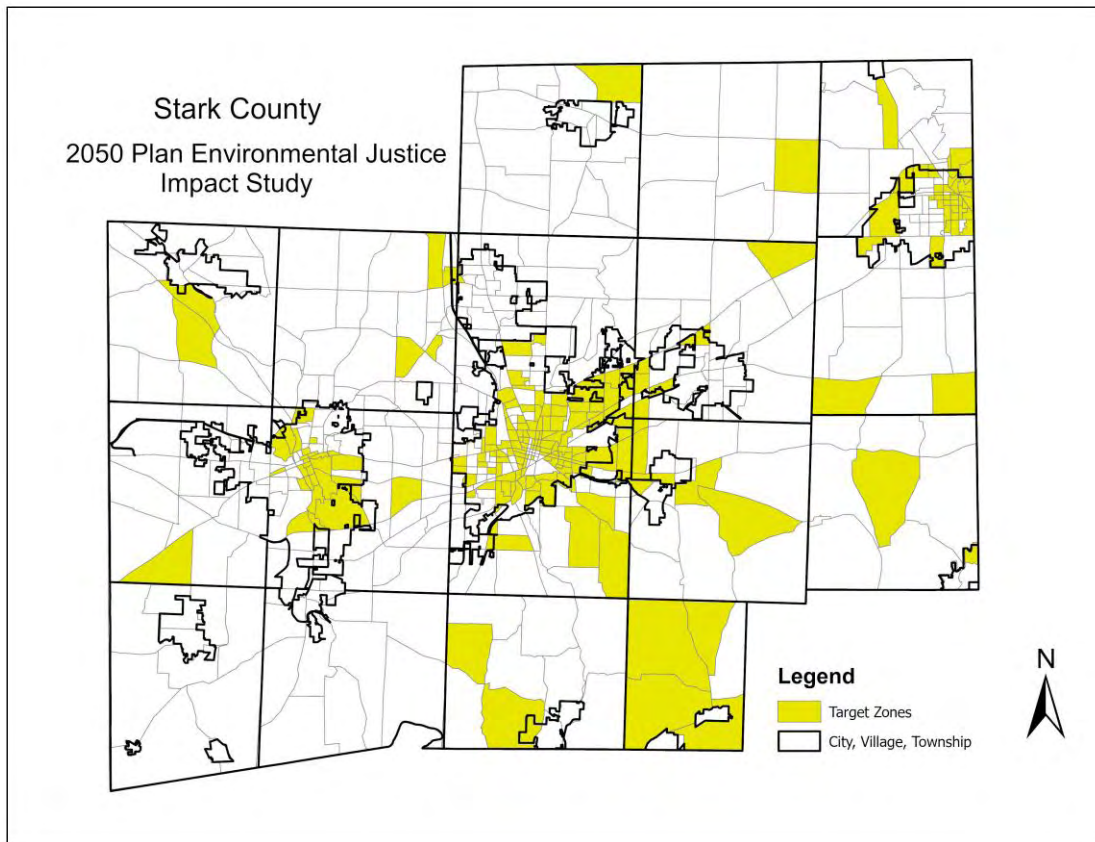
The map on the next page shows the target areas. There are 607 traffic zones in the SCATS area in the CTPP. Averages of regional totals for the various target populations were used as thresholds to identify concentrations of these populations in the study area. All Zones with minority populations greater than 12.0% of the total population or households in poverty of greater than 13% were identified as target areas. These numbers are slightly higher than the rates in the county as a whole. Two hundred seven (207) traffic zones were identified using the geographic information system (GIS).

The following table provides some statistics comparing the target zones to the total county population.

Environmental Justice Target Zones	All Zones	Minority Zones	Poverty Zones	Both Minority & Poverty	Target Zones (Either)	Per Cent of County
Number of Zones	607	151	157	101	207	34.1%
Population	378,111	81,549	75,024	56,979	99,594	26.3%
Whites	341,549	55,312	53,513	36,218	72,607	21.3%
Non-White	36,562	26,237	21,511	20,761	26,987	73.8%
Black	27,067	21,752	18,093	17,644	22,201	82.0%
Households	148,398	32,042	29,936	22,332	39,646	26.7%
Households Below Poverty	13,714	6,821	7,742	6,090	8,473	61.8%
Percent Below Poverty	9.24%	21.29%	25.86%	27.27%	21.37%	
Dwelling Units	156,896	35,503	32,777	24,813	43,467	27.7%

The target zones represent 34% of the total number of zones in the county. They have only 26.3% of the county population but include 73.8% of the non-white population and 82% of the black population. The target areas contain 61.8% of the households below poverty.

Map C-1: Environmental Justice Target Zones



In examining the map, it is apparent that most of the target zones are clustered around the older cities of Canton, Massillon and Alliance. There are however a number of zones located in the more rural parts of the county. A number of targeted zones in the more suburban areas have a higher than average numbers of older adults.

Impact Analysis

This EJ analysis requires evaluation of the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but not be limited to:

- Bodily impairment, infirmity, illness or death
- Air, noise and water pollution and soil contamination
- Destruction or disruption of man-made or natural resources
- Destruction or diminution of aesthetic values
- Destruction or disruption of community cohesion
- Destruction or disruption of a community's economic vitality
- Destruction or disruption of the availability of public and private facilities and services
- Vibration

- Adverse employment effects
- Displacement of persons, businesses, farms, or non-profit organizations
- Increased traffic congestion
- Isolation
- Exclusion or separation of minority or low-income individuals within a given community or from the broader community
- The denial of, reduction in, or significant delay in the receipt of benefits

The burden on the transportation planner is to gauge the impact of the transportation program as a whole on target areas scattered across the entire region and determine whether there are disproportionate negative impacts. At the Plan stage of project development, project scopes are still being defined and there is often little information upon which to base an impact analysis.

There are, however, clearly types of projects that can be expected to have the greatest impacts. Resurfacing projects, bridge replacements, signal projects, and other system preservation projects generally have few serious adverse impacts and benefits tend to accrue to the same people impacted. The projects such as new roadways, major widening projects, roadway relocations and new interchanges all may generate adverse impacts. Impacts from these projects generally fall most seriously on adjacent property, while the benefits accrue to the public at large.

SCATS concentrated on these projects in order to assess the impacts on the target areas. One characteristic these projects share is the need to acquire right of way. Therefore, SCATS identified those Plan projects which require additional right of way. These projects are listed in the table below:

Name	Project Type
Fulton Streetscape Phase 2	Intersection Improvement
Tremont & Main	Roundabout
Cleveland at State	Intersection Improvement
Lake Ave NE	Intersection Improvements
STA SR241 & Shuffel St RA	Roundabout
East Maple St. Enhancements Ph. Two	Streetscaping
Easton at Glen Oak Entrance	Intersection Improvement
Fulton, Harrison, & 25th St NW Intersection	Intersection Improvement
12th St NW/Perry Dr RA	Roundabout
25th/Fulton/Harrison	Roundabout
US-30/Richville/SR627 Interchange	Intersection Improvement
236 & Strausser	Intersection Improvement
Alabama & Stanwood	Intersection Improvement
Alabama at Orrville	Intersection Improvement
Applegrove - Frank to Whipple	Widen to 5 lanes
Applegrove St/Freedom Intersections	Widening

Beech & Beechwood	Intersection Improvement
Beech St at Oakhill	Intersection Improvement
Beechwood & Georgetown	Intersection Improvement
Cleve. from Tusc. to Everhard	Transit Corridor
Columbus & Paris	Intersection Improvement
Covered Bridge	Trail
Covered Bridge Trail	Trail
East Canton Connector	Trail
Easton at Bentler	Intersection Improvement
Edison from Cleveland to 43	Widen to 4 lanes
Erie and Navarre Rd SW	Intersection Improvement
Fohl at Dueber	Intersection Improvement
Fohl from Navarre to I-77	2-lane improvements
Frank from Applegrove to Shuffel	Widen to 5 lanes
Fulton from Tusc. to FHOF	Transit Corridor
Georgetown at Paris	Intersection Improvement
Hoover Trail	Trail
Intersection of SR 183 and US 62	Intersection Improvement
Iron Horse Trail	Trail
Jackson Connector Trail	Trail
Lesh Realignment Safety Project Phase 2	Realignment
Main Ave W	Improvements
Market from Applegrove to Mt Pleasant	Widen to 4 lanes
Market from Tusc. to 30th NW	Transit Corridor
Middle Branch Trail	Trail
Navarre Main Intersection	Intersection Improvement
Nimishillen Trail (8th to 12th)	Trail
Orchardview/Argyle Intersection Improvement	Intersection Improvement
Park Drive Reconstruction Phase 2	Road/Intersect. Improvements
Perry at Harris	Intersection Improvement
Pittsburg - Applegrove to Shuffel	Widen to 3 lanes
Portage-Mega Connector	New road
Quail Hollow Trails	Trail
SR 173 State at Paris	Intersection Improvement
SR 21 & Cherry	Intersection Improvement
SR 21 & Lake Ave	Intersection Improvement
SR 21 & Lillian Gish	Intersection Improvement
SR 21 & Walnut	Intersection Improvement
SR 241 Wales at Strausser	Intersection Improvement
SR 627 at Navarre	Intersection Improvement
SR 93 & Strausser	Intersection Improvement
Stark Electric Railway Trail	Trail
Tremont Ave SE	Improvements

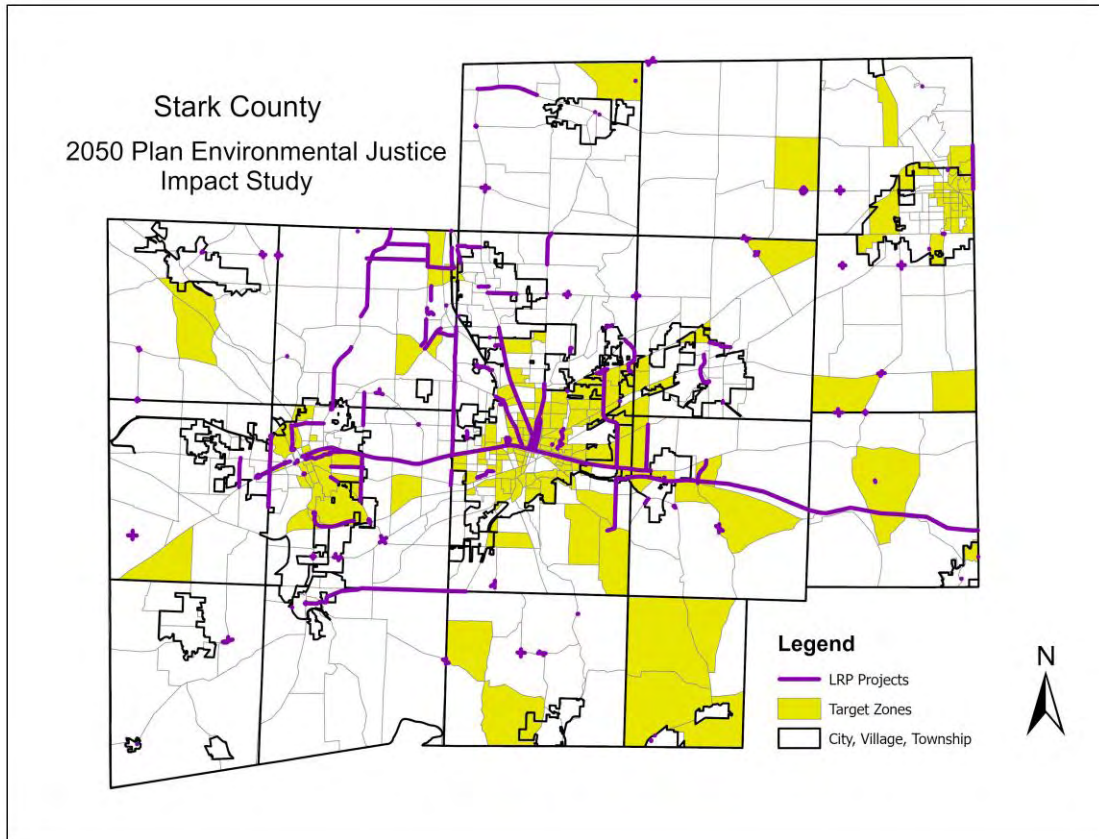
Tusc. from Cherry to Hazelwood	Transit Corridor
Wales from Hills & Dales to Portage	Widen to 4 lanes
Walnut from Southway to 16th	2-lane improvements
Walnut from Tusc. to Market	Transit Corridor
West Tusc. Safety Project Phase 2	Safety Improvements
Whipple from Applegrove to Shuffel	Widen to 5 lanes
Sandy Valley Trail	Trail
Babe Stearn Trail	Trail
Barr Elementary	Trail
Oakhill Ave & State St	Intersection Improvement
Ojays/Rowland/7th St NE Roundabout Project	Roundabout
Skyland Pines	Trail
STA US 0030 18.35	Extension Route 30
Trail Off Of 55th St. NE	Trail
West Tusc. Safety Project Phase 3	Safety Improvements
Whipple from Southway to 13th SW	New road
23rd St. NW Extension	Road Extension
3rd Street NW - James Ave to State Ave	Widening
Applegrove & Whipple	Roundabout
Arboretum Park	Trail
Battlesburg at Briggie	Intersection Improvement
Beeson at McCallum	Intersection Improvement
Belden Village St NW	Access Management
Broadway from US 30 to Georgetown	Reconstruction
Cherry/Earl/Wooster/17th Roundabout	Roundabout
Cincinnati St extension to Millennium Blvd	New road
Cleveland & Lake Center	Intersection Improvement
Cleveland Ave SW - Webb to Walnut	New road
Columbus at Beeson & Reeder	Roundabout
Everhard from Fulton to Dressler	Access Management
Flyway Byway Trail	Trail
Frank from Fulton to University	Widen to 3 or 5 lanes
Harmont from 153 to 62	Widen to 4 lanes
Harmont from Mahoning to 62 S	Transit Corridor
Harrisburg NE	Trail
Hess & Tremont Roundabout	Roundabout
Lincoln Way & Main	Intersection Improvement
Mahoning Extension	New 2-lane road
Mallonn Park Trail	Trail
Mallonn Park Trail	Trail
Mt Pleasant Dogwood Trail	Trail
Navarre Rd SW at Millennium & Sterilite	Intersection Improvement
Nave St from Erie St to ECL	Improvements

Orion - Pittsburg to Cleveland
 Pittsburg & Applegrove
 Pontius at Duquette
 Portage - Willaman to Orchard
 Shuffel - SR 241 to Frank
 SR 153 at Beechwood
 SR 44 at Orchardview
 Strausser - SR 241 to Frank
 Strausser & High Mill
 Sugar Creek Connector Trail
 Trump from 43 to New 30
 Tusc. from Erie & Cherry
 US 30 Connector from SR 44 to Sr 172
 US-30 from SR-183 to East Rochester
 US-30 from SR-44 to SR 183
 Wales from Portage to Summit County Line
 West Branch
 Whipple from Tusc. to Everhard
 Alabama at Wooster
 Battlesburg at Ridge
 Harmont Interchange
 Jackson - 12th to Perry
 Mahoning Extension
 Navarre - Kemary/Stump
 North County Trail
 Sherman Church at Haut
 Trump from Lincoln to 153
 Wood & Orchardview
 17th St SW
 29th St NW
 3rd St NW from Cherry Rd to Lake Ave
 Harsh Ave SW from 16th St to Elizabeth St
 Jackson from Richville to Lincoln Way
 Nave & Erie Intersection
 Nickel Plate Trail
 Pleasant Valley Trail
 Reno Extension
 Sippo Valley Connector Trail
 SR 241 & Hills & Dales
 SR-44 Bypass
 SR-44 Bypass
 US 62 at Pigeon Run/Justus

Widen to 3 lanes
 Roundabout
 Intersection Improvement
 2-lane improvements
 Widen to 3 lanes
 Intersection Improvement
 Intersection Improvement
 Widen to 3 lanes
 Intersection Improvement
 Trail
 2-lane improvements
 Transit Corridor
 New 2-lane connector
 New super 2-lane
 New 4-lane road
 Widen to 4 lanes
 Trail
 Transit Corridor
 Intersection Improvement
 Intersection Improvement
 New interchange
 Widen to 3 lanes
 New 2-lane road
 Intersection Improvement
 Trail
 Intersection Improvement
 Widen to 4 lanes
 Intersection Improvement
 Improvements
 Improvements
 Widening
 Improvements
 New 2-lane road
 Intersection Improvement
 Trail
 Trail
 New 2-lane road
 Trail
 Roundabout
 New 2-lane road
 New 2-lane road
 Intersection Improvement

Impacted zones were then identified using GIS software. Any project within 0.25 mile of any part of an Impact Project was assumed to be an impacted zone. The map on page C-10 on the next page shows the impacted zones and impact projects. 438 of the 607 zones were identified as impacted zones. Of these impacted zones, 165 were target zones. The following table summarizes the economic justice analysis of the update to the 2050 Transportation Plan highway projects.

Map C-2: Environmental Justice Target Zones with LRP Projects

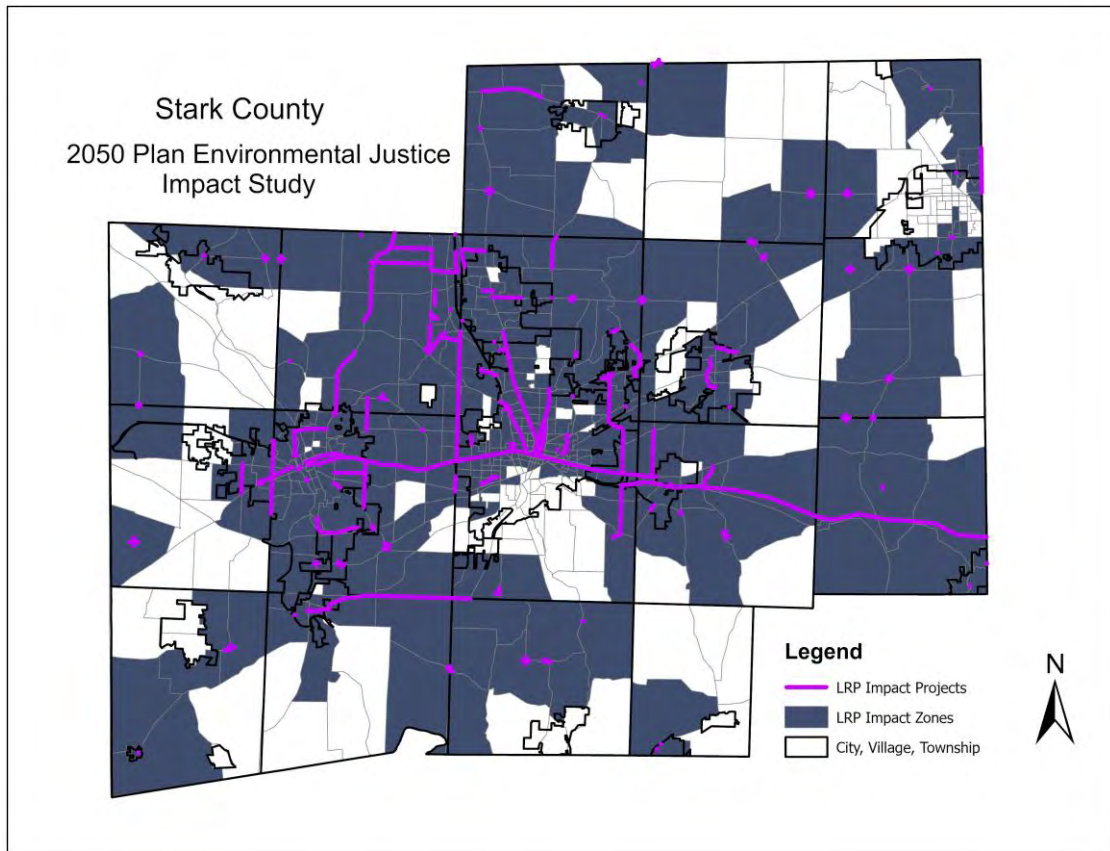


Environmental Justice Target Zones	All Zones	All Zones %	All Impacted Zones	All Impacted Zones %	Target Zones	Target Zones Impacted	Per Cent of all zones	Per Cent of Target Zones
Zones	607		438		207	150	72%	72%
Population	378,111		303,306	80%	99,594	78,769	80%	79%
Whites	341,549	90%	273,259	90%	72,607	57,007	80%	79%
Non-White	36,562	10%	30,047	10%	26,987	21,762	82%	81%
Black	27,067	7%	22,149	7%	22,201	17,903	82%	81%
Households	148,398		119,694	81%	39,646	31,487	81%	79%
Households Below Poverty	13,714	9%	10,567	9%	8,473	6,363	77%	75%
Dwelling Units	156,896		126,828		43,467	34,763	81%	80%

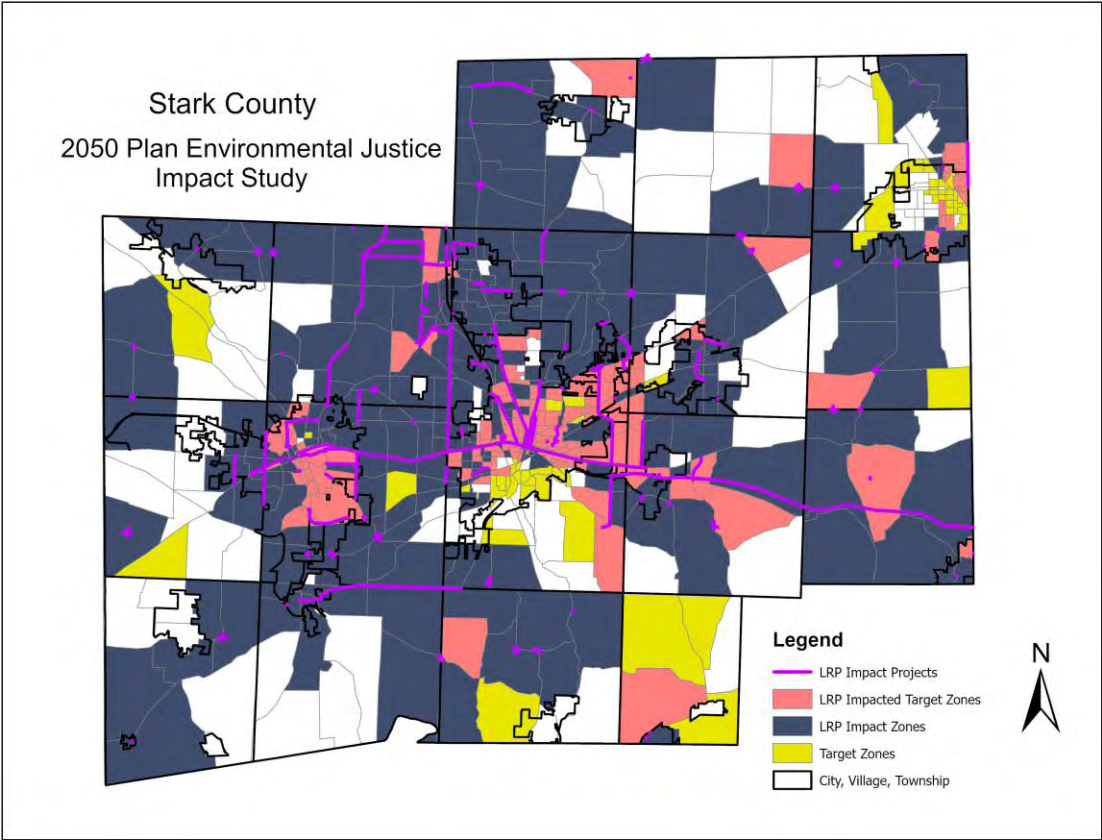
72% of target zones were impacted versus 72% of all zones. The impacted zones contained a slightly higher percentage of minority populations (10%) than total population (10%). Impact zones contained a slightly higher percent of households below poverty level (9%) than total households (9%).

Nine percent of households in impacted zones are below the poverty level compared to nine percent of all zones. Considering the types of projects in and adjacent to the cities of Canton and Massillon that are having an impact on a number of target zones, the impact appears minimal considering the long-term economic improvement to the area. The addition of bicycle and pedestrian facilities should improve mobility for zero vehicle households and other non-motorized users. Given the wide reach of a plan of this nature, many people will be impacted by the projects and many more will benefit. A number of high crash locations will be improved increasing safety for both residents and other users of the roadway. In conclusion, SCATS analysis does not show any pattern of disproportionate adverse impacts on target zones or populations.

Map C-3: Environmental Justice Impact Zones



Map C-4: Environmental Justice Impacted Target Zones



Appendix D - Environmental Mitigation, Analysis, and Consultation

Introduction

Beginning with SAFETEA-LU, the Federal authorization of the surface transportation program approved in August of 2005, incorporated new requirements for consultation and environmental mitigation under 23 CFR 450.322. MPO's are required to include a discussion of potential environmental mitigation activities in transportation plans as well as consult with additional Federal, State and local land management, wildlife and regulatory agencies, and with environmental advocacy groups. This addendum contains three sections: a discussion of environmental mitigation activities; identification of environmental resource agencies and others that will be consulted; and a discussion of projects that could potentially require environmental mitigation.

Environmental Mitigation Activities

Environmental mitigation activities are actions that serve to minimize, or compensate for, the impacts to, or disruption of, elements of the human and natural environment associated with the implementation of transportation projects. The activities can include direct actions and also strategies, policies, programs, and/or activities that can mitigate or eliminate impacts. Environmental mitigation strategies and activities can also be regional in scope, and may not necessarily address potential project-level impacts. There are three primary types of mitigation that may be necessary to remediate impacts of transportation projects: wetland (including streams), noise, and storm water runoff.

The Ohio Department of Transportation (ODOT) has adopted project mitigation guidelines to meet requirements of the U.S. Army Corps of Engineers (USACE) and the Ohio Environmental Protection Agency (OEPA). The USACE mitigation guidelines are outlined in USACE Regulatory Guidance Letter (RGL) 02-02, dated December 24, 2002. Ohio EPA guidelines for wetland mitigation are included in the Ohio Administrative Code Sections 3745-1-50 through 3745-1-54, "The Wetland Water Quality Standards." Stream mitigation is accomplished on a case-by-case basis as required and as negotiated between the USACE, the OEPA, and the ODOT Office of Environmental Services, as formal rules have not been adopted at this time.

Wetland Mitigation

Wetlands are areas where the water table stands near, at, or above the land surface for at least part of the year and are defined according to the degree of wetness, soil condition, and vegetation supported by existing conditions. Wetlands are important elements of a watershed, providing benefits such as water retention, which lessens flooding; aquifer recharge areas that replenish drinking water supplies; wildlife habitat; and attenuation of adverse environmental conditions

such as water pollution. Wetland mitigation and the application of best management practices (BMPs) are implemented primarily to protect the functions of natural wetlands from the impacts of urban stormwater discharges and other sources of runoff or to replace wetland areas impacted by construction.

Mitigation banking is defined in the Federal Guidance for the Establishment, Use and Operation of Mitigation Banks (Federal Bank Guidance) (60 Federal Register 58605- 58614) as "...wetland restoration, creation, enhancement, and in exceptional circumstances, preservation undertaken expressly for the purpose of compensating for the unavoidable wetland losses in advance of development actions when such compensation cannot be achieved at the development site or would not be environmentally beneficial. It typically involves the consolidation of small, fragmented wetland mitigation projects into one large contiguous site. Units of restored, created, enhanced or preserved wetlands are defined as 'credits', which may be subsequently withdrawn to offset 'debits' incurred at a project development site."

The Wilderness Center, Inc., a 501(c) (3) nonprofit organization, operates a USACE approved mitigation bank, the Brewster Wetland Mitigation Bank, which was approved for 46.8 wetland preservation credits in May, 2004. The Brewster Wetland is located in Brewster, Ohio along Sugar Creek, within the USACE Huntington District Boundary Tuscarawas River Watershed (Hydrologic Unit Code 05040001). The wetland is a high-quality category 3 forested wetland.

The Wilderness Center, Inc. is also approved to offer stream mitigation under its in-lieu fee agreement with the U.S. Army Corps of Engineers Huntington District and the Ohio Environmental Protection Agency. The Center acquired stream frontage along the Sugar Creek in southwestern Stark County and can use this land for stream mitigation with the approval of the agencies.

Noise Mitigation

Noise mitigation is considered in freeway projects that add additional capacity, lanes or include pavement replacement with changes in materials (such as from asphalt to concrete). These projects require an investigation for potential noise level increases and may require mitigation with noise walls or other buffers if USDOT noise thresholds are exceeded. The level of highway traffic noise is dependent upon a number of conditions including traffic volume, speed, type of vehicle, pavement material and condition, and gradient and includes a mix of tire, exhaust and engine sounds. Generally, loudness increases with heavier traffic volumes, higher speeds, and an increasing proportion of trucks to cars, changes in pavement from asphalt to concrete and increases in gradient.

Noise reduction measures can include creating buffer zones, constructing barriers, and planting vegetation. Buffer zones are undeveloped open spaces which border a highway located within areas exceeding noise limits. Noise barriers are structures built to reduce the volume of sound between the highway and impacted adjacent lands and can consist of earth mounds, vegetation, and/or vertical walls. Determining the type of mitigation, if required, includes considering a

mixture of local desires, the cost and type of material available, the right-of-way availability or acquisition cost required for the installation of the mitigation measure, and future maintenance costs. Additional factors to be taken into account include possible impacts to air circulation, ambient light conditions and the possible reflection of sound.

Storm Water Mitigation

Three major methods of storm water mitigation are generally accepted- grass swales, vegetative filter strips, and bio-retention. Post-construction storm water management in both new developments and areas being redeveloped can make use of grass swales (grassed waterways) in median and drainage ditches as a low cost means to slow water flow. Vegetative filter strips and buffers are areas of land with vegetative cover that are designed to accept runoff from upstream development and can utilize existing land areas or be constructed to maximize water retention.

Bio-retention manages and treats storm water runoff using specific soils and vegetation in order to filter runoff stored within retention areas. This method combines physical filtering and adsorption with biological processes to maximize water retention and to treat surface runoff.

ODOT has adopted storm water mitigation policies and developed a detailed Storm Water Management Plan to ensure that BMPs are used in ODOT-sponsored projects and to meet OEPA regulations and requirements of the OEPA Statewide Construction Permit. Standard designs for BMPs can be found in the ODOT Location and Design Manual and include practices such as energy dissipaters in open ditches, storm water retention ponds as required by the Clean Water Act for construction sites over one acre, and over-wide ditches.

Environmental Resource Agencies

SAFETEA-LU emphasized consultation with environmental resource agencies in the transportation planning process. As a result, SCATS coordinates with a number of Federal, State, and local land use management, natural resources, environmental protection, conservation, historic preservation, advocacy groups and other regulatory agencies.

Those in the following list have been identified as agencies dealing primarily with natural and other environmental conditions and are notified of the availability of the draft Transportation Plan. These agencies and others are encouraged to review the TIP and Transportation Plan and comment to SCATS on any potential environmental impacts that may result from the projects and to provide comments and recommendations for these documents.

Environmental Agencies, Regulatory Agencies, Advocacy Groups and Other Parties Contact List

FEDERAL AGENCIES

Federal Highway Administration
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U.S. Department of Agriculture
Natural Resources Conservation Service
Massillon Service Center
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U.S. Environmental Protection Agency
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Ohio Ecological Services Field Office
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ODNR Division of Mineral Resources Management
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Debbie Withnell, President

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Potential Environmental Impacts of Projects

Projects listed in the Transportation Improvement Program (TIP) and the 2050 Transportation Plan that will acquire additional rights-of way have been reviewed for potential impacts on eight environmental conditions. Projects range from those having the potential of major impacts, such as building new roads or freeway interchanges, to those having minimal potential impacts, such as intersection improvements. Repaving and rebuilding projects, including replacing bridges, were not reviewed. ODOT Technical services assisted in providing data layers for use with the Geographic Information System. This data was then reviewed for proximity to proposed projects. The environmental conditions reviewed were:

- Threatened and Endangered Species, including State and Federally listed threatened or endangered species of plants, animals, and insects, etc. Only location data was provided by ODOT/ODNR in order to protect species from possible collection, capture, or hunting. A 1,000' buffer range was used to review this category.
- Potential Indiana Bat Habitat & Northern Long-Eared Bat- identification of "primary" high quality potential bat habitat, according to forest types; proximity to water, other forested areas and parkland or conservation areas. There have been no "captures" or identification of Indiana Bats within Stark County or within their 5 miles designated habitat/foraging zone. Thus, typical actions required to fulfill NEPA requirements, unless an area is identified as a potential high quality habitat, is the cutting of trees outside of the possible habitation and nesting period (tree removal between September 15 and April 15). Projects were reviewed at a 100' buffer for woodland areas.
- National Register Sites and Districts as identified by the Ohio Historic Preservation Office (OHPO) and national Park Service. A 1,000' buffer is used to identify historic structures and districts. SCATS no longer has the ability to review archeological resources since the OHPO altered their online mapping to a subscription service. However, ODOT's review of projects includes an archeological review in order to fulfill NEPA requirements.
- USEPA Superfund Sites as identified from the USEPA CERCLIS listing. A 1,000' buffer range was used to review this category.
- 100-Year Flood Plain as determined by FEMA Flood layer converted to GIS by ODNR. Projects were listed if they intersect the 100-year flood plain.
- Reservoirs and Lakes. Projects were listed if they fall within a 500' buffer of a lake or reservoir.
- Impacted Streams, i.e. those exceeding established Total Maximum Daily Loads set by the OEPA and identified by 11-digit Hydrologic Unit Code and ID code. All listed rivers and perennial streams are identified in this category. OEPA has not established limits and impacted areas at this time, thus all projects intersecting or within 500' of streams and rivers are identified.
- Wetland and Woody Wetland Areas as identified by ODNR and USFWS. Projects were listed they fall within a 100' buffer.
- Parklands and Conservation Lands such as metropolitan, city, and township parks; state parks, state managed wildlife areas, privately held conservation areas, other open space areas, etc. These locations have been identified by ODNR, SCRPC, and other local governmental agencies within Stark County. A 500' buffer was used for this review.

It should be noted that there are no identified wild, scenic, or recreational rivers in Stark County, thus this category was not reviewed. Only a small portion of the Mahoning River within Stark County is eligible for designation as a wild, scenic or recreational river.

Projects identified as having potential impacts are shown in Table 1, with the exception of potential Indiana Bat and Northern Long-Eared Bat habitat. All of the projects fall within a 100' buffer of a woodland area (119 out of 119 projects) and can be assumed to require remediation if exfoliating bark trees are present.

Appendices D, Table-1- Projects Having a Possible Impact		Possible Impact Category							
Project Name	Type of Project	Endangered/Threatened Species	National Register Listed Sites	EPA Superfund Sites	Floodplain	Reservoirs and Lakes	Perennial Streams/Rivers	Wetland and Woody Wetland	Parks and Natural Areas
US-30 from SR-44 to SR 183	New 4-lane road	x			x	x		x	x
Trump from Lincoln to 153	Widen to 4 lanes				x	x	x	x	
Trump from 43 to New 30	2-lane improvements					x		x	
US 30 Connector from SR 44 to Sr 172	New 2-lane connector				x	x			
SR 44 at Orchardview	Intersection Improvement					x			
Wood & Orchardview	Intersection Improvement					x			
Broadway from US 30 to Georgetown	Reconstruction					x			
Orchardview/Argyle Intersection Improvement	Intersection					x		x	x
U.S. Route 30 relocation between Trump Ave & SR44	New Route			x	x			x	
US-30 from SR-183 to East Rochester	New super 2-lane				x				
Harmont Interchange	New interchange								
Reno Extension	New 2-lane road				x	x		x	
Edison from Cleveland to 43	Widen to 4 lanes				x	x		x	x
Frank from Fulton to University	Widen to 3 or 5 lanes					x			x
Harmont from 153 to 62	Widen to 4 lanes				x			x	x
Market from Applegrove to Mt Pleasant	Widen to 4 lanes		x		x	x		x	
Wales from Portage to Summit County Line	Widen to 4 lanes	x			x	x	x	x	x
Wales from Hills & Dales to Portage	Widen to 4 lanes					x		x	x
Whipple from Applegrove to Shuffel	Widen to 5 lanes				x	x		x	
Fohl from Navarre to I-77	2-lane improvements		x		x	x			x
Richville from Nave to Southway	Widen to 3 lanes					x			x
Walnut from Southway to 16th	2-lane improvements								x
Navarre from 21 to Sterlite	Widen to 3 lanes					x	x		
Alabama & Stanwood	Intersection Improvement					x			
Columbus & Paris	Intersection Improvement								
Lincoln Way & Main	Intersection Improvement				x		x		x
Strausser & High Mill	Intersection Improvement					x			
236 & Strausser	Intersection Improvement							x	
SR-44 Bypass	New 2-lane road				x		x	x	x
SR-44 Bypass	New 2-lane road		x	x	x		x		x

Jackson from Richville to Lincoln Way	New 2-lane road	x				x			
Mahoning Extension	New 2-lane road			x	x	x	x	x	x
Mahoning Extension	New 2-lane road				x	x	x	x	x
Portage - Willaman to Orchard	2-lane improvements			x		x			x
Pittsburg - Applegrove to Shuffel	Widen to 3 lanes				x	x			
Alambama at Orrville	Intersection Improvement								
Alabama at Wooster	Intersection Improvement								
Applegrove - Frank to Whipple	Widen to 5 lanes				x	x		x	
Beech St at Oakhill	Intersection Improvement	x	x		x	x			
Cleveland at State	Intersection Improvement				x				x
Cleveland at Wright	Intersection Improvement					x			x
Columbus at Beeson & Reeder	Roundabout					x			
Easton at Bentler	Intersection Improvement								
Easton at Glen Oak Entrance	Intersection Improvement								
Frank from Applegrove to Shuffel	Widen to 5 lanes							x	
Georgetown at Paris	Intersection Improvement								
SR 173 State at Paris	Intersection Improvement							x	
Perry at Harris	Intersection Improvement								
Portage-Mega Connector	New road					x		x	
SR 241 Wales at Strausser	Intersection Improvement				x	x		x	x
Whipple from Southway to 13th SW	New road					x		x	
Lake Ave NE	Improvements				x	x	x		x
Nave St	Improvements								x
Tremont Ave SE	Improvements		x		x			x	x
Warmington St	Improvements				x	x	x	x	x
Tremont & Main	Roundabout								x
SR 241 & Hills & Dales	Roundabout								
Fohl at Dueber	Intersection Improvement							x	
Battlesburg at Briggie	Intersection Improvement					x			
Battlesburg at Ridge	Intersection Improvement								
SR 153 at Beechwood	Intersection Improvement					x			
Beeson at McCallum	Intersection Improvement		x			x			
Pontius at Duquette	Intersection Improvement				x				x
SR 627 at Navarre	Intersection Improvement								
Sherman Church at Haut	Intersection Improvement					x			x
US 62 at Pigeon Run/Justus	Intersection Improvement							x	
Orion - Pittsburg to Cleveland	Widen to 3 lanes				x	x		x	
Portage - Pittsburg to Willaman	Widen to 3 lanes								x
Shuffel - SR 241 to Frank	Widen to 3 lanes	x			x	x		x	
Strausser - SR 241 to Frank	Widen to 3 lanes				x	x		x	x
Jackson - 12th to Perry	Widen to 3 lanes				x				x
17th St SW	Improvements				x			x	x
29th St NW	Improvements							x	
Harsh Ave SW	Improvements	x				x			x
3rd St NW	Improvements			x	x	x	x	x	x
Amherst Rd	Improvements		x			x			x
Main Ave W	Improvements				x			x	x
Lincoln Way	Streetscaping, widening, signals		x		x		x		x
Applegrove & Whipple	Roudabout				x	x		x	
Cleveland & Lake Center	Intersection Improvement				x	x			
Pittsburg & Applegrove	Roundabout					x			

Beechwood & Georgetown	Intersection Improvement				x				
SR 93 & Strausser	Intersection Improvement					x			
Dressler from Fulton to Belden Village	Access Management					x			x
Everhard from Fulton to Dressler	Access Management					x		x	x
Belden Village St NW	Access Management								
Intersection of SR 183 and US 62	Intersection Improvement		x						
Navarre Main Intersection	Intersection Improvement		x		x				
Erie and Navarre Rd SW	Intersection Improvement								
Navarre Rd SW at Millennium & Sterilite	Intersection Improvement								
Earl/Carmont Intersection Safety Project	Intersection Improvement				x			x	
SR 21 & Lake Ave	Intersection Improvements				x	x	x		x
SR 21 & Cherry	Intersection Improvements			x	x		x	x	x
SR 21 & Walnut	Intersection Improvements	x			x		x	x	x
SR 21 & Lillian Gish	Intersection Improvements		x		x		x	x	
West Tusc. Safety Project Phase 1	Safety Improvements	x						x	x
West Tusc. Safety Project Phase 2	Safety Improvements							x	
West Tusc. Safety Project Phase 3	Safety Improvements		x						x
11th & Cherry Roadway Reconstruction	Road/Intersect. Improvements		x	x	x		x		x
Park Drive Reconstruction Phase 1	Road & Ped Improvements		x		x	x	x	x	x
Park Drive Reconstruction Phase 2	Road/Intersect. Improvements	x	x		x	x	x	x	x
Fulton Streetscape Phase 2	Intersection Improvement	x			x		x		x
Erie St S to Tremont Ave SE (SR241 Improvements)	Improvements		x		x				x
Erie St N to Federal Ave NE - Improvements	Improvements		x						x
Lesh Realignment Safety Project Phase 1	Safety Improvements				x				
Norman Reconstruction	Reconstruction								x
30th St NW Reconstruction	Reconstruction					x			x
3rd St SW Reconstruction	Reconstruction		x		x			x	x
Ojays/Rowland/7th St NE Roundabout Project	Roundabout				x		x		x
Beech & Beechwood	Intersection Improvement								
Hess & Tremont Roundabout	Roundabout				x	x			x
Nave & Erie Intersection	Intersection Improvements								x
23rd St. NW Extension	Road Extension				x	x	x	x	x
Sterlite Extension	New 2-lane Road							x	x
Fulton, Harrison, & 25th St NW Intersection	Intersection Improvements				x	x	x	x	x
Mt. Pleasant, Market Ave, & Kent Intersection	Intersection Improvements				x	x		x	
Lesh Realignment Safety Project Phase 2	Realignment								
US-30/Richville/SR627 Interchange	Intersection Improvements								
SR 687 (Fulton Dr) & Frank/Sibilia Intersection	Intersection Improvements					x			x

APPENDIX E

to the SCATS Long Range Transportation Plan

PUBLIC INVOLVEMENT and COMMENT

The Stark County Area Transportation Study (SCATS) actively engaged with the public this past year by attending several community events to share their 2050 Long Range Transportation Plan and gather valuable public feedback. SCATS participated in The Greater Alliance Carnation Festival, Louisville Second Friday, and Canton First Friday, providing an accessible platform for residents to learn about future transportation projects and voice their opinions. These events served as excellent venues for reaching a diverse audience in Stark County, fostering a sense of collaboration and transparency in the planning process.

At each event, SCATS set up informational booths that showcased highlights of the 2050 Long Range Plan, emphasizing the goals of improving mobility, safety, and connectivity across the region. Attendees could review a map displaying detailed information about upcoming projects, such as road improvements, pedestrian and bike infrastructure, and public transit enhancements. SCATS staff members were on hand to answer questions, provide insights into the planning process, and explain how these projects would impact local communities.

Public feedback was a central focus of SCATS's participation. Visitors were encouraged to submit their comments through paper forms available at the events or digitally via an online survey and interactive GIS map. These tools allowed residents to identify specific areas of concern easily, suggest improvements, and prioritize projects based on their experiences and needs. This combination of in-person and online engagement ensured that SCATS could gather input from a broad cross-section of the community, helping shape a transportation network that reflects the aspirations of Stark County residents.

The following comments were received on the online map:

- For Sippo Valley Bridge #2 – “Nice to see projects like this.” 10/4/24
- For Towpath Trail Paving – “Looking forward to riding.” 10/4/24
- Canton Fuel Cell Rail Trolley – “Any updates on this and speed it up!” – 10/7/24

The following projects received upvotes or “Likes”:

- 12th St NW/Perry Dr RA - 1
- 49th St NW - 1
- Applegrove & Whipple - 1
- Canton Fuel Cell Rail Trolley - 1
- Cleveland at State - 1
- Covered Bridge - 1
- Covered Bridge Park - 1
- Covered Bridge Trail - 1
- Edison from Cleveland to 43 - 1

- Flyway Byway Trail - 1
- Frank from Applegrove to Shuffel - 1
- Hoover Trail - 1
- Hoover Trail Paving - 1
- Iron Horse Trail – 1
- Iron Horse Trail/Nickel Plate Trail Connector - 2
- Jackson Connector Trail - 3
- Logan Ave NW - 1
- Middle Branch Trail – 1
- Middlebranch to SERR - 1
- Minerva Connector Trail - 1
- Navarre Main Intersection - 1
- Nickel Plate Trail - 1
- North County Trail – 1
- North County/Walborn Connector Trail - 2
- Ohio & Erie Canal Towpath - 1
- Orion - Pittsburg to Cleveland - 1
- Pittsburg & Applegrove - 1
- Pleasant Valley Trail - 1
- Quail Hollow Trails - 1
- Sandy Valley Trail - 1
- Shuffel - SR 241 to Frank - 1
- Sippo Valley Bridge #1 - 1
- Sippo Valley Bridge #2 - 1
- Sippo Valley Bridge #3 - 2
- Sippo Valley Connector Trail - 1
- SR 241 Wales at Strausser - 1
- Stark Electric Railway Trail - 1
- Towpath Trail Paving – 1
- Upper Middlebranch Trail - 1
- U.S. Route 30 relocation between Trump Ave & SR44 - 2
- Wales from Hills & Dales to Portage - 1
- Wales from Portage to Summit County Line - 1
- West Branch - 1

- Newsletter Article:

Moving Stark Forward 2050 Plan

The Stark County Regional Planning Commission (SCRPC) and Stark County Area Transportation Study (SCATS) are excited to launch the update to the Stark County 2050 Transportation Plan.

The long-range transportation plan is one of several plans required by the U.S. Department of Transportation in order to qualify projects to receive federal funds. It includes road, transit, pedestrian, and bicycle projects for at least the next twenty years.

The long-range plan is created by asking your local township, village, and city governments; the Stark County Engineer; the Ohio Department of Transportation; adjoining counties, and the public to incorporate everyone's transportation needs in one place.

To see what is proposed through the year 2050, you can use the online interactive map at:

<https://scrpc.maps.arcgis.com/apps/CrowdsourcingPolling/index.html?appid=62593b0e22a04131a621791739bfb44e>

or click this link: [Stark County 2050 Interactive Map](#)

Once you are at the map you will see a "key" identifying the types of projects. When you close that box, you can "left click" on a project marked on the map or from the list on the right of your screen. To see the key again, "left click" on the question mark at the top right of your screen. Note: the "Filter list by map" does not function at this time.

To leave general comments or ideas for projects "right click" on "General Public Comments" at the top of the list of projects.

You can also email or leave a message to Karl Lucas, Senior Planner, at kbucas@starkcountyohio.gov or (330) 451-7386.

The SCATS staff has been seeking input throughout the county.



- Facebook Post September 6th, 2024
 - 8 Likes
 - 1 Share
 - No written comments
- Facebook Post October 15th, 2024
 - 2 Likes
 - 1 Shares
 - No written comments