



### EXECUTIVE SUMMARY

#### S.1 Overview

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) has conducted the Uptown Transportation Study with the following purpose:

**“Develop a comprehensive transportation plan for the Uptown area that serves the needs of the area’s diverse population, responds to existing transportation deficiencies, and supports continuing growth, development, and economic vitality.”**

The Uptown Transportation Study has been jointly managed by the project Implementation Partners (IP). The IP is composed of the following entities: OKI, the City of Cincinnati, the Southwestern Ohio Regional Transit Authority (SORTA), the Uptown Consortium, the Ohio Department of Transportation (ODOT), and the AMOS Project.

The project is divided into two elements; Part A and Part B. Part A is a comprehensive review of all elements of the transportation system within the Uptown area including:

- Local Street operations
- Internal and regional transit services
- On-Street and off-street parking
- Pedestrian and bicycle circulation
- Signage and wayfinding

Part B is specifically focused on evaluating access between the Uptown area and I-71 and making recommendations for potential access improvements. The project follows ODOT’s 14-step Major Project Development Process (PDP). Steps 1 through 4 of PDP have been completed through the planning activities conducted as part of this project.

The IP developed the following purpose and need statement for the Part B I-71 Access Improvement Study.

**“The purpose of the I-71 Uptown Study is to develop a set of feasible alternatives to improve access between I-71 and the Uptown area of Cincinnati that reduce travel times, reduce complexity of wayfinding, and promote economic vitality.”**

OKI has developed an extensive Community Involvement and Communication Plan to encourage public participation in the planning process. See the “Community Involvement Documentation” binder for additional information regarding the project Community Involvement and Communication Plan.

The Uptown Transportation Plan consists of interrelated improvements to the Uptown Transportation system that will be implemented over time. The elements of the plan are intended to take advantage of existing infrastructure to the greatest extent possible to maximize the efficiency of the existing transportation system. The plan also includes significant capital investments that recognize the importance of the Uptown area as one of the primary economic engines of the region. The plan is sensitive to the mixed land uses of the area and seeks to preserve the pedestrian orientation of the neighborhoods while serving the transportation needs of the area's regional institutions. The guiding principles behind the Uptown Transportation Plan are as follows:

The Uptown Transportation Plan should:

- Address existing deficiencies in the transportation system
- Improve the transportation linkage between Uptown and Downtown
- Improve access to the regional road system
- Promote alternatives to driving alone
- Enhance the pedestrian environment
- Contribute to improving the image and identity of the Uptown area

To accomplish these principles, the Uptown Transportation Plan includes the following elements:

- **Travel Demand Management** – a coordinated program of information and incentives adopted by Uptown area employers to promote alternatives to driving alone.
- **Signage and Wayfinding** – a comprehensive package of new directional signage to improve wayfinding, help to establish the Uptown identity, and improve the visual streetscape.
- **Traffic Signal Optimization** – Optimization and coordination of the traffic signal operations throughout the Uptown area will result in a significant decrease in traffic delays.
- **Bus System Enhancements** – Bus service through the Uptown area will be enhanced by adding bus shelters at high activity locations, improving bus signage and information, and by establishing transit hubs to ease transfers.
- **Limited Stop Bus Routes** – On selected bus routes through Uptown, bus stops will be consolidated to improve bus travel times between Uptown and Downtown.
- **Uptown Shuttle** – An Uptown Shuttle will be established to connect major

destinations and parking facilities and to provide improved internal circulation opportunities.

- **New Parking Facilities** – Additional parking will be provided to support the continuing growth of the Uptown institutions and enhance the economic competitiveness of those institutions. New parking will be located on the perimeter of Uptown, with shuttle connections to major institutions.
- **Roadway Improvements** – the Uptown Transportation Plan includes a number of roadway improvement projects designed to address specific areas of congestion and to improve the connectivity of the local street system.
- **Pedestrian/Bicycle Improvements** – The design of all roadway improvements will include provisions for pedestrian and bicycle circulation and will seek to enhance the pedestrian environment.
- **Improved Access to I-71** – many of the travel deficiencies in the Uptown area are directly related to inadequate access to the interstate system. The Uptown Transportation Plan recommends providing full access to I-71 in the vicinity of ML King and Taft/McMillan. These regional access improvements will reduce travel times to and from the Uptown area, reduce the complexity of wayfinding, and promote economic revitalization.

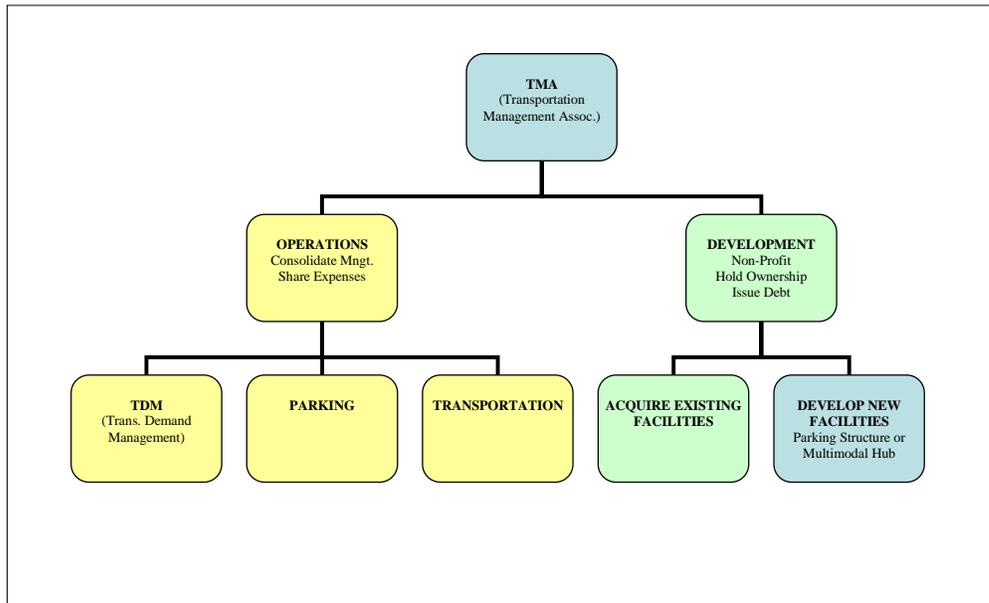
Specific plan elements are discussed in more detail in the following sections.

## **S.2 Transportation Management Association**

The establishment of an Uptown Transportation Management Association (TMA) is recommended to develop and operate the coordinated transportation facilities in the Uptown area. The recommended organization of the Uptown TMA is displayed on Figure S-1. This recommended management model addresses two main functions:

1. Management of parking, enforcement, transportation demand management and transportation (whether by contract or by self-operation)
2. Future acquisition of existing facilities and/or the joint development of new parking facilities.

**Figure S-1: TMA Organization**



The Uptown TMA is currently envisioned as a separate legal entity, but could be associated with the Uptown Consortium.

The creation process of the organizational entity should contain the following important steps:

- Determine if a management partnership is adequate, or if a 501(c)3 non-profit corporation is necessary. This should be determined with legal counsel.
- Agree on operating structure and method of funding for operations.
- Establish principles, bylaws, mission statement, goals, budget, etc.
- Select the Board of Directors.
- Determine whether parking will be managed by contract vs. self-operation.
- Negotiate operating and funding agreements with the partners.

The Uptown TMA should establish and manage a coordinated Travel Demand Management (TDM) Plan through Organization Transportation Coordinators (Coordinators). The Uptown TMA would appoint a TDM director who would be responsible to create and manage the TDM plan. In turn, each member organization would appoint a transportation coordinator who would be responsible for TDM programs and strategies to be administered, implemented and monitored within their business. While the Uptown TMA would have primary responsibility for managing and implementing the TDM plan, it is recommended that public agencies including the City of Cincinnati, OKI and Metro assist and support the TDM plan. The responsibilities of the TDM Director would include:

- Coordination with member organizations.
- Coordination with regional service providers (OKI, SORTA).
- Promotion and distribution of bus passes, bus schedules and other promotional literature.
- Monitor usage of TMA resources and revise TDM Plan elements as necessary.
- Represent the Uptown area in various transportation forums.
- Develop, organize and conduct promotional events.
- Maintain an Uptown web site focused on transportation and transportation demand management.

The overall purpose of the Uptown TDM plan is to encourage travel alternatives to single occupant vehicles. The intent is to reduce travel and parking demand in Uptown by promoting ridesharing and transit. SORTA and/or OKI already provide the following TDM services on a regional basis.

- Host carpool matching
- Fund van pooling
- Coordinate the Guaranteed Ride Home programs
- Provide transit trip planning services
- Provide transit schedules
- Provide guides on “how-to-ride” public transportation

The Uptown TMA can support the regional TDM effort with additional travel demand programs and strategies that would be implemented at regional and institutional levels.

*Regional initiatives include:*

- Promote TDM initiatives through an initial kick-off event and annual transportation fairs.
- Establish and maintain a web site with Uptown transportation information.
- Create and distribute an Uptown Directory that includes transit and parking information, a tear-out area map and a variety of information regarding activities/events in the area.

*Institutional initiatives include:*

- Designate a visible area as a travel information center. This area would serve a variety of travel information needs by providing bus schedules, rideshare matching information, parking information, and transportation benefits information. The office of the travel coordinator should be near the travel center so there would be a resource for people who have questions.
- Identify and designate preferred carpool parking areas.
- Provide secure bicycle parking and identify shower facilities that employees can use.
- Offer employees discounted bus passes.
- Provide on-site sale of bus passes to employees.
- Provide “occasional use” parking permits.
- Provide transit-related tax benefit information and choices to employees and management.

### **S.3 Transit**

Recommendations to improve transit service in the Uptown area have the objective of increasing transit utilization by residents, employees, and students. The recommendations are provided for major categories:

- Marketing and Information
- Transit Service
- Facilities

Marketing and information improvements are intended to raise the visibility of transit as a viable mode of travel, and include the following:

- Establishment of the Uptown TMA.
- An Uptown Transit Map, showing both Metro routes and major shuttle routes.
- Improvements in the availability of transit information, including signage, timetables, maps and on-line information. Major institutions in Uptown should make transit information readily available to employees, students, and visitors.
- Financial incentives to transit use: employers should provide free or discounted transit service to employees; the University of Cincinnati should implement a free-access system to Metro service for students.
- Real-time schedule information should be provided at major bus stops and on-line.

Transit service improvements are proposed for Metro, in order to improve accessibility between Uptown and Downtown. For both the Clifton and Vine corridors, initial improvements would consist of instituting limited stop service on selected routes to improve travel times. In the future, this limited stop service could transition into a form of arterial Bus Rapid Transit (BRT) service. This service could use special buses to provide a unique identity. Signal priority could provide further travel time improvement. The stops could have shelters with a unique look and could provide real-time schedule information. Further study of transit signal priority and BRT concepts are recommended.

Transit service would also be improved for travel within Uptown. Metro Route 51, which connects many Uptown institutions, would operate more frequently. A new Uptown Shuttle would provide frequent service connecting the University of Cincinnati, the main hospital complex, and other Uptown destinations. Improvements would also be made to several other shuttle routes. The shuttle service would be publicized more widely, and would be available to all potential users.

Facility improvements include additional bus shelters, and improved signing at all bus and shuttle stops. Establishing one or more transit hubs in the Uptown area is recommended to facilitate transfers and make bus riding easier, safer and more convenient.

#### **S.4 Signage and Wayfinding**

A new wayfinding sign system in and around Uptown is recommended. A new wayfinding system will provide a number of benefits to the Uptown area including:

- Visitors to the area will be able to find their destination easier
- New signage will upgrade the appearance of the streets
- Removal of existing signage will help to establish clear messages

An analysis of approach routes to Uptown destinations was conducted to identify preferred signage routes to the primary destinations in the Uptown area. Based on this route analysis, key decision points were identified. These decision points are the general locations where Uptown directional signage will be needed.

A schematic plan for a new Uptown sign system has been developed. This plan includes design guidelines for a comprehensive family of signs and preliminary designs for the look of the new signs, as well as guidelines for typical messages and locations. The recommended plan includes both vehicular wayfinding signs and pedestrian/bicyclist-oriented signs. The recommended steps to implementation of the wayfinding system are as follows:

- Remove existing Uptown signage
- Complete final design of sign system including messages, colors, appearance, materials, locations and support systems in accordance with plan recommendations.

- Fabricate and install signs.

## **S.5 Pedestrian and Bicyclist**

General recommendations with respect to pedestrian and bicyclist facilities are documented below.

### *Bicycle Facilities*

1. Include bicycle facilities, when feasible, as existing streets are upgraded or when new streets are created by establishing wide outside curb lanes.
2. Upgrade and maintain signage and pavement markings along signed bike routes.
3. Provide secure bicycle parking facilities for students, customers and employees.
4. Increase motorists' awareness of bicycles with "Share the Road" signs. Bicycle route signage should be provided at regular intervals to clearly define routes.

### *Pedestrian Facilities*

1. Include minimum 5-foot wide sidewalks during reconstruction of urban arterial and collector streets.
2. Mark and maintain crosswalk pavement markings at all mid-block crossings.
3. Consider median pedestrian refuge islands for streets wider than 5 lanes.
4. Apply "traffic safety" techniques to reduce traffic speeds in areas of high pedestrian travel or crash frequency.
5. ADA-compliant crosswalk treatments should be incorporated into all designs.

## **S.6 Roadway Operations**

The recommended street improvement projects are described below. Much of the analysis to determine roadway improvements relied on usual and customary LOS and engineering standards. The results show that correction of many deficiencies in traffic flow will require significant mid-block widening and widening of intersections. In some cases, the widening will have a severe impact on adjacent properties.

Some of the projects will be difficult to implement due to impact on adjacent properties, requirement of additional right-of-way, and conflicting urban design elements. Thus, an early step in the implementation process will be to conduct preliminary engineering studies in order to more readily quantify the degree of impact and specific benefits attributable to the project.

It may be necessary to review and/or revise the traditional engineering approach in order to develop projects which will have a more balanced design; an approach that will accept some congestion so that adjacent properties or the urban fabric are not negatively impacted.

A viable and robust street grid is imperative to the efficient movement of traffic in Uptown. Every effort should be made to utilize the existing street system as effectively as possible. The City's functional classification system, taken together with an understanding of priority of use within the right-of-way, is important to achieving a balanced transportation grid.

Major roadways, such as ML King, Drive, Clifton Avenue, Burnet Avenue, Vine Street, and West McMillan Street/Calhoun Street, will have to accommodate higher and higher volumes of traffic. Therefore, it is important to establish a priority of use within the public right-of-way. Existing public right-of-way is a precious and limited resource in the Uptown area. Thus, every effort must be made to preserve its capacity for the basic function of the existing surface street system.

The first priority of public use in the street system will be the need to provide and preserve capacity for vehicular traffic flow. Vehicular traffic includes private automobiles and trucks as well as public transit and privately-operated shuttle systems. The second priority should be to provide for pedestrians, bicycles, and other means of personal travel. As necessary, on-street parking should be removed in order to provide adequate space for movement of vehicles, pedestrians, and bicycles. Many of the following projects require the removal of on-street parking. In the future, it should be expected that overall on-street parking supply will be decreased and replaced with off-street parking facilities.

Each corridor contains multiple recommendations for improvements in traffic flow. A realistic implementation program will necessarily include preliminary engineering studies, recognition of funding sources, and an understanding of opportunities for implementation as they become available.

Also, each corridor contains project elements which could be implemented separately and provide benefits. Examples include shared bicycle lanes, safety improvements, signal timing, and/or intersection improvements. The cost includes design, construction and right-of-way. Estimates were made with planning level information and 2006 dollars.

**TABLE S-1**

**RECOMMENDED CORRIDOR IMPROVEMENTS**

<b>Project</b>	<b>Description</b>	<b>Project Cost</b>
Signal System Coordination	New timing plans for all 69 signals in Uptown	\$400,000
ML King Drive Corridor	Upgrade and widen roadway with additional lanes from Central Parkway to Reading Rd. to provide distribution and connection between I-71 and I-75. Major intersection improvements at Reading Rd., Highland, Clifton, Dixmyth and Central Parkway. Install capacity improvements such as medians, turn restrictions and elimination of parking. Conduct preliminary engineering study.	\$11,800,000
Burnet Avenue Corridor	Upgrade traffic operations from Reading Rd. to Forest Ave. Add turn lanes, widen and restrict parking.	\$900,000
Vine Street Corridor	Improve capacity and traffic operations from McMicken to Erkenbrecher. Improve intersections at Erkenbrecher, Nixon, and Taft/Jefferson/McMillan. Restrict parking, provide pedestrian and bicycle facilities. Extend Short Vine to connect with William Howard Taft/McMillan. Conduct a preliminary engineering study.	\$4,900,000
Reading Road Corridor	Improve traffic operations from Elsinore to Forest. Restrict parking, apply access management elements, provide 5-lanes between Burnet to Elsinore, and improve the intersection at William Howard Taft. Conduct a preliminary engineering study.	\$1,900,000
Clifton Avenue Corridor	Improve traffic operations from McMillan to Spring Grove Ave. Install signage, shared bicycle paths, and pedestrian crossings. Provide for improved transit operation. Remove parking in selected locations. Improve intersections at Spring Grove, Ludlow, and Woolper/McAlpin	\$500,000
Highland Avenue Corridor	Improve traffic operations between ML King and McMillan. Restrict parking, improve intersection at ML King and add turn lane at McMillan.	\$300,000

**TABLE S-1 (Continued)**

Eden Avenue Corridor	Improve traffic operations from William Howard Taft to ML King. Restrict parking. Extend Eden from Taft to McMillan.	\$1,100,000
Harvey Avenue Corridor	Improve traffic operations from ML King to Forest. Remove curb parking as necessary.	\$10,000
Auburn Avenue	Improve traffic operations from Dorchester to William Howard Taft. Remove parking as necessary. Improve intersection at Sycamore/Dorchester.	\$700,000
East-West Connection between Burnet and Harvey	Construct a new 5-lane roadway from Burnet to Harvey and widen Ridgeway from Harvey to Reading. Improve intersections at Reading Rd. and Harvey.	\$1,200,000
Northern Avenue Extension	Construct a new 3-lane roadway from Burnet to Harvey.	\$300,000
Erkenbrecher Avenue	Widen roadway between Burnet and Harvey.	\$150,000
West McMillan Street Corridor	Upgrade roadway and traffic operations between Central Parkway and Clifton. Restrict parking.	\$700,000
<b>Total Cost</b>		<b>\$24,860,000</b>

## S.7 Parking

Based on the forecast of parking supply and demand, a severe parking problem will become evident prior to the end of the 10-year projection period, and is already perceived to be a present problem. Based on an analysis of future parking demand and supply, the future (2015) parking deficit is expected to be approximately 5,000 spaces. This estimate includes anticipated growth and development of area institutions and planned changes in parking supply.

It is recommended that the design target be divided between two (2) new facilities within the study area. Each structure should be sized to accommodate about one-half of the estimated parking deficit, or approximately 2,500 parking spaces.

Based on the needs projection, planning for the construction of a 2,500-space parking structure is recommended, with completion anticipated prior to 2010 to ensure that an adequate parking supply is maintained. A construction period of 12 to 18 months is anticipated. This first parking structure is recommended to be located in the vicinity of the intersection of Reading and ML King Boulevard and should be on the route of the proposed Uptown Shuttle.

Upon completion and absorption of this first parking structure, it is recommended that the parking needs study be updated to recalibrate the model and recalculate the space requirements for a second parking structure.

Following verification of the remaining parking deficit, a second parking structure should be constructed. This second structure should be located to provide good geographic coverage of the Uptown area based on the location of the first parking structure and a typical five-minute walk distance.

Each of these parking structures is expected to cost on the order of \$30 to \$45 million (2006\$).

## S.8 I-71 Interchange

The IP established the purpose of the I-71 Access Improvement Feasibility Study as follows:

**“The purpose of the I-71 Interstate Access Improvement Feasibility Study is to develop a preferred alternative to improve access between I-71 and the Uptown area of Cincinnati to reduce travel times, reduce complexity of wayfinding and promote economic vitality.”**

The recommended plan for I-71 access improvements consists of providing full access in the vicinity of ML King and Taft and McMillan. The interchange could have a variety of configurations but would allow both northbound and southbound traffic to enter and exit I-71 to/from either ML King or Taft/McMillan.

The development of improved access to I-71 needs to be accomplished following procedures established by ODOT and FHWA. The ODOT Project Development Process identifies fourteen steps to implement a major project such as this. The current work effort will carry the project through Step 4 of the ODOT PDP. Assuming continuation of the PDP process, it is estimated that the new access would be operational in approximately 2017.

Preliminary analysis of alternative interchange configurations indicate that the cost of constructing new access at ML King and Taft/McMillan will be on the order of \$40 million (2006\$). In addition, additional right of way will be required and the cost of that right of way is also estimated to be approximately \$40 million.

## S.9 Implementation Plan

As shown in Table S-2, the Uptown Transportation Plan contains improvements estimated to cost a total of \$194 million (2006\$). These improvements are expected to be implemented over a period of approximately 10 years.

**TABLE S-2**  
**SUMMARY OF RECOMMENDATIONS**

<b>Project</b>	<b>Description</b>	<b>Project Cost</b>
Transportation Management	Implement a Transportation Management Association (TMA)	\$300,000
Parking	Provide two new parking structures on the perimeter of Uptown approx 5,000 spaces	\$80,225,000
Uptown Wayfinding System	A comprehensive wayfinding sign system to replace existing Uptown Wayfinding Signs.	\$1,250,000
Corridor Improvements	Signal system coordination and improvements to 13 roadway corridors	\$24,860,000
Pedestrian and Bike	Provide an interconnected system of on street shared bicycle lanes throughout Uptown. Improve pedestrian crossings at major intersections.	\$700,000
Transit	Implement new public Uptown Shuttle, introduce limited stop service on Clifton Ave. and/or Vine. St Corridors, Reduce headways on Route 51, establish two transit hubs at key locations.	\$6,925,000
I-71 Interchange	Provide improved access to I-71 in the vicinity of ML King and Taft/McMillan	\$80,000,000
<b>Total Cost</b>		<b>\$194,260,000</b>

## **S.10 Funding Sources**

The identification of potential funding sources is important to the development of a meaningful transportation improvement program. Transportation needs in the Uptown area span a broad spectrum of projects and stakeholders. Participants and beneficiaries include institutions, private businesses, neighborhoods, community business districts, individuals, OKI, State of Ohio, Hamilton County, and the City of Cincinnati. These complex relationships present both a challenge and an opportunity for the development of a funding program. The challenge is contained in the intertwined needs and sometimes conflicting priorities of the stakeholders. The opportunity is present because of the broad range of private and public funding programs available for transportation needs.

At this time, it can be reasonably assumed that funds for implementation of the various recommended transportation improvements will be a combination of private and public sources. The short- and long-term transportation projects identified in this study present both local and regional benefits. Local and state government jurisdictions will be responsible for a major role in implementation, including design, construction, administrative, and legislative actions. The private sector, which includes local businesses, developers, and nonprofit organizations, will be expected to provide significant funding resources as well as coordination and political support.

At this time, specific funding sources (local, state, Federal, nonprofit and private) cannot be identified with any degree of confidence. Stakeholders and agencies responsible for implementation will need to enter into a dialogue for the purpose of establishing detailed cost estimates, cost sharing, and specific sources of funding.

A broad range of funding opportunities which would be investigated include the following:

- Tax Increment Financing; (Several TIFF districts have been previously established within the study area). Currently administered by the City of Cincinnati Economic Development Division under the Auspices of ORC 5709.40-42
- Public/private Cost Sharing; (Leverage use of New Market Tax-Credit Grant)
- Ohio Department of Public Transit Urban Transit Program Funds
- Ohio Parks and Natural Resources Fund
- Transportation Improvement District; Currently the study area is located within the jurisdiction of the Hamilton County Transportation Improvement District. A TID is created as a political subdivision of the state of Ohio under the Auspice of ORC 5540 and the board of trustees would be appointed by the Hamilton County Commissioners
- SCIP/LTP State Funding Program
- CMAQ Transportation Funds; Congestion Mitigation Air Quality Funds are a source of federal transportation funds earmarked for transportation projects that will relieve congestion and improve air quality.
- User Fees
- Congestion pricing
- Federal Transportation Enhancement Funds
- Traffic and land use impact fees
- Ohio Issue Two Funds
- Federal and special programs
- Federal earmarks through a variety of discretionary funding programs.
- City of Cincinnati Income Tax (Smale Commission)
- Community Urban Redevelopment Corporation funding
- TRAC – The Transportation Review Advisory Council was created by the Ohio

General Assembly in 1997 to bring an open, fair, and logical system to choosing major new transportation projects. TRAC's budget for major new capacity projects is certified to the TRAC by the director of the Ohio Department of Transportation (ODOT) after funds for system preservation are determined. Historically, the TRAC has had about \$300 million a year to pay for projects, including design, right-of-way acquisition, and construction.

A major new project is one that will cost ODOT over \$5 million and do one or more of the following: reduce congestion, increase mobility, provide connectivity, and increase a region's accessibility for economic development. In general, the TRAC puts a priority on state and federal highways.