

**Columbia
Area
Transportation
Study
Organization
(CATSO)**

FY 2017 Unified Planning Work Program

*Approved by the CATSO Coordinating
Committee on August 25, 2016*

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Introduction

The purpose of the Unified Planning Work Program (UPWP) is to outline grant-related Columbia metropolitan planning area programs and goals for the upcoming fiscal year. Federal metropolitan planning funding is received through a Federal Transportation Grant from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), known as a Consolidated Planning Grant (CPG). The UPWP provides the basis for requesting CPG assistance. The CPG is a combination of FHWA/FTA (OneDOT) funding consolidated into one grant category. The City of Columbia's Department of Community Development Planning Division, acting on behalf of the City, serves as the recipient agency for the Columbia Area Transportation Study Organization (CATSO) and conducts planning activities on their behalf. CATSO is an organization designated by the Governor as the certified "Metropolitan Planning Organization" (MPO) for the Columbia Area. The membership of this organization includes all of the public agencies participating in transportation programs for the Columbia area. Specifically, this includes MoDOT, Boone County, and the City of Columbia. The implementation of this FY2017 document is a cooperative process of the CATSO, MoDOT, OneDOT, COMO Connect (formally Columbia Transit) representatives and members of the CATSO Technical Committee and Coordinating Committee. Eligible planning activities, as described in this work program, are funded by CPG funds on an 80/20 federal/local split.

Planning Priorities Summary

The CATSO 2040 Long Range Transportation Plan was adopted in February, 2014. In FY2017, CATSO Staff will continue implementation and monitoring of the 2040 LRTP, with work to continue on the modeling update component of the plan. It is anticipated the CATSO 2040 Long Range Transportation Plan will be amended to include the model update in 2017. Emphasis will continue on more extensive development of the CATSO 2040 Long Range Transportation Plan's performance measurement component. Work will also maintain the focus on implementation of the transportation and related land-use components of *Columbia Imagined*, the comprehensive land use plan for the Metropolitan Planning Area, adopted in FY2014.

Continued emphasis on the walking and bicycling modes of transportation will be maintained. Staff will work on performance measures emphasized as federal priorities.

Included in the FY2017 work products will be implementation and performance measures associated with the 2013 Master Sidewalk Plan update and the 2040 Pedestrian & Bicycle Network Plan (adopted as a component of the CATSO 2040 LRTP update). Staff also anticipates assisting in the identification and applications of grants and other funding sources available for non-motorized facilities. The federal funding provided for the Non-Motorized Transportation Pilot Program (locally called GetAbout Columbia) has enabled a number of new bicycle and pedestrian facilities to be planned and implemented. Staff will provide assistance to the GetAbout Columbia program as necessary as the projects being done with the second round of funding are designed and constructed. Funding for non-motorized transportation improvements is anticipated to be a long-term challenge once GetAbout program funds are no longer available.

The total federal Consolidated Planning Grant (CPG) funding and match shown for work activities in the FY 2017 budget summary sheet is \$509,339. The FY 2017 CPG allocation has not yet been announced. It is CATSO policy to maintain a CPG balance for future year needs, particularly for special projects that may require a large dedication of CPG funds.

The following narrative outlines each program area and provides information on work activities planned for the FY2017 planning work program year period of October 1, 2016 to September 30, 2017. All tasks are to be completed by CATSO staff unless otherwise identified.

Work Elements - Products & Activities

Activity 110 Land Use Planning

Purpose:

The integration of land use and transportation planning is necessary to promote orderly growth and development in the Columbia Metropolitan Planning Area. This category includes the preparation of land use studies for small areas where specialized problems or circumstances exist. As such, studies and activities directed at the implementation of the Comprehensive Land Use Plan (*Columbia Imagined*) are also in this area of the work program. All tasks are to be completed by CATSO staff unless otherwise identified.

Objectives/Activities:

- 1) The metro-wide comprehensive, long-range land use plan, *Columbia Imagined*, was adopted in early FY2014. A work program was developed to implement the land use and transportation elements of the plan. Staff will continue on elements of the work plan, specifically land-use related code revisions, special area/neighborhood plans, and data analysis and mapping needs, during FY2017 and beyond.
- 2) Staff will continually review potential updates to the Future Land Use Map (FLUM) and Urban Services Area (USA) developed in *Columbia Imagined*; updates or amendments will be considered as needed to address development trends and infrastructure capacity, specifically sewer and transportation infrastructure. An ongoing staff activity has been to examine current land uses and potential land use impacts in corridors affected by the extension of sewer mains and roadways in the Major Roadway Plan (MRP).
- 3) One of the main work products called for in *Columbia Imagined* is the development of a revised, unified development code to replace the City of Columbia's subdivision and zoning codes. As the City of Columbia municipal boundary encompasses a large proportion of the Metropolitan Planning Area (MPA), staff will continue its review and provide comments relevant to land use and transportation planning for the MPA

throughout the development codes update as necessary (anticipated as an ongoing activity into FY 2017).

- 4) Staff will continue land use updates for 2030 model TAZ geography for use in the 2040 model update supplement to the 2040 Long-range Transportation Plan; the model supplement is anticipated to be completed in 2017.

Work Completed in FY 2016:

- Staff reviewed the most recent combined draft, of the Development Codes Update (the City of Columbia's comprehensive update and integration of Chapters 29 [Zoning] and 25 [Subdivision] of its development Code) and provided input, specifically on issues related to the relationship between transportation and land use.
- *Columbia Imagined*: Staff continues work on the land use and transportation elements of the *Columbia Imagined* Comprehensive Plan. Staff has also provided input on transportation elements and land use in the first neighborhood plan developed for the west-central portion of the Metro Area. Neighborhood planning is one of the key work objectives of the Comprehensive Plan work program.
- Staff coordinated the initiation of the parking and transportation project recommendations resulting from the 2015 parking audit/transportation management project supported by Smart Growth America technical assistance.
- Updated MPA land use GIS database for CATSO MPA transportation planning applications. This database provides valuable information for MRP amendments, modeling, and non-motorized project selection. Updates included new roadways and realignments, quality control revisions, and new attribute data as appropriate.
- Developed infrastructure "score card" proofs of concept focusing on the availability of infrastructure for utilities and traffic by meeting with engineering staff.

Columbia Imagined includes analysis of the MPA's existing conditions and summarizes the public input regarding land use and policy preferences in light of constraints and opportunities. Maps and data analysis include infrastructure availability and capacity, and developable land capacities. Approximately 80 percent of the plan is composed of land use and transportation elements.

Products for FY 2017:

- Updated MPA land use GIS database. Anticipated completion date-ongoing. Responsibility - CATSO Staff.
- Using the prioritized implementation table and FLUM adopted as a part of

Columbia Imagined, continue to develop and carry out a work program for implementing the land use and transportation components of the plan. One of the primary work elements staff will continue to work on in FY2017 is an infrastructure “score card” to analyze and evaluate the suitability of development based upon the availability, capacity, condition, and planned extension or provision of infrastructure to a site or area. This “score card” will heavily utilize the GIS and modeling components of the CATSO model. Anticipated completion date- Ongoing. Responsibility - CATSO Staff assistance.

- Continue to make growth projections for use in transportation decision-making by collecting development data and analyzing various US Census products and other relevant data sources. This data will be used in travel demand model runs and plan updates. Anticipated completion date-ongoing. Responsibility - CATSO Staff.
- Advance the implementation of elements of *Columbia Imagined*, specifically land-use related code revisions in conjunction with special area/neighborhood plans. Staff is currently focused on the development of three neighborhood land-use plans for three strategically defined areas in central, north and east Columbia. Responsibility- CATSO Staff.
- Coordinate the completion of the parking and transportation project recommendations resulting from the 2015 parking audit/transportation management project supported by Smart Growth America technical assistance. Responsibility-CATSO Staff.

The updates of the GIS databases and map services utilize databases provided by the Boone County Assessor’s Office and the GIS Consortium. All developed tracts within the MPA are coded by existing land use and vacant tracts by their land use plan designation. Other attribute data, such as developable acreage and TAZ number, is also included.

Staffing, Funding Sources:

Staffing of the various work activities will come primarily from the CATSO staff. At times, City of Columbia and Boone County departments and the Missouri Department of Transportation (MoDOT) may provide necessary assistance. Funding will come from the City of Columbia and the Consolidated Planning Grant.

Funding Breakdown:

Total Costs \$67,777- Federal \$54,222, Local \$13,555.

Activity 120
Short-Range Transportation Planning

Purpose:

This program area encompasses a range of activities including the identification, analysis, and solution of transportation problems that either are immediate concerns or will be in the near future. Attention is given to all modes of transportation. Program activities in this category are also devoted to the coordination of transportation programs between the various jurisdictions involved with transportation activities in the MPA. All tasks are to be completed by CATSO staff unless otherwise identified.

Objectives/Activities:

- 1) Prepare specific studies in relation to transportation issues, as requested, e.g. review of a Major Roadway Plan planned extension in relation to a development request. There is no definite number of studies expected; it is possible that none may be required. This is included to indicate that any such analyses would be done on an as-needed basis.
- 2) Promote non-motorized transportation, as funded by the Transportation Alternatives program for example, through staff support (data analysis, map creation/GIS analysis, grant application preparation and management, etc.) and assistance with the prioritization of funding for non-motorized infrastructure (sidewalk construction/repair, ADA compliance, trails, pedways, bike lanes, etc.) within the MPA.
- 3) Continue to provide COMO Connect with general staff support related to the Transportation Improvement Program, grant applications, Triennial Review, and any other relevant planning issues.
- 4) Coordinate transportation improvements within the MPA between Boone County, the City of Columbia, and MoDOT to prevent possible conflicts and service duplication.

- 5) Prepare and present to the Coordinating Committee for their approval the 4-year FY 2018-2021 CATSO Transportation Improvement Program (TIP).
- 6) Maintain traffic count information for the MPA, including a traffic count map for distribution to other agencies and the public.
- 7) Participate in the MoDOT Planning Partner Framework and related processes to identify statewide and regional investment priorities.
- 8) Processing of TIP amendments when required as requested by CATSO member jurisdictions, including Boone County, MoDOT, and the City of Columbia.
- 9) Develop the FY 2016 Annual Listing of Obligated Projects.
- 10) Process Functional Classification revisions when required.
- 11) Assist COMO Connect staff with the Triennial Review their office will have in FY 2017.

Work Completed in FY 2016:

- Preparation/approval of an amendment to the FY2016-2019 TIP in February 2016 (2 new projects).
- Staff prepared and completed the Hominy Trail Phase I and II Health Impact Assessment (HIA), which is a tool to evaluate the health and transportation impacts of non-motorized transportation facilities.
- Assistance to the City of Columbia GetAbout (Non-Motorized) program staff.
- Developed the Annual List of Obligated Projects for FY2015.
- Development and adoption of the FY 2017-2020 Transportation Improvement Program (TIP).

Products for FY 2017:

- An updated FY 2018-2021 Transportation Improvement Program (TIP). Anticipated completion date - August 2017.
- Coordinating Committee approved amendments/modifications to the FY 2017-2020 TIP. Anticipated completion date - as needed.
- A map of the FY 2017-2020 TIP projects will be developed. Anticipated completion date - First Quarter 2017.
- Development of the Annual Listing of Obligated Projects for FY2016. Anticipated

completion date – First Quarter 2017.

- Updated traffic count map for the MPA whenever new traffic counts are released (MoDOT is now providing GIS database updates in lieu of paper copies of maps). Use of updated databases will allow for greater analysis of short-term transportation issues in light of other geographically based factors. Additionally, staff will provide data access to other users, including the public, in a variety of formats including online, paper maps printed by CATSO, and geodatabases which may be overlaid over other geographically-based data. Anticipated completion date – Fourth Quarter 2017.

Staffing, Funding Sources and Agencies:

The work in this activity category will be done by the CATSO staff, with assistance from City of Columbia Public Works and GetAbout Columbia staff. Some staff assistance will be requested from MoDOT. Funding will come from the City of Columbia and the Consolidated Planning Grant.

Funding Breakdown:

Total Costs \$71,694 – Federal \$57,355, Local \$14,339.

Activity 130
Long-Range Transportation Planning

Purpose:

This activity is directed toward maintaining the Columbia Area Major Roadway Plan (MRP) and other elements of the CATSO 2040 Long Range Transportation Plan (LRTP) and conducting an effective program for long-range transportation planning. The CATSO 2040 LRTP update was adopted by the CATSO Coordinating Committee on February 27, 2014. Modeling of the adopted 2040 MRP will continue in FY 2017 using 2040 land use and employment forecasts and evaluating for adequacy of capacity and level of service (LOS). Additional work tasks to implement the plan are also anticipated. All tasks are to be completed by CATSO staff unless otherwise identified.

Objectives/Activities:

- 1) Provide staff support to the Columbia Area Transportation Study Organization (CATSO) Coordinating and Technical Committees, including agenda preparation, public notices, meeting minutes, and staff reports for agenda items. More specifically, this includes the provision of staff reports on proposed road, sidewalk/pedway and bicycle route reconstruction and new construction projects, and other transportation related issues.
- 2) The staff will integrate and update the travel demand model data inputs to reflect changes in population, land use, employment, utilities, roadways and related infrastructure issues; and changes in the adopted Columbia Imagined comprehensive plan to ensure consistency and to support the accuracy of data used for implementing the CATSO 2040 LRTP.
- 3) Continue the implementation of the CATSO 2040 LRTP with an emphasis on public input in the planning process, performance measurement, and multi-modal transportation planning solutions.

- 4) Prepare Amendments to the CATSO 2040 LRTP, Major Roadway Plan, and the CATSO Pedestrian and Bicycle Network Plan as necessary and take amendments to CATSO Coordinating Committee for public hearing as directed. This will include the production of maps, staff reports, PowerPoint presentations, and related work to publicize the public hearings/meetings.
- 5) Continue to coordinate with MoDOT Central Office on CATSO staff efforts to incorporate applicable national performance measures in transportation plans as outlined in the FAST Act legislation.

Work Completed in FY 2016:

- Staffing and preparation of reports and related materials for CATSO Technical and Coordinating Committee meetings.
- Work was completed related to the maintenance and updating of the CATSO Major Roadway Plan GIS feature class. Staff reviewed existing needs and developed a new network model and companion street intersections data for the updated travel demand model. Evaluation included reviewing existing data and needs for traffic counts, traffic signals, and bike and pedestrian counts.
- Work on the implementation of the 2040 LRTP continued, including work to develop a system of performance measurements for LRTP goals and priorities.
- Researched and developed data from capital improvement projects and master plans to support the development of forecasting metrics for future utility services for City utilities.
- Organized stakeholders to discuss the development of a permanent and ongoing bicycle and pedestrian count program.

Products for FY 2017:

- The largest long-range planning activity in FY17 will continue to be the implementation of the CATSO 2040 LRTP's recommendations. This includes greater development of the use of vehicle miles traveled (VMT) as a performance measure (and ultimately the development of strategies to reduce VMT), the development of baseline data related to performance measures for the plan's goals and objectives, and the use of LOS measures for non-motorized facilities.
- A second emphasis for FY2017 related to the CATSO 2040 LRTP will be on additional geographically-based analysis work. The 2040 MRP network will be modeled using the MPO travel demand model using updated land use and population forecast out to the horizon year of 2040.
- Updates to CATSO Major Roadway Plan (MRP) if warranted by the travel demand analysis of the MRP network using 2040 data population/employment

data. CATSO staff will bring more amendments forward at the direction of the Coordinating Committee.

The CATSO MRP is the major instrument for controlling and accommodating both motorized and non-motorized traffic in the Columbia MPA. A specific concern is the development of an adequate collector and arterial street network in outlying areas that can be served by centralized sewer.

Staffing, Funding Sources and Agencies:

Primary staffing responsibilities will be with CATSO Staff, although some MoDOT assistance will be required. Funding will come from the City of Columbia and the CPG.

Funding Breakdown:

Total Costs \$97,693– Federal \$78,154, Local \$19,539.

Activity 140 Transit Planning

Purpose:

Work in this program area is primarily devoted to the review and implementation of transit operational strategies for the COMO Connect bus system. Fiscal and status reporting of grant projects are also included. COMO Connect is the public transit system that serves the Columbia MPA. The bus system operates both fixed routes as well as paratransit service. The public transit system has been operated by the City of Columbia since 1965.

System Management and Operation.

COMO Connect continues to work with the City Council and their Public Transportation Advisory Commission (Commission) to assess the need for additional service and the potential expenses involved with system coverage of the community and/or service hour expansion(s). Transit staff works to keep the Commission, the Council and the Manager's office informed of transit system operations. The described activities are continuous and ongoing.

Financial Planning.

The planning, data collection, analysis, and preparation of the annual financial and budget reports will be completed in this category. COMO Connect staff prepares a detailed monthly data analysis and summary for both internal and external review. At the request of the Council or Commission, staff will prepare the financial planning of several potential expansion scenarios and report back on an ongoing basis. Each of these individual assessments could be incorporated into the Master Plan.

Other Activities.

Paratransit: The planning, development, and improvement of transportation services to persons with disabilities is ongoing. Paratransit services, complementing the fixed routes, have been provided since the early 1990s. Significant planning effort is expended to maximize service with limited personnel and equipment. As the City continues annexations, the service area grows. COMO Connect replaced its demand response scheduling suite along with deploying a fleet-wide automatic vehicle locating

(AVL) system. Implementing hardware and software systems will require continued diligence to ensure that the public views accurate data and demand response schedules continue to flow smoothly. Staff also plans for the provision of transportation for individuals under the Non-Emergency Medical Transportation (NEMT) and Medicaid Waiver programs. NEMT service has continued to grow steadily since implementation but requires constant planning as it continues to tax equipment and staff. Staff will map continued growth in the NEMT and Medicaid Waiver programs.

DBE: The City of Columbia has an individual disadvantaged business enterprise (DBE) program. The City will continue to maintain ties and utilize the State of Missouri's Unified Certification Program. Work continues to assess where additional participation opportunities exist.

Implementation of ADA: Staff will continue tasks necessary to ensure transit services remain compliant with the Americans with Disabilities Act (ADA), and will continue working with the City's ADA Advisory Committee. COMO Connect will work to ensure accessibility of all passenger waiting sites, and will seek funding to install additional accessible amenities. Staff will assess sites, research property ownership and acquire right-of-use agreements, as necessary.

Public Transportation and Human Services Transportation Coordination Planning: Staff will continue to work to implement the recommendations of the adopted 2013 update to the CATSO *Coordinated Public Transit Human Services Transportation Plan*.

Transit Planning and Review: Review of transit operations plus fiscal and operational reporting will occur. This is to collect information pertinent to making transit system decisions.

Objectives/Activities:

- 1) Maintain quarterly records of transit system operations.
- 2) Develop and use improved criteria to measure service efficiency continuously.
- 3) Continuously utilize management techniques that are responsive to changing conditions and needs.
- 4) Continuously monitor system operations so that problems can be identified and alleviated in an expedient manner.
- 5) Continuous planning to evaluate and implement Paratransit service delivery to the growing disabled population within the ADA service area for COMO Connect.
- 6) Continue to seek and solicit a high level of citizen input into the development and maintenance of transit operations on a continuous basis.

- 7) Continue the process of working with and monitoring a consultant in the development of a COMO Connect Comprehensive Operational Analysis, Service Guidelines and transit Master Plan.

Work Completed in FY 2016:

- Preparation of capital and operating grant applications for service improvements.
- Completed the bidding/vetting/hiring process for a consultant to prepare a new COMO Connect comprehensive transit Master Plan.

Products for FY 2017:

- Amenities - An updated and comprehensive Bench and Shelter Master Plan will be established. Matching funds have been set aside for the implementation of additional amenities, when the grant funding becomes available. Additional funding has been allocated and numerous additional shelters will be implemented in FY 2017.
- A new comprehensive Master Transit Plan. Total cost of this product is estimated at \$ 161,406, with \$42,282 of CPG funds.
- Analysis and reporting on COMO Connect as required by the City Council and PTAC.
- Implement and monitor the transition of 8-12 fixed route fleet vehicles from diesel to battery electric. The City of Columbia was awarded a Low Emission No Emission grant in July of 2016 to facilitate this transition.

Staffing, Funding Sources and Agencies:

Staff support will come primarily from the COMO Connect staff, although some assistance will be needed from CATSO staff, along with City of Columbia Community Development, Finance, Human Resources, Health, and Legal Departments. Of the federal share costs for transit, \$42,282 is anticipated to go towards the consultant fee for a COMO Connect Transit Master Plan. The rest of the CPG fund for this work activity will be applied to staff salaries. The anticipated consultant expenditures are a carry-over from the FY 2016 UPWP.

Funding Breakdown:

Total Costs \$84,103– Federal \$67,282, Local \$16,821.

Activity 220
Federal Consolidated Planning Grant Management

Purpose:

This work activity is CATSO's administration/management of Consolidated Planning Grant (CPG) funds provided under 23 U.S.C. 104(f) to CATSO for metropolitan transportation planning. All tasks are to be completed by CATSO staff unless otherwise identified.

Objectives/Activities:

- 1) Maintain proper records and prepare quarterly progress reports and grant billings, DBE semi-annual reports, and FY 2016 completion report.
- 2) Actively administer grant activities by reviewing time sheets and financial reports and monitor that project completion proceeds in accordance with the work program.
- 4) Cooperate with representatives of MoDOT and OneDOT (Federal Transit Administration and Federal Highway Administration) to ensure good working relations during grant administration.
- 5) Develop the work program and budget for the FY 2018 Unified Planning Work Program (UPWP).
- 6) Implement and make any needed revisions to the Title VI Policy Plan, including research and preparation of the necessary data and annual reporting. Do related work to ensure compliance with ADA requirements.
- 7) Review and monitor CATSO documents for compliance with federal regulations and maintain a work program to ensure planning documents are update as needed/required.

- 8) Refinement and expansion of the CATSO website to implement further improvements and convenience for public review and input. Ensure that the CATSO website and all electronic communications are accessible and meet the requirements of Section 504 of the Rehabilitation Act of 1973.

Work Completed in FY 2016:

- FY 2017 UPWP approved by Coordinating Committee
- Quarterly reports for FY 2016 were prepared and submitted to MoDOT.
- DBE semi-annual reports in October 2015 and April 2016 were prepared.
- The FY2015 Completion Report was prepared.
- Annual report describing Title VI activities was developed in July 2016.
- Refinement and expansion of the CATSO website home and specialty pages.
- Participated in MPO MAP-21/FAST ACT Performance Measurement, Interpretation, Compliance, Best Practices and Implementation monthly meetings hosted by MoDOT for MPOs and RPCs in Missouri and nearby states and provided input on safety and other data needs.

Products for FY 2017:

- Complete participation in the One DOT Process Review of the transportation planning process for the Columbia metropolitan planning area. If the review results in recommendations or findings of corrective actions, staff will work to address them in a timely fashion.
- FY2018 UPWP to be approved by the CATSO Coordinating Committee. Anticipated completion date-August 2017. Responsibility- CATSO Staff.
- Quarterly Reports. Anticipated completion date(s)-January 2017, April 2017, July 2017, and October, 2017.
- DBE semi-annual reports. Anticipated completion date(s)-October, 2016 and April, 2017.
- FY 2016 Completion Report. Anticipated completion date- November 2016.
- Continuous development and implementation of the Title VI Plan including an annual report in July 2017. Anticipated completion date-Ongoing.
- Continued participation in the MPO MAP-21/FAST Act Performance Measurement, Interpretation, Compliance, Best Practices and Implementation monthly meetings hosted by MoDOT for MPOs and RPCs in Missouri and nearby states.

Also to be expected would be Civil Rights compliance certification, the administration of Title VI activities, and active surveillance of grant activities. Review of CATSO

planning documents for compliance with federal requirements and assessment for other amendment of updating needs is included in this section. Implementation and performance measurement evaluation of planning documents may also occur. The staff will also assist FTA representatives in their evaluation of local MPO performance toward DBE objectives. Participation in any audits or program review may also be a work product.

Staffing, Funding Sources, and Agencies:

Staffing will be with the CATSO staff, with assistance from City of Columbia Community Development, Public Works, and Finance departments. Funding will come from the City of Columbia and the Consolidated Planning Grant.

Funding Breakdown:

Total Costs \$34,286– Federal \$27,429, Local \$6,857

Activity 240 Information Systems

Purpose:

Work in this activity area is devoted to the production, collection, storage, management, analysis, and communication of information for departmental and public use. This information is utilized as a support mechanism for many of the tasks performed by the Department. Data prepared is provided to the public and other agencies upon request. Also included is the production of maps and other graphics, and general spatial and analytical data support activities for projects included in other UPWP work activities. Planning and assistance related to Census Bureau materials also occur in this program area. All tasks are to be completed by CATSO staff unless otherwise identified.

Objective/Activities:

- 1) Maintain up-to-date information for population, employment, socioeconomic demographics, housing, transportation, and other related data, including a current GIS street map and related databases, and develop related analysis and projection techniques.
- 2) Procurement of 2017 leaf on and leaf off aerial imagery to update the 2007 Natural Resources Inventory dataset. The high resolution 2007 Natural Resources Inventory land cover datasets are now 10 years old. Acquiring new imagery to serve as the basis for updating the data is a requirement to understand how the MPA has changed and update land use and land cover inputs for future land use models.
- 3) Development of new maps depicting sidewalks and lack of sidewalks in MPA for various applications (and specialized area plans).
- 4) Continue with the development of street condition and traffic attributes for surface transportation centerlines and intersections. Work will continue in FY2017 implementing the new major roadway dataset for

enhanced network analysis for traffic, commuting, and transit.

- 5) Continue the use of and update the Natural Resource Inventory digital database for more detailed landscape analysis for potential MPA transportation corridors, sidewalk system analysis, trail and pedway connector routes, and other transportation applications. Continue implementing the structures data model integrating data from multiple City and County sources. Work planned for FY2017 includes updating geographies in the dataset to match 2015 aerial imagery and LiDAR and standardization with structure use and occupancy datasets.
- 6) Continue to monitor US Census Bureau product releases including 2015 American Community Survey and economic census for applicable county, MPA, city, tract, block group, and block levels. Process and make available for use in graphics and map products, planning, network analysis, and spatial analysis.
- 7) Development and initial implementation of a framework for collecting easements in spatial forms from subdivisions plats and development plans, and other documents to complement and enhance the existing MPA Land Use database.
- 8) Automation of integration of stop-based transit ridership data from passenger counters into time-enabled spatial databases.
- 9) Development of a pilot project to scan, georeference, and make available historical imagery from between 1950 and 1986 not currently available in electronic format.
- 10) Staff attendance at professional training sessions on transportation planning subjects relevant to the CATSO area and operations. Professional development conferences offered by the American Planning Association (APA), Association of Pedestrian & Bicycle Professionals (APBP), other pedestrian & bicycle related seminars and conferences, and GIS software training courses are possibilities for this category. Costs for such activities will be taken from funds available in the non-salary and benefits portion of the UPWP budget.

Work Completed in FY 2016:

- Designed and implemented new databases for the CATSO Major Roadway Plan.
- Built and tested an online map application to collect data from field surveys of

sidewalk condition.

- Completed integration of “no sidewalk” areas along major roads and in the new neighborhood planning areas into the sidewalk map layer for more uniform maintenance, modelling, and analysis.
- Processed and made available 2014 American Community Survey 5-year, 3-year, and 1-year data for applicable county, MPA, city, tract, block group, and block.
- Created a new single-line Major Roadway Plan database layer to improve accuracy relative to existing street corridor locations and other factors.
- Created new maps and other necessary graphic additions for UPWP work products and activities.
- A new mobile-friendly and browser agnostic version of the City View interactive web map providing public access to MPO data products was released at <https://gis.gocolumbiamo.com/CityView/>. The new release includes enhanced buffer, measurement, reporting, and printing tools, and also incorporates Google Street View. New base maps with this release include six-class land cover and sixteen-class land and vegetation cover maps
- Developed digital surface model from 2015 LiDAR to model elevation and dimension of structures. Started implementing workflow to update structures dataset using 2015 digital surface model and 2015 imagery for structures built since 2009 (previous LiDAR) and 2011 (previous imagery).
- Integrated stop-based transit ridership data from passenger counters into spatial databases. This makes data available for transit and multi-modal transportation modeling uses.

Products for FY 2017:

- New maps, updates, and other necessary graphic additions for UPWP work products and activities. Anticipated completion date(s)-Ongoing.
- New 2017 leaf on and leaf off aerial imagery to update the 2007 Natural Resources Inventory dataset. Total cost of this project is estimated at \$80,000, with \$64,000 in CPG funds. Responsibility – consultant with CATSO staff assistance.
- New maps depicting sidewalks and lack of sidewalks in MPA for various applications (and specialized area plans). Responsibility- CATSO Staff.
- New street condition and traffic attribute development for surface transportation centerlines and intersections. Anticipated completion date - Ongoing.
- Graphics and map products, as well as spatial and network analysis based upon monitoring of US Census Bureau product releases including 2015 American Community Survey and economic census for applicable geographic data levels. .
- Implementation of the structures data model integrating data from multiple City and County sources.
- Development and implementation of a framework for collecting easements in

spatial forms from subdivisions plats and development plans, and other documents to complement and enhance the existing MPA Land Use database. Anticipated completion date – ongoing.

- Automation of the integration of stop-based transit ridership data from passenger counters into time-enabled spatial databases. This allows for data availability for transit and multi-modal transportation modeling uses. Development of a pilot project to scan, georeference, and make available historical imagery from between 1950 and 1986 that is not currently available in electronic format. This is a multi-year project that will be completed in steps as staff time is available. Anticipated completion date – ongoing.

The staff will continue working on potential applications for the metropolitan geographic information system (GIS) in conjunction with other agencies. Staff will consider additional GIS software training, and attend such training sessions as needed.

Staffing, Funding Sources and Agencies:

Staffing will be with the CATSO staff, with assistance from City of Columbia Community Development, Public Works, and the City GIS Office, which provides data development, maintenance, analysis, and support for CATSO and other interested parties. At times, other departments and the Missouri Department of Transportation (MoDOT) may provide necessary assistance. Funding will come from the City of Columbia and the Consolidated Planning Grant.

Planned capital expenditures of PL funds for FY-2017 include the maintenance costs for existing software; e.g. the travel demand modeling software.

Funding Breakdown:

Total Costs \$153,786 – Federal \$123,029, Local \$30,757.

Included in the federal total is \$14,824 of non-salary and benefit expenditures such as computer software and related services, e.g. training and licenses, transcription services, and travel and meeting expenses.

CATSO Staff includes two and one-half (2 ½) full-time positions and 1.65 full-time equivalents in other positions. See Appendix C for staff details.

Budget Summary

FY 2017 Unified Planning Work Program - Columbia, MO MPO (CATSO)					
Approved by the CATSO Coordinating Committee on August 25, 2016					
Consolidated Planning Grant (CPG) Funds					
Activity	Federal	Local	Federal CPG Funds*	Local Match	Total
110 LAND USE PLANNING	80%	20%	\$54,222	\$13,555	\$67,777
120 SHORT RANGE TRANSPORTATION PL	80%	20%	\$57,355	\$14,339	\$71,694
130 LONG RANGE TRANSPORTATION PL	80%	20%	\$78,154	\$19,539	\$97,693
140 TRANSIT PLANNING	80%	20%	\$67,282	\$16,821	\$84,103
220 CPG GRANT MANAGEMENT	80%	20%	\$27,429	\$6,857	\$34,286
240 INFORMATION SYSTEMS	80%	20%	\$123,029	\$30,757	\$153,786
TOTALS	80%	20%	\$407,471	\$101,868	\$509,339

* Of the federal CPG funds listed, non-salary expenditures anticipated in Activities #240 & #140 are as follows:
#240: \$11,859 is programmed for software/related services, transcription services, & travel/mtg. expenses, with \$64,000 programmed for two aerial photography projects for updated metropolitan planning area coverage
#140: \$42,282 is programmed to pay for a consultant to prepare a transit master plan

Notes

1. See UPWP Appendices for CATSO Staff, which has 2 full-time positions and 2.25 FTE in other positions.
2. CPG funds consist of FHWA PL and FTA Section 5303 planning funds.
3. A total of \$289,330 in CPG \$ is programmed for CATSO & related staff salaries.

CPG Funding Summary

CATSO CPG balance from prior FYs UPWP	\$436,723.57
FY 2016 CPG allocation	\$264,586.00
FY 2017 CPG allocation*	\$264,586.00
Estimated programmed FY 2016 CPG \$ left over after 4th Q	\$140,000.00
Total estimated CPG funds available for FY 2017 UPWP**	\$1,105,895.57
CPG funds programmed for FY 2017	\$407,471.00
Remaining Unprogrammed CPG funds balance	\$698,424.57

*Estimated FY 2017 allocation of \$264,586 has not yet been made available to CATSO

**Total estimated CPG funds is a projected figure based on prior available balance, FY 2016 allocation, estimated FY 2017 allocation, and estimated unexpended funds programmed in FY 2016

CATSO has elected not to program 100% of the anticipated available CPG funds. It is staff's general policy to maintain a reserve of funds for potential large expense planning projects that may become necessary in the future. In addition to this policy, there is a limited number of staff that does planning work, and given this we are unable to program any greater amount of CPG funding for FY 2017. Obtaining an increased amount of local matching funds could also be problematic, although staff has no official confirmation of that.

Public Participation

The FY2017 UPWP was formally adopted at the August 25, 2016 CATSO Coordinating Committee meeting, after a public hearing was conducted by the Committee. No members of the public provided input at the public hearing. A display advertisement notifying the public of this meeting was placed in the local newspaper. In addition, the Public Hearing Draft of the FY2017 UPWP, meeting agenda and public notice was placed on the CATSO section of the City's website. The ad gave emphasis to the public hearing aspect of the meeting, including the consideration of the draft FY2017 UPWP.

Public notification on the availability of the public hearing draft of the FY2017 UPWP was also made through a posting on the Community Development Department's listserv. The draft document was also e-mailed to all members of the CATSO Technical and Coordinating Committees.

The public input process for the Unified Planning Work Program annual update is described by the CATSO Public Participation Plan (PPP). The PPP, adopted by the CATSO Coordinating Committee on December 4, 2014, may be found at the following link at the City of Columbia website:

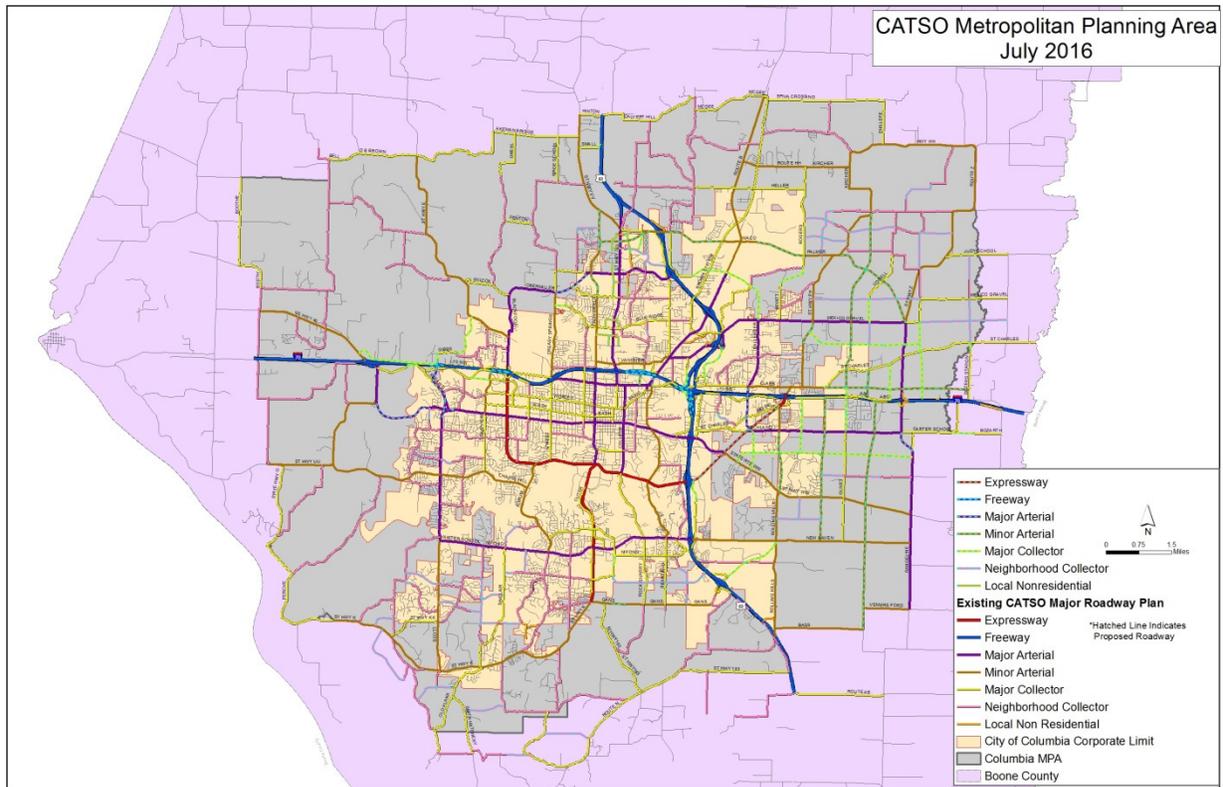
http://www.gocolumbiamo.com/community_development/planning/boards_and_commissions/catso/PPPlan.php

Appendix E of this document also contains the description of the public input process for the UPWP as prescribed in the PPP.

Appendices

Appendix A

Map of Metropolitan Planning Area (MPA) Boundary



Appendix B

List of Acronyms Used in this Document

ADA	Americans with Disabilities Act
APA	American Planning Association
APBP	Association of Pedestrian & Bicycle Professionals
AVL	Automatic Vehicle Locating
CATSO	Columbia Area Transportation Study Organization
CPG	Consolidated Planning Grant
COMO Connect	The Columbia, Missouri transit system
DBE	Disadvantaged Business Enterprise
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FLUM	Future Land Use Map
FTA	Federal Transit Administration
FTE	Full-time equivalent
FY	Fiscal Year
GIS	Geographic Information System
HIA	Health Impact Assessment
LiDAR	Light Detection and Ranging surveying technology

LOS	Level of Service
L RTP	Long-Range Transportation Plan
MAP-21	Moving Ahead for Progress in the 21 st Century
MoDOT	Missouri Department of Transportation
MPA	Metropolitan Planning Area
MPO	Metropolitan Planning Organization
MRP	Major Roadway Plan
NEMT	Non-Emergency Medical Transportation
NRI	Natural Resources Inventory
OneDOT	Federal Highway Administration/Federal Transit Administration
PPP	Public Participation Plan
PTAC	Public Transportation Advisory Commission
STIP	Statewide Transportation Improvement Program
TAZ	Traffic Analysis Zone
TIP	Transportation Improvement Program
UPWP	Unified Planning Work Program
USA	Urban Services Area
VMT	Vehicle Miles Traveled

Appendix C

CATSO Staff

Full-Time Staff:

Mitch Skov, Senior Planner

Leah Christian, Planner

Part-Time Staff:

John Fleck, GIS Analyst (.5 FTE)

Timothy Teddy, Director (.3 FTE)

Amy Modrell-Miller, Sr. Administrative Supervisor (.25 FTE)

Tim Connet, GIS Technician (.3 FTE)

Other GIS support: .9 FTE

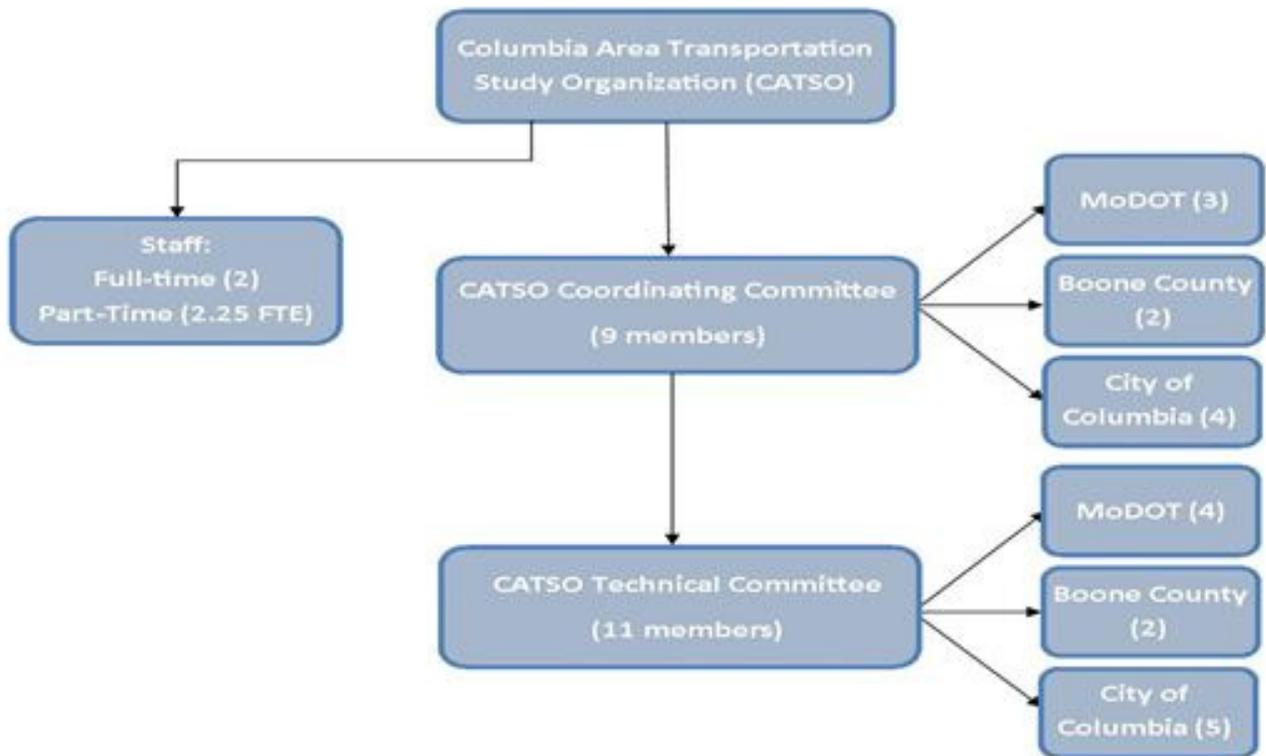
There are two full time staff positions. The .5 GIS Analyst position is a part time position in which 100% of the GIS Analyst work is dedicated to the CATSO metropolitan planning work.

In addition, there are three staff persons within Community Development that have CATSO staff work responsibilities - with CATSO funding covering .3, .25, and .3 of their total work hours respectively. Coupled with the additional .9 full-time equivalent in the GIS Division for CATSO level work, this adds up to 2.25 FTE that is shown under the category of Part-Time Staff.

All of the full time and part time CATSO staff members are housed within City Hall in downtown Columbia. CATSO staff within Community Development is housed on the Fifth Floor, while CATSO staff within the GIS Division is housed on the Third Floor.

Appendix D

CATSO Organizational Chart Columbia Metropolitan Planning Area Columbia, MO



Appendix E

Adopted CATSO Public Participation Plan re: UPWP

5. Unified Planning Work Program (UPWP)

5.1 Definition of the UPWP. The Unified Planning Work Program (UPWP) is a description of the proposed work activities of CATSO. The program is prepared annually and serves as a basis for requesting federal planning funds from the U. S. Department of Transportation. It also serves as a management tool for scheduling, budgeting, and monitoring the planning activities of the participating agencies. This document is prepared by CATSO staff with assistance from various agencies, including the Missouri Department of Transportation, the Federal Highway Administration, the Federal Transit Administration, the Columbia Transit System, and members of the Technical Committee.

5.2 Procedure and Schedule for Preparation of the UPWP. The UPWP is developed by CATSO with input from local governments, area private transit providers, and the Missouri Department of Transportation (MoDOT). When comments are being solicited during the public review period, notice will be posted on the CATSO web site. All public comments received pertaining to the UPWP will be reviewed and considered. An effective means of incorporating public input into the UPWP is to review comments received the previous year that relate to similar new projects. When developing the work program, the UPWP project manager should take this public comment into consideration.

The UPWP is updated annually beginning in June, and released for public review and comment for a minimum of 30 days prior to formal adoption. Included is the posting of the draft UPWP on the CATSO website, as well as providing the draft UPWP to contacts at MoDOT, FHWA, FTA, and local transportation providers for their review. Final approval is made in August at the Technical and Coordinating Committee meetings. Amendments can be made throughout the year and are released for public comment when tasks are either added or deleted, or when significant changes are made to the document.

5.3 Changes to the UPWP.

1. UPWP Amendments: (Major changes). UPWP Amendments are major revisions which require the official approval of the CATSO Coordinating Committee. The approval is followed by submission to the MoDOT for approval and subsequent approval by FHWA and FTA. An example of a major change is revising the UPWP budget to include additional CPG federal funding. Amendments require a public comment period of 15 days prior to consideration by the Coordinating Committee, with a public hearing according to the procedure in Section 5.2. Public notice will be given by a press release, and listed on the CATSO website.

2. UPWP Administrative Revisions (Minor changes). UPWP Administrative Revisions are minor changes which can be made directly by CATSO staff once it has been verified that the change applies to this category. Notification of administrative modifications will be provided to the Technical Committee, Coordinating Committee, MoDOT, FHWA and FTA. UPWP Administrative Modifications will require no public comment period.