



*association of central oklahoma governments*

Chair Eddie Reed  
Midwest City Mayor

Vice-Chair Mark Sharpton  
Logan County Commissioner

Secretary/Treasurer Willa Johnson  
Oklahoma City Councilmember

Executive Director  
Zach D. Taylor

## MEMORANDUM

**DATE:** November 3, 2005

**TO:** Intermodal Transportation Technical Committee (ITTC)

**FROM:** Douglas Rex, Assistant to the Executive Director/Program Coordinator  
Transportation Planning & Data Services (TPDS)

**SUBJECT:** Meeting Notice

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The Intermodal Transportation Technical Committee will hold a regular meeting on

**THURSDAY, NOVEMBER 10, 2005, AT 10:00 A.M.**

in the ACOG Conference Room, 21 East Main Street, Suite 100, Oklahoma City, Oklahoma.

## AGENDA

- I. CALL TO ORDER ([ATTACHMENT I](#))
- II. APPROVAL OF THE OCTOBER 13, 2005 MINUTES ([ATTACHMENT II](#))
- III. ACTION ITEMS:
  - A. Consider recommending that the ITTC approve the proposed 2006 ITTC meeting schedule. ([ATTACHMENT III-A](#))
  - B. Set date and time for special meeting of the ITTC to review and rank STP-UZA projects proposed for inclusion in the FFY 2007-2010 OCARTS Area TIP. ([ATTACHMENT III-B](#))
  - C. Consider recommending ITTC approval of the FY 2007 UPWP subcommittee and recommended meeting schedule, subject to adjustment by subcommittee as needed. ([ATTACHMENT III-C](#))

- IV. ITEMS FOR INFORMATION ONLY:
  - A. FHWA Workshop in Oklahoma City on Roundabout Design ([ATTACHMENT IV-A](#))
  - B. Conclusion of Ozone (O<sub>3</sub>) Season; Preparation for Carbon Monoxide (CO) Season ([ATTACHMENT IV-B](#))
  - C. Status of Surface Transportation Program Urbanized Area (STP-UZA) Projects in the OCARTS Transportation Management Area (TMA) ([ATTACHMENT IV-C](#))
- V. NEW BUSINESS
- VI. ADJOURN

**December ITTC Meeting: 10:00 a.m. Thursday, December 8, 2005**

**Deadline for December ITTC Agenda Items: 4:00 p.m. Thursday, November 17, 2005**

## INTERMODAL TRANSPORTATION TECHNICAL COMMITTEE

MEMBERSHIP LIST

NOVEMBER 3, 2005

CITY/ORGANIZATION	MEMBERS	ALTERNATES
BETHANY	No Designee	Steve Katen Assistant City Engineer
	Clyde Treat City Engineer	Vacant
BLANCHARD	Bill Edwards City Manager	Vacant
CHOCTAW	Robert Floyd City Manager	Vacant
	Bernard Nauheimer Public Works Director	Vacant
COLE	Tom Marcum City/County Engineer	Russell Price Trustee
	Lynn McCaskill City/County Planner	Marty Lell Trustee
DEL CITY	William G. Graham Public Works Director	Melvin Ferrell Street/Park Division Supervisor
	No Designee	Melvin Ferrell Street/Park Division Supervisor
EDMOND	Steve Manek Director of Engineering	Harry Fenton, Project Engineer
		Steve Lawrence, Civil Engineer
		Charlie Lee, Asst. Traffic Planner
	Thomas Minnick Traffic Planner	Harry Fenton, Project Engineer
		Steve Lawrence, Civil Engineer
Charlie Lee, Asst. Traffic Planner		
FOREST PARK	No Designee	Vacant
GOLDSBY	Ronny Nelson Maintenance Supervisor	Vacant
GUTHRIE	Tenny Maker Street Superintendent	James Hanke Planning & Code Administrator
	Rene Spineto City Planner	James Hanke Planning & Code Administrator
HARRAH	No Designee	Vacant
	Bill C. Knox Special Projects Officer	Vacant
JONES CITY	No Designee	Vacant
	No Designee	Vacant
LEXINGTON	No Designee	Vacant

<b>CITY/ORGANIZATION</b>	<b>MEMBERS</b>	<b>ALTERNATES</b>
LUTHER	No Designee	Vacant
MIDWEST CITY	John Derek Jackson City Engineer	Jackie D'Amico Engr. Project Manager
	Guy Henson Assistant City Manager	Ron Green Current Planning Manager
MOORE	Elizabeth Jones Comm. Dev. Director	Stephen Eddy City Manager
	Stan Drake Assistant City Manager	Stephen Eddy City Manager
MUSTANG	Melissa Helsel City Planner	Vacant
	Jim Turner Director of Community Development	Vacant
NEWCASTLE	Nick Nazar Assistant City Manager	Vacant
NICHOLS HILLS	Charles Hooper Public Works Director	Carl Gray Public Works Deputy Director
NICOMA PARK	Jim Pumphrey Councilmember	Robert Pittman Councilmember
		Robert Pittman Councilmember
NOBLE	Bob Wade City Manager	Vacant
NORMAN	Patrick Copeland Development Services Div. Manager	Richard Massie, Dir.-Plan/Comm Dev
		Jimmy Berry, Dir.-Public Works
		Wayne Stenis, Senior Planner
	Angelo Lombardo Traffic Engineer	Richard Massie, Dir.-Plan/Comm Dev
		Jimmy Berry, Dir.-Public Works
Wayne Stenis, Senior Planner		
OKLAHOMA CITY	Paul Brum Public Works Director	Dan Boland, Senior Civil Engineer
		Stuart Chai, Senior Civil Engineer
	John Dugan Planning Director	Bob Mier, Principal Planner
		Mike Deming, Senior Planner
		Lanc Gross, Senior Planner
PIEDMONT	Clark Williams Community Development Director	Vacant
	No Designee	Vacant
SLAUGHTERVILLE	Marsha Blair Town Administrator	Gerald Kruschek Trustee
	No Designee	Gerald Kruschek Trustee

<b>CITY/ORGANIZATION</b>	<b>MEMBERS</b>	<b>ALTERNATES</b>
SPENCER	Jeff Pearson Public Works Director	Marsha Jefferson Mayor
	Nicole Mukes City Manager	Frank Calvin Planning Commission Chairman
TUTTLE	T. J. Chester Public Works Director	Mary Lou Fry Payroll Clerk
	No Designee	Mary Lou Fry Payroll Clerk
THE VILLAGE	Bruce Stone City Manager	Vacant
WARR ACRES	Leslie Owens Councilmember	Vacant
	No Designee	Vacant
YUKON	Tim Rundel Community Enhancement Director	Vacant
	James Crosby City Manager	Mike Elder Community Development Coordinator
CANADIAN CO.	Phil Carson County Commissioner – District #1	Don Young County Commissioner – District #2
	Grant Hedrick, Jr. County Commissioner – District #3	Don Young County Commissioner – District #2
CLEVELAND CO.	No Designee	Vacant
LOGAN CO.	Mark Sharpton Commissioner	Mary Murphey Administrative Assistant
OKLAHOMA CO.	Ray Reaves County Engineer	Gerald Wright, Superintendent-Dist. 3
		Linda Simpson, Chief Deputy-Dist. 1
		Dale Frey, Zoning/Projects Monitor
	Tyler Gammon Planning Director	Gerald Wright, Superintendent-Dist. 3
		Linda Simpson, Chief Deputy-Dist. 1
Ruth K. Walters, County Planner		
ASSOCIATION OF CENTRAL OKLAHOMA GOVERNMENTS (ACOG)	No Designee	Douglas Rex Asst. to the Exec. Dir./Prog Coordinator
		Holly Massie Special Programs Officer
CENTRAL OKLAHOMA TRANSPORTATION AND PARKING AUTHORITY (COTPA)	Rick Cain Administrator	Diponker Mukherjee, Planner II-Serv Devl
		Marty Dickens, Assistant Planner
	Larry Hopper Manager of Serv. Dev.	Diponker Mukherjee, Planner II-Serv Devl
		Marty Dickens, Assistant Planner
OKLAHOMA CITY DEPT. OF AIRPORTS	Don G. Jones Facility Planner	John Goodwin Unit Manager IV
	No Designee	John Goodwin Unit Manager IV

<b>CITY/ORGANIZATION</b>	<b>MEMBERS</b>	<b>ALTERNATES</b>
OKLAHOMA DEPT. OF TRANSPORTATION (ODOT) – Strategic Planning Branch	Roger Saunders Transportation Manager Planning & Research Division	Dawn Borelli Transp. Manager, Planning & Research
		Jay Adams Planning & Research Asst Div Mgr
OKLAHOMA DEPT. OF TRANSPORTATION – Transit Programs Division	Kenneth LaRue Division Manager	Randy Hogan Transportation Specialist
OKLAHOMA DEPT. OF ENVIRONMENTAL QUALITY (ODEQ)	Scott Thomas Program Director	Leon Ashford, Sr. Environmental Specialist
OKLAHOMA AERONAUTICS COMMISSION	Victor N. Bird Director	Erin Wright Special Projects Coordinator

### **NON-VOTING MEMBERS AND ALTERNATES**

<b>CITY/ORGANIZATION</b>	<b>MEMBERS</b>	<b>ALTERNATES</b>
AREAWIDE AGING AGENCY	Don Hudman Executive Director	Vacant
CAPITOL-MEDICAL ZONING COMMISSION	Denise Martin Program Administrator	Vacant
OKLAHOMA DEPT. OF TRANSPORTATION (ODOT) Local Government Division	Allan Wylie Engineer Manager	Gordon Johnson Division Engineer
OKLAHOMA RAILROAD ASSOCIATION	John P. Kyle Executive Director	Vacant
OK TURNPIKE AUTHORITY (OTA)	Gary Brown Dir. of Information Technology	Robert Burton Division Engineer
OKLAHOMA TRUCKING ASSOCIATION	Dan Case Executive Director	Nanci Davis Safety Regulation Specialist
TINKER AIR FORCE BASE	Bill Dalke Community Planner	John (Mark) Harbaugh Civil Engineer
TRIBAL GOVERNMENTS	No Designee	Vacant
U.S. BUREAU OF INDIAN AFFAIRS (BIA)	Michael Southern Acting Transp. Branch Chief	Robert Rodenberger Highway Engineer
U.S. DOT - FEDERAL AVIATION ADMINISTRATION (FAA) / Mike Monroney- Aeronautical Center	Edward N. Agnew Manager AR/OK Airports Devlpmt. Office	Dana Moffatt Real Estate Manager Office of Facility Mgmt.
U.S. DOT - FEDERAL HIGHWAY ADMINISTRATION (FHWA)	Isaac Akem Community Planner-OK Division	Vacant
U.S. DOT - FEDERAL TRANSIT ADMINISTRATION (FTA)	Pearlie Tiggs Community Planner	Peggy Crist, Director Planning & Program Devlpmt.

INTERMODAL TRANSPORTATION TECHNICAL COMMITTEE  
 MINUTES OF THE MEETING  
 OCTOBER 13, 2005

A regular meeting of the Intermodal Transportation Technical Committee (ITTC) convened on October 13, 2005 in the Board Room of the Association of Central Oklahoma Governments (ACOG), 21 East Main Street, Suite 100, Oklahoma City, Oklahoma. This meeting was held as indicated by advance notice filed with the Oklahoma County Clerk and by notice posted at the ACOG office at least twenty-four (24) hours prior to the meeting.

PRESIDING

CITY/AGENCY

Douglas Rex, Chairman

ACOG-Transportation Planning & Data Services (TPDS)

ITTC MEMBERS AND/OR ALTERNATES PRESENT

Robert Floyd	Choctaw
Harry Fenton	Edmond
Ronny Nelson	Goldsby
Rene Spineto	Guthrie
John Derek Jackson	Midwest City
Elizabeth Jones	Moore
Jim Pumphrey	Nicoma Park
Angelo Lombardo	Norman
Wayne Stenis	Norman
Stuart Chai	Oklahoma City
Clark Williams	Piedmont
Jeff Pearson	Spencer
Tim Rundel	Yukon
Mike Elder	Yukon
Mary Murphey	Logan County
Tyler Gammon	Oklahoma County
Gerald Wright	Oklahoma County
Larry Hopper	Central Oklahoma Transp and Parking Authority
Roger Saunders	Oklahoma Dept of Transp-Planning & Research Div

GUESTS

CITY/AGENCY

Richard Jurey, ITS Engineer	Federal Highway Administration
Alba N. Weaver, Economic Development Dir.	Guthrie
Hon. Chad McDowell, Mayor	Mustang
Erik Brandt, Comprehensive Planner	Oklahoma County
Mark Scott, Local Government Division	Oklahoma Department of Transportation
Paul Matthews, Executive Director	Oklahoma Highway Users Federation

GUESTS (Cont.)

Tom Shelton  
Mike McAnelly  
Lee Nichols

CITY/AGENCY

Carter & Burgess  
Carter & Burgess  
Carter & Burgess

ACOG STAFF

Holly Massie  
John Sharp  
Andrea Weckmueller-Behringer  
Melissa Baldwin  
Randy Entz  
Pong Wu  
Darla Hugaboom  
Beverly Garner

POSITION

Special Programs Officer, TPDS  
Program Coordinator, TPDS  
Associate Planner, TPDS  
Associate Planner, TPDS  
Associate Planner, TPDS  
Associate Planner, TPDS  
Associate Planner, TPDS  
Administrative Assistant, TPDS

ENTITIES ABSENT

Bethany  
Blanchard  
Cole  
Del City  
Forest Park  
Harrah  
Jones City  
Lexington  
Luther  
Mustang  
Newcastle  
Nichols Hills  
Noble  
Slaughterville  
Tuttle  
The Village  
Warr Acres  
Canadian County  
Cleveland County  
Oklahoma City Dept. of Airports  
Oklahoma Dept of Transportation-Transit Div  
Oklahoma Dept. of Environmental Quality  
Oklahoma Aeronautics Commission

NON-VOTING MEMBERS ABSENT

Areawide Aging Agency  
Capitol-Medical Zoning Commission  
ODOT-Local Government Division  
Oklahoma Railroad Association  
Oklahoma Turnpike Authority  
Oklahoma Trucking Association  
Tinker Air Force Base  
Tribal Governments  
U.S. Bureau of Indian Affairs  
U.S. DOT - Federal Aviation Administration  
U.S. DOT - Federal Highway Administration  
U.S. DOT - Federal Transit Administration

I. CALL TO ORDER

Chairman Rex called the meeting to order at 10:06 a.m. He introduced himself and entertained introductions around the room, noting that there was a quorum. He gave special recognition to a new ITTC member, Rene Spineto, the City Planner for the City of Guthrie who has been in that position for 4-5 months. He later also noted that Mayor Chad McDowell of Mustang was in attendance.

II. APPROVAL OF THE SEPTEMBER 8, 2005 MINUTES

Jim Pumphrey moved to approve the September 8, 2005 minutes. Stuart Chai seconded the motion. The motion carried unanimously.

Chairman Rex said that two of the agenda information items needed to be addressed first. He said in the interest of time, the Carter & Burgess consultants would give their presentation first since they had another meeting to attend shortly.

IV. INFORMATION ITEM:

B. Fixed Guideway Study Presentation

Chairman Rex introduced Tom Shelton of Carter & Burgess who thanked the Committee for the opportunity to speak. He said the Fixed Guideway Study (FGS) that is being prepared for COTPA is about a 12-month process and was initiated in January 2005. He said the Study is looking at all forms of transit—bus, rail, and other forms—trying to find what is appropriate for this region, not just within the City for Oklahoma City. He said similar to ACOG's planning efforts, the FGS analysis is based upon the horizon year 2030, and ACOG has been supportive in allowing the Carter & Burgess team access to the regional travel model. He then turned the presentation over to Mike McAnelly.

Mr. McAnelly said that in this round of public meetings they are presenting the preliminary ridership and cost analysis for all of the alternative technologies in the corridors that have been identified in the OCARTS area. He noted that this is preliminary information that is still being refined.

Mr. McAnelly then reviewed the purposes and objectives of the FGS:

- Identify a set of FGS transit alternatives, which encompasses not just rail, but bus rapid transit (BRT) and high occupancy vehicle (HOV)/managed lanes
- Strengthen the connections among all of the region's employment and activity centers
- Identify unique opportunities for a fixed guideway system that offers the Oklahoma City area potential transportation solutions
- Improve connections among the region's growth centers, recognizing that this is becoming a metropolitan region with multiple centers of growth and activity among the various cities

Mr. McAnelly said the consultants are very cognizant of the potential impact of fixed guideway technology on economic development and are attempting to adhere to the guiding principles that were adopted by the Steering Committee at the beginning of the study: achieve a regional consensus, enhance mobility, be fiscally responsible, consider appropriate technologies, consider effects on the corridors, and economic development.

Mr. McAnelly showed a map of the concept corridors that include the central area of Oklahoma City, 7 radial corridors, and 3 crosstown corridors – the Kilpatrick corridor, the I-44 corridor on the west side of the metro, and the I-240 corridor from Will Rogers World Airport to Tinker AFB.

Mr. McAnelly said that for each of the corridors, there is a set of evaluation criteria to measure and evaluate each of the technologies. The evaluation criteria includes:

- Ability to Satisfy Operations and Service Levels (Ridership)
- Compatibility with Existing Regional Transit Systems
- Cost Effectiveness
- System Accessibility
- System Feasibility
- Service Frequency
- Environmental Impacts
- Land Use Compatibility
- Availability of Technology

The list of potential fixed guideway technologies include: enhanced bus, HOV/managed lanes, bus rapid transit (BRT), commuter rail, and light rail/streetcar. Early on in the study, two alternatives were eliminated: heavy rail and monorail.

Mr. McAnelly then provided a comparison of the ridership and cost estimates for the alternative technologies:

- **Enhanced bus** - Enhanced bus is the base line alternative. Over the next 25 years, an adequate feeder system of bus service will be needed to get people from their homes to transfer stations and then to their ultimate destinations. Enhanced bus will reduce headways from the 30-40 minute average to 10-20 minutes, extend service hours to accommodate shift workers, extend routes, create more express routes with park-and-ride facilities, and establish new transit centers at hubs within the network where routes intersect and there are significant opportunities to transfer. The enhanced bus technology is estimated to result in a forecast of 5.2 million annual riders – double the ridership that COTPA currently experiences, and an estimated annualized cost of \$0.56 per annualized rider.

Larry Hopper noted that the enhanced bus alternative would include expansion of bus service to more suburban areas, including Moore, Yukon, near Piedmont, Midwest City, and Del City.

- **High Occupancy Vehicles/Managed Lanes** - For HOV/managed lanes, three possible locations are identified: I-35 from downtown OKC to Norman, along the new I-40 Crosstown Expressway relocation, and the new portion of the Broadway Extension that already has the width for this feature. The estimated forecast is 4.8 million annual person trips, at an annualized cost of \$5 - \$6 per person.
- **Bus Rapid Transit** - Bus rapid transit (BRT) operates in an exclusive guideway or lane, on the street or in a median. It is very sleek and looks more like a rail vehicle, but is rubber-tired, has extra wide double doors with a low floor to accommodate wheelchairs, and uses signal preemption to avoid congestion and delay. In the stations, it uses an automated guideway system. Mr. McAnelly showed a slide of potential BRT locations and said not all of these would likely ever be built, but we are looking at all possible alignments and testing them to see which ones perform best. Ridership is forecasted at 1.8 million annual riders in combination with the enhanced bus improvements. In combination with the commuter rail transit, it will carry about 411,000 annual riders. The estimated annualized capital cost is \$2.35 per rider with enhanced bus, and \$7 - \$8 per rider in combination with commuter rail.
- **Commuter Rail Transit** - Mr. McAnelly stated that the advantage of commuter rail transit (CRT) is that it uses the existing railroad infrastructure in the metro area. It takes advantage of the investment that has already been made in the freight rail system—the tracks and ROW. It is diesel-powered, as opposed to electric for light rail. It is compatible with freight rail activity, and serves long distance commuter trips of about 20 to 100 miles. He said there are four alignments that could operate CRT – the N-S alignment (which is on the BNSF tracks) from Edmond to Oklahoma City and Norman to Oklahoma City, and the E-W alignment (which is on the Union Pacific tracks) from Yukon to Oklahoma City, and Oklahoma City to Midwest City and Tinker. Forecasted CRT ridership is 697,000 annual riders on the N-S corridor and 280,000 annual riders on the E-W corridor. The estimated annualized cost is \$21.19 per rider on the N-S corridor, and \$31.03 per rider on the E-W corridor.

He said that much of the N-S corridor would have to be double tracked because 25-27 (freight) trains per day currently operate on that corridor. The E-W corridor has about 6-8 trains per day, so there would need to be passing tracks added at the station areas.

Angelo Lombardo asked if the cost of double tracking was included in the cost per rider and Mr. McAnelly said yes, the estimate included that cost. Mr. Lombardo said he understood that BNSF was already considering double tracking. Mr. McAnelly said it was necessary to add this cost because, in order to coordinate the commuter rail passenger traffic with the freight rail as it grows in the future, BNSF is going to

need more capacity anyway. Mr. Lombardo was hoping BNSF could help with the cost of double tracking and Mr. McAnelly said the challenge will be to get BNSF to entertain the idea of sharing its track and right-of-way.

Harry Fenton asked about the speed of CRT. Mr. McAnelly said the maximum speed would be 79 mph. The trip time to downtown would be about 20 minutes.

- **Light Rail** - Conventional light rail is electric powered and on a separate guideway. Large portions have to be elevated in order to have a separate guideway. It is not compatible with freight rail because you cannot run this on the same tracks or same ROW. The cost is enormous because it requires building an entirely new light rail corridor. He said the forecasted ridership is 1.3 million annual riders for the Edmond-OKC-Norman route, with an estimated annualized capital cost of over \$100 per rider. The preliminary conclusion is that conventional light rail transit is not an application in the immediate future for the Oklahoma City area.
  
- **Modern Streetcar** - Mr. McAnelly said that modern streetcar is a variant of light rail that is becoming popular in communities across the country. It works well in downtown urban areas. It uses smaller vehicles of about 65 feet (about 2/3 the size of conventional light rail), and the maximum speed is 45 mph. He showed a conceptual route map for the downtown area that would connect the commercial district, Bricktown, the Health Sciences center, and St. Anthony Hospital. Future extensions could be considered when warranted. He showed a slide of how the streetcar circulator could connect to the N-S and E-W commuter rail alignments, which would bring people into the central area. He said the Santa Fe station could provide a potential connection between the N-S commuter rail and the downtown modern streetcar. Where the two commuter rail lines cross, would be an ideal location for some type of intermodal facility. He also pointed out that COTPA's Downtown Transit Center could provide a transfer point with the Green Line (BRT). Mr. McAnelly advised that ridership forecasts for a downtown modern streetcar were: 400,000 annual riders in conjunction with CRT; 250,000 with BRT, and 150,000 with enhanced bus alone. The estimated annualized capital cost is \$13.50 per rider when combined with commuter rail; \$27 with BRT; \$44 with enhanced bus.

Tom Shelton added that the Steering Committee has asked the consultants to prepare an implementation plan that shows recommended phases over a period of time, and identify portions that would make excellent starter projects. The consultants will also prepare a funding strategy and proposed regional transit service plan. Mr. Shelton thanked the Committee for the opportunity to give this presentation.

There was no further discussion. This item was for information only.

Chairman Rex said the first information item would now be presented.

IV. INFORMATION ITEM:

A. Regional ITS Architecture Update

Andrea Weckmueller-Behringer highlighted the information as detailed in the agenda memorandum. There was no discussion. This item was for information only.

Chairman Rex said there were five action items to consider today.

III. ACTION ITEMS:

- A. Consider recommending that the ITPC amend the FFY 2006 element of the FFY 2006-2008 OCARTS Area TIP by adding the Cross Timbers Off-Road Vehicle Facility at Lake Stanley Draper in Oklahoma City, as requested by the Oklahoma Tourism and Recreation Department, and submit the same to the Oklahoma Department of Transportation (ODOT) for amendment of the Statewide Transportation Improvement Program (STIP).

Holly Massie presented this item as detailed in the agenda memorandum.

There being no discussion, Robert Floyd moved to recommend that the ITPC amend the FFY 2006 element of the FFY 2006-2008 OCARTS Area TIP by adding the Cross Timbers Off-Road Vehicle Facility at Lake Stanley Draper in Oklahoma City, as requested by the Oklahoma Tourism and Recreation Department, and submit the same to the Oklahoma Department of Transportation (ODOT) for amendment of the Statewide Transportation Improvement Program (STIP). Tim Rundel seconded the motion. The motion carried unanimously.

- B. Consider recommending that the ITPC approve the proposed revision to the FY 2006 UPWP budget, effective with the beginning of the new fiscal year.

Douglas Rex explained the revision as detailed in the agenda memorandum.

There being no discussion, Larry Hopper moved to recommend that the ITPC approve the proposed revision to the FY 2006 UPWP budget, effective with the beginning of the new fiscal year. Jim Pumphrey seconded the motion. The motion carried unanimously.

- C. Consider recommending that the ITPC approve changes to the *Criteria and Process for Evaluation of Surface Transportation Program Urbanized Area (STP-UZA) Projects* as reflected in the attachment.

Holly Massie highlighted the information as detailed in the agenda memorandum.

There being no discussion, Stuart Chai moved to recommend that the ITPC approve changes to the *Criteria and Process for Evaluation of Surface Transportation Program Urbanized Area (STP-UZA) Projects* as reflected in the attachment. Robert Floyd seconded the motion. The motion carried unanimously.

- D. Consider recommending that the ITPC approve adding the CART transit project components to the OCARTS area Regional ITS Architecture.

Andrea Weckmueller-Behringer presented this item as detailed in the agenda memorandum.

There being no discussion, Harry Fenton moved to recommend that the ITPC approve adding the CART transit project components to the OCARTS area Regional ITS Architecture. Wayne Stenis seconded the motion. The motion carried unanimously.

- E. Consider recommending that the ITPC approve adding the COTPA transit project components to the OCARTS area Regional ITS Architecture.

Andrea Weckmueller-Behringer presented this item as detailed in the agenda memorandum. Larry Hopper added that these ITS items will help COTPA address transit safety and security issues, and in the future, the fare boxes will be able to accept smart cards. Mr. Hopper also said that the radio system would connect to the fire and police radio systems, which have been completely revamped.

There being no further discussion, Clark Williams moved to recommend that the ITPC approve adding the COTPA transit project components to the OCARTS area Regional ITS Architecture. Jim Pumphrey seconded the motion. The motion carried unanimously.

#### IV. ITEMS FOR INFORMATION ONLY:

- A. Regional ITS Architecture Update

This item was presented earlier in the meeting.

- B. Fixed Guideway Study Presentation

This item was presented earlier in the meeting.

C. Availability of the FFY 2006-2008 OCARTS Area Transportation Improvement Program

Holly Massie said copies of the new FFY 2006-2008 OCARTS Area TIP were available at the front table. There was no discussion. This item was for information only.

D. Schedule for Preparation of the FFY 2007-2010 OCARTS Area TIP

Holly Massie highlighted the information as detailed in the agenda memorandum. She referred the Committee to the schedule in the agenda, noting deadline dates throughout the process. There was no discussion. This item was for information only.

E. Status of Surface Transportation Program Urbanized Area (STP-UZA) Projects in the OCARTS Transportation Management Area (TMA)

Holly Massie presented the status of the STP-UZA projects as detailed in the agenda memorandum. She encouraged those entities with projects in the FFY 2005 and FFY 2006 TIP to remain for a discussion regarding their projects following this meeting. There was no discussion. This item was for information only.

F. FY 2005 Unified Planning Work Program (UPWP) Reports

Chairman Rex said the following FY 2005 UPWP reports were completed and available at the front table:

Task 1.03(3)	Development of Metadata and Map Inventory for 2030 OCARTS Plan	(ACOG)
Task 3.01(8)	Documentation of FY 2005 Public Involvement	(ACOG)

There was no discussion. This item was for information only.

V. NEW BUSINESS

Chairman Rex asked if there was any new business to bring forth to the Committee. No new business was presented.

VI. ADJOURN

There being no further business, Jim Pumphrey moved to adjourn. Robert Floyd seconded the motion. The motion carried unanimously. The meeting adjourned at 10:53 a.m.

# ACOG

## Association of Central Oklahoma Governments

21 E. Main St, Suite 100, Oklahoma City, OK 73104-2405  
[405] 234-2264 Fax: [405] 234-2200 TDD: [405] 234-2217  
www.acogok.org e-mail: acog@acogok.org

### MEMORANDUM

**DATE:** November 3, 2005

**TO:** Intermodal Transportation Technical Committee

**FROM:** Douglas Rex, Asst. to the Executive Director/  
Program Coordinator, Transportation Planning & Data Services (TPDS)

**SUBJECT:** ITTC Meeting Schedule for 2006

#### INFORMATION:

Below is the ITTC meeting schedule as recommended by ACOG staff for Calendar Year 2006. Scheduled meeting time for the ITTC is 10:00 a.m. Meetings will be held on Thursdays in the ACOG Conference Room.

January 12, 2006  
February 9, 2006  
March 9, 2006  
April 13, 2006  
May 11, 2006  
June 8, 2006  
July 13, 2006  
NO AUGUST MEETING  
September 14, 2006  
October 12, 2006  
November 9, 2006  
December 14, 2006

#### ACTION REQUESTED:

Consider recommending that the ITPC approve the proposed 2006 ITTC meeting schedule.

# ACOG

## Association of Central Oklahoma Governments

21 E. Main St, Suite 100, Oklahoma City, OK 73104-2405  
[405] 234-2264 Fax: [405]234-2200 TDD: [405] 234-2217  
www.acogok.org e-mail: acog@acogok.org

### MEMORANDUM

**DATE:** November 3, 2005

**TO:** Intermodal Transportation Technical Committee

**FROM:** Holly Massie, Special Programs Officer

**SUBJECT:** Set Date and Time for Special ITTC Meeting to Rank STP-UZA Projects Proposed for Inclusion in the FFY 2007-2010 OCARTS Area TIP

#### INFORMATION:

According to the schedule for preparation of the OCARTS area Transportation Improvement Program, which was included in your October agenda, it is time to schedule a special meeting to rank the Surface Transportation Program Urbanized Area (STP-UZA) projects proposed for the FFY 2007-2010 TIP. The purpose of the meeting will be to develop recommendations that will result in a financially constrained list of STP-UZA projects for each year of the upcoming TIP. Subsequently, those recommendations will be forwarded to the ITPC for consideration during its January 2005 meeting, and inclusion in the preliminary TIP.

It is recommended that the special meeting occur during the week of January 9, following the December 15, 2005 deadline for TIP applications.

#### ACTION REQUESTED:

Set date and time for special meeting of the ITTC to review and rank STP-UZA projects proposed for inclusion in the FFY 2007-2010 OCARTS Area TIP.

# ACOG

## Association of Central Oklahoma Governments

21 E. Main St, Suite 100, Oklahoma City, OK 73104-2405  
(405) 234-2264 Fax: (405) 234-2200 TDD: (405) 234-2217  
www.acogok.org e-mail: acog@acogok.org

### MEMORANDUM

**DATE:** November 3, 2005

**TO:** Intermodal Transportation Technical Committee

**FROM:** Douglas Rex, Asst. to the Executive Director/  
Program Coordinator, Transportation Planning & Data Services (TPDS)

**SUBJECT:** Preparation of the FY 2007 Unified Planning Work Program (UPWP)

#### INFORMATION:

According to Federal Transit Administration's (FTA) Schedule for Making Grant Applications, the UPWP requires submittal to FTA three months prior to the beginning of the local fiscal year. In order to meet this deadline, we need to have the FY 2007 UPWP processed by ACOG Committees and delivered to ODOT by Friday, February 24, 2006. (ODOT will process the UPWPs from the Oklahoma City, Tulsa and Lawton MPOs and forward them to FTA.) That will require us to initiate the process of the FY 2007 UPWP development very soon.

At this time, the following schedule is proposed for the preparation of the FY 2007 UPWP. This schedule provides for meetings of the UPWP Subcommittee consisting of staff from: Edmond, Midwest City, Norman, and Oklahoma City Traffic Engineering, the Central Oklahoma Transportation and Parking Authority (COTPA), Cleveland Area Rapid Transit (CART), the Federal Highway Administration (FHWA), the Oklahoma Department of Transportation (ODOT), the Association of Central Oklahoma Governments (ACOG), and any other member entity or agency interested in providing their input into the process.

#### ACTION REQUESTED:

Consider recommending ITPC approval of the FY 2007 UPWP subcommittee and recommended meeting schedule, subject to adjustment by subcommittee as needed.

1. December 2, 2005 - UPWP Subcommittee - Orientation/Overview  
Friday Meeting at 9:00 a.m.; Begin Assessment of FY 2006 UPWP
2. December 9, 2005 - UPWP Subcommittee Meeting at 9:00 a.m.  
Friday Finish Assessment of FY 2006 UPWP
3. January 12, 2006 - UPWP Participants provide draft info to ACOG by NOON.  
Thursday by NOON COTPA, CART, OKC TM and ACOG staff to provide draft task descriptions & proposed budgets for FY 2007 UPWP to ACOG. ACOG in turn will email Draft 2007 UPWP info to UPWP Subcommittee entities.
4. January 20, 2006 - UPWP Subcommittee Meeting at 9:00 a.m.  
Friday Discussion of Draft FY 2007 UPWP
5. January 27, 2006 - UPWP Subcommittee Meeting at 9:00 a.m. if needed  
Friday Refine task descriptions & budget. Review and finalize preliminary draft to be submitted to ITTC, ITPC, and FTA
6. February 2, 2006 - ITTC Agenda mailout  
Thursday
7. February 9, 2006 - ITTC action/recommendation on preliminary FY 2007 UPWP  
Thursday
8. February 23, 2006 - ITPC and ACOG Board requested to approve preliminary UPWP,  
Thursday including granting approval to execute contracts and agreements  
- Submittal of Preliminary FY 2007 UPWP to ODOT, FHWA and FTA as recommended by ITPC
9. May 2006 Meetings - ITTC, ITPC, and ACOG Board approve final UPWP

# ACOG

## ASSOCIATION OF CENTRAL OKLAHOMA GOVERNMENTS

21 E. Main Street, Suite 100, Oklahoma City, OK 73104-2405  
(405)234-ACOG (2264) Fax:(405)234-2200

### MEMORANDUM

**DATE:** November 3, 2005

**TO:** Intermodal Transportation Technical Committee

**FROM:** Andrea Weckmueller-Behringer, Associate Planner  
Transportation Planning & Data Services

**SUBJECT:** FHWA Workshop in Oklahoma City on Roundabout Design

#### INFORMATION:

The Federal Highway Administration Resource Center is offering a one-day workshop on modern roundabout design. The workshop will be held at the Oklahoma Department of Transportation Training Facility at 1021 S.E. 59<sup>th</sup> in Oklahoma City on January 11, 2006.

Workshop discussion will include the physical features, key dimensions, criteria, and categories of roundabouts. Also presented will be policy considerations of safety, vehicle delay and queue storage, signal progression, operations and maintenance costs, and design for older drivers. Considerations for pedestrians, bicycles, large vehicles, transit, etc. will also be discussed. Since modern roundabouts are fairly new to the United States, the role of public involvement will be presented in helping the public better understand roundabout design. For a complete overview of the planned workshop, refer to the attached proposed agenda.

Enrollment in this workshop is open to all interested parties. To register, please contact Huy Nguyen, Safety and Mobility Engineer at the FHWA Oklahoma Division office, at 405-605-6040 ext. 318, fax 405-605-6170, or [huy.nguyen@fhwa.dot.gov](mailto:huy.nguyen@fhwa.dot.gov). The registration deadline is December 12, 2005.

#### ACTION REQUESTED:

None. For information only.

## **Roundabouts: An Informational Guide – One-Day Workshop**

### **Proposed Agenda**

**8:00 a.m. REGISTRATION**

**8:10 a.m. INTRODUCTION TO WORKSHOP - 20 minutes**

An overview of the workshop purpose and content, introduction to instructors and participants, and introduction to the concept of roundabouts as an alternative to intersection design, including a discussion of safety and traffic operational advantages.

**8:30 a.m. INTRODUCTION TO ROUNDABOUTS – 40 minutes**

Modern Roundabouts are type of circular intersection; Traffic rotaries are not roundabouts; Traffic circles are not roundabouts. The Scope of the Roundabouts Guide is presented including the safety and operational advantages. Discussion includes defining physical features, key dimensions, criteria, definition of key parameters, and categories of roundabouts.

**9:10 a.m. BREAK – 10 minutes**

**9:20 a.m. POLICY CONSIDERATIONS - 30 minutes**

Presentation of the policy considerations of safety, vehicle delay and queue storage, delay of major movements, signal progression, environmental factors, spatial requirements, operations and maintenance costs, traffic calming, aesthetics, and design for older drivers. Multimodal considerations for pedestrians, bicycles, large vehicles, transit, emergency vehicles, and rail crossings are presented. Costs associated with roundabouts and legal considerations in regard to rules of the road and state vehicle codes are presented. Costs of construction for roundabouts are compared to the costs of signalized control. Modern roundabouts are new to the United States, the role of public involvement is presented in helping the public to better understand roundabout designs. The role of driver education and education for bicyclists and pedestrians are presented.

**9:50 a.m. PLANNING – 30 minutes**

The six (6) steps in the planning process are presented and discussed. Considerations of the context of roundabout design are presented, including the role of site-specific conditions. Single and double entry lane roundabouts are presented and their associated capacities and safety performance are discussed. The operational performance of intersections is discussed; including comparisons with two-way stop control, all-way stop control, and traffic signal control. The space requirements for a modern roundabout design and economic evaluation are discussed.

**10:20 a.m. BREAK – 10 minutes**

**10:30 a.m. OPERATION – 30 minutes**

Presentation of driver behavior and geometric elements are made including the methodology and use of the circulatory flow charts in calculating traffic capacity of a roundabout design. The role of flared entry lanes and pedestrian effects are presented. The various computer based capacity models are discussed.

**11:00 a.m. SAFETY - 45 minutes**

Safety is an important aspect of modern roundabouts. Discussion of vehicle, pedestrian, and cyclist conflicts. The safety performance of modern roundabouts and the demonstrated crash statistics are presented.

**11:45 a.m. - 12:45 p.m. LUNCH BREAK**

**12:45 p.m. GEOMETRIC DESIGN – 60 minutes**

Geometric elements and the design process for modern roundabouts are presented; discussion includes speeds through the roundabout, design vehicles, no-motorized user designs, and alignment of approaches. The geometric elements are defined and related to each other. The design of both single lane and double approach lane modern roundabouts are presented and discussed. Issues such as location near a trucking terminal are discussed. Both rural and urban roundabout designs are discussed. Capacity calculations are presented and practical exercises are carried out to demonstrate calculations.

**1:45 p.m. BREAK – 10 minutes**

**1:55 p.m. TRAFFIC DESIGN AND LANDSCAPING – 55 minutes**

This module encompasses both traffic signing and marking and landscaping requirements. The relationship of the Roundabout Guide to the MUTCD is discussed as well as the application of advance warning signs, right-of-way control, other regulatory signs, and the crucial role of guide signing are presented. Additional traffic measures of rumble strips and signing are discussed. The pavement markings for approaches as well as in the roundabout are presented and discussed. A discussion of roadway lighting of roundabouts is included. Landscaping of central islands is discussed.

**2:50 p.m. BREAK – 10 minutes**

**3:00 p.m. SYSTEMS CONSIDERATIONS – 30 minutes**

Presentation of the role of traffic signal control for roundabouts is made as well as the effects of closely spaced roundabouts and roundabouts on arterial networks.

**3:30 p.m. WORKSHOP SUMMARY – 30 minutes**

This module will summarize the information presented in the workshop and respond to questions of the workshop participants and their experiences with roundabouts and their design.

**4:00 p.m. END WORKSHOP**

# ACOG

## Association of Central Oklahoma Governments

21 E. Main St, Suite 100, Oklahoma City, OK 73104-2405  
(405) 234-2264 Fax: (405) 234-2200 TDD: (405) 234-2217  
www.acogok.org e-mail: acog@acogok.org

### MEMORANDUM

**DATE:** November 3, 2005

**TO:** Intermodal Transportation Technical Committee

**FROM:** Douglas W. Rex, Asst. to the Executive Director/  
Program Coordinator, Transportation Planning & Data Services

**SUBJECT:** Conclusion of Ozone (O<sub>3</sub>) Season; Preparation for Carbon Monoxide (CO) Season

#### INFORMATION:

Ozone levels are routinely monitored at six locations in the Central Oklahoma region between the months of May and October. Weather forecast data provided by the National Weather Service are monitored daily to assist in predicting days on which ozone levels are expected to be high, and subsequently declaring a Clean Air Alert Day.

The U.S. Environmental Protection Agency (EPA) established the current 8-hour standard for ozone in July 1997. The level of primary and secondary ambient air quality was set at 0.085 parts per million, daily maximum 8-hour average. The standard is met at an air monitoring site when the 3-year average of the fourth-highest daily maximum 8-hour ozone concentration is less than or equal to .085 ppm.

Despite 12 Clean Air Alert Days during the past summer, Central Oklahoma was able to remain in compliance with the air quality standards. This summer's highest 8-hour reading was recorded at the Yukon site at 0.094 ppm on June 21. The table on the following page reveals the four highest readings in 2005 at each monitoring location in Central Oklahoma and the maximum 4<sup>th</sup> highest ozone reading allowable in 2006 to remain in compliance with the federal 8-hour standard next year.

### 2005 Highest 8-Hour Ozone Readings (ppm)

Monitoring Location	2005				03-05 Avg. 4th Highs	Desired 2006 4th Highs*
	1st High	2nd High	3rd High	4th High		
<b>OCC</b> (NE 136th and Eastern)	<b>0.085</b> <b>(6/22)</b>	0.083 (6/23)	0.080 (7/29)	0.078 (8/01)	0.079	<0.100
<b>OSDH</b> (NE 10th and Kelley)	<b>0.089</b> <b>(7/29)</b>	0.083 (6/22)	0.079 (6/23)	0.077 (6/20)	0.077	<0.102
<b>Moore</b> (SE 19th & I-35)	0.081 (7/13)	0.079 (6/22)	0.078 (6/02)	0.076 (4/09)	0.074	<0.109
<b>Goldsby</b> (Burr Oak Rd. ½ mile N of Airport)	<b>0.088</b> <b>(7/13)</b>	0.078 (7/29)	0.076 (8/30)	0.073 (6/23)	0.072	<0.114
<b>Choctaw</b> (NE 10 <sup>th</sup> & Anderson)	0.082 (6/23)	0.080 (6/22)	0.076 (4/09)	0.075 (5/17)	0.075	<0.108
<b>Yukon</b> (NW 10 <sup>th</sup> & Czech Hall)	<b>0.094</b> <b>(6/21)</b>	<b>0.093</b> <b>(7/29)</b>	0.081 (5/20)	0.079 (6/20)	0.076	<0.105

\* Represents the 4<sup>th</sup> highest ozone reading needed in 2006 to remain in compliance with the 8-hour standard.

Aside from health concerns for people with respiratory and heart illness, it has been estimated that falling out of compliance with the air quality standards for ground level ozone could cost the Central Oklahoma region approximately \$50 million in the transportation sector alone. Violating the federal clean air standards could result in numerous measures including a mandatory vehicle emissions inspection and maintenance program, the introduction of reformulated fuels, as well as severe restraints on economic and highway development.

#### Carbon Monoxide Season Begins

Carbon Monoxide (CO) levels are routinely monitored at three locations in the Central Oklahoma region between the months of October and April. In FY 2005, no carbon monoxide alert days were called. Since the approval of the Clean Air Act Amendments in 1990 and the establishment of the Central Oklahoma Clean Air Alert Day program in 1992, the region has exceeded the federal standards for CO one time, on December 17, 1994.

In Central Oklahoma, gasoline and diesel fueled vehicles are responsible for approximately 80% of carbon monoxide pollution. In an effort to reduce this harmful pollutant, ACOG's Clean Cities Program has been instrumental in advancing clean air objectives by facilitating the use of alternative fuel vehicles (AFVs) by individuals and businesses and by supporting the installation of an alternative fuel refueling infrastructure.

#### **ACTION REQUESTED:**

None. For information only.

# ACOG

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(405) 234-2264 Fax: (405) 234-2200 TDD: (405) 234-2217  
www.acogok.org e-mail: acog@acogok.org

### MEMORANDUM

**DATE:** November 3, 2005  
**TO:** Intermodal Transportation Technical Committee  
**FROM:** Holly Massie, Special Programs Officer  
Transportation Planning & Data Services  
**SUBJECT:** Status of Surface Transportation Program Urbanized Area (STP-UZA) Projects in the  
OCARTS Transportation Management Area (TMA)

**INFORMATION:**

Attached is information on the status of all OCARTS area Surface Transportation Program Urbanized Area (STP-UZA) projects, as provided by the ODOT Local Government Division.

The first table is a status report on the **FFY 2005** projects that were authorized by the Federal Highway Administration (FHWA) prior to September 30, 2005, but have not yet been scheduled for bid letting due to incomplete final plans.

Following the FFY 2005 report, are tables that provide the current status of the **FFY 2006, 2007 and 2008** STP-UZA projects included in the FFY 2006-2008 OCARTS Area Transportation Improvement Program (TIP). Also attached is a list of the unscheduled STP-UZA projects that have been programmed in the past, but are not included in the TIP.

**ACTION REQUESTED:**

None. For information only.



Following the ITTC meeting, there will be a brief discussion of the status of the  
**unlet FFY 2005** STP-UZA projects and  
the **FFY 2006** and **FY 2007** STP-UZA projects included in the FFY 2006-2008 OCARTS Area TIP







11/3/2005	ACOG URBANIZED AREA STP PROGRAM STATUS FFY 2008 TIP PROJECTS - FFY 2006-2008 TIP												
Sponsor	Job No.	Description	% Fed. Funds	Estimated Fed. Funds	P/H Plans	P/H Mtg.	Envir. Submit	Envir. Clear	R/W Plans	Prelim. Plans	R/W Clear	Final Plans	Bid Opening
Edmond	17012(04)	33 <sup>rd</sup> , Coltrane to I-35 Widen to 4 lane divided (Bike Paths/Sidewalks)	80%	\$1,225,684	X	X	X	X	X	X		X	
Edmond		33 <sup>rd</sup> and Broadway Add Turn Lanes on 33 <sup>rd</sup> (Sidewalks)	80%	\$1,200,000									
Edmond		33 <sup>rd</sup> & Technology Dr. Intersec. Mod., Signals (Sidewalks)	80%	\$1,000,000									
Edmond		Covell, Santa Fe to Thomas Widen to 4 lane divided (Bike Paths/Sidewalks)	80%	\$3,600,000									
Midwest City	21044(04)	SE 15 <sup>th</sup> St. and Sooner Rd. Intersec. Mod. (Sidewalks)	80%	\$953,440									
Mustang		Czech Hall Rd., SW 59 <sup>th</sup> to SW 74 <sup>th</sup> Resurface	80%	\$74,000									
Norman	22140(04)	Lindsey, Jenkins to BNSF RR Widen, Signalization	80%	\$2,200,000									
Norman	22119(04)	36 <sup>th</sup> Ave. NW, Quail Dr. to Brookhollow Rd. Widen/Interconnect/Upgrade Signals	80%	\$800,000	X	X	X						
Norman	22492(04)*	Porter and Sandpiper Signalization	80%	\$80,000	X	X	X	X	X	X			
Norman		36 <sup>th</sup> Ave. NW and Rock Creek Rd. Signalization	80%	\$80,000									
Norman		Alameda & Summit Lakes/Lockwood Dr. Signalization	80%	\$80,000									
Oklahoma City		Pennsylvania, NW 150 <sup>th</sup> to NW 164 <sup>th</sup> Widen from 4 to 5 lanes	80%	\$2,000,000									
Oklahoma City		Pennsylvania & Memorial Rd Interchange Add turn lanes/Construct Texas Turnaround (Sidewalks)	80%	\$1,200,000									
Oklahoma City		City Wide, Phase 6 Arterial Pvmt. Markings	80%	\$600,000									
Oklahoma City		City Wide, Phase 3 Signal upgrade to LED	80%	\$600,000									
			Total	\$15,693,124									

\* This project is also listed in the FFY 2005 TIP.



11/3/2005	*UNSCHEDULED POOL – ACOG URBANIZED AREA STP PROGRAM STATUS (Cont.)												
Sponsor	Job No.	Description	% Fed. Funds	Estimated Fed. Funds	P/H Plans	P/H Mtg.	Envir. Submit	Envir. Clear	R/W Plans	Prelim. Plans	R/W Clear	Final Plans	Bid Opening
Norman	15690(05)	Main – Porter to University RR Crossing	80%	\$200,000									
Norman	15694(04)	Front St – Robinson to Eufaula Grade, Drain & Surface	80%	\$1,450,400	X	X	X	X					
Norman	15890(04)	Jenkins & Brooks Intersect. Mod. & Traffic Signal	80%	\$173,600									
Norman	17068(04)	Lindsey – Jenkins to Classen Widen and Reconstruct	80%	\$1,040,000									
Norman	22089(04)	Main St, Carter Ave to 12 <sup>th</sup> Ave NE Widening	80%	\$1,280,000	X	X	X						
Norman	22160(04)	Rock Creek Rd, Porter Ave to 12 <sup>th</sup> Ave NE Widening and construction	80%	\$2,000,000									
Oklahoma City	13387(04)	Meridian Ave – SW 54th to SW 29th Grade, Drain & Surface	80%	\$196,000	X	X	X						
Oklahoma City	17143(04)	Eastern – I-240 to SW 104th Widen	80%	\$2,400,000									
Oklahoma City	17149(04)	MacArthur – SW 5th to Airport Rd Resurface	80%	\$508,000									
Oklahoma City	19312(04)	S. Meridian, SW 29th to Canadian Riv Widen & Reconstruct to 5 lanes	80%	\$1,230,400	X	X	X	X	X	X	X		
Oklahoma City	19761(04)	City Wide, Phase 2 Sign Replacement	100%	\$0			X	X					
Oklahoma City	21130(04)	City Wide – Phase 4 SZ Safety Improvements	100%	\$600,000									
Oklahoma City	21133(04)	City Wide – Phase 5 SZ Safety Improvements	100%	\$600,000									
Oklahoma City	21134(04)	SW 29 <sup>th</sup> , MacArthur to Meridian Widen from 2 to 4 lanes	80%	\$2,160,000									
Oklahoma County	18896(04)	Reno Ave., Westminster-Hiwassee Widening to 4 Lanes	80%	\$2,720,000	X		X						
Warr Acres	17827(04)	MacArthur, from NW 36th to NW 50th Reconstruct	80%	\$2,923,200	X	X	X	X	X	X			
Warr Acres	17829(04)	MacArthur, from NW 63rd to Wilshire Reconstruct	80%	\$1,400,000	X	X	X	X					
Yukon	21171(04)	11th St. over North Canadian River Bridge and Approaches	80%	\$956,800									

\*Note: These STP-UZA projects are not included in the OCARTS Area TIP.