

2040 Regional Transportation Plan (RTP) ThinkTank Data Analysis – Projects and Programs

Between October 2008 and February 2009, PAG held 20 ThinkTank sessions for the 2040 RTP with 275 participants. The information below provides a summary analysis of all of the comments received from the public during these 20 sessions regarding question 5, Project and Program Selection.

The following is the text taken directly from the ThinkTank workbook that asks for project and program ideas for the 2040 RTP. Also included in the workbook were maps and a project list for brainstorming ideas.

5. Project/Program Selection

“The 2040 Regional Transportation Plan should reflect the transportation needs of the community. The following question is your opportunity to provide specific suggestions for transportation projects in the region. Remember, this is a multi-modal plan so be sure to think not just about roads, but also buses, bikes, pedestrians, elderly and disability transportation, modern streetcars, railroads, airports etc. Think about the region’s future transportation needs; by 2040, we will be serving a whole new generation of transportation needs. This is an open-ended question and the examples below are shown only to indicate the types of potential projects.”

F

- **What transportation projects and programs should the 2040 Regional Transportation Plan include? Please be as specific as possible. You can use the PAG Regional Map and RTA maps for brainstorming project ideas.**

There were 1,655 total comments received for this question. In order to analyze the comments, PAG staff first ran queries using Microsoft Access to categorize the comments by which mode they refer to. PAG staff then went through each comment to make sure the comments were tagged correctly and to identify a subcategory within the mode. For example, a comment about traffic signal synchronization would fall within the “Roads” category and then be placed within the “Intersections” subcategory. Comments that referred to multiple modes of transportation were listed under Travel Demand Management (TDM) with the subcategory being “Multi-modes”. Any comment that opposed a certain mode or project was identified as a “negative” comment. Overall there were not many negative comments (54 comments or 3% of all responses to the question).

The following diagram summarizes the number of comments by mode. The modes with the highest number of comments were road (35%), transit (32%), and bicycles (15%).

<i>Mode</i>	<i># of Comments</i>	<i>% of Total</i>
Roads	486	35%
Transit	446	32%
Bicycles	209	15%
Pedestrians	104	7%
Travel Demand Mgt.	81	6%
Aviation	39	3%
Freight	26	2%

The charts on the following pages show the number of comments received for each mode category and subcategory and provide illustrative comments taken directly from the ThinkTank results. Each chart is preceded by a description of the mode category and highlights of the findings within those categories.

Question 5. Project/Program Selection – Roads (486 Comments)

Roads were the most prevalent topic among the ThinkTank participants, with 486 comments on the subject. The comments were divided into six categories: Roads/Local Service; Roads/Mobility; Beautification, Landscape and Public Art; Operations and Maintenance; Access and Right-of-Way Acquisition; and Wildlife Corridors.

The “Roads/Local Service” category includes specific road improvement recommendations for local arterial roads and corridors, general recommendations for new local roads and routes to access major destinations such as Tucson International Airport, I-10 and I-19, and suggestions for grade separated railroad crossings and bus pullouts.

The “Roads/ Mobility” category includes comments about high-speed roadways that increase mobility throughout the region such as the existing interstates and freeways and the proposed crosstown freeway and I-10 bypass. Bypass comments generally focused on two types of projects: 1) a bypass or loop around Tucson to allow traffic to move more quickly around the region, and 2) a Sahuarita loop that would connect I-10 to I-19 through a southern portion of the region. Of the 18 negative comments received about roadway projects, 12 of those comments opposed a bypass or loop around Tucson and some of those comments specifically opposed the Avra Valley bypass.

Roads Category Subcategory	Number of Comments	Illustrative Comments
1. Roads / Local Service	210	
Local Roadways (Arterial/Collector Streets, etc.)	131	<ul style="list-style-type: none"> • “Plan but don't build new transportation network in southlands” • “More/easier access to I-10 from far Northwest communities” • “improve 'to airport' routes. some of the roads are confusing and unkept.” • “Extend Kolb Rd. from Tanque Verde to Speedway” • In terms of air quality, consideration should be given to how best to treat the many privately owned dirt roads in the Sahuarita and other rural areas. They surely don't pas air quality standards and affect a much larger area.
Intersections (including traffic signals and ITS)	44	<ul style="list-style-type: none"> • “traffic signal consistency with left turn arrows” • “eliminate the 1/4 mile lights to achieve synchronization” • “Traffic lights that only stop traffic if there is opposing traffic will reduce idle time, especially at night, and reduce emissions”
Grade Separated Rail Crossings	21	<ul style="list-style-type: none"> • “Grade separations from RR at Ina and I-10” • “All rail crossings in Tucson that are on major roadways need to be grade separated.”
Bus Pullouts	12	<ul style="list-style-type: none"> • “Need to include bus pullouts at all bus stops. Buses cause huge traffic delays and congestion when loading and unloading.” • “Far side (of intersection) bus stops”

Roads Category Subcategory	Number of Comments	Illustrative Comments
2. Roads/ Mobility	161	
High Capacity Roadways (freeways, interstates, etc.)	72	<ul style="list-style-type: none"> • “highway 86 is lacking in hundreds of left and right hand turn lanes, endangering thousands of people on a daily basis” • “Substantially widen I-10 all the way to Phx” • “Widen interstates with care as this is not a total solution. Separating large trucks would be nice; perhaps limiting them to the right lane(s)” • “More expressways ie (aviation prkwy)”
Bypass/Loop	65	<ul style="list-style-type: none"> • “How about a commercial route bypass between I-10 at Willcox and Oracle Junction to Piccachio? ” • “I would like the loop too but how would the actual loop work...where does it loop on the ne and nw sides of town to connect” • “Create Sahuarita Corridor to link I-19 and I-10.”
Crosstown Freeway	26	<ul style="list-style-type: none"> • “Increase River Road capacity to optimize role as a major cross town corridor.” • “Convert major arterials to parkways - Broadway, Grant, Speedway, Stone, etc. Consolidate driveways.” • “Freeway/high speed road through Tucson comparable to the US 60 in the Phoenix area”
Negative comments	18	<ul style="list-style-type: none"> • “No more freeways.” • “No I-10 Bypass - the environmental damage would be too great.”
3. Beautification/Landscape/ Public Art	28	<ul style="list-style-type: none"> • “Create regional environmentally-sensitive road guidelines, that use permeable surface materials, rainwater havesting, native landscaping, narrower road widths” • “Need to beautify the thoroughfares to and from our airport. Benefit to economic development” • “better landscape to enhance street corridors - encourages pedestrian activity as well”
4. Operations and Maintenance	18	<ul style="list-style-type: none"> • “Set up, fund and implement a 5 year cycle maintenance plan for all surface roads.” • “Privatize local agency roadway maintenance”
5. Access and Right-of-way Acquisition	10	<ul style="list-style-type: none"> • “Start planning and acquiring right-of-way for future arterials/parkways south of airport” • “Oracle Road south of River Road needs an access management plan.”
6. Wildlife Corridors	6	<ul style="list-style-type: none"> • “Protect wildlife habitat linkages as part of every road improvement project”

Transit (446 Comments)

Transit was the next most frequent topic among the ThinkTank participants, with 446 comments on the subject alone in response to Question 5. The transit comments were broken into six categories: Transit/Local Service, Transit/Commuter, Intercity Rail, Program, Bus Stops/Shelters, and Transit Oriented Development.

The first category, "Transit/Local Service", refers to transportation services that help individuals travel short distances and get around town. These services and programs include SunTran and Sun Shuttle services, as well as the Modern Street Car and specialized services for those unable to drive such as Sun Van and volunteer driver programs.

The second category, "Transit/Commuter", refers to transportation services that help individuals travel longer distances with the region more quickly, particularly during rush hour. These services include the broad category of High Capacity Transit, which is transit that can handle large volumes of passengers and has fewer stops than local transit, as well as the specific categories of light rail, commuter rail, express bus and bus rapid transit.

Among the remaining categories "Intercity Rail" includes comments about rail travel between Arizona's major cities including Tucson, Phoenix, Nogales, and Flagstaff. Any comment in response to Question 5 that was about high speed rail between Tucson and Phoenix fell into this "Intercity Rail" category. The "Programs" category includes incentives and other policies and programs that jurisdictions and employers can engage in to increase transit ridership. And finally, "Transit Oriented Development" is commercial and residential development that is built around transit stops to encourage transit ridership and more dense development.

Transit Category Subcategory	Number of Comments	Illustrative Comments
1. Transit / Local Service	139	
Local Bus Routes (Circulator/shuttle/route)	66	<ul style="list-style-type: none"> • "Expand local bus routes and increase frequency of service. Extend hours as feasible, based on ridership." • "support Tucson Regional Circulator System Expansion" • "Create a shuttle service up Mount Lemmon in summer and winter"
Elderly/Disabled/Youth	37	<ul style="list-style-type: none"> • "Volunteer Driver Program for Elderly Transport" • "Increase transportation for blind and disabled" • "Transportation Cooperative for Youth Serving Organizations. This would be a "share the cost" type of cooperative that would link complimentary user groups, such as schools needing transportation during the day, and out of school youth programs needing transportation."
Street Car / Trolley	36	<ul style="list-style-type: none"> • "Expand the Modern Streetcar system on Broadway, Oracle, and 6th Ave." • "If going to extend streetcar, extend down Campbell where we have commercial activity center all the way to River road."

Transit Category Subcategory	Number of Comments	Illustrative Comments
2. Transit / Commuter	128	
Light Rail/Monorail	54	<ul style="list-style-type: none"> • "Light Rail on Broadway from downtown to the UA and then out Broadway to Pantano Road; north on Oracle Road to Tucson Mall with later extensions further north to Catalina; south from UA in the Kino corridor to TIA" • "Light rail from Oro Valley down Oracle to downtown and from downtown east on Broadway to Park Mall"
High Capacity Transit	39	<ul style="list-style-type: none"> • "Develop cross-region routes for commuter/light rail or bus rapid transit" • "comprehensive integrated transit system that includes light rail/modern streetcar, bus rapid transit, and buses." • "Concentrate on high capacity - streetcar, intercity rail, express bus frequency"
Commuter Rail	15	<ul style="list-style-type: none"> • "Tucson area Commuter rail - Red Rock to downtown; downtown to Vail; downtown to Sahuarita and Green Valley" • "quickly implement a commuter rail system from Vail to Tucson to Marana"
Express bus	11	<ul style="list-style-type: none"> • "express commuter buses rather than rail - rail is too expensive" • "enhanced express routes recommended on certain paths by the commuters around the city"
Bus Rapid Transit	9	<ul style="list-style-type: none"> • "Rapid transit bus service using Curitiba, Brazil, as model" • "A Regional BRT System with seamless fares"
3. Intercity Rail	77	<ul style="list-style-type: none"> • "Intercity passenger rail starting with Tucson to Phoenix, then expanding north from Phx and south from Tucson" • "begin high speed rail center location, planning and right of way acquisition"
4. Programs	18	<ul style="list-style-type: none"> • "Free transit once a week" • "Universal transit pass for university." • "make current public transport options more attractive - instead of just increasing routes, find out how to attract riders - what would make them use the system"
5. Bus Stops / Shelters	9	<ul style="list-style-type: none"> • "More Shaded bus shelters" • "Major upgrades to public transit stops to encourage non-traditional riders."
6. Transit Oriented Development (TOD)	6	<ul style="list-style-type: none"> • "Transit Oriented Development infrastructure implementation programs." • "community education on the large benefits of transit oriented development"

Bicycle (209 Comments)

Bicycling was the third most commented on mode among the ThinkTank participants, with 209 comments. The bicycling comments were broken into four categories: Bike-lane Connectivity, Separated Bikeway Facilities, Bicycle Programs, and Bicycle Boulevards .

The first category, “Bike-lane Connectivity”, includes comments that refer to filling gaps in our region’s bike-lane infrastructure, connecting bike routes, and adding to the overall bikeway mileage in the region.

The second category, “Separated Bikeway Facilities”, refers to bikeways that are completely separated from traffic. This includes specific bike comments referring to Shared-Use Paths; however, if there was a shared-use path comment that did not have a bicycling inference it was put under the mode of pedestrians (subcategory Multi-use paths). The other subcategory under “Separated Bikeway Facilities “is “Separated Bike Lanes”, also commonly referred to as “Cycle Tracks”. Cycle tracks are bike-lanes that are physically separated from vehicle traffic.

The third category, “Bike Programs”, includes bicycling comments about Bike-Sharing Programs, Education Programs, and Bicycle Stations amongst others. Comments about bike safety programs at local schools were grouped with Safe Routes to School comments under “Pedestrian Comments” (see next section).

Finally, “Bicycle Boulevards” are low traffic volume roads that have been optimized for bicycle traffic. They are designed to give priority to bicyclists over motorists. An example of a bicycle boulevard in Tucson is 3rd Street.

Bicycling Category Subcategory	Number of Comments	Illustrative Comments
1. Bike-lane Connectivity	63	<ul style="list-style-type: none"> • “Bike lanes on all regional roadways - creating seamlessness” • “link 3rd street & Aviation bike paths (E-W) routes with more N-S routes (such as Mountain Ave)” • “when resurfacing roads, add bike paths if there was not a path there previously.”
2. Separated Bikeway Facilities	40	
Shared-Use Paths	26	<ul style="list-style-type: none"> • “ connect a bike trail from nogales to phoenix using banks of the santa cruz” • “Complete the Santa Cruz, Rillito and other linear parks to provide bicycle mobility” • “Build a loop around Tucson for bicycles using the river banks”
Separated Bike-lanes	14	<ul style="list-style-type: none"> • “Bike lanes should not be in the roadway on major streets, they should be located behind the back of curb, too many unfortunate accidents occur” • “Bike lanes in protected bike-only zones; this is the only way to get ridership up.

Bicycling Category Subcategory	Number of Comments	Illustrative Comments
3. Bike Programs	34	<ul style="list-style-type: none"> • “Establish incentives (tax reduction?) that will encourage employers to get their employees out of vehicles by promoting bicycling through bike parking improvements, flex time, shower facilities, etc.” • “city/county needs to have a fully functional bike share system in place to compliment bus and transit services.” • “Bike Stations Downtown, at the U of A, U of A tech park etc so people can ride in the heat and then clean up at work!” • “Remove all "bike lane end" signs and replace them with "share the road" signs.”
4. Bicycle Boulevards	15	<ul style="list-style-type: none"> • “bike boulevards- allowing bicyclists to safely ride on roads with less motorized vehicle traffic.” • “create a bike boulevard system that includes Treat Street, 10th Avenue/Main, Glenn, and something from the west side of town” • “the bicycle boulevard seems like a great idea to encourage not only a new transportation system but also physical activity”

Pedestrian Comments (104 Comments)

There were 104 comments on pedestrian projects and programs. The largest number of comments referred to expanding the multi-use path network in the region. While multi-use paths benefit both pedestrians and bicyclists, if a comment did not explicitly refer to only bicycle use of the path it was tagged as a pedestrian comment. The second largest number of comments referred to expanding the network of sidewalks both in neighborhoods and on major streets. The category "Pedestrian Malls" refers to comments about creating pedestrian-only zones in areas with many shops and cafes.

Pedestrian Category Subcategory	Number of Comments	Illustrative Comments
1. Multi-use Paths	23	<ul style="list-style-type: none"> • "Oro Valley has done a good job with the walking paths - expand efforts and include inner city paths" • "Expand urban shared-use path systems" • "Better utilize the existing urban wash network to develop bike-routes & pedestrian walkways separate from cars/roads to connect major city centers, existing bike paths and other forms of alternative transportation." • "Bike & ped paths with grade separated interchanges along the major n/s and e/w corridors."
2. Sidewalks	21	<ul style="list-style-type: none"> • "need to fund sidewalks in neighborhoods to facilitate access to bus routes, esp for disabled" • "All roadways need to include appropriate pedestrian cross-section - not just a minimal 4' concrete walk, but the complement of street trees and other amenities which make walking desirable in this climate." • "include city streets south of Valencia in the RTA plans for sidewalk & pathway improvements"
3. Safe Routes to School	15	<ul style="list-style-type: none"> • "Invest in Safe Route to school. Prioritize and develop system for ALL schools in the region and take the street back from the cars making them safe for pedestrians and bike riders" • "fund safe routes to school to a level that allows all schools to start physical needs programs as well as the train personnel to support"
4. Bridges/Underpasses	18	<ul style="list-style-type: none"> • "More bicycle and pedestrian bridges like basket and snake bridges." • "Use pedestrian under/overcrossings in busy areas of town where pedestrian/vehicle conflicts occur most frequently"
5. HAWKS/Other Pedestrian Crossings	10	<ul style="list-style-type: none"> • "Hawk lights! People don't use the bridges and they cost a fortune." • "Add ped/bike signal requests to all sides of an intersections (i.e. on both sides of the street at Treat/Speedway, Treat/Campbell, anywhere there is a ped crossing."
6. Pedestrian Malls	7	<ul style="list-style-type: none"> • "Create bike/pedestrian boulevards that are only open to bike and pedestrians. No cars or motorized vehicles allowed. These can become centers for outdoor eating, shopping, and entertainment."
7. Programs	6	<ul style="list-style-type: none"> • "Launch a walking campaign" • "for safety purposes, give the freshmen at the UA and Pima orientations how to safely cross the streets."

Travel Demand Management (TDM) (81 Comments)

Travel Demand Management (TDM) is designed to change the travel habits of single-occupancy vehicle (SOV) users through various strategies. Effective TDM strategies help reduce congestion on the roads. A total of 81 comments were received for Question 5 that fall into this category. TDM comments were broken into five categories: TDM Programs, Multi-modes/Complete Streets, Park-n-Ride, Alternative Vehicles, and HOV lanes .

The first category, “TDM programs”, includes comments on the Travel Reduction Program, which is an employer-based program that provides education, information, and incentives on TDM strategies such as carpooling, vanpooling, alternate work schedules, etc. Other comments in this category include general alternative mode education programs and car-sharing, such as the ZIP car.

The second category, “Multi-modes and Complete Streets”, includes comments that incorporate linking multiple modes. Complete Streets are planned, designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Another TDM category, “Alternate Vehicles “, includes alternate fuel and electric vehicle comments.

TDM Category Subcategory	Number of Comments	Illustrative Comments
1. TDM Programs	38	<ul style="list-style-type: none"> • “promote programs that enhance compressed work weeks and flex scheduling among major employers” • “Fully fund programs to educate the public and encourage use of alternative modes of transportation” • “develop a downtown vehicle share program” • “rideshare program should be expanded”
2. Multi-modes / Complete Streets	17	<ul style="list-style-type: none"> • “Complete Streets, with attractive walking areas and separate bike lanes” • “Do a lot more to coordinate modes of transportation: bike and bus/ air and road / pedestrians and rail etc. etc.” • “Program-wise, we should look carefully at separation of the multi-modal users. Each has different speeds, access needs, rates of intersecting other modes. Could be a real new look.”
3. Park-n-Ride	8	<ul style="list-style-type: none"> • “Build major park and rides lots, covered with solar panels and rainwater harvesting systems on the outskirts of Tucson and linked to frequent transit into UA and downtown” • “Park-n-rides with adequate/frequent bus support”
4. Alternative Vehicles	5	<ul style="list-style-type: none"> • “Establish electric charging and compressed air charging stations” • “Figure out what to fuel our vehicles before all the gasoline (or such combustibles) are gone.”
5. HOV Lanes	3	<ul style="list-style-type: none"> • “Add HOV lanes and “bus only” lanes”

Aviation (39 Comments)

There were 39 comments specifically about aviation; however, any comments about improving access to the airport through better road or transit services were tagged as either road or transit projects.

Aviation Category Subcategory	Number of Comments	Illustrative Comments
Airports	31	<ul style="list-style-type: none"> • “buy land around airports for future development and protection” • “start work on an additional runway at TIA before the surrounding area builds up and creates a problem.” • “Craft and adopt enforceable local zoning ordinances that are consistent with FAA/FAR protections in the vicinity of airports thus protecting incompatible development adjacent to airport (both commercial and general aviation.” • “Provide sewer, water, electrical, and other basic infrastructure for the development of transportation facilities at the Marana Regional Airport”

Freight (26 Comments)

There were 26 comments specific to freight. The highest number of freight comments referred to the creation of a Regional Port Authority. There were also some freight references in comments about a bypass and therefore were tagged under the subcategory “Bypass/Loop” in Roads comments.

Freight Category Subcategory	Number of Comments	Illustrative Comments
1. Port Authority	9	<ul style="list-style-type: none"> • “Regional Port Authority to increase freight development and shipment.” • “Regional Port Authority must be able to influence what mode of transport (or what ratio) freight is entering our country on (trucks vs. rail)”
2. Freight Trucks / Trains	5	<ul style="list-style-type: none"> • “get trucks off the highways and onto rail” • “Interstate and Intrastate Freight by rail and truck traffic should be isolated from local traffic.”