

August 20, 2013

TO: Members of the MAG Transportation Review Committee

FROM: David Fitzhugh, City of Avondale, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Thursday, August 29, 2013, 10:00 a.m.
MAG Office, Suite 200, Saguaro Room
302 North 1st Avenue, Phoenix

A meeting of the MAG Transportation Review Committee (TRC) will be held at the time and place noted above. **Please park in the garage under the building. Bring your ticket to the meeting as parking will be validated. Bicycles can be locked in the rack at the entrance to the parking garage.**

The next meeting of the MAG Transportation Review Committee will be held at the time and place noted above. Committee members or their proxies may attend **in person, via videoconference or by telephone conference call**. Those attending video conference must notify the MAG site three business days prior to the meeting. Those attending by telephone conference call please contact MAG offices for conference call instructions.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Alex Oreschak or Jason Stephens at the MAG Office. Requests should be made as early as possible to allow time to arrange the accommodation.

Please be advised that under procedures adopted by the MAG Regional Council on June 26, 1996, all MAG committees need to have a quorum in order to conduct business. A quorum is a simple majority of the membership or fourteen people for the MAG TRC. If the Transportation Review Committee does not meet the quorum requirement, members who have arrived at the meeting will be instructed a legal meeting cannot occur and subsequently be dismissed. Your attendance at the meeting is strongly encouraged. If you are unable to attend the meeting, please make arrangements for a proxy from your jurisdiction to represent you. Please contact Eric Anderson or Alex Oreschak at (602) 254-6300 if you have any questions or need additional information.

TENTATIVE AGENDA

	COMMITTEE ACTION REQUESTED
1. <u>Call to Order</u>	
2. <u>Approval of Draft August 1, 2013 Minutes</u>	2. Approve Draft minutes of the August 1, 2013 meeting.
3. <u>Call to the Audience</u> An opportunity will be provided to members of the public to address the Transportation Review Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Citizens will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Transportation Review Committee requests an exception to this limit.	3. For information and discussion.
4. <u>Transportation Director's Report</u> Recent transportation planning activities and upcoming agenda items for the MAG Management Committee will be reviewed by the Transportation Director.	4. For information and discussion.
5. <u>Consent Agenda</u> Consent items are marked with an asterisk (*). Committee members may request that an item be removed from the consent agenda to be heard.	5. Recommend approval of the Consent Agenda.

CONSENT AGENDA*

5A. <u>Draft FY 2014-2018 MAG Transportation Improvement Program (TIP) - Interim Listing of Projects</u> The final deadline for submitting updated information for new locally and privately funded projects for the Draft FY 2011-2015 MAG Transportation Improvement Program was July 15, 2013.	5A. Review and comment as appropriate on the Draft FY 2014-2018 MAG Transportation Improvement Program - Listing of Projects for an air quality conformity analysis.
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These updated and new projects were combined with the MAG federally funded projects, and the freeway, transit, and arterial street life-cycle programs, to comprise a Draft Listing of Projects for the FY 2014-2018 TIP. The Draft Listing of Projects will be available for public review and comment at a public meeting to be held on September 12, 2013 at the MAG office. The FY 2014-2018 Draft Listing of Projects will be available on the MAG website and provided as a web link to members of the Committee.

ITEMS TO BE HEARD

6. Request for 2nd Deferral of the Construction Phase of Surprise Dove Valley Paving Project

The City of Surprise is requesting to defer the construction phase of the Dove Valley paving project from FY 2013 to FY 2014 due to right-of-way issues. The project was previously deferred and must, per MAG programming policies, be reviewed by MAG committees to establish that the sponsoring agency has continuously worked on the project since it was originally deferred and that the cause of the delay is due to external factors that are not within a project sponsor's control.

At the meeting, staff from the City of Surprise will brief the Committee on the status of the project, the cause of the delay and the ability of the City to complete the project should the request be recommended for approval.

7. FY 2014-2017 MAG Highway Safety Improvement Program (HSIP) Projects

Since FY 2010, MAG has been receiving an annual suballocation of federal Highway Safety Improvement Program (HSIP) funds from ADOT to be programmed for qualifying road safety improvements. A total of 21 projects that were approved by MAG for FY 2012 and

6. For information and possible recommended approval of a second deferral request for the construction phase of the Dove Valley Paving Project.

7. For information, discussion and possible recommended approval of the FY 2014-2017 Highway Safety Improvement Plan (HSIP) projects as described in Attachment Three.

2014 are currently being implemented. Many of the projects originally planned for FY 2014 were advanced due to funds being available in earlier years due to lower bid costs and some projects being disqualified by FHWA.

At the recommendation of ADOT, four fiscal years are being programmed to help expedite project implementation. On July 1, 2013, MAG issued a call for road safety improvement projects to be programmed in fiscal years 2014-2017. A total of six projects applications were received by MAG. The Transportation Safety Committee reviewed all applications at a meeting held on August 20, 2013. All proposed projects were determined to be qualified. The committee has recommended projects for each fiscal year and the funding amounts as shown in Attachment Three. This recommendation does not fully utilize available HSIP funds. The Transportation Safety Committee will be exploring the possibility of utilizing remaining funds for regional road safety priorities that will be identified in the Strategic Transportation Safety Plan that is currently being developed by MAG.

8. Transportation Alternatives Program: DRAFT Goals, Objectives, and Competitive Process

Prior to 2013, there were three distinct types of federal formula funds apportioned to the state, which were programmed in collaboration with MPOs and COGs: Transportation Enhancements (TEA), Safe Routes to School (SRTS), and Recreational Trails Program. In July 2012, the federal government passed the new federal transportation authorization bill, Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 consolidated these three programs into one federal formula funding category: Transportation Alternatives Program

8. For information, discussion, and possible recommended approval of the draft goals, objectives, and process for the Transportation Alternatives (TA) program and modification of the MAG Federal Fund Programming Guidelines & Procedures, October 26, 2011.

(TA). The funding is now directly allocated to MAG, which is different than previous years. The MAG region receives about \$4.4 million per year for this program. Working with member agencies via a survey and a stakeholder meeting, MAG staff have drafted goals, objectives and outlined a competitive process to program the TA funds for FY 2015, 2016, and 2017. Please see the Attachment Four.

9. Sustainable Transportation Land Use Integration Study – Recommendation, Findings and Tools

The sustainable transportation land use integration study (ST-LUIS) was undertaken from 2010-2013 and completed in three phases: research and analysis, scenario planning and modeling, and the development of local and regional tools. The study was complemented by nine stakeholder activities. These activities included two business/public forums coordinated by the Arizona Chapter of the Urban Land Institute (ULI). The perspectives of participants from these forums were integral to understanding the market realities in local communities. The outcomes of the scenario modeling exercise, the study's recommendation of place types for high capacity transit and walkable communities, the local/community evaluation tool, the regional high capacity corridor evaluation process, and the overall recommendations and findings will be presented to the Transportation Review Committee. Please see Attachment Five.

10. Update on Central Phoenix Transportation Framework Study

The Central Phoenix Transportation Framework Study is a continuing effort to identify long-range transportation needs for the center of the MAG region in an area bounded by SR-101L on the north, east, and west, and the Gila River Indian

9. For information, discussion, and possible recommendation to accept the Sustainable Transportation Land Use Integration Study recommendation, key findings, and tools to be considered in future planning efforts and be consistent with the Federal Transit Administration process, including evaluation criteria as appropriate.

10. For information and discussion.

Community on the south. Since beginning this study in 2010, the study team has reached out to numerous representatives from the general public, MAG member agencies, and Valley Metro and through stakeholder meetings, geographic dialogues, two planning charettes, and twelve Planning Partner events, have identified transportation options to inform development of the NexGen Regional Transportation Plan.

The Transportation Review Committee will be provided an update on the work products from this study addressing the regional freeway system, including the study's suggestions for the Interstate 10/Interstate 17 Corridor Master Plan. Please see Attachment Six.

11. Information on the Grand Canyon State Logo Sign Program

The Arizona Department of Transportation (ADOT), through Grand Canyon State Logo Signs (GCSLS) is now administering a logo sign program that in the past was operated by a private sector vendor. In addition to administering the rural program, GCSLS is launching the program in urban areas in the third quarter of 2013. Urban areas are defined as municipalities with populations greater than 50,000.

Rules governing this program have been adopted through a public hearing process, and to qualify for a sign a number of criteria must be met, with safety being the key criterion. These signs would be approved by the municipality but are owned and maintained by ADOT. The signs themselves provide a service to motorists, improve business identification, have the potential to increase business, and lead to additional revenue for the businesses, municipality and the state highway fund.

11. For information and discussion.

12. Request for Future Agenda Items
Topics or issues of interest that the Transportation Review Committee would like to have considered for discussion at a future meeting will be requested.

13. Member Agency Update
This section of the Agenda will provide Committee members with an opportunity to share information regarding a variety of transportation-related issues within their respective communities.

14. Next Meeting Date
The next regular Transportation Review Committee meeting will be scheduled Thursday, September 26, 2013 at 10:00 a.m. in the MAG Office, Saguaro Room.

11. For information and discussion.

12. For information.

13. For information.

DRAFT MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
TRANSPORTATION REVIEW COMMITTEE

August 1, 2013

Maricopa Association of Governments Office
302 North First Avenue, Suite 200, Saguaro Room
Phoenix, Arizona

MEMBERS ATTENDING

Avondale: Shirley Gunther for David Fitzhugh	Litchfield Park: Woody Scoutten
Glendale: Debbie Albert, Acting Chair	Maricopa County: John Hauskins
ADOT: Kwi-Sung Kang for Floyd Roehrich	Mesa: Jeff Martin for Scott Butler
Buckeye: Scott Lowe	* Paradise Valley: Jim Shano
Chandler: Dan Cook	* Peoria: Andrew Granger
* El Mirage: Sue McDermott	Phoenix: Rick Naimark
# Fountain Hills: Randy Harrel	* Queen Creek: Troy White
* Gila Bend: Eric Fitzer	Scottsdale: Vacant
* Gila River: Steven Johnson	Surprise: Sunell Garg for Terry Lowe
Gilbert: Leah Hubbard	* Tempe: Vacant
Goodyear: Cato Esquivel	Valley Metro: John Farry
* Guadalupe: Vacant	Wickenburg: Vince Lorefice
	Youngtown: Grant Anderson for Jeanne Blackman

EX-OFFICIO MEMBERS ATTENDING

*Street Committee: Charles Andrews, Avondale	Bicycle/Pedestrian Committee: Katherine Coles, City of Phoenix
*ITS Committee: Catherine Hollow, City of Tempe	*Transportation Safety Committee: Renate Ehm, City of Mesa
FHWA: Ed Stillings	
* Members neither present nor represented by proxy.	+ - Attended by Videoconference
	# - Attended by Audioconference

OTHERS PRESENT

Eric Anderson, MAG	Paul Jepson, City of Maricopa
John Bullen, MAG	Thomas Remes, City of Phoenix
Alice Chen, MAG	Paul Basha, City of Scottsdale
Monique De Los Rios-Urban, MAG	Stephen Chang, City of Surprise
Maureen DeCindis, MAG	Marge Zylla, City of Tempe
Teri Kennedy, MAG	Ben Spargo, HDR
Alex Oreschak, MAG	Clemenc Ligocki, MCDOT
Nathan Pryor, MAG	Art Brooks, STRAND
Allan Grover, City of Glendale	

1. Call to Order

Acting Chairwoman Debbie Albert from the City of Glendale called the meeting to order at 10:04 a.m.

2. Call to the Audience

3. Approval of Draft May, 2013 Minutes

Acting Chairwoman Albert noted the following corrections and comments on the minutes. On page 3, Item 6, second to the last sentence in the first paragraph, the statement needs to be rewritten. The point that was being conveyed was unclear. On page 4, Item 7, first sentence in the second paragraph, "Map" should read MAP. On page 5, third paragraph, second sentence, should it read \$272 million? On page 6, third sentence in the second paragraph, the sentence needs to be adjusted to read more clearly. On page 7, first sentence in the fifth paragraph, it should read "Central Arizona Association of Governments." Mr. Rick Naimark from the City of Phoenix motioned to approve the minutes as amended. Mr. Jeff Martin from the City of Mesa seconded, and the motion passed by a unanimous voice vote of the Committee.

4. Transportation Director's Report

Acting Chairwoman Albert invited Mr. Eric Anderson, MAG Transportation Director, to provide the Transportation Director's Report.

Mr. Anderson reported that the region closed out the Fiscal Year with 9.9% growth in June revenues. Total growth in sale tax revenue in the Fiscal Year was 5.4%, with a total of \$341.5 million collected in the Fiscal Year. Collections for the Highway User Revenue Fund (HURF) remain flat, at \$1.2 billion in the Fiscal Year, about the same level collections have been at since 2007. There was a slight uptick in collections of the vehicle license tax from new car sales, but everything else remained flat or was down from the previous Fiscal Year.

Next, Mr. Anderson noted that the comment period for the South Mountain freeway project closed on July 2, 2013. The Federal Highway Administration (FHWA) and Arizona Department of Transportation (ADOT) are required by law to categorize and respond to each individual comment as a part of the Draft Environmental Impact Statement (EIS) process. Mr Anderson said to expect a Record of Decision on the project some time after early 2014.

Mr. Anderson updated the Committee on the Transportation Alternatives program, noting that MAG is holding a Transportation Alternatives Stakeholder workshop on August 13, 2013 at 9:00 am. Under MAP-21, the Transportation Alternatives (TA) program combines elements of previous programs under SAFETEA-LU, including Safe Routes to School and Transportation Enhancements. By law, half of each state's TA funding is allocated directly to local Metropolitan Planning Organizations.

5. Consent Agenda

Addressing the next item of business, Acting Chairwoman Albert directed the Committee's

attention to the consent agenda items 5A ADOT Red Letter Process, 5B Pedestrian and Bicycle Facilities Design Assistance Program, and 5C Transportation Review Committee Meeting Schedule Change. She asked the Committee if there were any questions or comments. Seeing none, Acting Chairwoman Albert requested a motion. Mr. Naimark motioned to approve the consent agenda. Mr. Cato Esquivel from the Town of Goodyear seconded, and the motion passed by a unanimous voice vote of the Committee.

5A. ADOT Red Letter Process

The MAG Transportation Review Committee, by consent, approved the amendments and administrative modifications to the FY 2011-2015 MAG Transportation Improvement Program, and as appropriate to the Regional Transportation Plan 2010 Update.

5B. Pedestrian and Bicycle Facilities Design Assistance Program

The MAG Transportation Review Committee, by consent, approved the Pedestrian and Bicycle Facilities Design Assistance Program.

5C. Transportation Review Committee Meeting Schedule Change

The MAG Transportation Review Committee, by consent, approved the Transportation Review Committee Meeting Schedule Change.

6. Federal Fiscal Year 2013 DRAFT Transit Program of Projects for Federal Funds

Acting Chairwoman Albert invited Ms. Alice Chen from MAG to present on the Federal Fiscal Year 2013 DRAFT Transit Program of Projects for Federal Funds.

Ms. Chen stated that the item was on the agenda for recommended approval by the Committee. The Transit Program of Projects (POP) is a list of projects drafted annually to submit to the Federal Transit Administration (FTA). As the designated grant recipient for the region, the City of Phoenix applies for FTA grants using the POP. Once the grant is approved, sub-recipients can then draw down on individual projects. The POP was developed using Transit Programming Guidelines as approved by Regional Council on March 27, 2013 with input from Valley Metro/RPTA.

According to Ms. Chen, the current POP is under-programmed by \$3.9 million. Ms. Chen described the currently approved Transit Programming priorities, and how the Transportation Improvement Program (TIP) and FY 2013 POP fall into ten categories. \$528,000 goes to legally required services provided to the region, such as transit security and bus stop improvements. \$40,000 is paid to City of Phoenix for managing the grants. \$22 million is paid for preventative maintenance to transit operators. The baseline amount is \$12 million annually; this year's total is higher because extra CMAQ close-out funds were flexed over from the highway side. \$1.8 million is flexed over for Job Access and Reverse Commute. \$31 million is spent on bus capital in the current fiscal year, primarily for bus replacements but also for articulated buses for Scottsdale Road BRT. \$12 million is for facility capital, including a couple of transit centers and Scottsdale Road BRT. \$16 million is for CMAQ funds flexed over annually to rail. \$22 million

is competitive funds for FTA Small Starts for additional rail projects. \$331,000 is for non-TLCP rail maintenance. The final \$3.9 million is unprogrammed.

Ms. Chen displayed a graphic showing a breakdown of programming: \$40,000 for Administrative, \$40 million for Rail, \$31 million for procurement, \$22 million for maintenance and operations, \$13 million for facility construction, and \$528,000 for enhancements.

This agenda item was approved by the Transit Committee in May. A couple changes were made since Transit Committee approval. \$3.9 million was deleted from the program because it was already programmed in FY 2012. This led to a number of projects being reprogrammed due to a need to flex some projects into CMAQ funds in order to provide more flexibility for projects through Section 5307 funds. For the unprogrammed funds, a MAG competitive process in February for unmet transit needs in the region led to \$5-\$6 million in project requests, which will be funded using the unprogrammed funds from the POP.

Acting Chairwoman Albert asked for clarification about whether administrative changes in the predesign of the Glendale transit center park and ride facility were included in the POP. Ms. Chen replied that they were not but would be including going forward in committee process.

Acting Chairwoman Albert asked the Committee if there were any questions or comments, hearing none, Mr. Martin motioned to approve. Mr. John Farry from Valley Metro seconded, and the motion passed by a unanimous voice vote of the Committee.

7. MAG Federally Funded Locally Sponsored Project Development Status Report

Acting Chairwoman Albert invited Ms. Kennedy to present on the MAG Federally Funded Locally Sponsored Project Development Status Report.

Ms. Kennedy stated that the item was on the agenda for recommended approval by the Committee, and that corrections were made to the report after it was mailed-out. The corrections were made to Projects GLN14-101 (request for deferral to 2016, not 2014) and GLN11-704 (was omitted from the table of Project Status Reports due to previous deferral; will be added back into report). Additionally, Maricopa County projects MMA11-114, MMA13-901, MMA13-902, MMA13-904, MMA14-101, MMA14-102, MMA14-103, MMA15-434C, MMA15-436C, MMA15-441C, and MMA15-461 were inadvertently omitted from the report, but will be included in the next mailing. All the omitted projects are on time as reported in their schedules. Ms. Kennedy noted that status reports are typically limited to Congestion Mitigation and Air Quality Act (CMAQ) projects, but the current round of reporting was expanded to include Safe Routes to School (SRTS), Transportation Enhancements (TE), and Transportation Alternatives (TA) projects. This was done in order to assist ADOT with their reporting process. This effort involved data collections for over 160 projects this year, while this report has historically collected data on 80 projects per year. Ms. Kennedy thanked the MAG member agencies for working with MAG to get their projects reported in a timely manner.

Acting Chairwoman Albert asked the Committee if there were any questions or comments. Hearing none, she requested a motion. Mr. Dan Cook motioned to approve. Mr. Grant Anderson from the Town of Youngtown seconded, and the motion passed by a unanimous voice vote of the Committee.

8. Project Changes – Amendment and Administrative Modification to the FY 2011-2015 MAG Transportation Improvement Program, FY 2014 Arterial Life Cycle Program and Regional Transportation Plan 2010 Update

Acting Chairwoman Albert invited Ms. Kennedy to present on Project Changes - Amendment and Administrative Modification to the FY 2011-2015 MAG Transportation Improvement Program and the FY 2014 Arterial Life Cycle Program and Regional Transportation Plan 2010 Update.

Ms. Kennedy noted there were corrections since mailout. These corrections were adding project GLN11-704 back into the FY 2011-2015 TIP, amending the deferment year for GLN14-101 from 2014 to 2016, and reducing the local match for project PHX12-106C to \$0, with a federal amount of \$251,000. Ms. Kennedy said that those corrections would be included for the next mailout, and that Tables C and D might need to be modified to reflect the recommendations from agenda item 9. Included in the project changes, all FY 2013 CMAQ construction and procurement projects were programmed to the maximum federal amount, per January 2013 Regional Council approval, and all FY 2013 project design phases for FY 2014 and FY 2015 CMAQ construction projects were funded as needed/requested as per the February 2013 Regional Council approval.

Acting Chairwoman Albert asked the Committee if there were any questions or comments. Hearing none, she requested a motion. Mr. John Hauskins from Maricopa County motioned to approve. Mr. Dan Cook seconded, and the motion passed by a unanimous voice vote of the Committee.

9. FY 2013-14 Federal Funds MAG Close-Out Report

Acting Chairwoman Albert invited Ms. Kennedy to present on the FY 2013-14 Federal Funds MAG Close-Out Report.

Ms. Kennedy compared FHWA funding under MAP-21 and SAFETEA-LU, noting that MAP-21 represents a 12% decrease from SAFETEA-LU projections. Additionally, MAP-21 redistributed funds between several different funding sources: the Surface Transportation Program (STP), CMAQ, the Highway Safety Improvement Program, and Planning Funds, and combined a number of other funding sources, including SRTS and TE, into a new TA program.

Ms. Kennedy explained that obligation authority (OA) is the percentage of total apportioned and sub-apportioned funds that an agency is allowed to authorize. Using this example, OA is 95.5%. If OA is not fully programmed each year, the OA Balance is “at risk” of recisions. Ms. Kennedy stated that ADOT has informed MAG that this is the last year that regional OA can be “carried forward.” Mr. Anderson from MAG mentioned that this is an important point. In the past, if MAG were unable to obligate all funds, MAG would loan the remaining OA Balance to ADOT in the current Fiscal Year, with ADOT repaying MAG in a future fiscal year. Now, ADOT’s funding structure has changed, and they can no longer work with MAG to “carry forward” unused balances. Additionally, MAG accepted unused OA balance from two other in-state COGs to give those COGs spending flexibility. In this Fiscal Year, that amount totaled 1.5 million dollars.

This year, MAG had been expecting about \$162,714 in carry-forward between the CMAQ and STP programs, which is considered an acceptable level. However, ADOT returned approximately \$4.4 million dollars back to MAG's ledger from closing out historic projects and from cost savings on active projects. Additionally, several projects expected to authorize in FFY 2013 have requested deferrals, cancellations or funding modifications based on engineering estimates. Currently the outstanding OA balance for FFY 2013 that needs to be addressed is approximately \$4.1 million. Mr. Anderson pointed out that ADOT is closing out a number of projects that they had not closed out in previous years. Such action makes new funds available for current projects. It is unclear as to what the final results of this process will be. In the future, any cost savings on currently authorized projects will go back on MAG's books and will need to be spent immediately in that year.

In FY 2014, MAG currently has an estimated outstanding OA of over \$9 million. However, MAG is expecting ADOT to accomplish additional historic close-outs. Additionally, project deferrals in the CMAQ program are averaging over \$17.6 million per year over the past three years. It is expected that, with \$9.8 million over-programmed for FY 2014, some projects will defer to FY 2015 or cancel. MAG anticipates a positive OA in February or March of 2014. MAG additionally has \$50 million of historic STP apportionments that does not have OA available, and is working with ADOT on reconciliations to determine the exact balance of OA returning to MAG. Any FY 2014 over or under programming will be addressed in the spring during regular FY 2014 closeout.

Ms. Kennedy presented two proposals to address the approximately \$4.1 million of outstanding OA in FY 2013. Proposal One involves the early advancement of \$3.9 million for Gilbert Road light rail against future programmed reimbursements (\$1.493 million in FY 2015/2016, \$0.388 million in FY 2016/2017, and \$2.019 million in FY 2017/2018). This proposal will save the ALCP program funding if inflation is reinstated in the program, and also helps the City of Mesa and Metro Rail with a reduction in debt service, saving money for both the project and the region. The estimated program cost savings to the ALCP totals \$237,685 in 2013 dollars, assuming a 1.9% inflation rate, and protects federal funding in FY 2013 .

Proposal Two is an early partial flex to transit of \$3.9 million in CMAQ funds, as part of the regularly scheduled annual flex to transit. The FY 2014 estimated total flex amount is \$16.3 million. The early flex would reduce the balance of the flex amount in FY 2014. In addition to addressing the unused FY 2013 federal OA, the designated recipient (City of Phoenix) would be able to begin FY 2014 grant applications for transit projects, with the balance of the FY 2014 transit transfer to be completed when final funding is known in FY 2014, typically around July or August. This proposal saves staff time and protects federal funding in FY 2013, but there is no substantial benefit.

Ms. Kennedy noted that MAG is requesting a recommendation from the TRC for one of the two proposals. Mr. Cook noted that the outstanding OA is approximately \$4.1 million, and the proposals both identify about \$3.9 million in funding. Ms. Kennedy stated that approximately \$170,000 would be left on the books for contingency funding. Every year, ADOT has at least one project that comes in over the initial engineering estimate. MAG needs to keep funding in reserve for that contingency. Additionally, for this fiscal year, ADOT will still allow some carry forward from MAG, and has informed MAG that over \$4 million is too much to carry forward. Mr. Naimark asked Ms. Kennedy about the average \$17 million per year of CMAQ deferrals. Ms.

Kennedy stated that the yearly deferral amount should be coming down in the future, as the region has been making big improvements in project delivery. The updated Policies and Procedures have greatly assisted, and MAG has been addressing its carry forward also. MAG's carry forward was at \$39 million in 2011, and now from last year MAG is down to just over \$13 million. Mr. Naimark recommended approval of the first proposal, and moved for approval of Proposal One. Mr. Cook seconded the motion. Acting Chairwoman Albert thanked Ms. Kennedy for the substantial effort involved in this analysis and recommendation of proposals, and agreed that Proposal One was a preferable option. The motion passed by a unanimous voice vote of the Committee.

10. Request for Future Agenda Items

Acting Chairwoman Albert requested topics or issues of interest that the Transportation Review Committee would like to have considered for discussion at a future meeting. Hearing no requests, Acting Chairwoman Albert moved on to the next agenda item.

11. Member Agency Update

Acting Chairwoman Albert offered opportunities for member agencies to present updates to their community. Mr. Farry provided updates on the bus strike in the East Valley, stating that there was currently no service in Tempe, Mesa, Gilbert, or Chandler, and partial service in Scottsdale. Mr. Farry noted that Valley Metro was encouraging both sides to come back to the negotiation table and get service back up and running. There were no other updates from member agencies.

12. Next Meeting Date

The next regular Transportation Review Committee meeting is scheduled for Thursday, August 29, 2013 at 10:00 a.m. in the MAG Office, Saguaro Room.

There being no further business, Acting Chairwoman Albert adjourned the meeting at 10:45 a.m.

ATTACHMENT #1

Agenda #5A

MARICOPA ASSOCIATION OF GOVERNMENTS

INFORMATION SUMMARY... for your review

DATE:

August 21, 2013

SUBJECT:

Draft FY 2014-2018 MAG Transportation Improvement Program (TIP)- Interim Listing of Projects for Public Review

SUMMARY:

The 1990 Federal Clean Air Act Amendments require that regional transportation plans and programs be in conformance with all applicable air quality plans. To comply with this requirement, an air quality conformity analysis of the Draft FY 2014-2018 MAG Transportation Improvement Program - Listing of Projects needs to be conducted, prior to consideration of the program for final approval. Members are being asked to review and comment as appropriate, on the draft program listings that will undergo an air quality conformity analysis.

The TIP serves as a five-year regional guide for the preservation, management and expansion of transportation facilities and services in the MAG area, including highways, streets, ridesharing, public transit, and various congestion mitigation and air quality improvement projects. The draft TIP contains all regionally significant [projects within the region, regardless](#) of funding source. All MAG member agencies have been consulted regarding projects incorporated into the draft document, including locally and privately funded projects. Corrections to the Draft FY2014-2018 TIP Interim Project Listings may be submitted to state@azmag.gov, by September 13th, 2013. The interim listing of projects may be accessed from the TIP webpage on or before August 29th, 2013:

<http://www.azmag.gov/Projects/Project.asp?CMSID=1140&MID=Transportation>

PUBLIC INPUT:

Several public meetings have been held in conjunction with the preparation of the Draft FY 2014-2018 TIP, as well as the Draft 2035 Regional Transportation Plan Update. A transportation public meeting is scheduled for September 19th, 2013, and the public input received will be included in the FY 2013 Mid Phase Input Opportunity Report available prior to October 9, 2013.

PROS & CONS:

PROS: Review and verification of listings allow the projects included in the DRAFT FY2014-2018 TIP to undergo a conformity analysis and continue the process to enable transportation projects to be implemented.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The Draft FY2014-2018 TIP needs to undergo a conformity analysis for air quality purposes prior to being formally approved by the Regional Council and the Governor. The

conformity analysis and the federally funded program also need to be reviewed and approved by federal officials.

POLICY: Prior to Regional Council approval to proceed with conformity analysis, a public comment period of the Interim listings of projects for the Draft FY2014-2018 TIP is required.

ACTION NEEDED:

Review and comment as appropriate on the Draft FY 2014-2018 MAG Transportation Improvement Program - Listing of Projects for an air quality conformity analysis.

PRIOR COMMITTEE ACTIONS:

None.

CONTACT PERSON:

Teri Kennedy, or Stephen Tate, (602) 254-6300.

Project listing correction requests may be submitted via email to state@azmag.gov.

ATTACHMENT #2

Agenda Item #6

MARICOPA ASSOCIATION OF GOVERNMENTS

INFORMATION SUMMARY... for your review

DATE:

August 21, 2013

SUBJECT:

Request for 2nd Deferral City of Surprise, Dove Valley Paving Project

SUMMARY:

The MAG Federal Fund Programming Guidelines & Procedures (FFPGP) was approved by Regional Council on October 26, 2011 and outlines project requirements. During the 2008 open application process, the City of Surprise applied for Congestion Mitigation and Air Quality (CMAQ) funds to pave two miles of unpaved roads for construction in FY 2012. In March 2009, the MAG Regional Council approved programming \$2.5 million on Dove Valley Road, for FY 2012. Subsequently, the project was divided into federally funded design, right-of-way and construction phases.

In May 2012 the construction phase of the project was deferred to 2013 due to problems in obtaining an environmental clearance. Both the design and right-of-way phases have been authorized,

The City of Surprise was not able to request the authorization of the construction phase project by the June 30th deadline for authorizing projects in FY 2013. The City has requested that the construction phase of the project not be deleted from the TIP and has requested a second deferral to FY2014 due to actions outside of the City of Surprise's control. A presentation will be provided.

Project Deferrals and Deletions are covered in section 600 of the FFPGP as follows:

- If an agency does not show continuous progress for a second time on project development and it is in their control, the project is deleted.
- Project development actions that are 'in an agency's control', refers to actions for which a project sponsor has decision making authority, such as the allocation of funding and staff time, project management, scheduling decisions, and the coordination of the project with other projects in the agency's boundaries such as developer or other agency projects.
- If there is not continuous progress on the project due to external factors that are not within a project sponsor's control, the decision to continue, reschedule, or delete a project will be based on the following factors:
 - ▶ Identification and explanation of specific problems or issues beyond the control of the agency other than financial issues that have caused the delay (e.g. the actions of outside actors) or failure to achieve a required milestone.
 - ▶ Demonstration of financial commitment (e.g. staff time, funds) by the agency to develop the project prior to the rescheduling or deletion decision.
 - ▶ The previous MAG status reports show that the agency has initiated development of the project and has worked continuously to develop the project for obligation.
 - ▶ A revised schedule and plan that addresses the specific issues identified.

- ▶ If a project has been previously deferred, demonstration that the previous cause of delay has been addressed and/or explanation of why the revised approach will address the problem causing the delay.

PUBLIC INPUT:

None.

PROS & CONS:

PROS: If it is agreed that progress on the project was delayed due actions outside of the agency’s control, a second deferral is recommended and the project will move forward.

CONS: None.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: The ADOT and agency Project Managers have determined that the updated project schedule is achievable. Air quality benefits from completing the project as currently proposed have been evaluated.

POLICY: The MAG Federal Fund Programming Guidelines & Procedures were approved October 26, 2011. As per Section 600, each project is allowed a one-time deferral option. The Agency is requesting a second deferral which would require the project be deleted from the TIP if the actions that caused the second deferral were within the agency control. Policy requires that a determination be made that the actions that caused the schedule delay were outside of the agency’s control and the agency can meet the revised schedule and that the project will proceed.

ACTION NEEDED:

Recommend approval of a second deferral request for the construction phase of the Dove Valley Paving Project, due to actions that were outside of the agency’s control. The agency has a revised schedule that is achievable and other factors have been addressed.

PRIOR COMMITTEE ACTIONS:

Street Committee: This item was on the August 13, 2013 agenda. The committee recommended that the project be deferred to FY 2014.

MEMBERS ATTENDING

- | | |
|--|--|
| Charles Andrews, Avondale, Chairman | Maria Deeb, Mesa |
| Steve Beasley ADOT | * James Shano, Paradise Valley |
| * Jose Heredia, Buckeye | Ben Wilson, Peoria |
| Paul Young for Dan Cook, Chandler | Dana Owsiany for Shane L. Silsby, Phoenix |
| * Bob Senita, El Mirage | * Tracy Coreman, Queen Creek |
| * Wayne Costa, Florence | * Elaine Cabrera, Salt River Pima-Maricopa |
| * Tony Rodriguez, Gila River Indian | Indian Community |
| Community | Phil Kercher, Scottsdale |
| Michael Gillespie, Gilbert | Terry Lowe for Jason Mahkovtz, Surprise |
| Bob Darr, Glendale | Rober Yabes for Shelly Seyler, Tempe |
| Hugh Bigalk, Goodyear | * Jason Earp, Tolleson |
| Thomas Chlebanowski for Darryl Crossman, | * Grant Anderson, Youngtown |
| Litchfield Park | |
| * Jack Lorbeer, Maricopa County | |

* Members neither present nor represented by proxy.

+ Attended by Videoconference

Attended by Audioconference

CONTACT PERSON:

Stephen Tate, 602.254.6300

ATTACHMENT #3

Agenda Item #7

FY2014-17 MAG HSIP
Summary of Projects
Revised 8/14/2013

Agency/ID	Project Title		FY	Federal \$'s	Local \$'s	Total Cost(\$)
AVN-1	Sign Management System and Regulatory/Warning Sign Upgrade	Phase 1	2014	\$115,000	\$0	\$115,000
		Phase 2	2015	\$222,000	\$0	\$222,000
		Phase 3	2016	\$207,000	\$0	\$207,000
		Phase 4	2017	\$216,600	\$0	\$216,600
AVN-2	McDowell-Dysart Roads Accessible Pedestrian Signals	Phase 1	2014	\$45,000	\$0	\$45,000
		Phase 2	2016	\$149,904	\$0	\$149,904
BKY-1	Systemic Sign Management System and Sign Panel Reflectivity Upgrades	Phase 1	2014	\$220,500	\$0	\$220,500
		Phase 2	2016	\$167,400	\$0	\$167,400
GLN-1	59th Avenue and Olive Avenue Design & Construction	Phase 1	2014	\$287,615	\$17,385	\$305,000
		Phase 2	2017	\$1,310,770	\$57,855	\$1,368,625
GLN-2	Sign Management System of Local Roads and Sign Upgrades on Arterial, Collector, and Local Roads	Phase 1	2014	\$245,000	\$0	\$245,000
		Phase 2	2015	\$120,000	\$0	\$120,000
GDY-1	Sign Inventory Management System and Sign Upgrades	Phase 1	2014	\$180,000	\$0	\$180,000
		Phase 2	2016	\$75,000	\$0	\$75,000

FY	Federal \$'s
2014	\$1,093,115.00
2015	\$342,000.00
2016	\$599,304.00
2017	\$1,527,370

ATTACHMENT #4

Agenda Item #8

TO: Members of the MAG Transportation Review Committee

FROM: Eileen O. Yazzie, Transportation Planning Project Manager

DATE: August 21, 2013

SUBJECT: DRAFT TRANSPORTATION ALTERNATIVES PROGRAM GOALS AND OBJECTIVES

In working with MAG member agencies through an online survey and stakeholder meeting this past summer, MAG staff have developed DRAFT Goals and Objectives for the Transportation Alternative Program (TA).

Background

Prior to 2013, there were three distinct types of federal formula funds that were apportioned to the state: Transportation Enhancements (TEA), Safe Routes to School (SRTS), and Recreational Trails Program. In July 2012, the federal government passed the new federal transportation authorization bill, Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 consolidated these three programs into one federal formula funding category called Transportation Alternatives Program (TA). A portion of the state's TA funding is now allocated directly to MAG in comparison to the previous programs' funding, which was fully allocated by the state. The MAG region receives about \$4.4 million per year for this program.

The TA program allows all eligible activities (with some exceptions and one addition) that were previously authorized under the TEA, SRTS, and Recreation Trails Program; for more information see <http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm> (Section B: Eligibility).

Since the eligible activities under the TA program are very broad, MAG surveyed five committees (Transit, Streets, Bicycle & Pedestrian, Safety, and Transportation Review) via an on-line survey this past June/July 2013 about the highest needs of the region. From the survey results and a stakeholder meeting held on August 13, 2013, the DRAFT Goals and Objectives were developed to direct the project selection process.

Please see Attachment #4 for the DRAFT Goals and Objectives, the proposed Evaluation Team, and the draft schedule.

Transportation Alternatives Program (TAP)
DRAFT Goals and Objectives – August 21, 2013

Goals:

1. Improve pedestrian and bicyclist accessibility and connectivity on the transportation network.
2. Assist in providing a safe environment for the bicyclists and pedestrians on both the on-street and the off-street transportation networks.
3. Make bicycling and walking to public K-8 schools a safer and more desirable transportation alternative to motorized vehicles.

Definitions

- **Accessibility:** The ability of transportation infrastructure improvements to provide better access to transit stops, destinations, schools, homes/subdivisions, and employment for people that are walking or biking for all ages and abilities.
- **Connectivity:** The ability of transportation infrastructure improvements to link the proposed project to other bike/pedestrian facilities, completing a gap in a bike/pedestrian facility, or a city/town.
- **Safety:** Projects that make a street safer by addressing a perceived or observed safety problem, including (but not limited to): high vehicle speed, crashes, striping, intersection crossings, or mid-block crossings.

Objectives:

- Fund eligible Transportation Enhancement and Safe Routes to School projects through the federal MAP-21 Transportation Alternatives fund.
- Fund bike and pedestrian improvement projects that provide a safe transportation route or improve a transportation route for (K-8) students to schools.
- Fund bike and pedestrian improvement projects that address a perceived or observed problem/safety issue, including (but not limited to) unsafe street crossings; missing, narrow or poorly maintained sidewalks; adding/improving bike lanes (restriping, widening, colored pavement); or disconnected/inaccessible bike or pedestrian facilities, while connecting residents to transit stops/centers or other destinations.
- Fund Safe Routes to School non-infrastructure projects that educate and encourage K-8 students, parents, and school resources officers/staff on bicycle and walking options.
 - GUIDELINE - Funding will be set aside at 6% of total Transportation Alternatives funding, with a maximum yearly total of \$250,000. If the total value of projects awarded for Safe Routes to School non-infrastructure projects is less than the total programmed set-aside, remaining funds will be applied toward eligible infrastructure projects.
 - GUIDELINE – These projects will need to evaluate on a quarterly basis as required by the federal government, and address enforcement and encouragement. (need to verify what needs to go here with FHWA and ADOT).

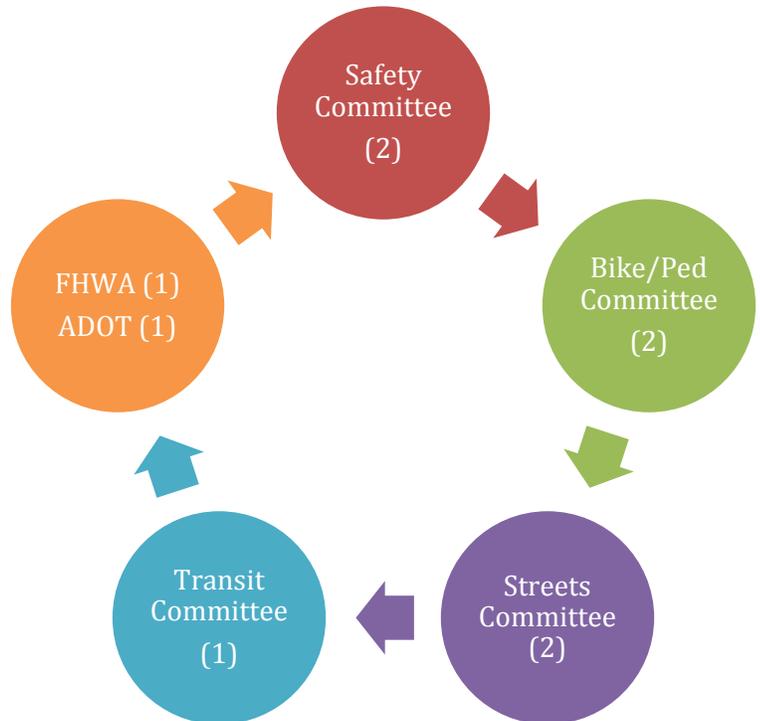
- Utilize evaluative tools based on quantitative and qualitative performance measures to inform project rankings in the application process.

Proposed Evaluation Team

It is proposed that the Chairs of the four committees (Streets, Bike/Ped, Safety, and Transit) are asked to be a part of the evaluation team. It is proposed that the TRC Representatives and Vice-Chairs of the three (Streets, Bike/Ped, and Safety) committees are asked to be a part of the evaluation team.

The Evaluation Team members are dependent on their availability and agreement to serve on the evaluation team, which involves a time commitment to review and score applications, and attend a project presentation meeting.

In the case of a double representation of a city on the evaluation team, another committee member would be needed. Volunteers would be requested.



DRAFT Schedule

- Applications available –September 26, 2013
- Applications due – Mid/Late October 2013
- Evaluation Team Work – Late October – November 2013
- Presentations by Agencies to Evaluation Team – November/December 2013
- Transportation Review Committee review of ranked projects – December 2013
- Management Committee and Regional Council review and approval – January 2014

ATTACHMENT #5

Agenda Item #9

MARICOPA ASSOCIATION OF GOVERNMENTS

INFORMATION SUMMARY... for your review

DATE:

August 21, 2013

SUBJECT:

Sustainable Transportation - Land Use Integration Study (ST-LUIS)

SUMMARY:

The Sustainable Transportation and Land Use Integration Study (ST-LUIS) highlights the potential to move the region towards greater use of sustainable transportation modes – transit, walking and biking. The study provides a fresh look at ideas for transit investments and services that have been under previous consideration, and supports the creation of walkable and transit-oriented communities. The uniqueness of the ST-LUIS is the holistic approach taken to investigating transit's potential, by integrating real estate market analysis with transit corridor assessment and ridership modeling. The Study's focus on transit and supportive land use is joined up with recommendations for creating compact walkable places throughout the region.

ST-LUIS asks how the region can move toward sustainable transportation in ways that:

- Reflect market reality
- Recognize the high cost of high capacity transit, and
- Are consistent with the values and aspirations of member communities.

ST-LUIS was undertaken from 2010-2013 and completed in three phases: research and analysis, scenario planning and modeling, and the development of local and regional tools. The study was complemented by nine stakeholder activities. These activities included two business/public forums coordinated by the Arizona Chapter of the Urban Land Institute (ULI). The perspectives of participants from these forums were integral to understanding the market realities in local communities.

Based on the ST-LUIS investigation of market realities and research findings, and the study's testing of high capacity transit (HCT) scenarios in the MAG region, the overarching recommendation from the ST-LUIS is to provide a high quality, productive transit system supported by compact walkable and transit-oriented places.

The Study's key findings are: 1) TOD demand will be driven by projected regional growth in population and jobs, and supported by demographic shifts, 2) transit-supportive and compact walkable development is achievable, with distinct opportunities in different parts of the region, 3) targeted corridor modifications improve transit productivity, 4) regional transit mode share and regional access increase with a mix of LRT and upgraded bus services, and 5) existing conditions drive the pathway for future HCT service.

The study was rooted on the projected demand for transit oriented development (TOD), which projects that in a future of 8.3 million people, 1 million (12%) will be the market for TOD; as well as a quarter, 1.1 million jobs from a future 4.4 million jobs would drive the TOD employment demand forward.

With this and other key findings, the study moved forward with a scenario planning and modeling exercise to offer three visions for future land uses, high capacity transit networks, transit ridership and transit productivity, using the project's market demand forecasts for TOD jobs and housing. The results of the

scenario planning exercises provide high-level results rather than specific local recommendations. The scenario modeling exercise used the 44 recommended high capacity transit corridors from the MAG Regional Transit Framework Study, as the candidate corridors for analysis.

As part of the scenario planning exercise, the STLUIS created 3 place types: Compact Walkable, Transit Served, and High Capacity Transit (HCT) Oriented were created to reflect threshold densities and development patterns supportive of different transit modes. These land uses and were “applied” to station areas (½ mile) in the scenario planning process.

Transit service and capital investments included in each scenario were derived from an understanding of related studies, existing and future transit services, projected travel demand characteristics, land use and growth patterns, and regional connectivity. A brief summary of each scenario is provided below.

Enhanced Transit Scenario

The Enhanced Transit Scenario reflects a moderate expansion of the MAG Base Case scenario transit network (the RTP 2035 Network), as well as a reallocation of total regional growth to specify transit-oriented development (TOD) consistent with the ST-LUIS place types within one half mile of transit stations (“station areas”). The scenario includes 10 LRT, streetcar, and commuter rail corridors (including eight service corridors and two commuter rail corridors).

Transit Supply Scenario

This scenario reflects a very generous expansion of the Base Case scenario transit network, as well as a reallocation of total regional growth to direct transit-oriented and compact walkable development to station areas. This scenario includes all 44 corridors including LRT, BRT (mixed flow running, similar to the LINK), streetcar, and commuter rail corridors.

Refined Transit Supply Scenario

This scenario was generated after Scenario 1 and Scenario 2 were completed. This scenario tests a transit network that is more extensive than that of Scenario 1, but less extensive compared to Scenario 2. Transit network and land use assumptions were revised with the aim of increasing network productivity and reflecting constraints to HCT-supportive densities in some locations. This scenario includes 25 corridors including LRT, BRT (mixed flow running, similar to the LINK), streetcar, and commuter rail corridors.

ST-LUIS Scenario Modeling revealed that the small, compact, and selective strategic HCT network in the Enhanced Transit Scenario was the most productive, had the best fit with regional TOD demand, and represented the lowest capital cost

As cities, towns, communities, neighborhoods, and transportation corridors are quite different throughout the region, the STLUIS recognizes that *One Size Doesn't Fit All* and created 3 tools for the region and its member agencies to use: 1) Place Types, 2) Local Toolkit - Community Pathways to Sustainable Transportation and Development Prototypes Catalogue, and the 3) Regional High Capacity Transit (HCT) Evaluation and Scenario Planning Process.

The study recommendations, findings and tools have set the stage for the region to move toward more sustainable transportation options by evaluating regional projects that support sustainable transportation, jump start the regional transportation plan process, consider upgrading transit services, and support municipal actions. A copy of the Key Recommendations and Tools is enclosed and the seven working papers and employment/market analysis is available at www.bqaz.org.

PUBLIC INPUT:

The study process included seven stakeholder meetings and two public/private business meetings to define sustainable transportation for the MAG region, and coordinate findings, create useful tools and products from the study.

PROS & CONS:

PROS: This study takes a holistic approach in investigating the region’s high capacity transit network potential, by integrating real estate market analysis with transit corridor assessment and ridership modeling.

CONS: A shift in regional transportation, transit priorities, and discussions with local agencies on compatible land uses would be required to implement the recommendations for sustainable transportation services identified in the Sustainable Transportation Land Use Integration Study.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: To provide a data driven, analytical approach for testing different high capacity transit systems and their productivity, the scenario planning process established a two tiered screening and selection process of HCT candidate corridors, while evaluating the positive relationship with the more compact walkable and transit oriented land uses. The overarching finding and recommendation is for the region to provide a high quality and productive transit system that is supported by compact walkable and transit-oriented places.

POLICY: The Sustainable Transportation Land Use Integration Study provides a data driven, technical foundation for future policy discussions related to creating a more sustainable transportation network, and shifting transit investments and prioritization.

ACTION NEEDED:

Information, discussion, and possible recommendation to accept the Sustainable Transportation Land Use Integration Study recommendation, key findings, and tools to be considered in future planning efforts and be consistent with the Federal Transit Administration process, including evaluation criteria as appropriate.

PRIOR COMMITTEE ACTIONS:

On August 8, 2013, the Transit Committee recommended acceptance of the Sustainable Transportation Land Use Integration Study recommendation, key findings, and tools to be considered in future planning efforts and be consistent with the Federal Transit Administration process, including evaluation criteria as appropriate.

MEMBERS ATTENDING

- *ADOT: Nicole Patrick
- *Avondale: Rogene Hill
- #Buckeye: Andrea Marquez
- Chandler: Jason Crampton for RJ Zeder
- El Mirage: Sue McDermott
- Gilbert: Leslie Hart
- Glendale: Matthew Dudley for Cathy Colbath
- Goodyear: Cato Esquivel
- Maricopa County DOT: Mitch Wagner
- Mesa: Jodi Sorrell
- *Paradise Valley: Jeremy Knapp
- Peoria: Maher Hazine
- Phoenix: Maria Hyatt
- #Queen Creek: Chris Anaradian
- Scottsdale: Madeline Clemann, Chair
- Surprise: David Kohlbeck
- Tempe: Robert Yabes
- *Tolleson: Chris Hagen
- Valley Metro: Wulf Grote
- Youngtown: Grant Anderson

*Members neither present nor represented by proxy. + - Attended by Videoconference
- Attended by Audioconference

CONTACT PERSON:

Eileen Yazzie, Transportation Planning Project Manager, MAG (602) 254-6300.



► Sustainable Transportation & Land Use Integration Study

Key Recommendations and Tools

July 2013



SUSTAINABLE TRANSPORTATION
& LAND USE INTEGRATION STUDY



1. Project Overview

TABLE OF CONTENTS

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The **Sustainable Transportation and Land Use Integration Study (ST-LUIS)** highlights the potential to move the region towards greater use of sustainable transportation modes – transit, walking and biking.

The study provides a fresh look at ideas for transit investments and services that have been under previous consideration, and supports the creation of walkable and transit-oriented communities. The uniqueness of the ST-LUIS is the holistic approach taken to investigating transit’s potential, by integrating real estate market analysis with transit corridor assessment and ridership modeling. The Study’s focus on transit and supportive land use is joined up with recommendations for creating compact walkable places throughout the region.

ST-LUIS was completed in three phases undertaken from 2010-2013, complemented by the stakeholder activities shown in Figure 1. These activities included two business/public forums coordinated by the Arizona Chapter of the Urban Land Institute (ULI). The perspectives of participants from these forums were integral to understanding the market realities in local communities. This document presents key study recommendations, findings, and a summary of the project’s research and analysis activities, scenario planning, and tools and strategies development.

DEFINITION

SUSTAINABLE TRANSPORTATION

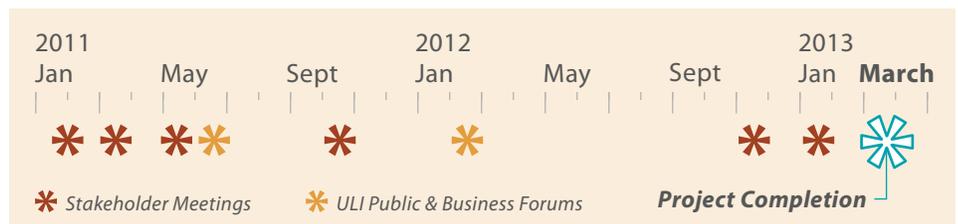
“A transportation system that supports prosperity in Maricopa County by providing a variety of mobility options, offering walkable communities throughout the region and locating high capacity transit that will be chosen by households and businesses seeking excellent access to local and regional destinations.”

ST-LUIS Stakeholder Group

ST-LUIS asks how the region can **move toward sustainable transportation** in ways that:

- Reflect market reality
- Recognize the high cost of high capacity transit, and
- Are consistent with the values and aspirations of member communities.

Figure 1: ST-LUIS Meetings and Forums



2. Achieving Sustainable Transportation - Key ST-LUIS Recommendations

Based on the ST-LUIS investigation of market realities and research findings, and the study's testing of high capacity transit (HCT) scenarios in the MAG region, the overarching recommendation from the ST-LUIS is to:

Provide a high quality, productive transit system supported by compact walkable and transit-oriented places.

The ST-LUIS has created tools and implementation strategies for the region and local agencies to move to a more sustainable transportation system in the future. These are discussed further on pages 18-21.

3. Key ST-LUIS Findings

Out of the research and analysis, five key findings helped set the stage in testing illustrative high capacity transit networks in conjunction with land use modifications, and created tools and strategies for the region and local agencies to assess sustainable transportation options with appropriate land uses.

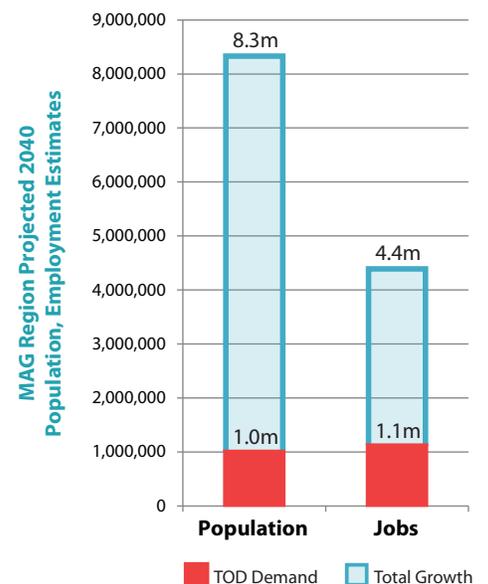
3.1 TOD Demand Will Be Driven by Projected Regional Growth in Population and Jobs, and Supported by Demographic Shifts

Overall regional growth is the fundamental factor fuelling demand for Transit-Oriented Development (TOD) and walkable communities. Growth in knowledge-based industries and demographic changes are the two key factors for growth in transit-oriented place types. Figure 2 illustrates the projected demand for TOD within the future regional growth of population and jobs. These trends are discussed in the 4.1 Research & Analysis section, and in greater depth in project background documents.

3.2 Transit-Supportive and Compact Walkable Development is Achievable, with Distinct Opportunities in Different Parts of the Region

The outlook for transit-oriented and compact walkable places in the MAG region is good with specific forms depending largely on market conditions. The ST-LUIS market analysis and financial feasibility analysis demonstrate that the strongest locations for new higher density development are mixed use employment centers in the core locations of Downtown Phoenix, Downtown Tempe, and Downtown Scottsdale. These employment centers can support the densities

Figure 2: Regional Population and Employment Projections



Source: Woods and Poole; MAG; Strategic Economics 2011

that correspond to **HCT Oriented** place types, ranging from 2-3 story townhomes to 5-7 story mixed use buildings.

There are other places in central locations—such as Camelback Corridor—that can offer relatively dense, walkable, bike-friendly environments, but that command slightly lower prices than the large employment centers. In these locations, the **Transit Served** place type will typically be achievable with likely product types including 2-3 story townhomes, 2-3 story apartments, and 3-4 story office buildings.

The market conditions necessary to support compact walkable development are far more widespread than are locations with the market strength required to support Transit Served and HCT Oriented development. There are many locations that have promise as places that could transition from conventional large-lot single family housing to the **Compact Walkable** place type that supports sustainable transportation.

The place types convey the development characteristics that need to be present on an area- or corridor-wide basis in order to support transit productivity and increased walk and biking. However, these characteristics will be found elsewhere in localized cases as well. The densities and the characteristics described are likely to continue to be found in contexts where higher densities and walkable character are valuable components of placemaking and identity, such as mixed use downtowns in places with low centrality that may not be directly served by high capacity transit.

3.3 Strategic Corridor Modifications Improve Transit Productivity

Adjustments to the planned corridors and networks made during upcoming planning phases are very likely to improve forecast productivity relative to the ST-LUIS projections. Careful modification and evaluation of specific alignments, stop locations, corridor length, connecting pedestrian improvements, land use shifts, and mode will be part of subsequent stages of planning for an Enhanced Transit system, with likely productivity gains.

3.4 Regional Transit Mode Share and Regional Access Increase with a Mix of LRT and Upgraded Bus Services

To increase regional transit use and productivity, a mixed network of both LRT and high quality bus services will generate the greatest transit productivity share as well as giving more households and communities improved options for travel throughout the region. LRT alone does not meaningfully increase the regional transit mode share. A high quality bus system that complements rail services, walk, bike and land use strategies is essential to shifting people from single occupant vehicles to transit. While upgraded bus services may include “true” Bus Rapid Transit (BRT) with exclusive guideways, lower-cost upgrades to provide all-day reliable and fast service can provide the quality envisioned by the study.

3.5 Existing Conditions Drive the Pathway for Future HCT Service

The HCT Supportiveness Analysis assessed existing corridor conditions such as land use, transit-supportive densities, and current transit demand to gauge a corridor’s potential to support future HCT service. Corridors with transit-supportive jobs and populations as well as demographic characteristics supporting transit ridership generally performed well in the corridor-level analysis for each scenario. Current transit-supportive conditions play a significant role in whether a corridor can sustain and support upgrades to HCT service in the future. Increased presence of the factors listed as HCT screening criteria will, over time, improve conditions for productive transit service and for TOD.

Continuing attention to existing conditions is particularly important because ridership of existing low-income and transit-dependent populations is taken into account most strongly in this part of the study.

PRIMARY HCT SCREENING CRITERIA

Total Residents

Percent Minority Population

Percent Low-Income Households (under \$20,000 per year)

Total Jobs

Transit-Supportive Job Density (jobs / acre)

Transit-Supportive Density (jobs + residents / acre)

Average Daily Weekday Boardings

Average Daily Weekday Boardings / Mile

4. Project Summary

The ST-LUIS effort was organized into three broad components. Each is summarized in this section.

4.1 RESEARCH & ANALYSIS

The *Research and Analysis* component provided the foundation of the Sustainable Transportation and Land Use Integration Study, set the parameters for the *Scenario Planning* component, and informed the development of the *Tools & Strategies* component.

Investigating the Opportunity for TOD

ST-LUIS included a range of activities to investigate the opportunity to create TOD, as shown in Table 1.

Through this investigation it was found that:

- **The commute trip is a critical factor in transit productivity.** Though work trips are less than

20% of total trips, work trips make up close to 60% of transit trips nationally.

- **Some business sectors are more likely to be near transit than others.** Jobs in industry sectors that have a tendency to cluster near transit include: Government; Information; Finance and Insurance; Real Estate; Professional, Scientific and Technical Services; Management of

Companies and Enterprises; Arts, Entertainment, and Recreation; and Accommodation and Food Services (based on national studies from the Center for Transit-Oriented Development).

- National research shows that **higher job density at station areas has a greater impact on increasing ridership** than does higher residential density, though both factors build transit use.

Table 1: ST-LUIS Activities and Outcomes

ST-LUIS ACTIVITIES				OUTCOMES
Transit-Oriented Development (TOD) and walkable communities	Research	Best Practices	Local Precedents	ST-LUIS Place Types and Local Toolkit
Understanding the real estate market	Development feasibility	Regional growth	Forecast Demand (jobs & housing)	Estimate of demand for jobs and housing in station areas
Corridor Potential	Current Conditions	Past Plans and Studies	Services and Modes	Corridor screening results and Transit Service Characteristics

“The Phoenix Metro region has historically ignored the business community in this conversation. ST-LUIS has been instrumental in moving this conversation forward in terms of understanding the role that employment plays in public transportation.”

Dena Belzer
ULI Forum 2

Key Factors Impacting Transit Ridership

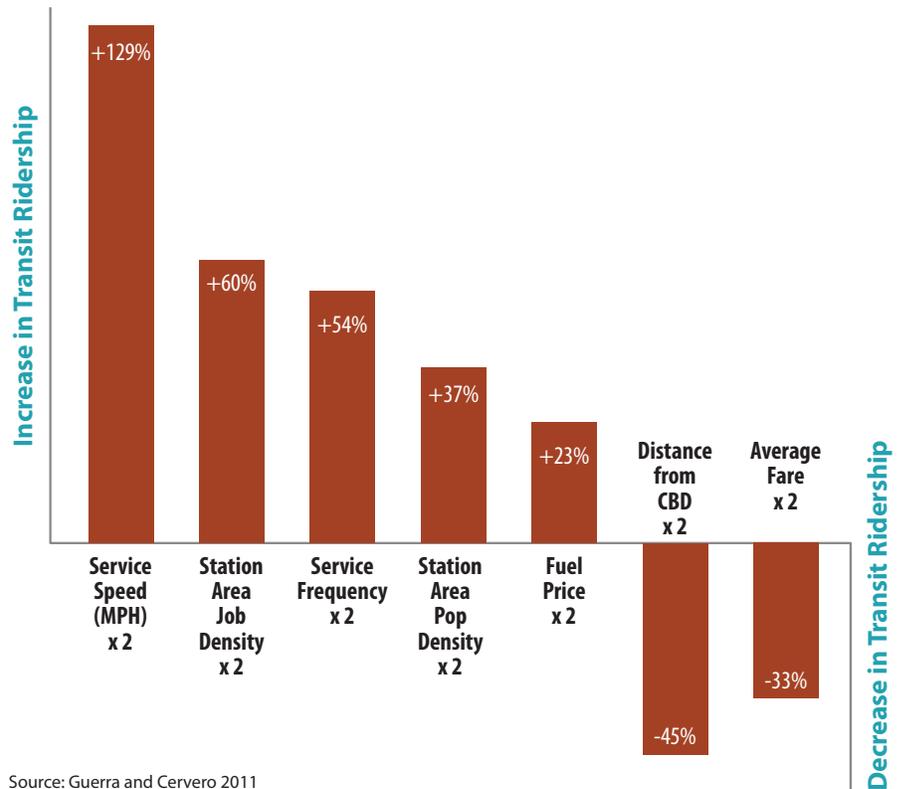
Academic research and practical experience have identified factors having significant impact on transit ridership.

These factors include service speed and frequency, station area job and population density, and distance from the central business district (CBD). Increasing values for these key factors results in either an increase or decrease in ridership, as shown in Figure 3.

Many of the factors supporting transit use have been shown to support walking and cycling as well. These include:

- Mixed use neighborhoods and districts at compact densities
- Local street networks with high connectivity
- Travel demand management/ incentives, including parking management

Figure 3: Change in Transit Ridership Resulting from Doubling Key Factors



Source: Guerra and Cervero 2011

Shifting Demographic Trends

A variety of trends, both locally and nationally, will support the success of walkable communities in the region.

National studies have demonstrated a growing demand for housing in compact, “walkable” neighborhoods near transit. Many households are interested in compact housing types in pedestrian-oriented neighborhood with good access to amenities, transportation options, and shorter commutes. TOD demand nationally in

the coming decades will be influenced by a variety of trends:

1. **An increasing number of smaller households:** 79 million Baby Boomers (who prioritize public transportation, walkability, and access to amenities, and are more receptive to living in smaller housing units on smaller lots) are approaching retirement.
2. **Changing consumer preferences among Millennials and knowledge workers toward authentic**

places and convenient lifestyles:

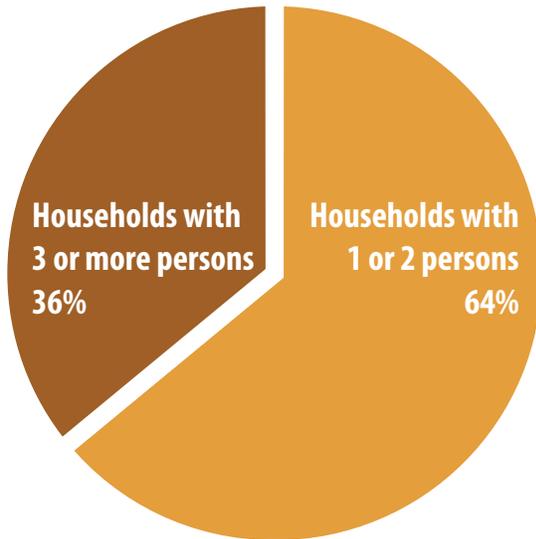
85 million Echo Boomers (who prefer walkable, mixed use neighborhoods short commutes) will enter the housing market for the first time.

3. **Disincentives to driving** including high gas prices, drive the search for alternatives to single-occupancy vehicle trips/commutes.

Local demographic shifts will support the growth of walkable communities in the region, as shown in Figure 4.

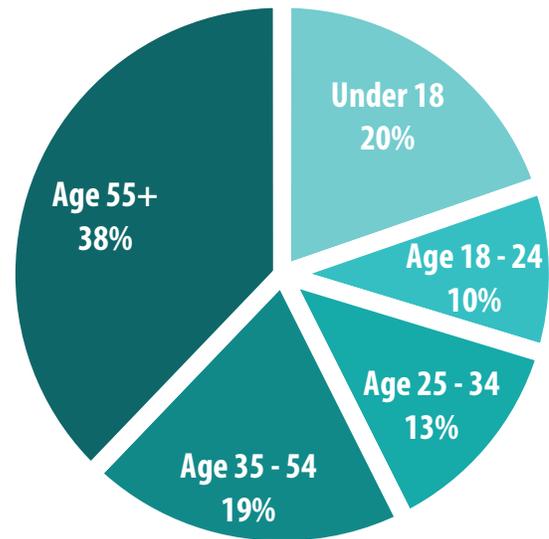
Figure 4: 2010-2040 Regional Growth Characteristics

Population Growth by Household Type Maricopa County 2010-2040



Source: Woods and Poole, Strategic Economics 2011

Population Growth by Age Maricopa County, 2010-2040



Sources:

Belden Russonello & Stewart, *The 2011 Community Preference Survey* (Washington D.C.: National Association of Realtors, March 2011).
Ibid and Joint Center for Housing Studies of Harvard University. *State of the Nation's Housing*, 2011.

Future Success Means Responding to Today's Challenges

The region faces a number of challenges to creating transit-supportive communities. Today, existing and planned development patterns are largely low density, as seen in Figure 5.

Infill development at TOD and walkable densities is hindered in some locations by zoning that allows densities in excess of those currently supported

by the real estate market. In addition, the region has significant supply of underutilized built space as well as vacant properties available which may slow TOD development.

Success requires regional collaboration in investment decisions, so regional assets—those attracting many people, such as major medical, educational and cultural institutions—will locate in places where high capacity transit can be provided efficiently and linked to the region.

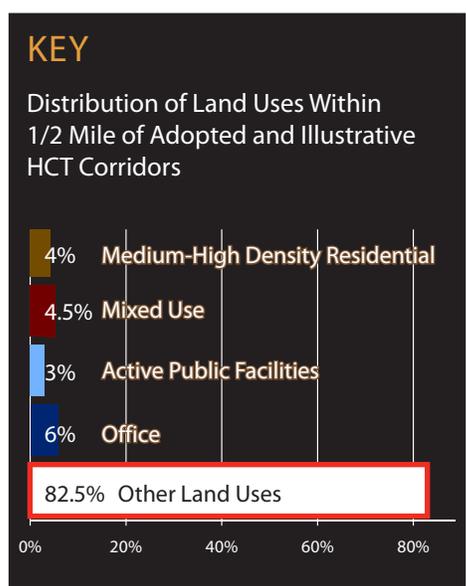
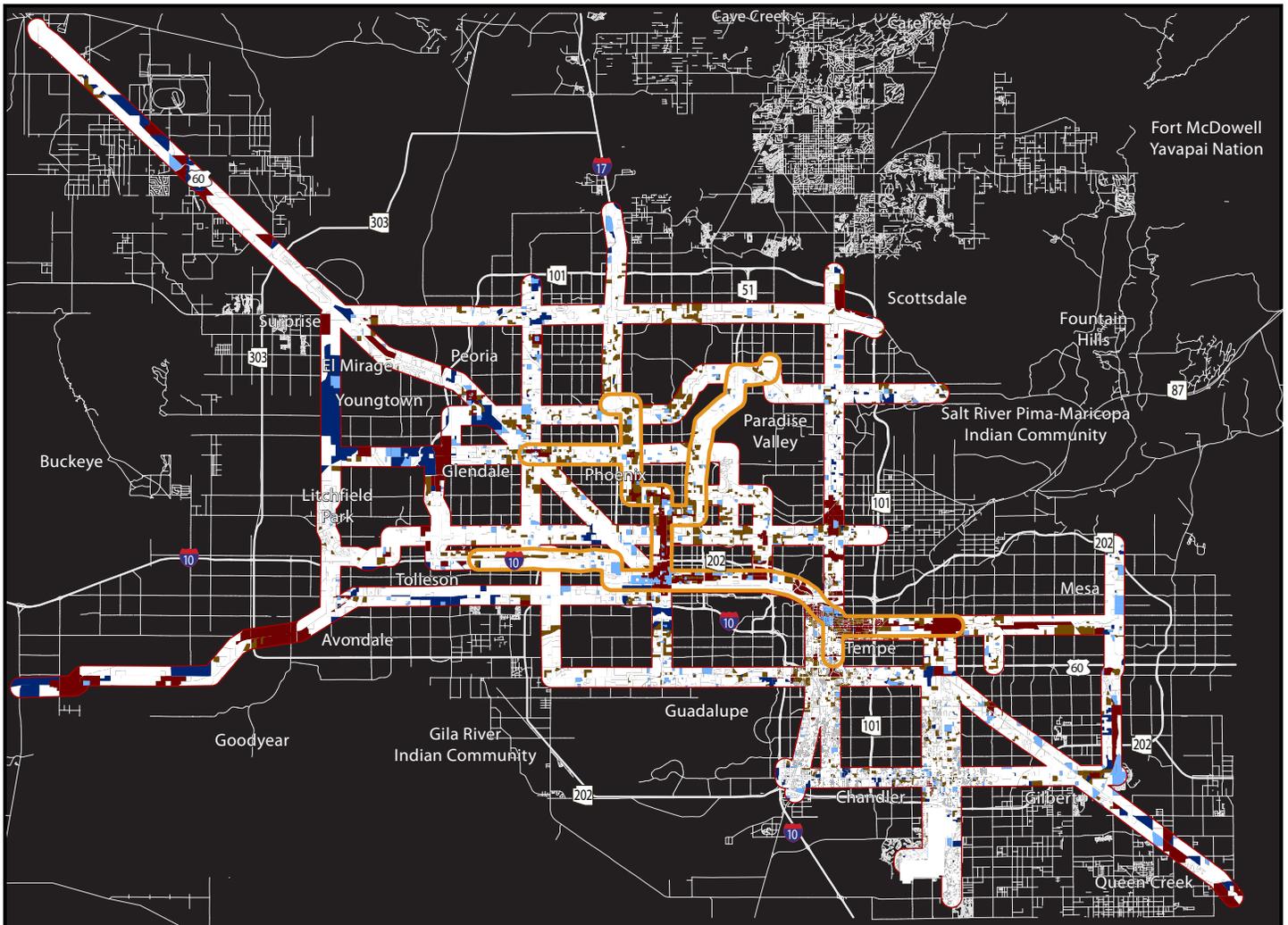


Figure 5: 2010 Regional Transportation Plan (RTP) Illustrative HCT Corridors & 2009 General Plan Land Uses



4.2 SCENARIO PLANNING AND MODELING

A central part of the ST-LUIS is the use of Scenario Planning to investigate: *What would happen if the region made changes to development patterns with the specific objective of supporting transit productivity and non-motorized transportation, while meeting market demand for TOD? Scenario planning offers the opportunity to envision the region’s future land uses and the productivity of its high capacity transit network.*

The ST-LUIS scenarios offer three visions for future land uses, high capacity transit networks, transit ridership and transit productivity, using the project’s market demand forecasts for TOD jobs and housing. The results of the scenario planning exercises provide high-level results rather than specific local recommendations.

Transit performance was analyzed through coordinated use of two modeling tools. Together they **reflect the influence on transit ridership of localized features** including development density, walkability and feeder bus service.

ST-LUIS Scenario Planning has been a valuable tool for investigating policy and investment options. MAG and partner agencies may wish to address some of the limitations of Scenario

Planning in future activities. Table 2 explains what ST-LUIS Scenario Planning does and doesn’t accomplish.

Shared Scenario characteristics

Each of the three scenarios matches a high capacity transit network with assumptions for station-area land uses that use ST-LUIS place types that illustrate three different sets of development characteristics that support walkable communities with different levels of transit investment.

The scenarios reflect:

- Expected regional population growth to over 8 million people
- Results of ST-LUIS analysis of candidate HCT corridors (from the Regional Transit Framework Study—RTFS)

- Investigation of real estate market, transit-supportive job sectors, location and density of existing job centers
- Use of ST-LUIS place types to streamline scenario design

“The winning strategy is about differentiation rather than everybody doing standard out-of-the-box TOD. The path of success is different for every community.”

Ellen Greenberg
ULI Forum 2

Table 2: What Does ST-LUIS Scenario Planning Accomplish?

ST-LUIS SCENARIO PLANNING	
DOES...	DOESN'T...
Test three land use and transit corridor patterns	Test additional scenarios of interest
Incorporate MAG socioeconomic data and ST-LUIS market findings	Reflect location-specific opportunities
Use MAG’s Regional Transit Framework Study (RTFS) corridors as input	Evaluate all corridor combinations
“Imagine” population and job growth directed to HCT station areas	Reflect localized existing conditions
Use a hybrid modeling method: Direct Ridership Model (DRM) and MAG 4-step model	Reflect benefits of compact walkable development outside station areas
Provide generalized results and recommendations	Make specific corridor recommendations
Include HCT corridors and assumptions for feeder bus services	Include specific local transit proposals

ST-LUIS Place Types

The place types were created to reflect threshold densities and development patterns supportive of different transit modes, and were “applied” to station areas in the scenario planning process. Figure 6 provides an overview of each place type. Additional detail regarding place types is included on pages 15 and 16.

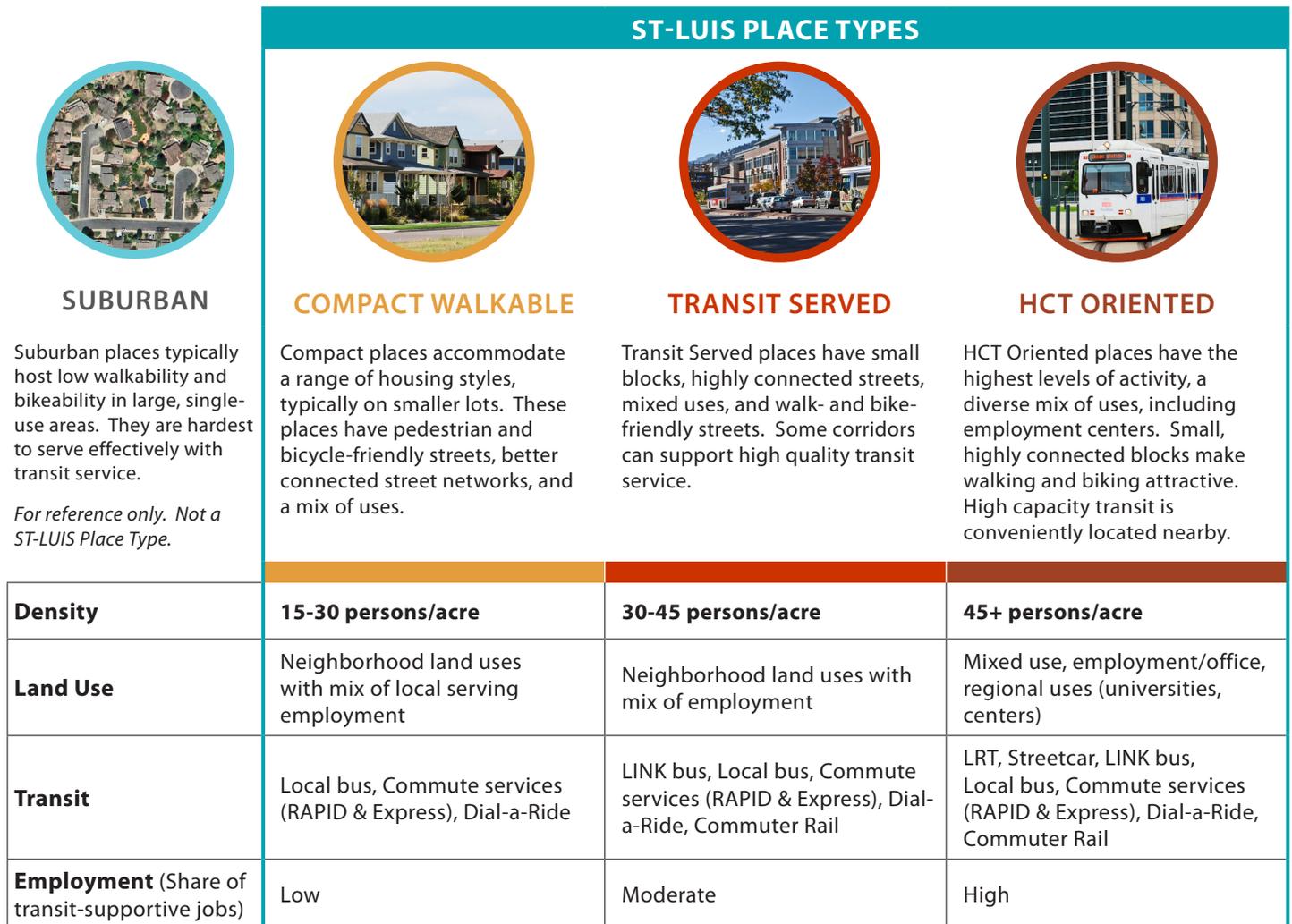
Factors in designing place types:

- Densities supportive of different travel choices and modal productivity
- Densities supported by regional real estate market demand
- Existing and planned densities (especially in core sub-areas)
- Transit-supportive job sectors

Factors in applying place types:

- Centrality (proximity to the region’s core)
- Location in specific core sub-areas (custom densities)
- Location in or out of employment cluster
- Inner or outer station area (1/4 or 1/2 mile radius)
- Special uses (e.g., Arizona State University)

Figure 6: ST-LUIS Place Type Overview



ST-LUIS Scenarios

The three ST-LUIS scenarios—*Enhanced Transit*, *Transit Supply*, and *Refined Transit Supply*—are compared in Figure 7, which shows the relative transit network size of each scenario, as well as each transit corridor’s service type.

Figure 7: ST-LUIS Scenario Corridor Maps by Corridor Service Type

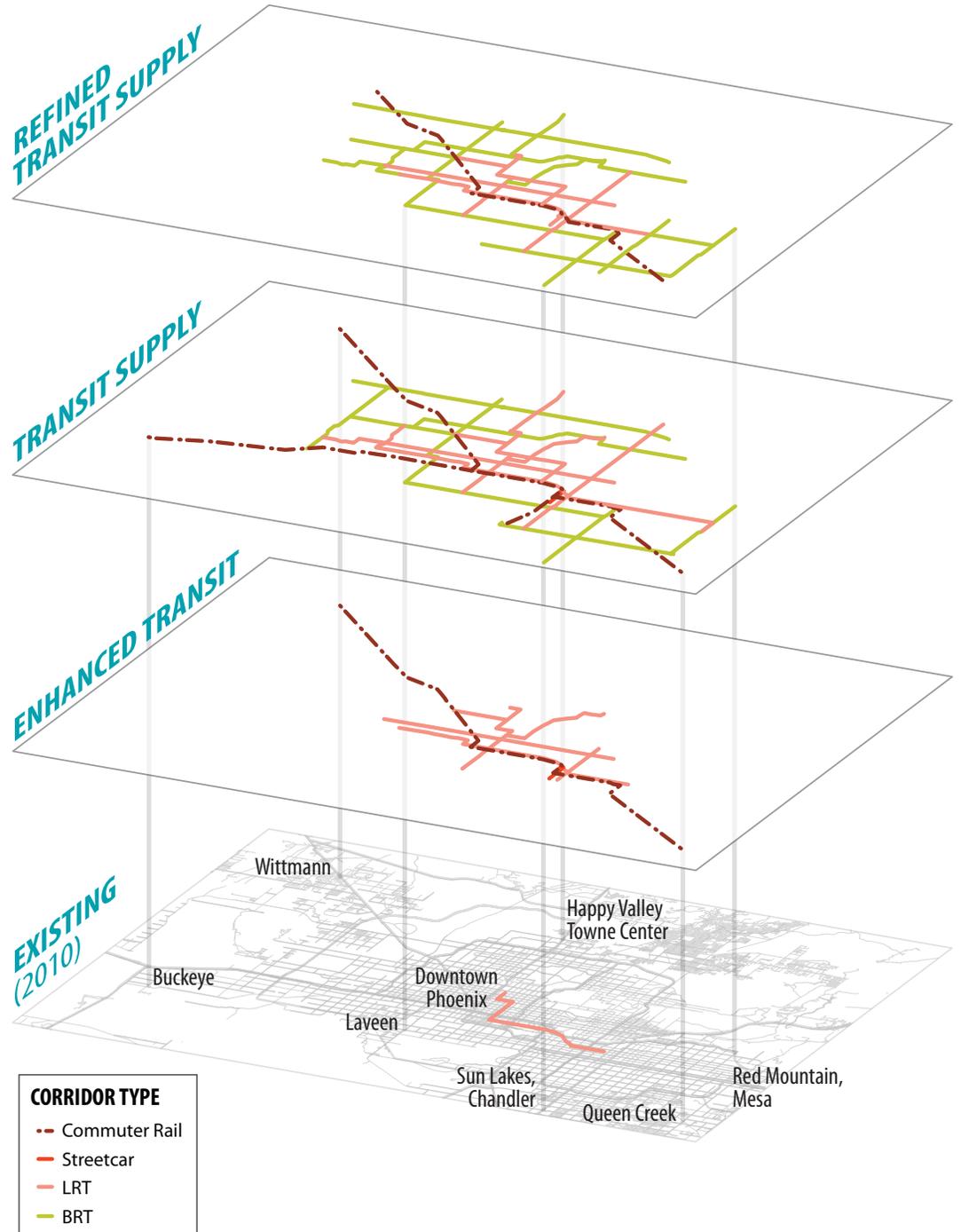
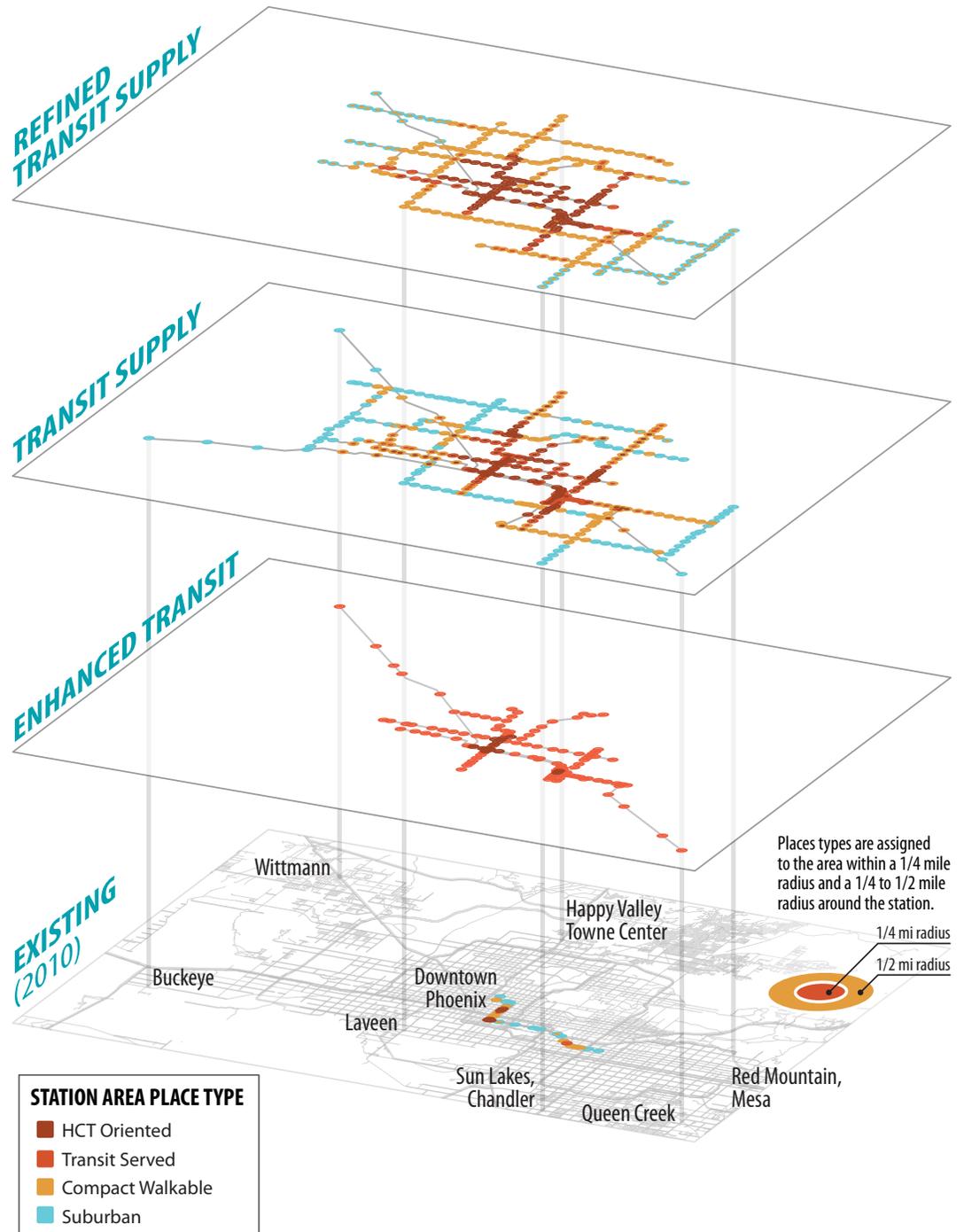


Figure 8 depicts the station area place type assignments for each scenario. Place types for may differ between the inner (1/4 mile radius) and outer (1/4 to 1/2 mile radius) station areas.

Figure 8: ST-LUIS Scenario Station Area Maps by Place Type



Scenario Modeling Results

Three transit network scenarios were tested in this study: Enhanced Transit, Refined Transit Supply and Transit Supply. Table 3 summarizes the transit network characteristics and station area place types by scenario.

The ST-LUIS market analysis, ridership productivity and mode share findings indicated a finite demand for transit-oriented and transit-supportive land use in the region. The Transit Supply scenario included a total of 352 stations along 24 HCT corridors. The TOD market demand was able to supply about half of the stations with TOD Place Types (HCT Oriented or Transit Served). The remaining 180 stations were assigned to compact walkable and/or suburban land uses since the TOD demand

was fully absorbed. This imbalance between supply and demand for TOD contributes to the lower productivity of the larger HCT systems.

ST-LUIS Scenario Modeling revealed that the small, compact, and selective strategic HCT network in the Enhanced Transit Scenario was the most productive, had the best fit with regional TOD demand, and represented the lowest capital cost. The projected annual average boardings per vehicle revenue hour decreased by 23% when the number of rail corridors was expanded from 10 to 24. The Enhanced Transit Scenario also maximizes land use integration with transit investments, due to a good fit between station area acreage and projected TOD demand.

PLACE TYPES

The ST-LUIS uses three 'place types' to categorize different areas in the region into groups with shared transportation and land use characteristics. These are described in detail on pages 15-16.

SUBURBAN *(Not a ST-LUIS Place Type)*
 NON-TOD

COMPACT WALKABLE

 CW

TRANSIT SERVED

 TOD

HCT ORIENTED

 TOD

Table 3: Scenario Characteristics

	TRANSIT				STATION AREA PLACE TYPES		
	Modes	Corridors	Miles	Stations	TOD 	TOD+CW  	Non-TOD  
Enhanced Transit Scenario 1	Rail Corridors (LRT, Streetcar, Commuter Rail)	10	160	124	124	-	-
	BRT Corridors	-	-	-	-	-	-
	Total	10	160	124	124	-	-
Transit Supply Scenario 2	Rail Corridors (LRT, Streetcar, Commuter Rail)	15	268	193	106	66	21
	BRT Corridors	9	167	159	-	-	159
	Total	24	435	352	106	66	180
Refined Transit Supply Scenario 3	Rail Corridors (LRT, Streetcar, Commuter Rail)	10	158	123	111	3	9
	BRT Corridors	14	209	200	1	32	167
	Total	24	366	323	112	35	176

Table 4 summarizes the characteristics of each scenario its modeling results.

Scenario Modeling Key Findings

- Upgraded bus services will complement HCT, feed the rail network and provide a needed increase in regional access.
- BRT services can range from “BRT-light” similar to the current LINK service, to full BRT with dedicated guideway. HCT modes are expected to include LRT, streetcar and commuter rail.
- Optimizing the transit system, relocating or consolidating stops, and truncating unproductive line segments can improve productivity.
- Downtown Phoenix station areas will have the highest sustainable mode share in the region (about 20% of trips with origins or destinations in the station areas) and can serve as a benchmark for measurement.

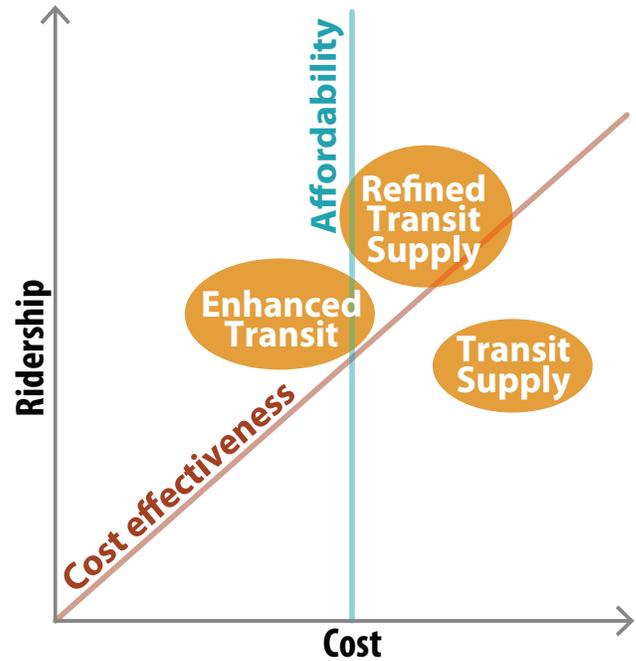


Figure 9: Conceptual Scenario Cost Effectiveness and Affordability Curves

Table 4: Scenario Summary

ST-LUIS SCENARIO	COMPARISON TO 2013 HCT NETWORK	MODE IN ST-LUIS NETWORK	STATION AREA PLACE TYPES	WHAT WE LEARNED FROM THE MODELING RESULTS
Enhanced Transit	Modest Expansion	HCT (LRT, Streetcar, Commuter Rail) Feeder bus	Transit served and high capacity transit oriented place types forecast by ST-LUIS Market Analysis	<ul style="list-style-type: none"> • Highest productivity • Best fit with TOD demand • Lowest cost • Least geographic coverage • Lowest total ridership
Refined Transit Supply	Generous Expansion	HCT (LRT, Streetcar, Commuter Rail)	Transit served and high capacity transit oriented place types forecast by ST-LUIS Market Analysis	<ul style="list-style-type: none"> • 2nd highest productivity • 2nd poorest fit with TOD demand • 2nd highest cost • Good geographic coverage • 2nd highest ridership
Transit Supply	Very Generous Expansion	BRT (with and without dedicated guideway) Feeder bus	Compact Walkable and/or suburban land uses where TOD land uses unlikely to be achieved	<ul style="list-style-type: none"> • Lowest productivity • Poorest fit with TOD demand • Highest cost • Excellent geographic coverage • Highest total ridership

4.3A TOOLS - ONE SIZE DOESN'T FIT ALL

The ST-LUIS tools support local and regional stakeholders in advancing plans for transit investments and services, supporting walkable and bikeable communities, enacting policies that support sustainable transportation, and guiding transit-oriented development. The three tools work together and recognize that there is not a *One Size Fits All* solution, allowing the region and local agencies to evaluate transportation and land use options in a market-based and data-driven approach.

ST-LUIS Place Types

The ST-LUIS place types describe and illustrate three kinds of places that offer the best opportunities for supporting sustainable transportation in the MAG region, based on the study's investigation of research findings, best practices and local precedents.

The place types can be used:

- To characterize **existing conditions**,
- To describe an **ideal condition**, and
- To communicate a **future vision** as a basis for actions.

Some characteristics are common to all three place types. All depend on

appropriate density and land use mix to support walkability, and a high level of street network connectivity. In successful walkable communities, these measurable characteristics are paired with the less-tangible qualities of authentic character, attractive public realm, and placemaking that contribute to identity and value. Figure 10 (see following page) provides information on some of the features that are distinct for the different place types.

As noted in Figure 10, the market conditions necessary to support Compact Walkable development are far more widespread than are locations with the market strength required to support Transit Served and HCT Oriented place types.

ST-LUIS market analysis and continuing national trends suggest that the places where new TOD is most likely will be in the region's central core because it has the advantages of existing density, mix of uses, and a central location. In place with these assets, high capacity transit can reinforce and strengthen the region's opportunity for economic development involving knowledge based industries and the subset of employees who will work for these businesses and who want an urban life style. Although not every part of the region will be able to directly support this type of activity, the entire region will benefit from a strong core and a thriving knowledge based economy.



COMPACT WALKABLE

15-30 persons/acre



TRANSIT SERVED

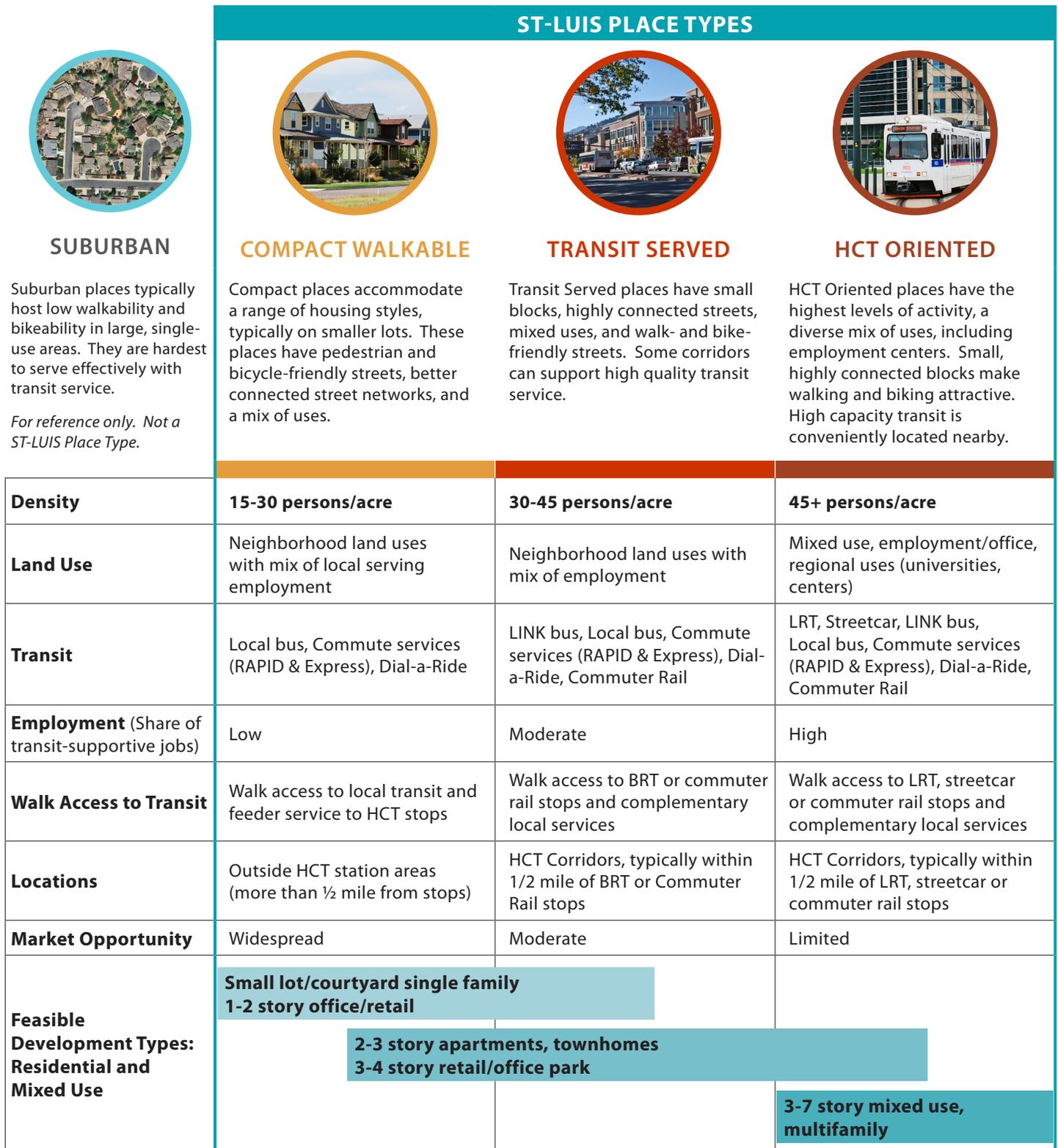
30-45 persons/acre



HCT ORIENTED

45+ persons/acre

Figure 10: Place Type Characteristics



Local Toolkit: Pathway Tools

The ST-LUIS provides two tools to assist local users in the region “synch up” transportation and land use plans. *Pathway Tool 1* allows practitioners to explore place type characteristics, consider a specific community’s present status and future vision for development, and review pathways to move toward more sustainable transportation solutions and development patterns. *Pathway Tool 2* provides design and development prototypes that synch up with the three recommended ST-LUIS place types.

Pathways support the transition to places that support sustainable transportation while responding to demographic and market trends. ST-LUIS Pathways are about...

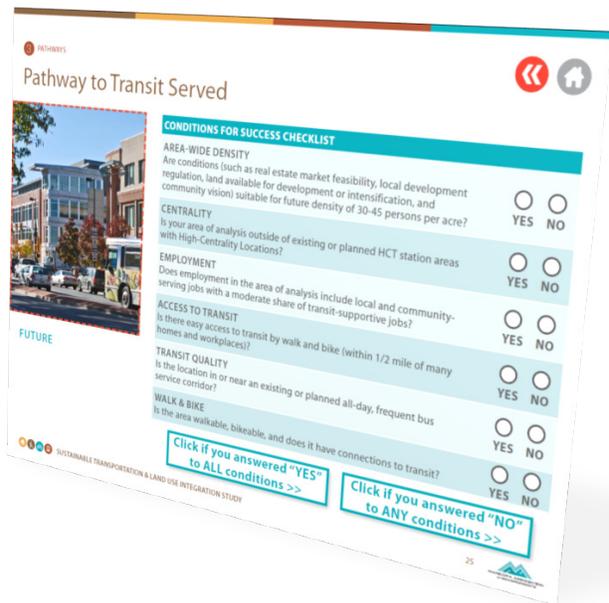
- ... Communities choosing to transition to integrated land use, urban design and mobility systems,
- ... Responding to market demand
- ... And supported by the actions of regional agencies,
- ... With the aim of moving toward sustainable transportation.

One size doesn’t fit all. Successful Pathways will reflect:

- Local conditions
- Community values and future visions
- Strength of local real estate market
- Location in the region
- Regional growth projected
- Regional plans for transit investments and services

Pathway Tool 1: Community Pathways to Sustainable Transportation Interactive Tool

- Pathway choices
- Place Type Profiles
- Place Type Dashboards
- Reference Materials



Pathway Tool 2: Development Prototypes Catalogue

- Prototypes
- Local Precedents
- Fit with ST-LUIS Place Types

Regional HCT Corridor Evaluation and Scenario Planning Process

ST-LUIS formulated a methodical High Capacity Transit (HCT) scenario planning process. The process was used to screen the various HCT corridors. The HCT corridor evaluation for this study was done in a two-step process that focused heavily on demographic, land use conditions, market demand, transit/bus ridership criteria, and commute conditions.

The STLUIS HCT Corridor Evaluation and Scenario Planning Process included:

- Screening and selection of candidate HCT corridors
- Specification of transit service characteristics
- Real estate demand forecasting
- Assignment of place types to station areas
- Modeling of transit ridership
- Evaluation of results

The screening process is flexible and can be modified accordingly for future regional decision-making efforts and used in further design and testing of regional land use and HCT networks. The evaluation criteria in the HCT corridor evaluation and the scenario planning process can both be changed in the future to meet regional goals/objectives, and/or federal directives.

4.3B STRATEGIES - MOVING TOWARD SUSTAINABLE TRANSPORTATION

Moving forward with the ST-LUIS will mean advancing the following strategies.

Strategy 1: Redefine Regional Projects

ST-LUIS recognizes that projects that advance sustainable transportation locally have value to the entire region—by enabling safe, active transportation, supporting transit use, and walkable communities.

The region should continue and expand regional support for projects that have a local focus, including:

- Complete Streets
- Safe routes to school
- Trails and bikeways
- New car ownership/share models
- First / last mile transit access projects, and
- Local transit services.

Strategy 2: Integrate the ST-LUIS findings and tools into RTP Planning Process

The Regional Transportation Plan (RTP) update should move forward with HCT network planning based on ST-LUIS results. Implementing activities include:

- Convene discussions with municipalities and the regional agency regarding local land use and transit commitment and HCT corridors
- Model a combined HCT and upgraded bus system
- Evaluate transit projects as part of overall multi-modal corridor mobility, considering highway, streets, intelligent transportation

systems (ITS), bicycle and pedestrian networks.

- Conduct more detailed corridor planning
 - Targeted corridor modifications (extent and alignment)
 - Recognize existing conditions
 - Reconcile ST-LUIS evaluation criteria with federal funding guidelines
- Complement corridor-level planning with strategic planning for nodal development
- Address commuter rail place types and appropriate densities/land use

“Phoenix’s light rail is already a success. We should be looking at TOD as an opportunity to plan long term.”

Mayor Scott Smith (Mesa)
ULI Forum 1

“My suggestion to MAG and Valley Metro is to embrace the development community more actively, as well as the brokerage community, learn where the employment centers are, where those employees live, and create appropriate mechanisms to move those people that would encourage them to take mass transit.”

“Look at the airlines. Do they have one size plane for every market? No. Look at our bus system, how many different bus sizes do we have?”

Mark Singerman
ULI Forum 2

Strategy 3: Upgrade Transit Services

Implementing the ST-LUIS Recommendations for upgraded transit services means improving transit quality, offering a mix of complementary services, and enabling easy, safe and comfortable multi-modal trips.

High quality transit is bus or rail service that provides all day (peak and off-peak) service with a long span of service and frequencies of at least 15 minutes during daytime hours, with high reliability, safety and customer experience, providing access to job centers and other major regional destinations. In conjunction with quality transit service, transit signal priority, queue jump lanes, bulb outs,

stop consolidation, in-line management strategies, and technology upgrades can aid network productivity. Table 5 describes key characteristics for ST-LUIS transit modes. These high quality services should be complemented by an array of services serving local and focused markets such as those in the list below. The complementary services will not all have the characteristics of all-day frequent service.

A mix of services that complement high capacity transit will extend the system’s reach and respond to specific needs. These services may include community bus for smaller communities, local feeders to rail stops, and continued and expanded peak-oriented express services. BRT services may also have varying levels of investment, with both all day, frequent rapid-type

services similar to LINK, as well as more capital-intensive BRT with dedicated guideways and rail-like amenities.

The transit system should be designed and operate so multi-modal trips are easy and attractive relative to the choice of driving alone. Multi-modal trips include trips on multiple transit modes as well as trips accessing transit by foot or bike. Supportive strategies include reliable and widely available route and schedule information, comfortable and safe walk and bike access to bus and rail stops, easy transfers with coordinated schedules and stop design, provision for bikes on transit vehicles and secure bike parking at transit stops, and fare integration throughout the network regardless of operator or mode.

Table 5: ST-LUIS Transit Service Characteristics Assumptions

	PEAK HEADWAY (MINUTES)	OFF-PEAK HEADWAY (MINUTES)	SPEED (MPH)	PEAK HOURS/DAY	OFF-PEAK HOURS/DAY
LRT	12	12	20	6 hours	15 hours
BRT	15	30	17.5	6 hours	15 hours
Commuter Rail	30	0	45	6 hours	0 hours
Streetcar	15	15	15	6 hours	15 hours

“We can plan all we want. The market decides where development goes.”

“If you want to build higher density urban infill in this region you’re going to have to change the way government thinks. All of the incentives today are in place to encourage growth on the urban fringe.”

Participants

ULI Forum 1

Strategy 4: Support Municipal Action

Local government action is essential in supporting a move to sustainable transportation. The ST-LUIS tools provide support for local decisions about development design, characteristics and transportation types.

1. Support transition to walkable communities with densities, transportation and urban form characteristics included in the ST-LUIS place types. The ST-LUIS Community

Pathways to Sustainable Transportation interactive tool (see page 17) focuses on these strategies, highlighting the following factors:

- Density (jobs + housing)
- Mixed land uses
- Connectivity
- Complete Streets
- Parking management
- Transit, walk and bike networks and services appropriate to their place types

2. Form partnerships between municipalities and transit operators to start transit service as appropriate, and prioritize services and investments that support pathways to sustainable transportation. Coordinated investments can increase the speed and reliability of transit trips, for instance.

3. Use “policy levers” identified in ST-LUIS to improve the feasibility outlook for higher density housing: reduced parking requirements in station areas, higher site coverage, and allowing horizontal mixed use.

“If local governments really want to see the shift to the urban core, as sought after by the new demographics, then they have to get with it and be more sophisticated in their ability to support good projects and their ability to make it more difficult to just go build houses in the next cotton field.”

James Lundy

ULI Forum 1

Table 6: First Steps to Prioritize Services and Investments Supporting Sustainable Transportation

	FIRST STEPS
Improve walkability	<ul style="list-style-type: none"> Remove barriers to transit stops and stations Develop contiguous walking paths and sidewalks that connect to local and regional networks Provide clearly marked pedestrian crossings and traffic signals with countdown signals Provide bulb outs and wider medians to reduce effective crossing distance
Increase speed and reliability	<ul style="list-style-type: none"> Include signal priority, in-lane transit stops, and transit-only lanes in corridor planning and capital investments Synchronize traffic signals with bus schedules to improve speed and reliability Improve coordination between traffic operations control centers and transit operators
Improve waiting areas	<ul style="list-style-type: none"> Invest in covered shelters, seating, landscaping, and other rider amenities Provide real-time transit arrival information Prioritize maintenance and upkeep of waiting areas

4. Tailor regulations and design guidelines for infill opportunities.

Real estate industry representatives who participated in the study emphasized the need for regulations and guidelines specifically addressing

typical infill conditions, such as small parcel sizes that may not satisfy standard on-site parking standards. Locations within HCT station areas will warrant reduced parking requirements.

Table 6 outlines a number of possible first steps for local governments to take toward prioritizing services and investments supporting sustainable transportation.

Beyond the Study - Next Steps

MAG and municipalities are already involved in many supportive activities that move the recommendations and strategies of the ST-LUIS forward. The region will need to continue to move

forward and answer questions not resolved through the project. These include:

- More detailed planning activities
- Continued emphasis on implementation activities

supporting the transition to walkable communities and TOD

- Implementation of a walk/bike/transit system that supports transitions to walkable communities and sustainable transportation

Glossary

TERM	DEFINITION
Bikeability	The comfort, safety, and appeal of cycling in a given place. Highly bikeable places have “comfortable” (or safe, pleasant, and convenient) environments for cyclists, including nearby destinations, a network of bicycle lanes, vehicle door buffers, protected turn lanes, high visibility signage and pavement markings to alert drivers to the presence of cyclists, secure bicycle parking (e.g. bicycle racks, lock boxes), and well-lit streets and sidewalks.
Bus Rapid Transit (BRT)	A rubber-tire based transit mode that is more reliable, is faster, and has a higher capacity than traditional rubber-tire services due to implementation of transit priorities measures such as transit signal priority, bulb outs, queue jump lanes, off-fare boarding, etc. BRT in the context of the ST-LUIS is similar to the existing Valley Metro LINK bus service. Full BRT with significant capital infrastructure including dedicated bus lanes and guideways, similar to the Health Line in Cleveland, Ohio, or the EmX in Eugene, Oregon, is not assumed as part of the ST-LUIS.
Centrality	A place’s proximity to the core of the metropolitan area, the densest concentration of jobs and housing near the geographic center of the region, or other job center. Places with high centrality have a significant number of jobs in transit-supportive categories (see Glossary 2 of 2). The highest centrality places are downtown employment centers like Downtown Phoenix or places with major institutional uses like Tempe.
Commuter Rail	Rail transit operating on a fixed guideway during peak periods in peak directions, typically having fewer stops than LRT and Streetcar and covering longer distance trips. Commuter rail train capacity is typically significantly higher than LRT and vehicles are designed for longer-distance trips (often with seats and tables).
Density	The number of residents and/or jobs in a given area; defined as “people per acre” for this study, combining the number of residents and jobs together. Density is typically regulated through controls on units per acre for residential development or floor area ratio (FAR) for commercial development.
Development Prototype	An illustrative building description that fits the density and urban design parameters of one or more specific Place Type(s).
Dwelling Units per Acre (DU)	The number of residential units divided by the number of acres of property on which they are located. This is a measure of residential density.
Floor Area Ratio (FAR)	The ratio between the area of a building and the area of the parcel on which it sits, typically measured in square feet. This is a measure of commercial density.
High Capacity Transit (HCT)	A frequent, reliable, high-speed, and high capacity form of transit that operates in a fixed guideway (such as rails), typically within a semi- or fully-segregated right-of-way. HCT systems have enhanced and branded passenger stations that may include amenities such as level boarding, real-time information provision, and off-board fare payment. HCT systems are considered more “permanent” and have the potential to generate land use and development impacts at stations and along corridors. In 2013, the types of HCT under consideration for the ST-LUIS are Light Rail Transit (LRT) and Streetcar.

Glossary (*continued*)

TERM	DEFINITION
High Quality Transit Service	Bus or rail service that provides all day (peak and off-peak) service with a long span of service and frequencies of at least 15 minutes during daytime hours, with high reliability, safety and customer experience, providing access to job centers and other major regional destinations.
Local Serving Employment	Jobs associated with local serving businesses and services, including schools, local retail businesses, personal services, medical offices not associated with major hospitals, real estate offices and bank branches. Home-based businesses and small-scale craft-based businesses may also be included.
Light Rail Transit (LRT)	LRT is a frequent, reliable, high-speed, and high capacity form of transit that operates in a fixed guideway (e.g. rails), typically within a semi- or fully-segregated right-of-way. LRT systems have enhanced and branded passenger stations that may include amenities such as level boarding, real-time information provision, and off-board fare payment. LRT systems are considered more “permanent” and have the potential to generate land use and development impacts at stations and along corridors.
Neighborhood Land Uses (or “land use mix”)	Housing mixed with local serving uses, including parks, schools, places of worship, community centers and child care, and neighborhood retail and services.
Place Type	Classification of an area based on its dominant land use, design, and transportation system characteristics. Describes current conditions and/or future vision, and helps guide local planning decisions with regional goals.
Station Area	An area with a radius of 1/4 or 1/2 mile around a transit station. A 1/2 mile station area covers approximately 500 acres.
Streetcar	Streetcar is a form of rail transit with similar amenities and characteristics to LRT, but typically provides localized circulation, for instance within a downtown or business district. Streetcar stops more frequently than LRT, operates slower than LRT due to its operating environment (which may include pedestrian malls and urban arterials), and generally operates with shorter train cars and thus lower capacities than LRT.
Transit-Oriented Development (TOD)	<p>Transit-Oriented Development (TOD) is a type of community development that includes a mixture of housing, office, retail and/or other commercial development and amenities integrated into a walkable neighborhood or district and located within a half-mile of quality public transportation.</p> <p><i>Adapted from the Center for Transit-Oriented Development, http://www.ctod.org</i></p>
Transit-Supportive Jobs	Jobs in industry sectors that have a tendency to cluster near transit, based on national studies from the Center for Transit-Oriented Development. Sectors include: Government; Information; Finance and Insurance; Real Estate; Professional, Scientific and Technical Services; Management of Companies and Enterprises; Arts, Entertainment, and Recreation; and Accommodation and Food Services.
Walkability	The comfort, safety, and appeal of walking in a given place. Highly walkable places have “comfortable” (or safe, pleasant, and convenient) environments for pedestrians, including features like very close-together destinations, small blocks, continuous sidewalks, shade, safe street crossings, and buffers from adjoining traffic (e.g. planting strips, street furniture).



ST-LUIS Project Materials

Related ST-LUIS project materials are available online. Use the following links to access these documents.

ST-LUIS PROJECT WEBSITE

<http://www.bqaz.org/sustainOverview.asp?mS=m16>

RESOURCES: LOCAL TOOLKIT

Community Pathways to Sustainable Transportation Interactive Tool
Development Prototypes Catalogue

<http://www.bqaz.org/sustainResources.asp?mS=m16>

WORKING PAPERS & MEMORANDA

Working Paper One - Regional Transportation Framework and Issues

Working Paper Two - Moving Toward Sustainable Transportation

Working Paper 3A: Supportive High Capacity Transit (HCT) Corridor Technical Analysis, Scenarios 1 & 2

Working Paper 3B: Supportive High Capacity Transit (HCT) Corridor Technical Analysis, Scenario 3

Working Paper Four: Study Recommendations Report

MAG ST LUIS – Market Study Memorandum

MAG ST LUIS – Employment Analysis Memorandum

<http://www.bqaz.org/sustainPapers.asp?mS=m16>

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Cover photo: Marc Pearsall

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ATTACHMENT #6

Agenda Item #10

MARICOPA ASSOCIATION OF GOVERNMENTS

INFORMATION SUMMARY... for your review

DATE:

August 21, 2013

SUBJECT:

Update on the Central Phoenix Transportation Framework Study

SUMMARY:

The Central Phoenix Transportation Framework Study is a continuing effort to identify long-range transportation needs for the center of the MAG region in an area bounded by SR-101L on the north, east, west and the Gila River Indian Community on the south. Since beginning this study in late 2010, the study team has reached out to numerous representatives from the general public, MAG member agencies, the Arizona Department of Transportation, Valley Metro and through stakeholder meetings, geographic dialogues, two planning charettes, and twelve Planning Partner events, identified transportation options to inform development of the NexGen Regional Transportation Plan. The Transportation Review Committee will be provided an update on the work products from this study addressing the regional freeway system, including the study's suggestions for the Interstate 10/Interstate 17 Corridor Master Plan.

The study team has identified fifteen different work products as the outcome to the Central Phoenix Transportation Framework Study. These work products are primarily technical in nature and discuss various transportation construction and operational improvement items that could be incorporated into the NexGen Regional Transportation Plan program. In this update to the Transportation Review Committee, material from the following work products will be presented:

1. Interstate 10/Interstate 17 "Spine Corridor" Workshop Summary - The project's second charette was conducted October 31, 2012, and focused on possibilities for improving Interstate 10 and Interstate 17 within the Central Phoenix Transportation Framework Study area. Representatives from the Arizona Department of Transportation, Federal Highway Administration, MAG, Valley Metro, RPTA, City of Phoenix, City of Tempe, and City of Chandler participated. Among the items presented and discussed were concepts for relocating the Interstate 10/Interstate 17 "Split" traffic interchange out of the Phoenix Sky Harbor International Airport air space, a high level identification of an express HOV lane concept in the corridor, and discussions about implementing advance traffic management techniques. Workshop participants also discussed the feasibility and potential benefits associated with "capping" the footprint by establishing a maximum geometric cross-section within the existing rights-of-way along Interstate 10 and Interstate 17. The outcome from the workshop was identifying a path forward for the affected agencies to consider, including developing a "spot" improvement program in near-term for addressing known bottlenecks, and establishing a Corridor Master Plan for the long-term.
2. Freeway System Plan Working Paper - One of the concepts discussed at the October 31, 2012, charette was the concept of "capping" the footprint by establishing a maximum geometric cross-section within existing rights-of-way. The study team explored this concept for all freeway corridors within the Central Phoenix Transportation Framework Study area and identified what those maximum cross-sections could be for Interstate 10, Interstate 17, SR-51, SR-101L, SR-

143, SR-202L, and both US-60 corridors (Superstition Freeway and Grand Avenue). This working paper identifies the right-of-way limits for all corridors, and based upon “pinch points” recommends the maximum footprint for each corridor for consideration in any future expansion of these freeways as part of the Regional Transportation Plan.

3. SR-30 Corridor Extension - At the March 26, 2012, planning charette, participants from the Arizona Department of Transportation, Federal Highway Administration, MAG, Valley Metro, RPTA, the Cities of Chandler, Glendale, Phoenix, Peoria, Scottsdale, Tempe and Tolleson, and the Town of Guadalupe, identified more than 300 different transportation concepts for meeting future transportation demand in the Central Phoenix Transportation Framework Study area. A recurring concept that participants wanted for further study was an extension of the Interstate 10 Reliever Freeway (Arizona State Route 30) from its proposed terminus at SR-202L/South Mountain Freeway to Interstate 17/Black Canyon Freeway near the “Durango Curve.” The study team completed a high-level concept and feasibility report for this potential extension that included consultation with the City of Phoenix and accommodation of the Avenida Rio Salado project that is presently under development.
4. Park-and-Ride Technical Memorandum - From the March 26, 2012, planning charette there were numerous conceptual locations identified for future park-and-ride lots throughout the Central Phoenix Transportation Framework Study area. Given these numerous locations, the study team conducted research of park-and-ride operations in the Denver, Colorado, and San Diego, California, metropolitan areas and identified common themes for MAG and Valley Metro consideration as criteria in establishing future lots. Information from this memorandum will be provided to MAG and Valley Metro to supplement their efforts on this matter.
5. DHOV Technical Memorandum and Concept Drawings - The March 26, 2012, planning charette also produced numerous conceptual locations for direct high occupancy vehicle (DHOV) traffic interchanges with existing freeways in the Central Phoenix Transportation Framework Study area. The study team considered all locations and through constructability criteria identified potential locations for future DHOV interchanges. This memorandum also includes conceptual drawings and cost estimates.

It is important to note that these work products were developed to inform future Regional Transportation Plans and were primarily technical in nature to ascertain the feasibility and constructability of potential actions to improve the Central Phoenix Transportation Framework Study area system. Additional work products under development include topics ranging from roadway maintenance, to improving surface street arterials, to cataloging the transit, pedestrian, and bicycle strategies identified during both planning charettes. These work products will be presented on future Transportation Review Committee agendas this Fall. The anticipated completion date for the Central Phoenix Transportation Framework Study is December 2013.

Information on the Central Phoenix Transportation Study and these work products are available at www.bqaz.org.

PUBLIC INPUT:

Public input to inform the Central Phoenix Transportation Framework Study was received in the Summer and Fall of 2011 during the project’s data discovery phase. More than 500 individuals representing the general public and commercial interests participated in five focus groups and six geographic dialogues as part of the outreach effort. The common themes of study, policy, and mobility recommendations were identified as benchmarks in both planning charettes and the subsequent work products that have been developed.

PROS & CONS:

PROS: When completed, the study will develop an environmentally sustainable multimodal transportation framework that will include operational and safety improvements, and form a framework for regional connectors and roadways within the study area. The project’s recommendations will provide guidance to MAG and member agencies for establishing a transportation framework and an implementation strategy to meet the long-term travel demand.

CONS: Most recommendations identified in the Central Phoenix Transportation Framework Study work products are unfunded beyond the scope of the current Regional Transportation Plan. As with all MAG Framework Studies, this effort was intended to identify the need, develop recommendation, and assess feasibility and constructability to inform the MAG Regional Council in future decisions about the Valley’s transportation system.

TECHNICAL & POLICY IMPLICATIONS:

TECHNICAL: Recommendations proposed in these work products are designed to inform future generations of the Regional Transportation Plan and have been identified with implementation and constructability as a primary criteria. It is anticipated that this early detailed look at technical concepts will provide the planning process with the best technical data to improve upon the quality of projects that may be identified for eventual construction and operation in the Central Phoenix Transportation Framework Study area.

POLICY: This Transportation Framework Study represents the fourth of sixth such efforts to identify transportation needs at future years beyond the present planning horizon for the Regional Transportation Plan. These efforts have led to decisions about long-range planning for transit, freight, freeway, and arterial corridors throughout the Valley. The Central Phoenix Transportation Framework Study is the first look at the core of the metropolitan area and the needs for meeting future travel demand. As with previous framework study recommendations, key and strategic improvements will be advanced into future generations of the Regional Transportation Plan, as recommended by the MAG Regional Council.

ACTION NEEDED:

Information and discussion.

PRIOR COMMITTEE ACTIONS:

No previous committee actions have been taken on the products that are being developed for the Central Phoenix Transportation Framework Study.

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