PUBLIC MEETING AGENDA

Transportation Commission

MEETING DATE
Tuesday, September 12, 2017
7:30 a.m.

MEETING LOCATION
Tempe Transportation Center, Don Cassano Room
200 E. 5th Street, 2nd floor
Tempe, Arizona

AGENDA ITEM	PRESENTER	ACTION or INFORMATION
1. Public Appearances The Transportation Commission welcomes public comment for items listed on this agenda. There is a three-minute time limit per citizen.	Don Cassano, Commission Chair	Information
2. Approval of Meeting Minutes The Commission will be asked to review and approve meeting minutes from the August 8, 2017 meeting.	Don Cassano, Commission Chair	Action
3. Transportation Annual Report Staff will present a draft of the 2017 annual report including draft Transportation Commission goals for 2018.	Shelly Seyler, Public Works	Information and Possible Action
4. First Street/Ash Avenue/Rio Salado Pkwy Intersection Update Staff will present an update on the preferred design concept for the First/Ash/Rio Salado intersection.	Eric Iwersen, Public Works	Information and Possible Action
5. Country Club Way Streetscape Design Staff will present an update on the refined design concept.	Robert Yabes, Public Works	Information and Possible Action
6. Highline Canal Multi-use Path Public Art Staff will present an update on the public art for the project.	Robert Yabes, Public Works and Rebecca Rothman, Community Services	Information and Possible Action
7. Small Area/Downtown Transportation and Development Fee Impacts Staff will provide an update on the project.	Shelly Seyler, Public Works	Information and Possible Action
8. Department & Regional Transportation Updates Staff will provide updates and current issues being discussed at regional transit agencies.	Public Works Staff	Information

9. Future Agenda Items Commission may request future agenda items.	Don Cassano, Commission Chair	Information and Possible Action

According to the Arizona Open Meeting Law, the Transportation Commission may only discuss matters listed on the agenda. The city of Tempe endeavors to make all public meetings accessible to persons with disabilities. With 48 hours advance notice, special assistance is available at public meetings for sight and/or hearing-impaired persons. Please call 350-4311 (voice) or for Relay Users: 711 to request an accommodation to participate in a public meeting.

Minutes
City of Tempe Transportation Commission
August 8, 2017

Minutes of the Tempe Transportation Commission held on Tuesday, August 8, 2017, 7:30 a.m., at the Tempe Transportation Center, Don Cassano Community Room, 200 E. Fifth Street, Tempe, Arizona.

(MEMBERS) Present:

Ryan Guzy
Brian Fellows
Charles Redman
Jeremy Browning
Nigel A.L. Brooks
Charles Huellmantel
Susan Conklu
Kevin Olson
Cyndi Streid
Shereen Lerner
Bonnie Gerepka

(MEMBERS) Absent:

Don Cassano (Chair)
Paul Hubbell
Shana Ellis
Lloyd Thomas

City Staff Present:

Shelly Seyler, Deputy Public Works Director
Sue Taaffe, Public Works Supervisor
Eric Iwersen, Principal Planner
John Hoang, Senior Civil Engineer
Robert Yabes, Principal Planner
Eko, K9
Joe Clements, Transportation Financial Analyst
Dane Sorensen, Police Officer
Laura Kajfez, Neighborhoods Services Specialist
Julian Dresang, City Traffic Engineer
Steven Methvin, Deputy City Manager
Jon King, Police Officer
Frank Razo, Police Officer
Mike Nevarez, Transit Manager
Tony Belleau, Senior Planner
Chase Walman, Senior Planner

Guests Present:

John Federico, resident
JC Porter, Arizona State University

Commission Vice Chair Guzy called the meeting to order at 7:35 a.m.

Agenda Item 1 – Public Appearances

There were no public appearances.

Agenda Item 2 – Minutes

Vice Chair Guzy introduced the minutes of the June 13, 2017 meeting and asked for a motion. A motion was made to approve the minutes.

Motion: Commissioner Kevin Olson
Second: Commissioner Brian Fellows
Decision: Approved

Agenda Item 3 – Procedure for Naming City Facilities

Steven Methvin provided an overview of the proposed changes to the current procedure for naming city facilities. The recommended procedure changes will be presented to the City Council on August 10. Changes include:

- When submitting a naming request for a deceased individual, the person must have been deceased for five years and when submitting a naming request for a City of Tempe elected official or employee, it shall be after five years of the end of service or employment.
- That there is no appeal process, but the recommendation can be submitted again after 24 months.
- That a body of seven members including the current chairs of the Tempe Arts and Culture Commission, Neighborhood Advisory Commission, Transportation Commission, Parks, Recreation, Golf and Double Buttee Cemetery Advisory Board, Tempe Human Relations Commission, Mayor's Youth Advisory Commission and a member at large will comprise of the Naming Committee to convene every January and July.

The Commissioners asked the following questions and made the following statements.

- Is the Streetcar eligible for naming rights? Staff responded that the Streetcar and its stations are owned by Valley Metro and their board would need to vote on naming it after a person, with some consultation with Tempe.
- How were the naming committee members selected a why isn't the Historic Preservation Commission included? Staff stated that the number of proposed naming committee members is nine, which is an odd number and good for voting, and that adding that commission would make it an even number of members.
- One Commissioner conveyed that the five-year waiting period was too long especially for non-elected individuals while two other Commissioners believe it is an appropriate length of time.

A motion was made to support staff's recommendation. Discussion ensued and another motion was made to amend the proposed procedures to include the Historic Preservation Commission as part of the advisory team.

Motion: Commissioner Charles Huellmantel
Second: Commissioner Cyndi Streid
Decision: Approved with amendment.

Agenda Item 4 – Transportation Marketing Plan

Sue Taaffe made a presentation the 2018-2020 proposed Transportation Marketing Plan. Topics of the presentation included:

- Overview of Program
- Strengths, Opportunities, Weaknesses, Threats
- Audiences
- Goals
- Objectives
- Messaging
- Reaching the Audiences
- Communication Toolbox

The Commissioners asked the following questions and made the following statements.

- Is Uber considered a threat? Staff responded yes and they will be added to the plan.
- A suggestion was made to conduct outreach and education about the new bike boulevard system. Staff agreed and said that bike boulevards would be included in the plan as part of the bike map, videos, etc.
- What type of social media is Tempe conducting to promote bike share? Staff responded that the city is in the process of hiring a Public Information Officer for Transportation and that person will be responsible for handling social media. Currently only essential messages are going on social media regarding the Transportation Division.
- A commissioner suggested that staff reach out to residents at public meetings to gather success stories. Staff agreed that is a good idea.

A motion was made to approve the 2018-2020 marketing plan.

Motion: Commissioner Brian Fellows
Second: Commissioner Charles Huellmantel
Decision: Approved

Agenda Item 5 – Leading and Lagging Left Hand Turn Traffic Signals

John Hoang made a presentation about Leading and Lagging Left Hand Turn Traffic Signals. Topics of the presentation included:

- Left Turn Arrows
- Signal Basics
- Left Turn Phasing Options
- Lead vs. Lag Arrow
- Protected Lead-Lag
- Protected Permitted
- Study History
- Safety
- Capacity
- Traffic Signals
- Peer Comparison
- Yellow Trap
- When to Use Leading vs. Lagging
- Lessons Learned
- Next steps

The Commissioners asked the following questions and made the following statements.

- What is the barrier? Staff responded that the barrier is when phasing can't run concurrently without causing a conflict.
- Where is there a leading pedestrian signal and then a leading automobile scenario in Tempe? Staff said that at the intersection of Tyler and Rural pedestrians go first before the signal allows for automobiles to turn.
- If you were to advance your car too far into the intersection, will it not trigger the left hand turn arrow? Staff said that unless another car is behind that car than the trigger to the sensor will not always occur.
- Do bicycles trigger the left hand turn signal? Staff stated that video might, but unless there is a detection sensor sensitive enough for a bicycle than probably not.
- What is causing Gilbert to return to using leading left turn signals when it's working well in Scottsdale? Staff stated that the Town of Gilbert City Council voted to change the signals based on the number of crashes at certain intersections.

- A commissioner stated that it appears that not much data was used to make Tempe's decision as to whether or not to use lagging left turn signals at all intersections. Safety is the biggest factor and as a resident it is very confusing to drive in Tempe since all the intersection signals are different. Staff said that each intersection is looked at individually to determine the best way to provide for safe and efficient traffic flow. Staff agreed that safety is the number one priority and that the most common reason for accidents is inattention of drivers including the use of cell phones.
- What is ITS? Staff responded that by using Intelligent Transportation Systems staff can control the signals from the traffic management center in real time instead of having to make field adjustments at the signal boxes.
- How many intersections have both leading and lagging signals depending on the time of day? Staff respond that there are six intersections that fall into that criteria. Staff also mentioned that there are intentionally no push buttons at major arterials so that pedestrians always have an opportunity to cross the street and are given preference before vehicular traffic movements.
- Is staff planning to change the signals based on time of day or will staff allow traffic patterns determine that sequencing? Staff responded that in an urban situation queue spillbacks are difficult to measure.
- A commissioner suggested that staff review more studies than the ones mentioned in the presentation given that some professional journals state that lagging is safer than leading. Staff said that they do review studies but where other studies are conducted may not apply to Tempe. Staff also stated that they use crash data, traffic counts and turning movement data to determine which intersections have leading vs. lagging signals. Staff said that better bicycle data is needed and that they did review 10 or more studies recently.
- A commissioner commented on the conflicts at Ash and University where motorists continue to go straight northbound through the intersection where they are not permitted. Staff stated that police enforcement would address this as well as the future streetcar project.

Agenda Item 6 – Tempe Transit Security Update

Jon King made a presentation about transit security. Topics of the presentation included:

- Transit Sergeant
- Transit K9
- Off-duty Transit Security
- Statistics

The Commissioners asked the following questions and made the following statements.

- How do you determine the problematic bus stops and what data do you track? Staff responded that it is difficult to track data given that incidents are reported by intersection corner and not necessary the bus stop. The problematic bus stops are determined by PD observation and experience.
- If a resident is at a bus stop late at night and there is an unnerving situation occurring should they call 911? Staff said the best thing to do is to remove themselves from the situation and call 911 if the resident feels threatened.
- A Commissioner suggested more outreach about safety at bus stops would be useful.

Agenda Item 6 – Department & Regional Transportation Updates

Eric Iwersen announced that the Upstream Dam Pedestrian Bridge over Town Lake at the Dorsey Lane Alignment project received a Maricopa Association of Governments Design Assistance Grant.

Shelly Seyler announced that Mike Nevarez will retire from the city of Tempe on September 15.

Agenda Item 7 - Future Agenda Items

Commissioner Brian Fellows requested that pursuing a no texting and driving ordinance be added as a future agenda item. That request will be included as part of the "Crash Data and Enforcement" agenda topic scheduled for January. The following future agenda items have been previously identified by the Commission or staff:

- September 12
  - Highline Canal MUP Final Design
  - Country Club Way Streetscape Design
  - Annual Report
  - 1st Street/Ash Avenue/Rio Salado Pkwy Intersection
  - Small Area/Downtown Transportation and Development Fee Impacts
  - Streetcar
- October 10
  - Fifth Street Streetscape Design
  - Annual Report
  - Alameda Drive Streetscape
  - Autonomous Vehicles
- November 12
  - Plan for Expansion of Bicycle/Pedestrian Paths
  - Bike Share
  - Streetcar
  - Maintenance Procedures for Sidewalk Shade Trees near Overhead Power Lines
- December 12
- January 9
  - Speed Limits
  - Crash Data and Enforcement
  - North/South Railroad Spur MUP
  - Western Canal Expansion MUP Final Design
- February 13
  - FY 18/19 Paid Media Plan
- March 13
- April 10
- TBD: Bicycle/Pedestrian Signal Activate Operations Update
- TBD: Prop 500

The next meeting is scheduled for September 12, 2017.

The meeting was adjourned at 8:56 a.m.

Prepared by: Sue Taaffe
Reviewed by: Eric Iwersen and Shelly Seyler

CITY OF TEMPE
TRANSPORTATION COMMISSION

STAFF REPORT

AGENDA ITEM 3

DATE
September 1, 2017

SUBJECT
Transportation Commission Annual Report

PURPOSE
To request that the Transportation Commission review the draft 2017 Transportation Commission Annual Report and discuss the proposed goals for 2017.

BACKGROUND
Tempe has 27 boards, commissions and public bodies that advise the City Council and staff. To better serve the City Council and community on the work of these advisory groups, the city manager asks staff to produce an annual report detailing the work of the board or commission to submit to the City Clerk by November 15 of each year. The report features the membership, accomplishments, goals, attendance and the overall work of the City's board and commission volunteers. The various reports are combined into one resource for City Council to review. If requested by the Mayor, board and commission chairs may present their annual report to the City Council during a Work Study Session.

FISCAL IMPACT
None

RECOMMENDATION
None

CONTACT
Shelly Seyler
Deputy Public Works Director
480-858-8854
shelly_seyler @tempe.gov

ATTACHMENTS
- DRAFT Annual Report
- PowerPoint

TRANSPORTATION COMMISSION
2017 ANNUAL REPORT

Description as Defined in Ordinance:

The transportation commission shall have the following powers and duties:

(1) To suggest to the mayor and city council qualified and interested persons eligible for appointment for commission vacancies;

(2) To consult, through the chairman of the commission, with the public works department, as to the items to be included on the agenda of meetings of the commission prior to the preparation and distribution of the agenda by the public works department;

(3) To prepare and submit an annual report to the city manager and city council including applicable council committees;

(4) To advise and make recommendations to the city council and to assist city departments and the city manager to plan and implement a balanced transportation system within Tempe which incorporates all forms of transportation in a unified, interconnected manner and complements land use, making a positive environmental impact through reduction of energy consumption, air pollution and congestion, while promoting economic development and providing mobility for all persons, including elderly and disabled;

(5) To advise and make recommendations to the city council and to assist city departments and the city manager on appropriate performance standards and benchmarks for use in evaluating the city's transportation system and program, based on nationally recognized guidelines and local priorities;

(6) To advise and make recommendations to the city council and to assist city departments and the city manager on transportation plans, projects and ordinances, including but not limited to:

a. To recommend and review short and long-range plans and studies for the city's transportation system, including streets, transit, bicycling, pedestrians and demand management;

b. To periodically review and update the transportation elements of the city's general plan;

c. To provide input and review regional, state and federal transportation plans, projects and issues especially as provided by federal law; and

d. To promote and maintain bicycling as a safe and effective mode of travel for recreation, health and transportation.

(7) To advise and recommend to the city council and to assist city departments and the city manager annually on the elements of prioritized, unified operating and capital improvement program budgets for transportation;

(8) To provide a forum for public hearings and other public involvement mechanisms to assure community-based transportation plans, projects and issues, and to meet all federal and other guidelines for public involvement in transportation projects where applicable; and

(9) To take any such further actions as may be deemed necessary and appropriate to further the goals of the commission.

TCC § {City Code, Chapter 2, Article V, Division 8}

List of Board and Commission Members, Including Attendance and Service Dates:

Board/Commission Members:	Service Dates:	Attendance Record:
Browning, Jeremy	12/31/2019	Attended 7 meetings out of 7
Streid, Cyndi	12/31/2019	Attended 7 meetings out of 7
Conklu, Susan	12/31/2017	Attended 7 meetings out of 7
Fellows, Brian	12/31/2017	Attended 7 meetings out of 7
Gerepka, Bonnie	12/31/2017	Attended 5 meetings out of 7
Guzy, Ryan	12/31/2017	Attended 7 meetings out of 7
Thomas, Lloyd A.	12/31/2017	Attended 6 meetings out of 7
Cassano, Don	12/31/2018	Attended 5 meetings out of 7
Huellmantel, Charles	12/31/2018	Attended 4 meetings out of 7
Lerner, Shereen	12/31/2018	Attended 5 meetings out of 7
Olson, Kevin	12/31/2018	Attended 7 meetings out of 7
Redman, Charles	12/31/2018	Attended 7 meetings out of 7
Shana Ellis	12/31/2019	Attended 6 meetings out of 7
Paul Hubbell	12/31/2019	Attended 3 meetings out of 7
Nigel A .L. Brooks	12/31/2019	Attended 7 meetings out of 7

Paul Hubbell was not appointed until March 23, 2017.

Name of Chair and Vice Chair:

- Chair – Don Cassano
- Vice Chair – Ryan Guzy

Staff Liaison and Contact Information:

Staff Liaison:	Department:	Phone:	Email:
Shelly Seyler	Public Works	480-350-8854	shelly_seyler@tempe.gov

Meeting Frequency and Location:

Meetings are typically held the second Tuesday of the month at 7:30 a.m. at 200 E. Fifth Street, Don Cassano Community Room, Tempe, AZ 85281. In 2017, 11 meetings were held.

Number of Meetings Cancelled and Reason for Cancellation:

July 2017: No commission business.

Vacancies and Duration of Vacancies:

One vacancy occurred in 2017 between January 1 and March 23.

Subcommittee and Subcommittee Activity:

Did the Board/Commission have any subcommittees active during the reporting period? ☐ **YES** ☒ **NO**

Mission Statement:

The mission of the Transportation Commission is to ensure that the city has a balanced transportation system which incorporates all forms of transportation in an interconnected manner while complementing land use, making a positive environmental impact through reduction of energy consumption, air pollution and congestion, promoting economic development, providing mobility and accessibility for all persons, and creating a forum for residents to provide input on transportation plans, projects and issues.

Accomplishments (Past 12 Months):

Council Priority: Implementing sustainable growth and development strategies, including improving Tempe's public transit system to meet future needs, by actively seeking innovative technologies and leading the way in creating a more sustainable community.

Transportation Commission Accomplishments as they relate to the above mentioned Council priority:

Bike Hero: Commission selected Broadmor Bike Cats as the 2017 Bike Hero Award recipient.

Fifth Street Streetscape Project: Commission supported the proposed design concept.

McClintock Drive at Rio Salado MUP Underpass: Commission supported design Alternative 1.

Streetcar: Commission supported Option 1 "Shared Lane."

Streetcar: Commission supported keeping the current off wire design.

1st Street / Ash Ave / Rio Salado Parkway Intersection Realignment: Commission supported Option 1 "Leave As."

MAG Pedestrian Design Assistance Grants: Commission approved submitting the Upstream Dam Pedestrian Bridge over Town Lake at the Dorsey Lane Alignment project for the grant.

McClintock Drive Street Configuration : Commission approved keeping the striping in its current configuration.

Procedure for Naming of City Facilities: Commission approved the staff recommended changes while adding Historic Preservation as one of the Naming Committees bodies.

Transportation Marketing Plan: Commission approved the 2018-2020 Transportation Marketing Plan.

Annual Report: Commission approved the 2017 Transportation Commission Annual Report.

Goals Related to City Council Strategic Priorities, if Applicable (Next 12 Months):

Council Priority: Implementing sustainable growth and development strategies, including improving Tempe's public transit system to meet future needs, by actively seeking innovative technologies and leading the way in creating a more sustainable community.

- Recommend 2018 Bike Hero
- Recommend FY 2018/19 paid media plan
- Recommend project(s) to be submitted for MAG Design Assistance Grants
- Monitor and provide feedback for Tempe Streetcar project, bus and light rail operations, bicycle and pedestrian projects and bike share program
- Oversee strategic development of transportation systems and use of transit funds

- Monitor progress and provide feedback of Transportation Master Plan and the transportation chapter of the General Plan

Transportation Commission 2017 Annual Report

Transportation Commission
September 12, 2017

Tempe
Transportation

Mission Statement

The mission of the Transportation Commission is to ensure that the city has a balanced transportation system which incorporates all forms of transportation in an interconnected manner while complementing land use, making a positive environmental impact through reduction of energy consumption, air pollution and congestion, promoting economic development, providing mobility for all persons, and creating a forum for residents to provide input on transportation plans, projects and issues.

Proposed Goals for 2018

- Select a 2018 Bike Hero
- Approve FY 2018/19 paid media plan
- Select project(s) to be submitted for MAG Pedestrian Design Assistance Grants
- Monitor and provide feedback for Tempe Streetcar project, bus and light rail operations, bicycle and pedestrian projects and bike share program
- Oversee strategic development of transportation systems and use of transit funds
- Monitor progress and provide feedback of Transportation Master Plan and the transportation chapter of the General Plan

MEMORANDUM

Public Works Department

AGENDA ITEM 4

Date: September 1, 2017

To: Transportation Commission

From: Eric Iwersen, Principal Planner (350-8810)

Subject: First Street/Ash Avenue/Rio Salado Parkway Intersection Update

PURPOSE

The purpose of this memo and PowerPoint is to provide an update on the status of the First / Ash / Rio Intersection Realignment – as a Concurrent Non-Project Activity (CNPA) of the Tempe Streetcar.

BACKGROUND

This project was identified to explore options to realign this offset intersection for better connectivity to neighborhoods and development west of the intersection. Until approximately 1985, the intersection had direct access east and west. Rio Salado Parkway was realigned with the development of Old Towne Square and Tempe Beach Park in the mid 80s, creating an offset intersection with no direct westbound travel from downtown to the areas west. A feasibility study was conducted in 2009, outlining alignment alternatives and projected impacts on mobility, development, cost and right-of-way. At that time, a roundabout solution was preferred but due to budget constraints the project wasn't advanced into formal design and construction.

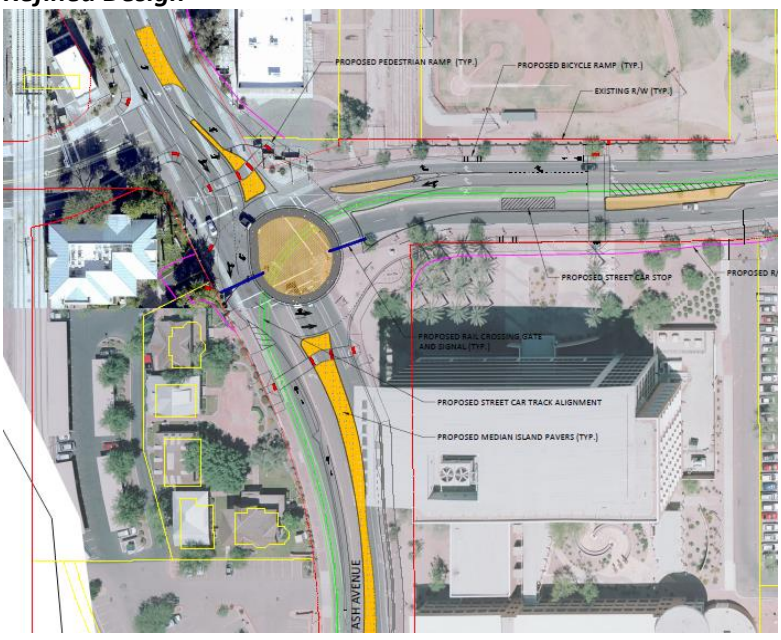
As Tempe Streetcar design moved forward in 2016, the possibility of realigning the intersection was revisited as a concurrent effort because Streetcar alignment would include the intersection. The City Council approved funding for design and some construction money in the CIP FY 2017 budget. City staff worked with consultants to develop design alternatives, which were evaluated for impacts to vehicle operations, bike, transit and pedestrian operations, connectivity and cost. Four alternatives were presented for public feedback in spring 2017, including: a public meeting on April 17, board and commission outreach, one-on-one meetings with stakeholders and online feedback. Staff provided an update at the May 22 City Council Issue Review Session that included analysis of the alternatives and summary of public feedback. Council identified the Roundabout as the preferred alternative.

Original Design

During June, July and August, City staff and consultants continued to talk with stakeholders, including adjacent property owners (Old Towne Square, Cousins Properties, American Airlines), City work groups (Traffic, Events, Parks, Historic Preservation, Neighborhoods, Fire and Police), utility companies and Valley Metro. The Roundabout design was refined to address concerns and design issues. The refined design:

- Allows all movements
- Reduces ROW needs
- Improves traffic flow (18-20 mph in roundabout)
- Includes bicycle lanes (dedicated lanes to intersection)
- Includes pedestrian crossings (refuges & LED lights)
- Incorporates two signals for Streetcar
- Protects Beach Park historic wall
- Provides gateway & landscape opportunity
- COST: $3.4M (Transit Fund)
    - ROW: $1.1M
    - Design & Construction: $2.3M

Refined Design



The total cost for the project is estimated to be $3.4 million, including $1.1 million for right-of-way needs and $2.3 million for design and construction. As the project moves into 90% design, the cost estimate may adjust.

Next steps include:

- Advance roundabout to 90% Streetcar plans (November 2017)
- Continue stakeholder coordination & public feedback
- Include in Streetcar public meeting Sept. 13
- Update CIP 2018/19 (new project estimate)
- Construct 2018/19

ATTACHMENTS

- PowerPoint

First Street/Ash Avenue/ Rio Salado Parkway Intersection Update

Streetcar Concurrent Non-Project Activity

Transportation Commission
September 12, 2017

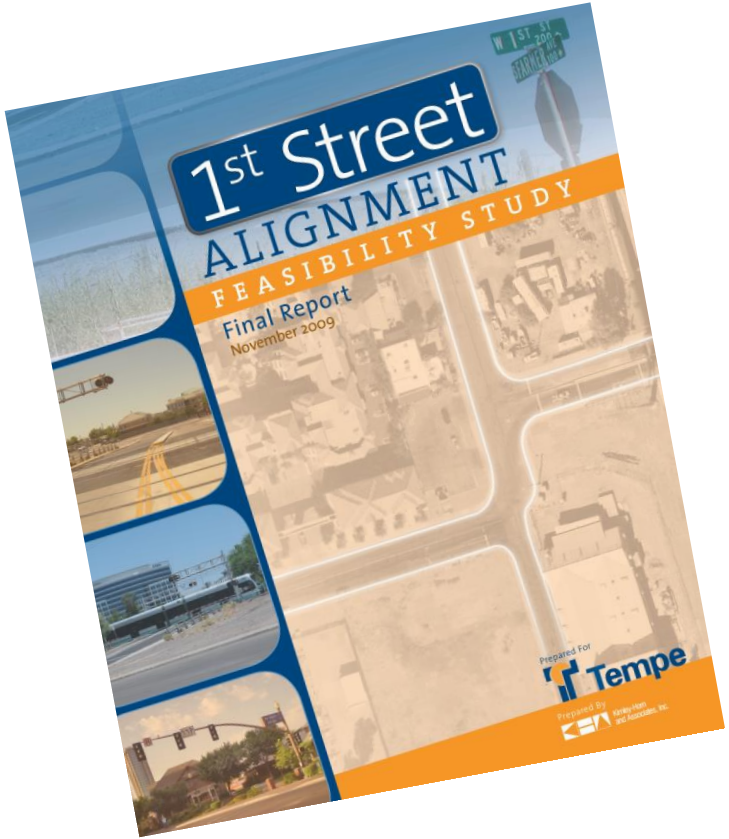
Tempe
Public Works

Location & Issue

- Offset intersection
- No westbound travel from Rio Salado Parkway to 1st Street and areas west of downtown

Background

- Until 1985: Traditional intersection/full access
- 2009: Alignment study
  - Recommended Roundabout
- 2016: Streetcar design integration as a Concurrent Non-Project Activity (CNPA)
- CIP Funding
  - FY 2017/18: $260K – Design
  - FY 2018/19: $1.25M – Construction



Background

- April 17: Public meeting
- May 22: Council direction
- Roundabout design selected

Outreach & Stakeholder Coordination

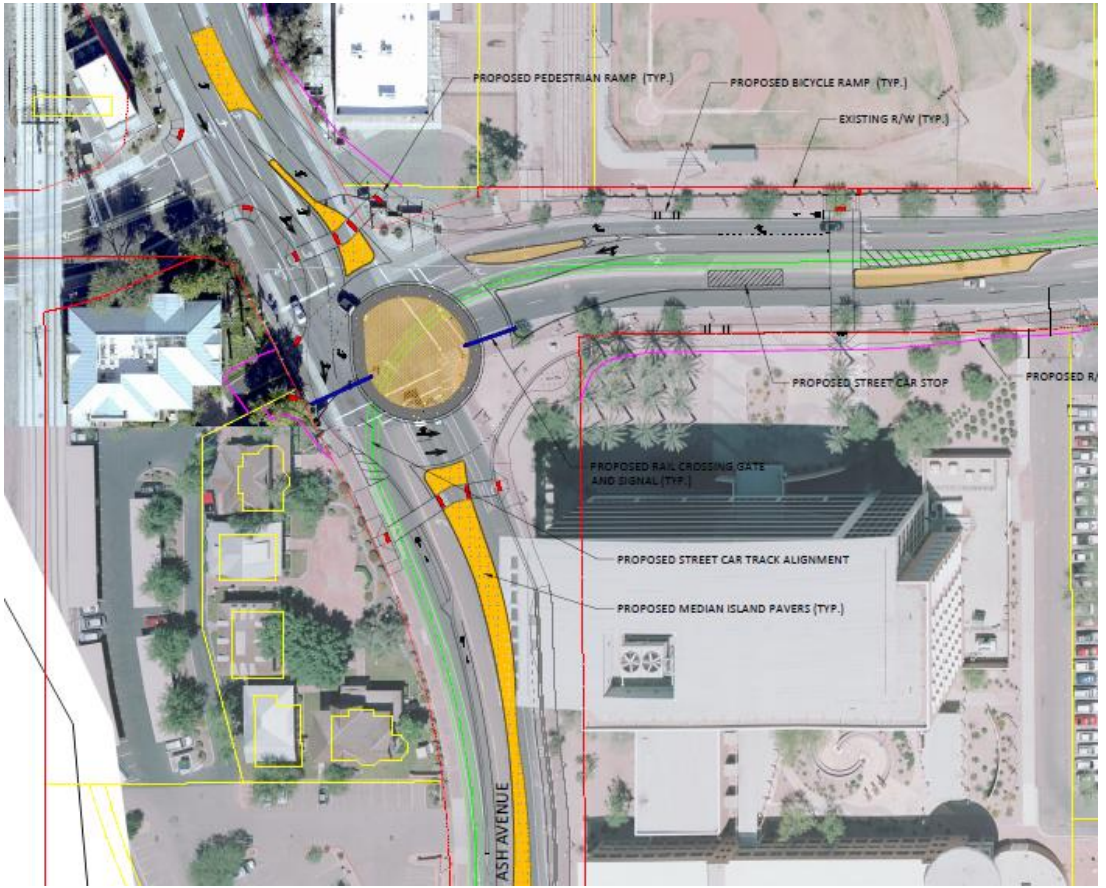
- Adjacent property owners
  - Old Towne Square (west)
  - Cousins Properties (southeast)
  - American Airlines (northeast)
- City: Traffic, Events, Parks, Historic Preservation, Neighborhoods, Police & Fire
- Valley Metro
- Utilities
- Postcard notice of Council meeting
- Online comment: www.tempe.gov/AshRio

Design Criteria & May 22 Council Feedback

- Bicycle, pedestrian, transit accommodations
- East/west connectivity
- Improve traffic capacity/flow
- Connecting downtown & neighborhoods
- Public safety
- Streetcar compatibility
- Gateway & landscaping opportunities
- Minimize right-of-way & construction costs
- Look at roundabout intersections w/ rail

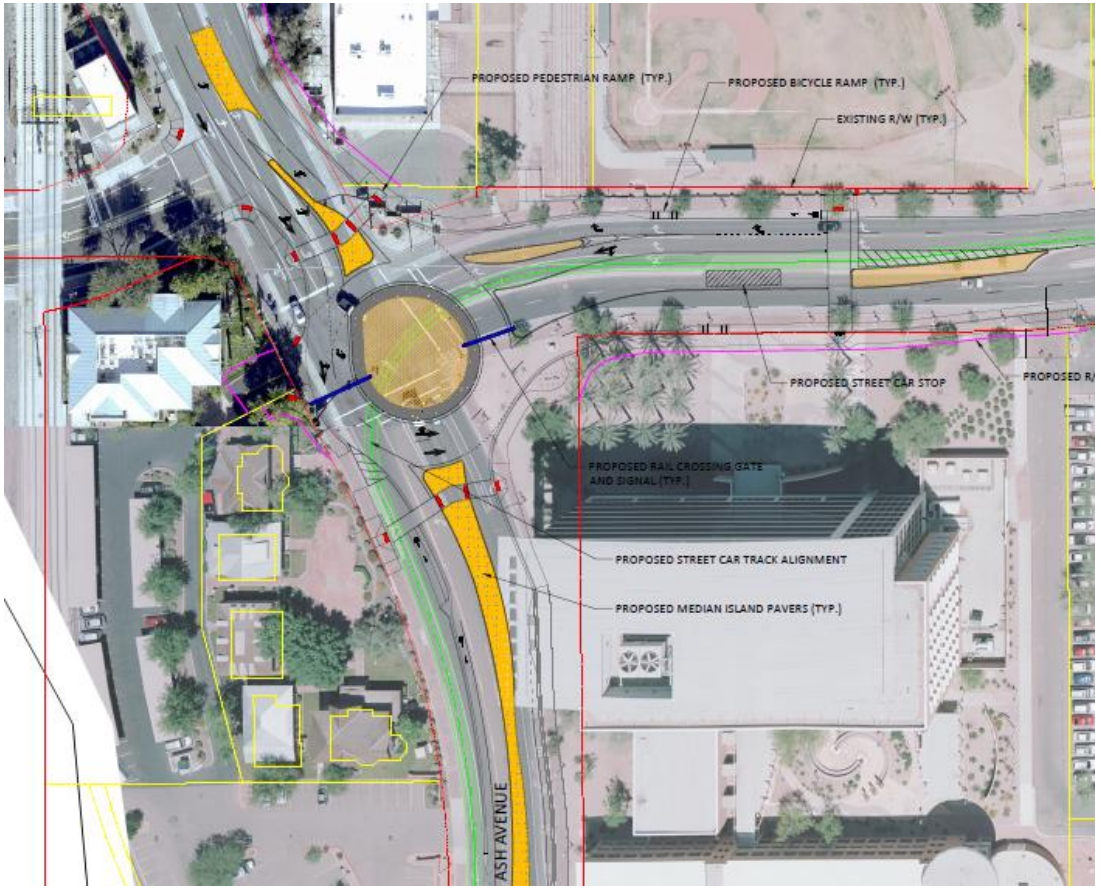
Refined Design

- Allows all movements
- Reduces ROW needs
- Improves traffic flow
  - 18-20 mph in roundabout
- Bicycle lanes
  - Dedicated lanes to intersection
- Pedestrian crossings
  - Refuges & LED lights
- 2 signals for Streetcar
- Protects Beach Park historic wall
- Gateway & landscape opportunity
- COST: $3.4M (Transit Fund)
  - ROW: $1.1M
  - Design & Construction: $2.3M



Next Steps

- Advance roundabout to 90% Streetcar plans (Nov 2017)
- Continued stakeholder coordination & public feedback
- Streetcar public meeting Sept 13
- Update CIP 2018/19
  - New project estimate
- Construct 2018/19



CITY OF TEMPE
TRANSPORTATION COMMISSION

STAFF REPORT

AGENDA ITEM 5

DATE
September 12, 2017

SUBJECT
Country Club Way Pedestrian Improvement and Bike Boulevard Project

PURPOSE
The purpose of this memo is to provide the Commission with an update on the Country Club Way Pedestrian Improvement and Bike Boulevard Project.

BACKGROUND
Country Club Way is a seven-mile collector-level street that connects to several regional multi-use paths, bicycle pedestrian corridors, schools, parks and major destinations. To the north it links to the development along Tempe Town Lake and Tempe Marketplace, and to the south links to one of Tempe's largest employment hubs, ASU Research Park and Discovery Center. The proposed project would re-characterize streets along the alignment and provide an alternative way of connecting north and south Tempe and the region, including providing access to light rail, bus routes, the bicycle/pedestrian bridge over US-60 and other bikeways.

NEXT STEPS
Based on the feedback received in April, additional public meetings will be help in September to present a refined design concept and gather additional feedback from residents. Public meetings will be held Sept. 16 at 9:30 a.m. at Escalante Community Center, 2150 E. Orange St. and Sept. 25 at 5 p.m. at Bustoz Professional Learning Center, 2020 E. Carson Drive. Those interested in the project can also provide input online Sept. 16 to Oct. 1 at www.tempe.gov/countryclubwaypath.

FISCAL IMPACT
- July 2016, the project was awarded a Maricopa Association of Governments grant design grant for $82,500.
- Final Design and Environmental (unfunded): $425,000
- Construction:
    - $5 million for street improvements (unfunded)
    - $2 million for pathway (one mile) (unfunded)
    - $3 to 5 million at railroad crossing (unfunded)

Tempe would be required to contribute a 5.7 percent match for construction.

RECOMMENDATION
This is for information only.

CONTACT
Robert Yabes, Principal Planner
480-350-2734
robert_yabes@tempe.gov

ATTACHMENTS
PowerPoint

Country Club Way Streetscape Project

Transportation Commission
September 12, 2017

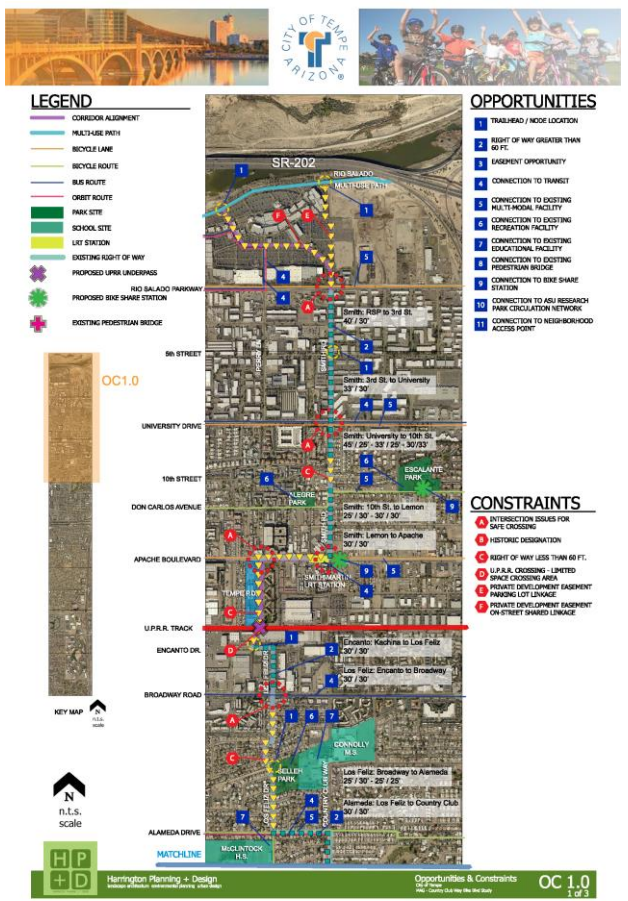
Tempe.
Transportation

Country Club Way

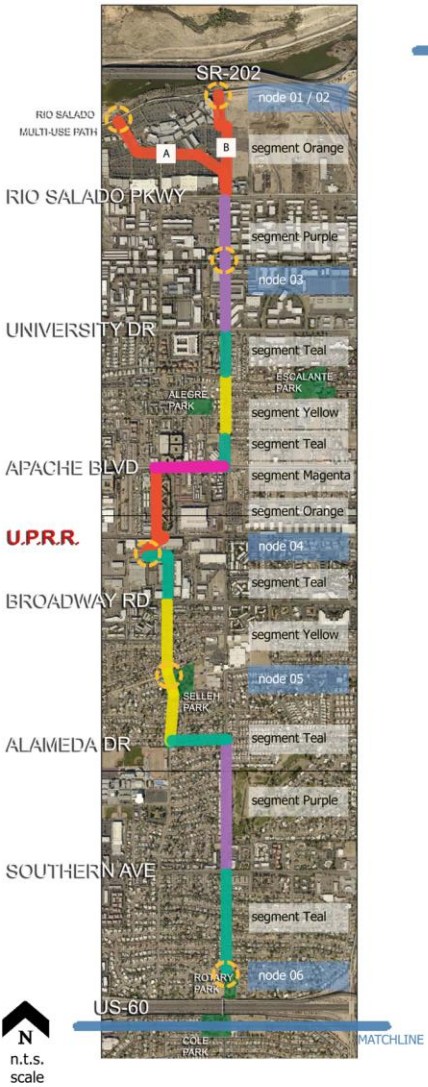
- Located in east Tempe, extending north and south from Warner Road at ASU Research Park to Rio Salado MUP at Tempe Marketplace, approximately 7 miles
- Generally follows the alignment of Country Club Way
- Connects a diversity of neighborhoods to employment centers, parks, schools and commercial areas
- Will include lighting, landscaping, street crossings, railroad crossing, and public art

Country Club Way

- **Opportunities**
  - Right of Way greater than 60’-0”
  - Connections to Transit/Multi-modal facility
  - Easement Opportunity
  - Existing Pedestrian Bridge
  - Connection to Existing Recreation and Educational Facilities
- **Constraints**
  - Right of Way less than 60’-0”
  - Intersection Issues
  - Private Ownership Access to be Negotiated



Country Club Way

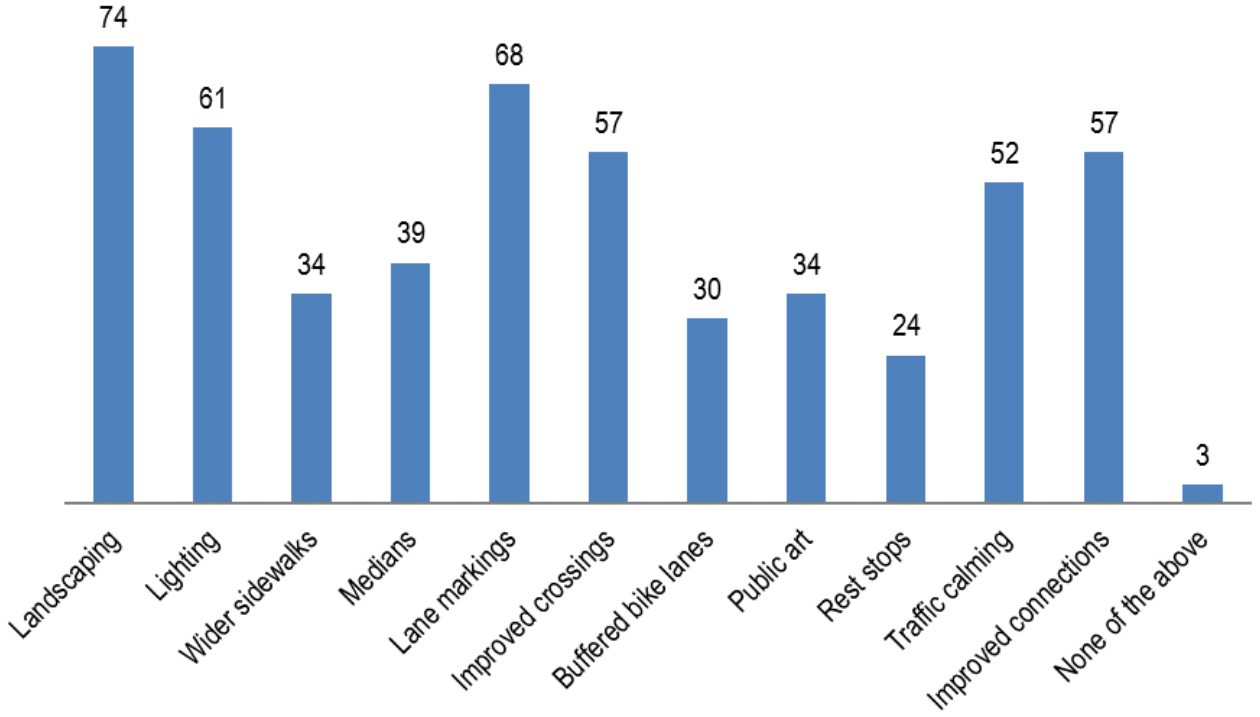


Harrington Planning + Design
landscape architecture environmental planning urban design

Project Segment Map S 1.0
City of Tempe
Country Club Way Bike & Pedestrian Study

Public Comments

- Which of these elements do you think are important to include in the design? (Check all that apply):



Public Comments

- Please list your top three priorities for the design of CCW (feel free to add your own or use elements from the previous question):

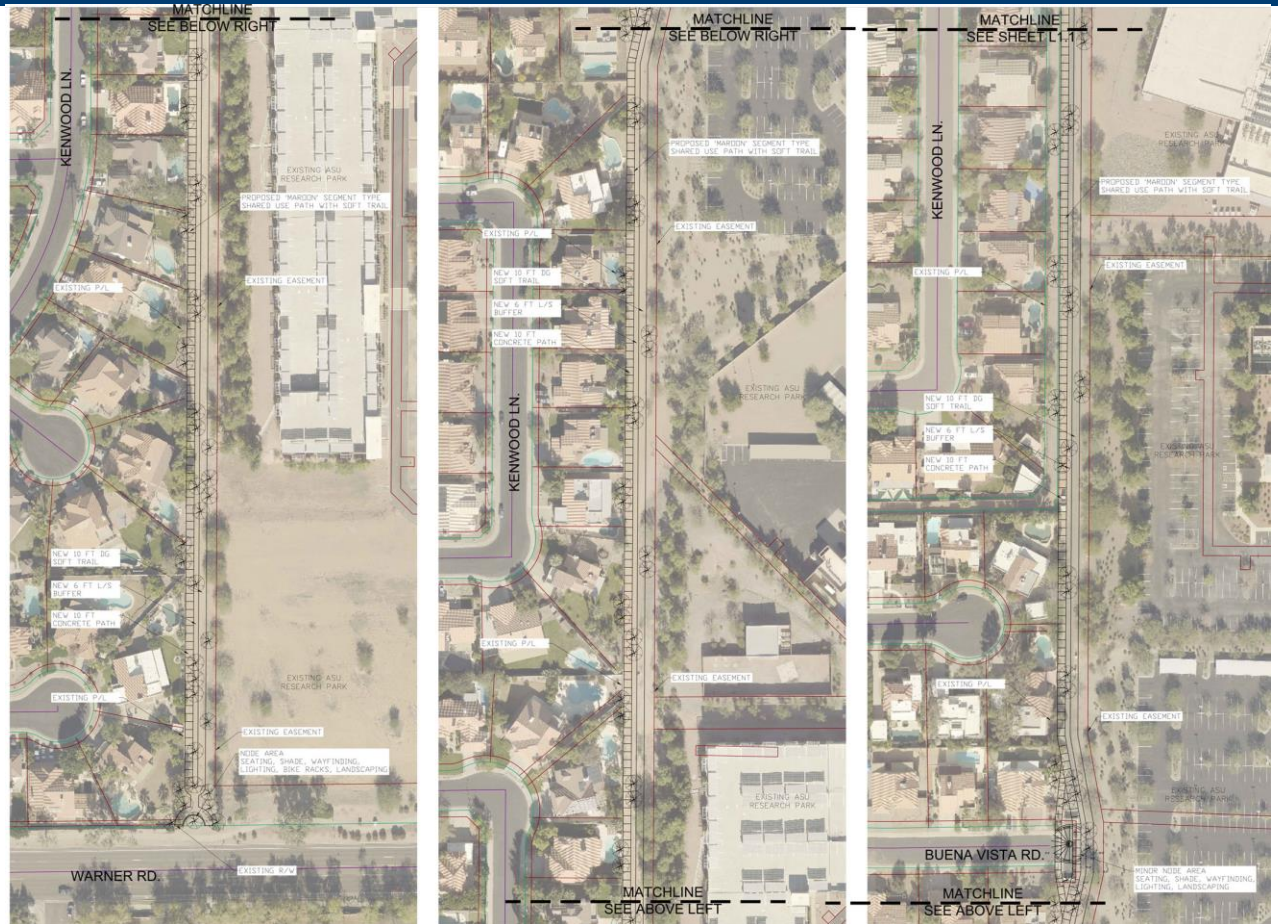
Priority One	Priority Two	Priority Three
Landscaping (21)	Landscaping/Shade (13)	Landscaping/Shade (13)
Safety (11)	Traffic calming (10)	Traffic calming (6)
Crossings (7)	Lighting (6)	Art (7)
No change (7)	Improved crossings (5)	Improved connections (5)
Connections (6)	No traffic calming (5)	Lighting (5)
Bike lanes (5)	Safety (5)	Lane markings (5)
Slow Traffic (5)	Project not necessary (5)	Project not necessary (4)
Lighting (4)	Art (4)	Safety (3)
Buffered bike lanes (3)	Safe bike lanes (4)	Make attractive (3)
Traffic calming (3)	Improved connections (4)	Improved crossings (2)
Wider sidewalks (3)	Wider sidewalks (4)	No landscape/shade (2)
ADA (2)	Buffered bike lanes (3)	No traffic calming (2)
Don't impede cars (2)	Preserve parking (2)	Improve sidewalks (2)
Signage (2)	ADA (1)	No beautification (1)
Traffic signal (2)	Direct route (1)	Benches and bus stops (1)
As little interaction with traffic as possible (1)	No bike lanes through Tempe Marketplace (1)	Buffered bike lanes (1)
Drinking fountains (1)	Evenness of sidewalks (1)	Signage (1)
Driving lanes (1)	Know your audience (1)	Improve storm drainage (1)
Get bikes off McClintock (1)	Make like College Ave (1)	Enhance neighborhoods (1)
IMPRACTICAL (1)	Median (1)	No elevated bike lanes (1)
Islands (1)	Make more peaceful (1)	Alternative A, Broadway Rd to UPRR (1)
Keep it simple (1)	No 2-way bike paths (1)	Parking (1)
Minimize interaction with high-speed traffic (1)	No landscaping (1)	Make safe for recumbent riders (1)
No change 60 to Southern (1)	Make representative of Tempe (1)	Remove concrete troughs (1)
No medians (1)	Standard bike lanes (1)	Smooth roads/paths (1)
Roundabout (1)	Traffic signal (1)	Widen sidewalks (1)

Country Club Way

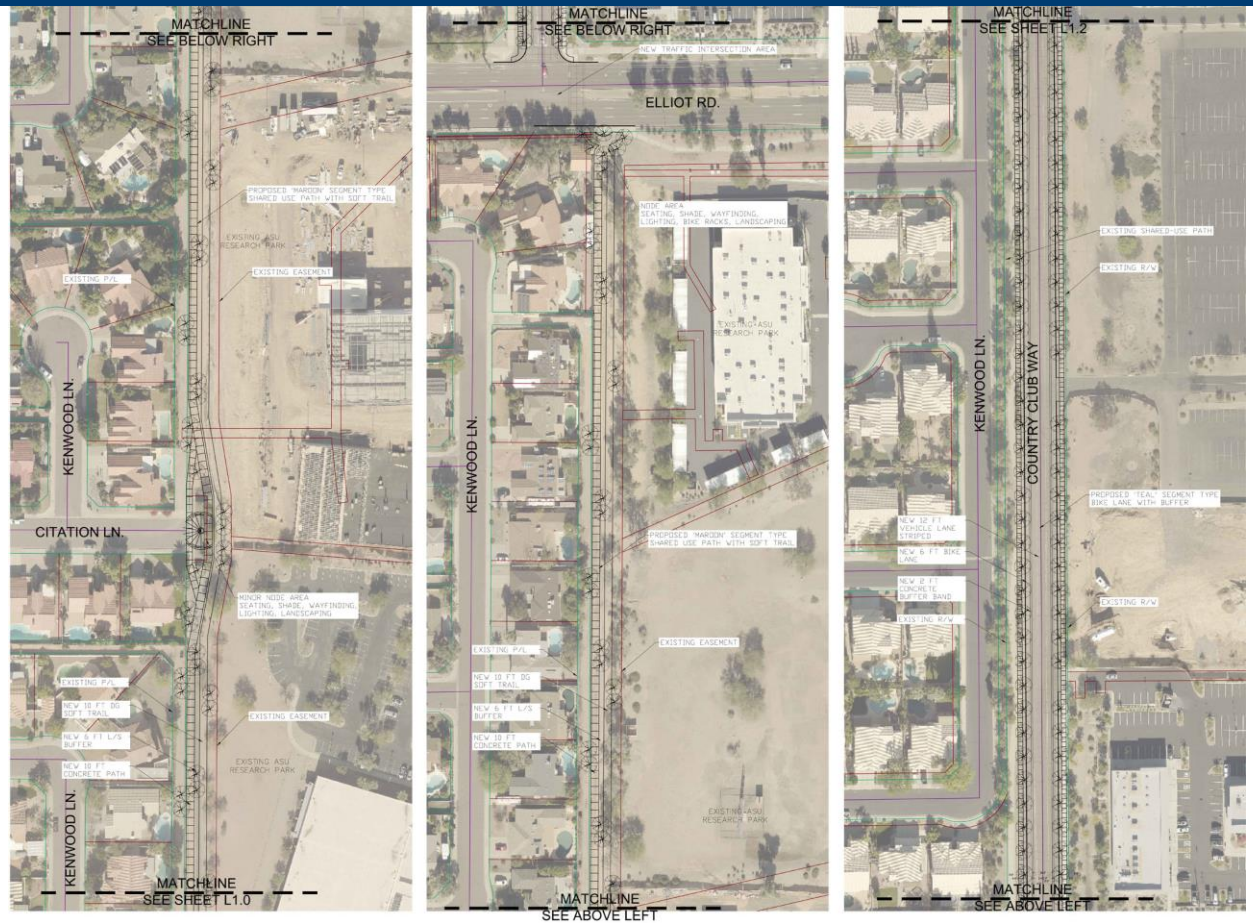
Harrington Planning + Design
landscape architecture environmental planning urban design

Project Segment Map S 1.0
City of Tempe
Country Club Way Bike & Pedestrian Study

Preliminary Design – Sheet L1.0

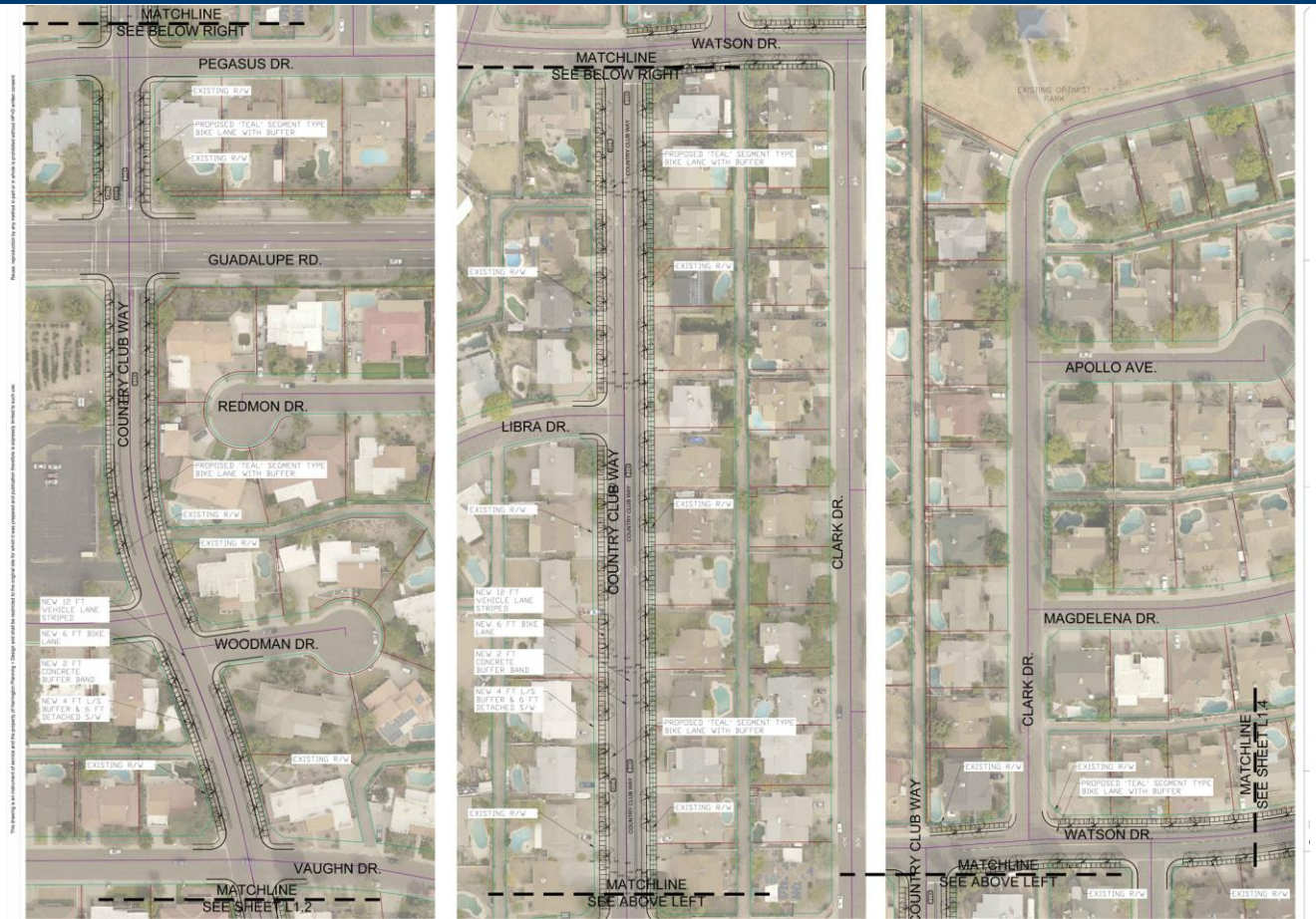


Preliminary Design – Sheet L1.1



Preliminary Design Sheet L1.2

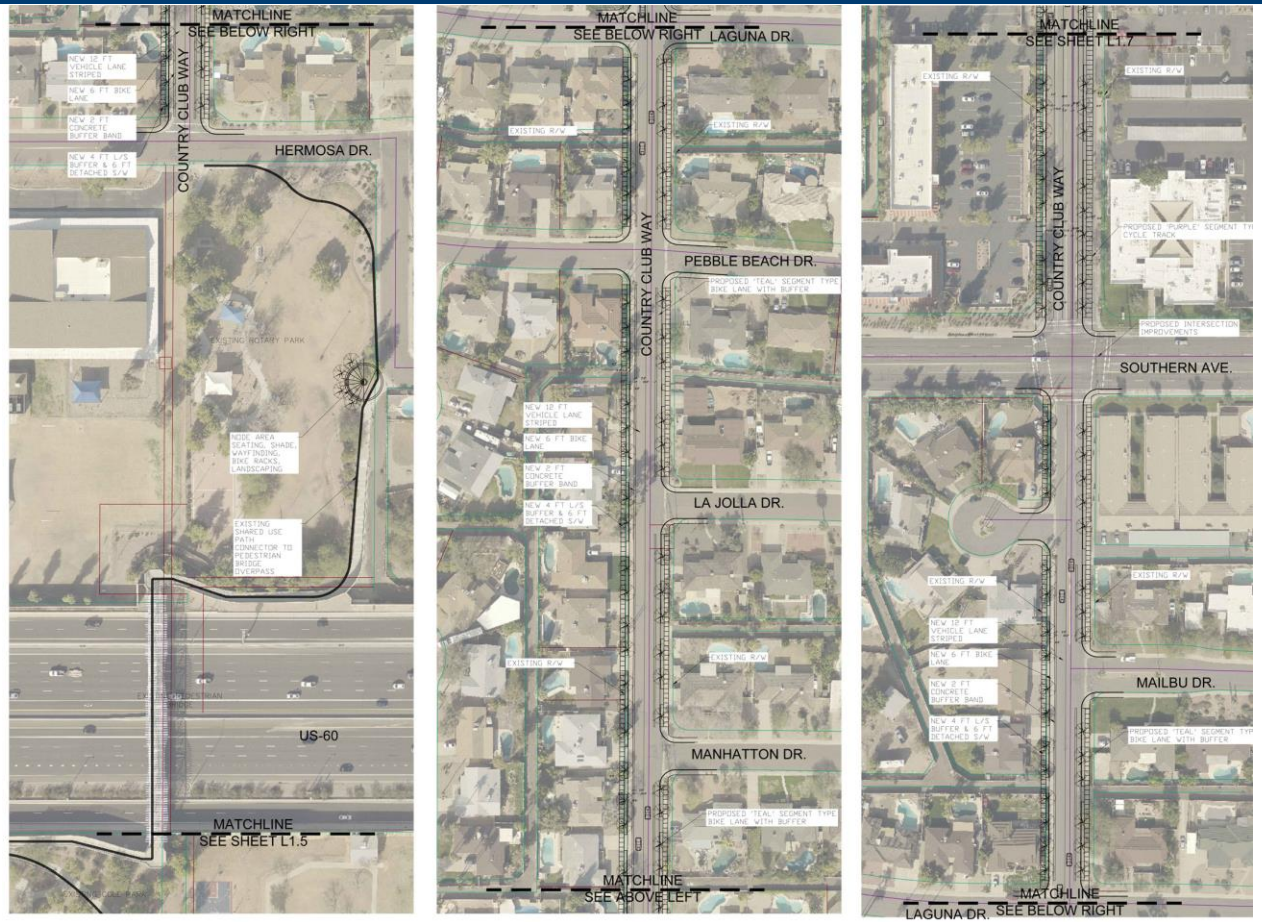
Preliminary Design – Sheet L1.3



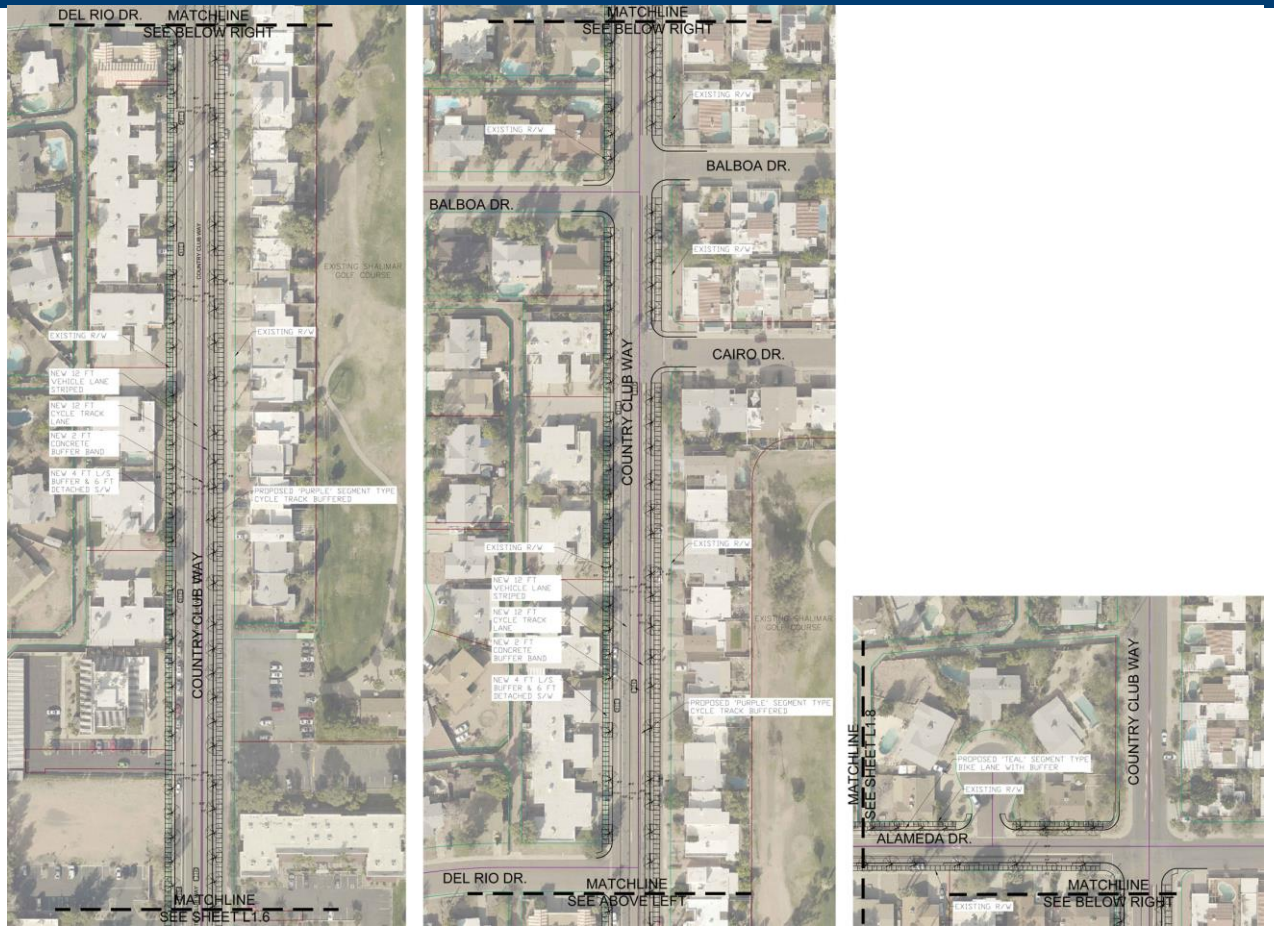
Preliminary Design – Sheet L1.4

Preliminary Design – Sheet L1.5

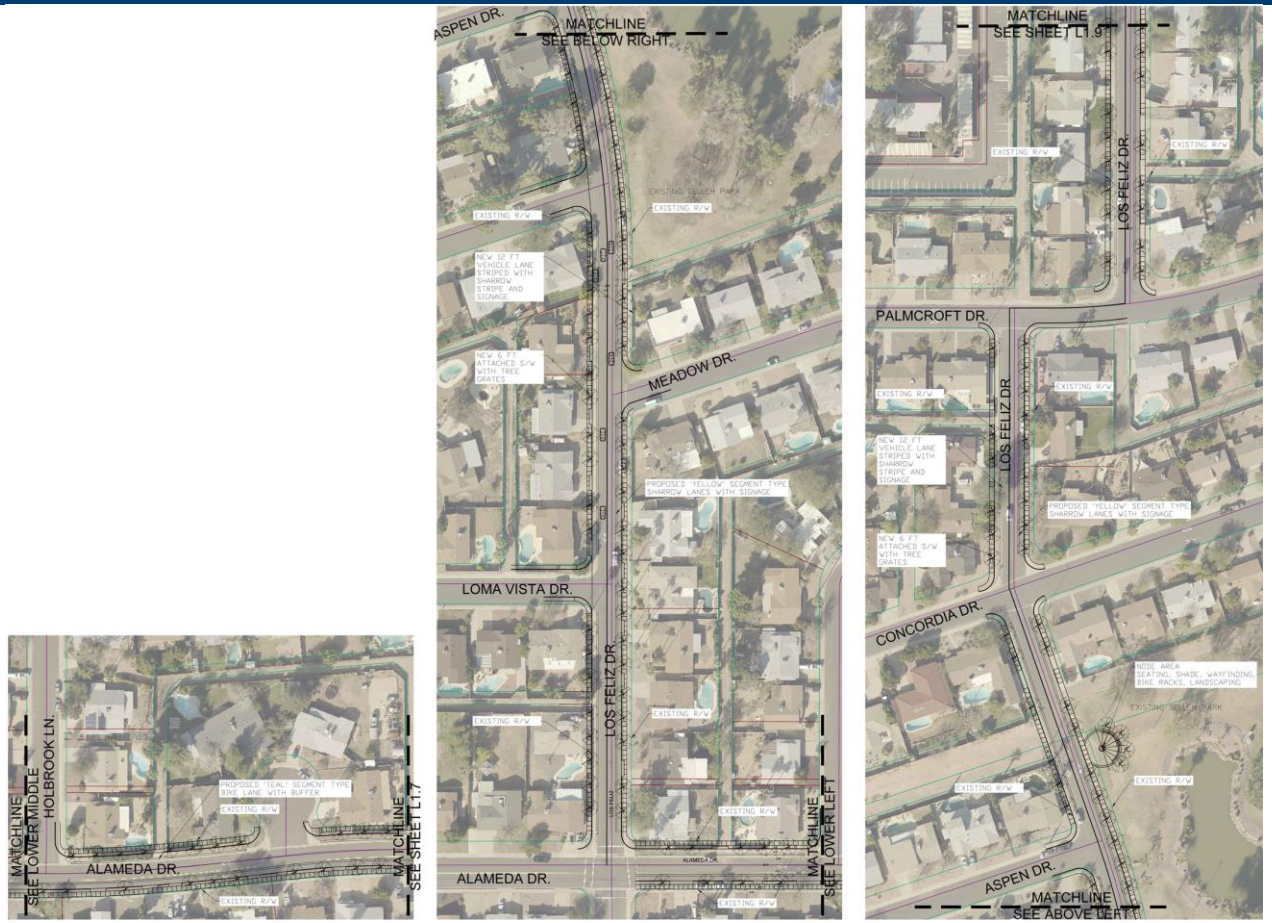
Preliminary Design – Sheet L1.6



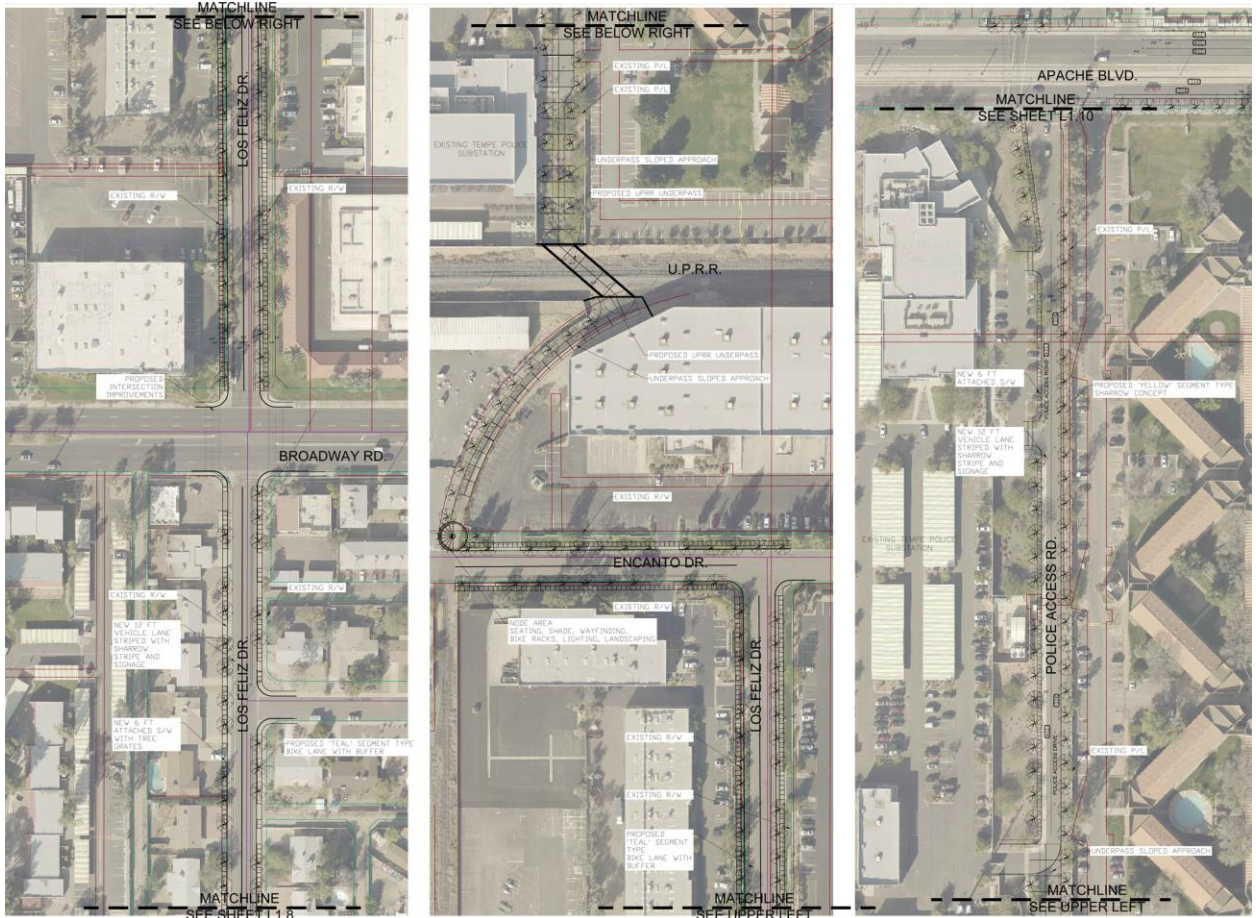
Preliminary Design – Sheet L1.7



Preliminary Design – Sheet L1.8



Preliminary Design – Sheet L1.9



Country Club Way Preliminary Design – Sheet L1.10

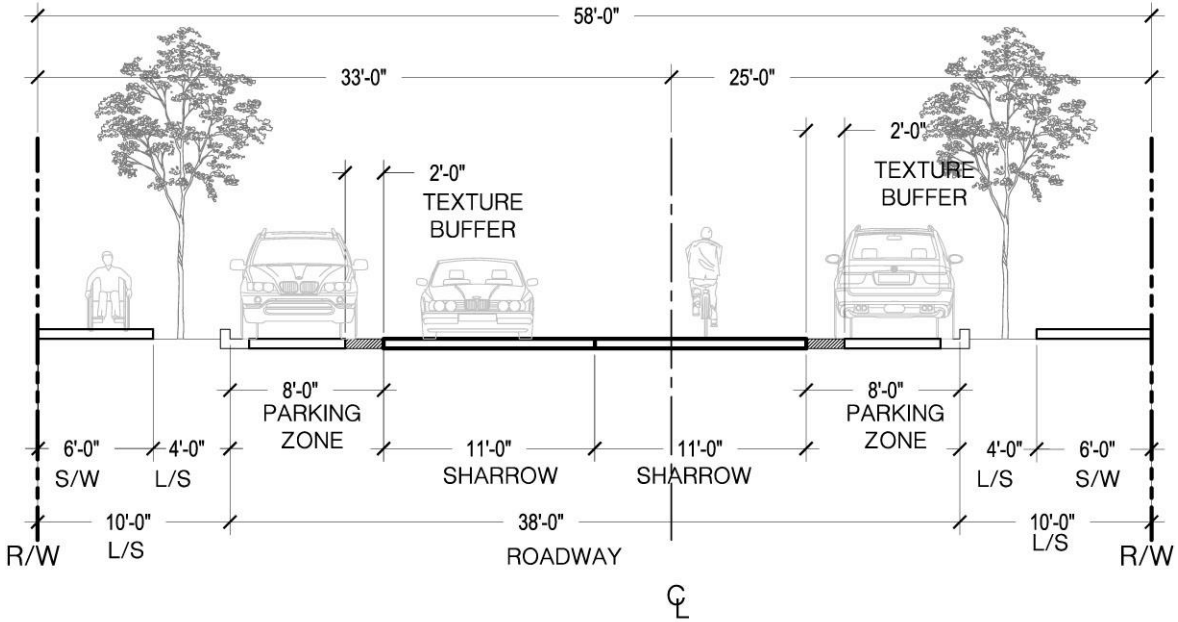
Preliminary Design – Sheet L1.11

Preliminary Design – Sheet L1.12

Preliminary Design – Sheet L1.13

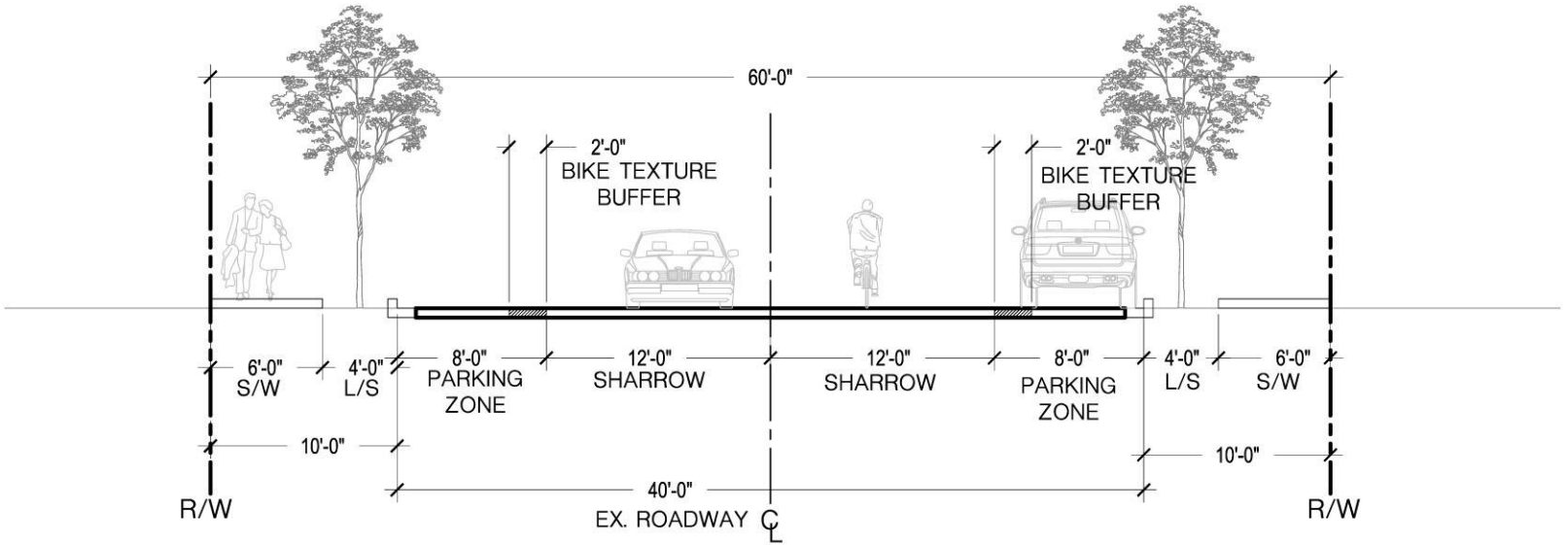
Preliminary Design – Sheet L1.14

Preliminary Design – Yellow Segment (Type 4)



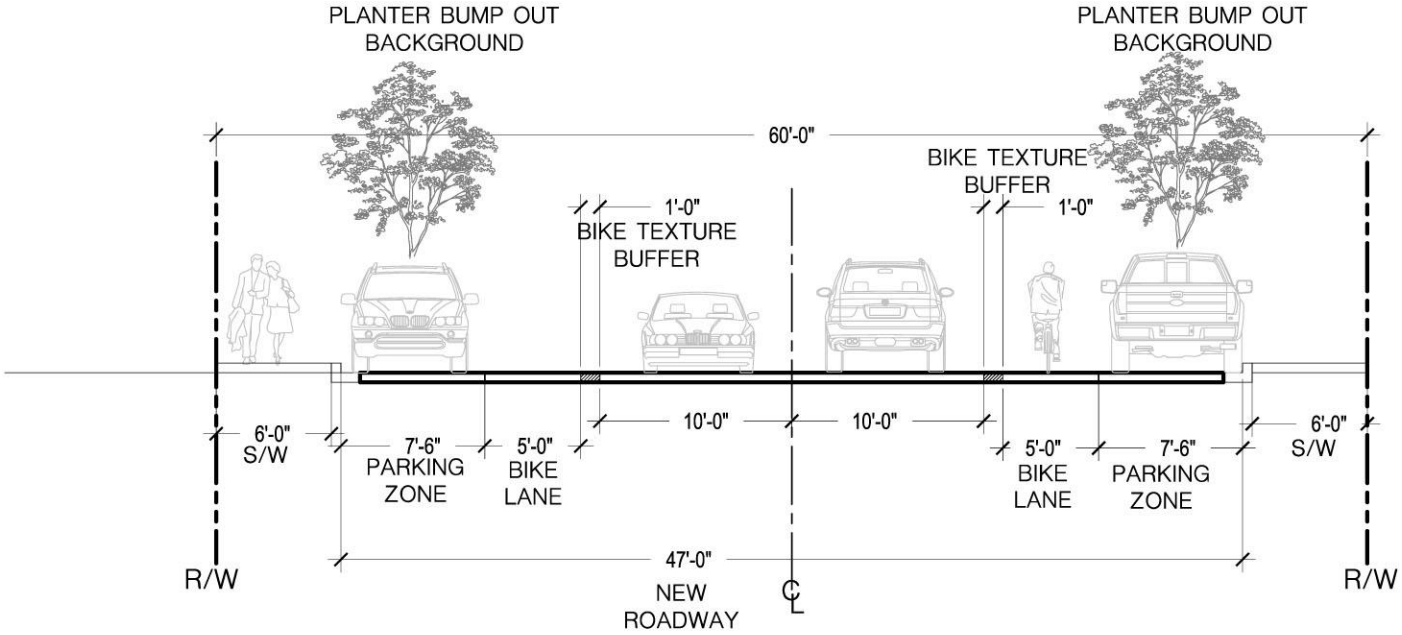
SEGMENT TYPE 04-1A
ALTERNATIVE

Preliminary Design – Teal Segment (Type 5) Sharrow Option



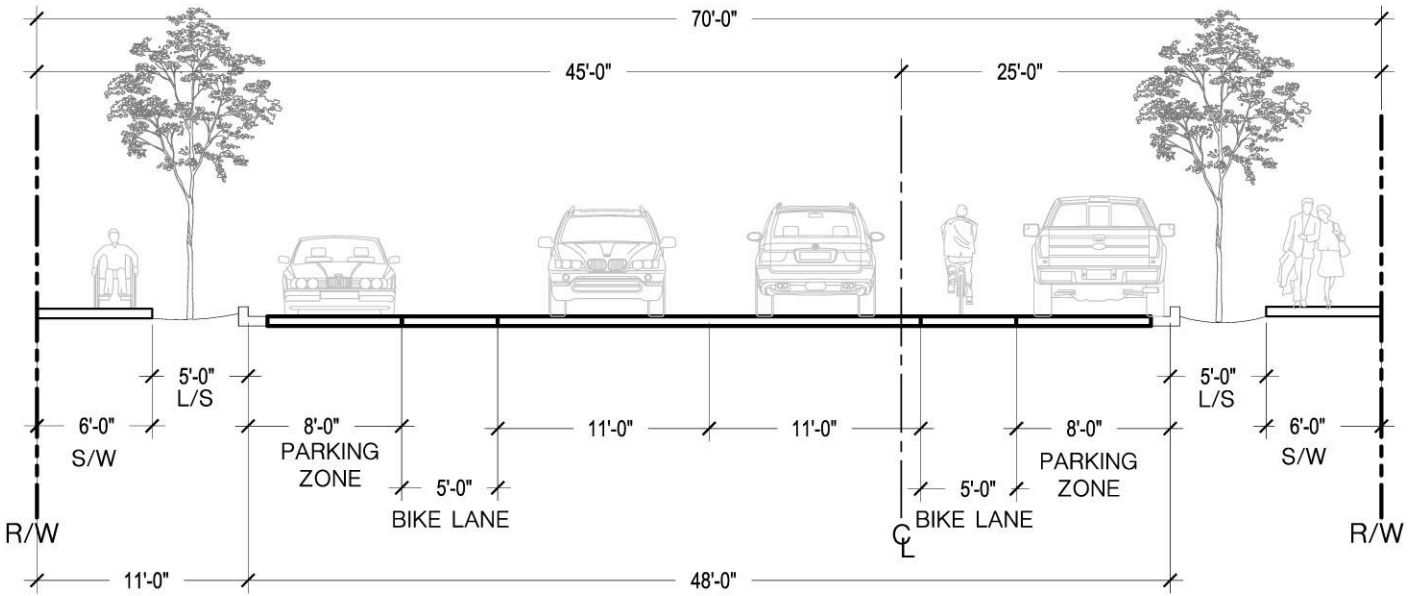
SEGMENT TYPE 05-1A
ALTERNATIVE - A

Preliminary Design – Teal Segment (Type 5) Bike Lane Option



SEGMENT TYPE 05
ALTERNATIVE - B

Preliminary Design – Purple Segment (Type 6) Bike Lane Option



SEGMENT TYPE 06-1C
ALTERNATIVE

Node Concept

Next Steps

- Public Meeting – Sept. 16, 2017 9-10:30 am; Escalante Community Center, 2150 E. Orange St. And Sept. 25, 2017 5-7 pm; Bustoz Professional Learning Center, 2020 E. Carson Dr.
- Comment online at www.tempe.gov/countryclubwaypath Sept. 16 to October 1.
- Final Preliminary Design Report to MAG October 2018

CITY OF TEMPE
TRANSPORTATION COMMISSION

STAFF REPORT

AGENDA ITEM 6

DATE
September 12, 2017

SUBJECT
Highline Canal Multi-use Path Project Public Art Update

PURPOSE
The purpose of this memo is to provide the Commission with an update on the public art for the Highline Canal Multi-use Path Project.

BACKGROUND
The Tempe Highline Canal Multi-use Path Project is located in west central and south Tempe, extending from Baseline Road to Knox Road for approximately four miles. The project links directly to Phoenix, Guadalupe and Chandler and connects a diversity of neighborhoods to employment centers, parks, schools and commercial areas. The project will include lighting, landscaping, street crossings and other path amenities.

The concept design team of Coffman Studio was retained in early 2014 to develop the project design concepts that were used to advance the project into formal design and construction documents. The City hired Kimley-Horn to prepare the final design, environmental and bid-ready construction documents for approval by Arizona Department of Transportation (ADOT) and Federal Highways Administration (FHWA). Public meetings about the design were held in March 2017. The documents were submitted to FHWA and ADOT in June 2017 to obligate the federal funds secured for the project. Project construction is estimated to start late 2017/early 2018.

NEXT STEPS
An open house to talk with residents, neighbors and businesses about the public art element of the project will be held Sept. 11 at 5:30 p.m. at the Tempe Union High School District Office, 500 W. Guadalupe Road, Tempe. Those interested can also provide input online from Sept. 11 to 24 at www.tempe.gov/highlinecanal. The open house will include meeting project artist John Fleming, and reviewing his public art concepts.

FISCAL IMPACT
The project was awarded a Maricopa Association of Governments pedestrian/bicycle design assistance funding grant in 2013 and $3.3 million in two construction grants from federal Transportation Alternative Program funds was awarded in 2014. The project is in the Tempe Capital Improvements Program approved by the City Council and has a local match from the Transit Fund.

RECOMMENDATION
This is for information only.

CONTACTS

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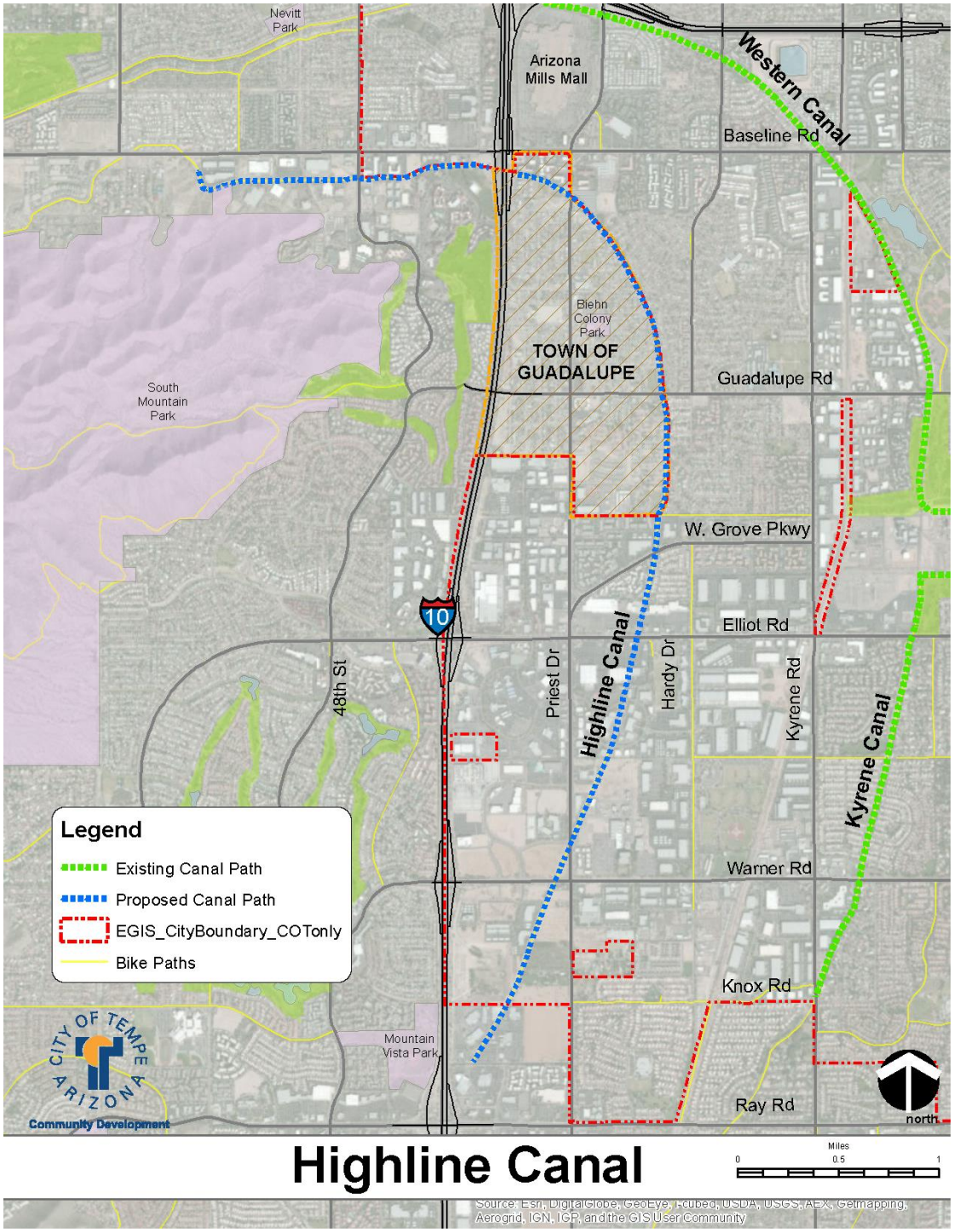
480-350-2734
robert_yabes@tempe.gov

Rebecca Rothman
Arts Administrator
480-350-2827
rebecca_rothman@tempe.gov

ATTACHMENTS

- PowerPoint


Nevitt Park
Arizona Mills Mall
Western Canal
Baseline Rd
Biehn Colony Park
TOWN OF GUADALUPE
Guadalupe Rd
South Mountain Park
W. Grove Pkwy
10
Elliot Rd
48th St
Priest Dr
Highline Canal
Hardy Dr
Kyrene Rd
Kyrene Canal
Warner Rd
Knox Rd
Mountain Vista Park
Ray Rd
north
Legend
Existing Canal Path
Proposed Canal Path
EGIS_CityBoundary_COTonly
Bike Paths
CITY OF TEMPE ARIZONA
Community Development
Highline Canal
Miles
0
0.5
1
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

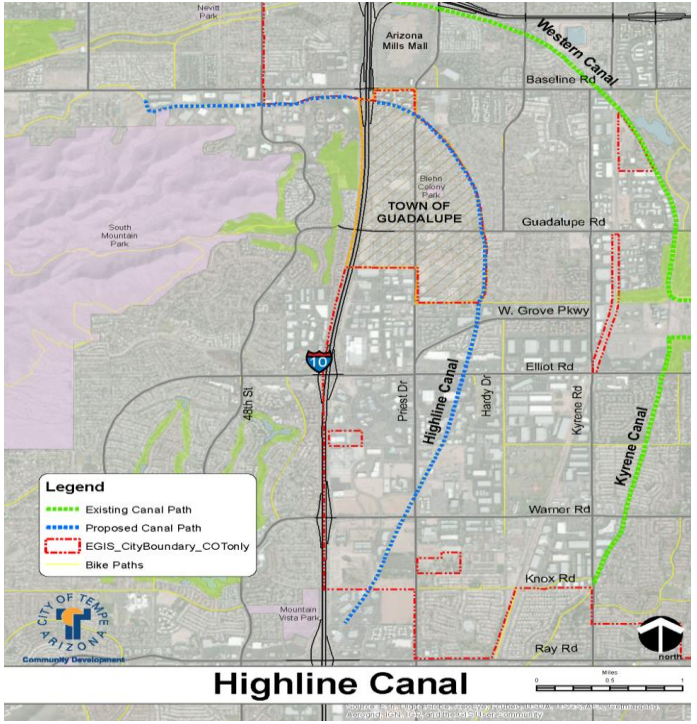
Highline Canal Multi-Use Path – Public Art

Transportation Commission
September 12, 2017

Tempe.
Transportation

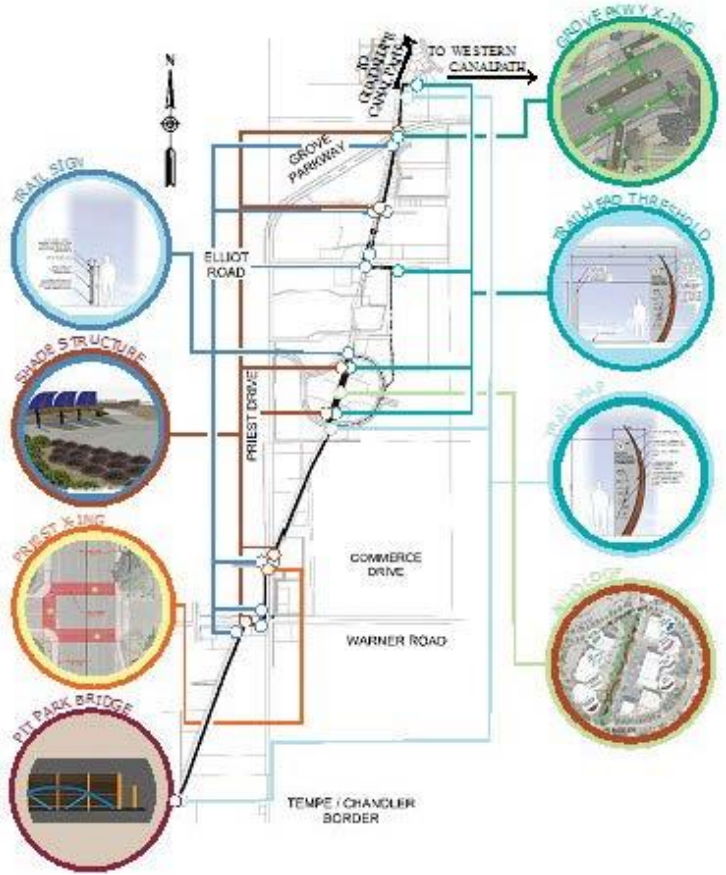
Highline Canal Revisited

- Located in west central and south Tempe, extending from Baseline to Knox for 4 miles, Tempe 2.1 miles
- Final design included lighting, landscaping, signalized street crossings and public art
- $3.3 million in grants from federal Congestion Mitigation and Air Quality funds
- Federal funds obligated August 2017
- Construction January – December 2018



Highline Canal Design Highlights

- Nodes with Drinking Fountains
- Unique Wayfinding Signs
- Generous Landscaping
- LED and Solar Lighting
- Improved/Signalized Crossings

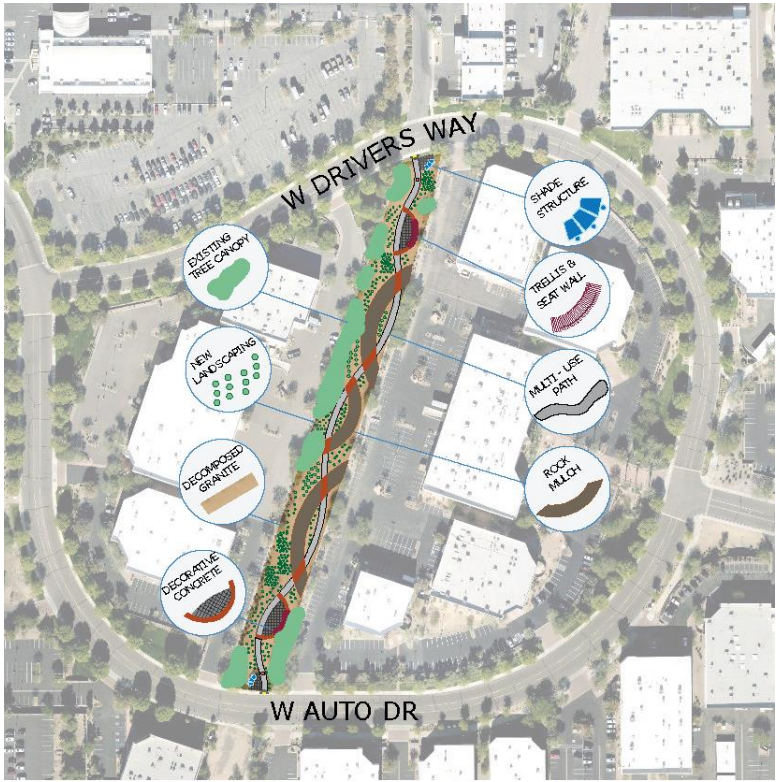


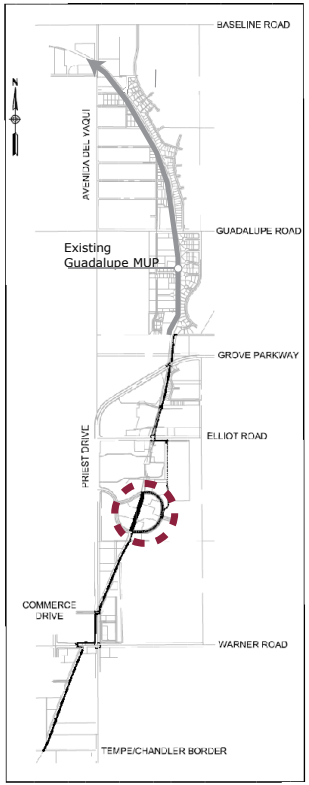
Nodes

1 MIDPOINT TRAIL NODE PERSPECTIVE - A
SCALE: N.T.S.

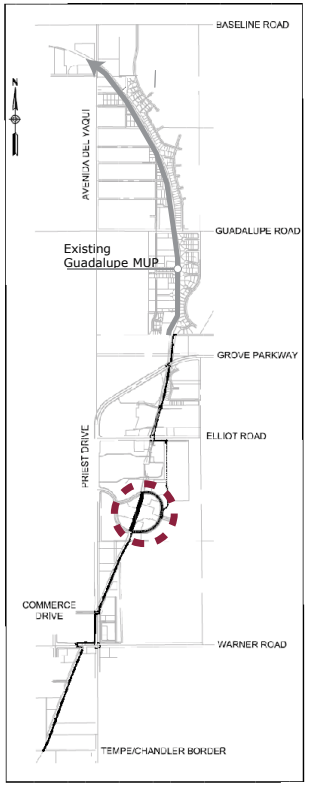
2 MIDPOINT TRAIL NODE PERSPECTIVE - B
SCALE: N.T.S.

Auto Plex Loop Link

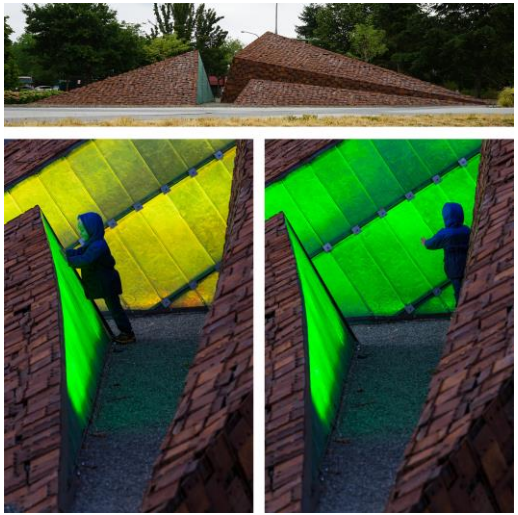




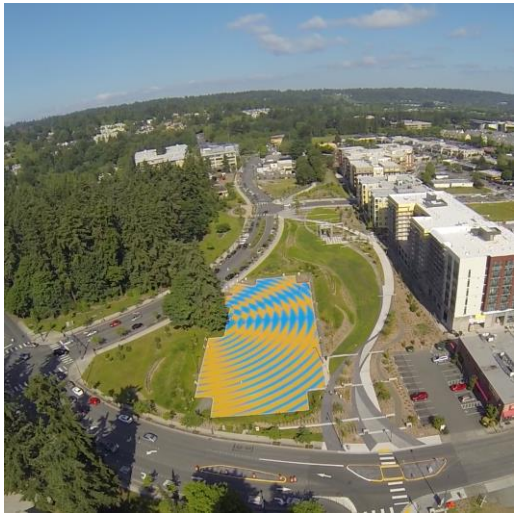
Auto Plex Loop Link



Artwork Conceptual Design – Highline Pinnacles



2013 *Redmond's Erratic* Redmond, WA

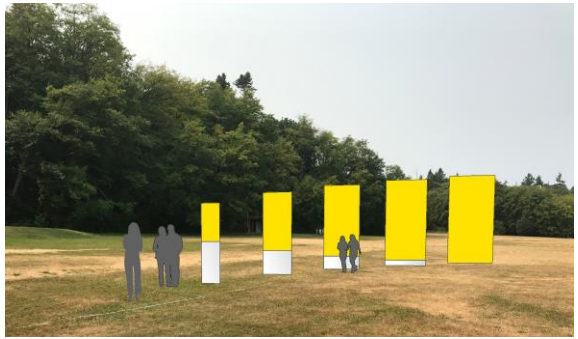


2014 *Sky Painting* Redmond, WA

2013 *High Desert Spiral* Bend, OR

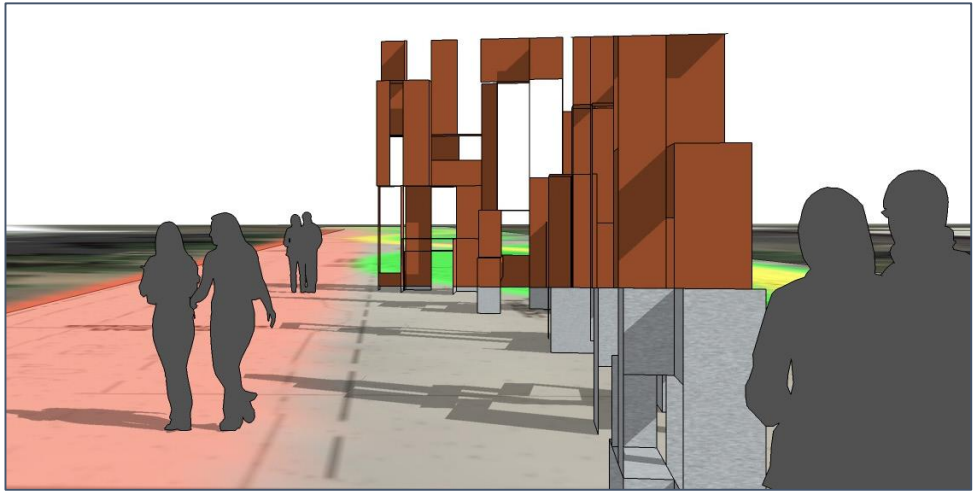
- John Fleming is an artist based in Seattle, Washington
- Fleming's public work can be seen nationwide with prominent works in Oregon, Wyoming, and Washington State

Artwork Conceptual Design – Highline Pinnacles

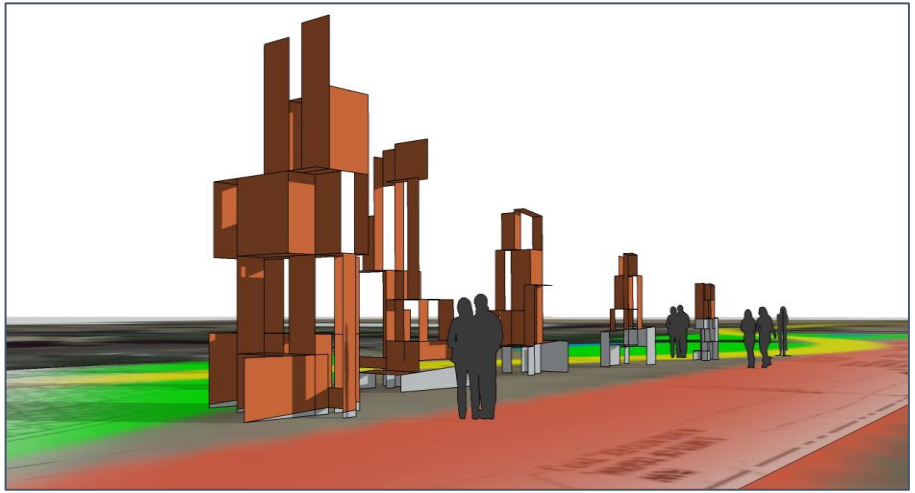


- Five blocks spaced 20 ft apart shown from different perspectives
- Idea is based in perception of space and movement as one looks towards south mountain from the canal

Artwork Conceptual Design – Highline Pinnacles

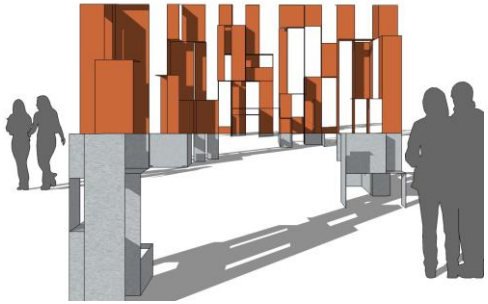


From one section at the edge of the path, a view of the illusion with all forms creating a rectangular edge

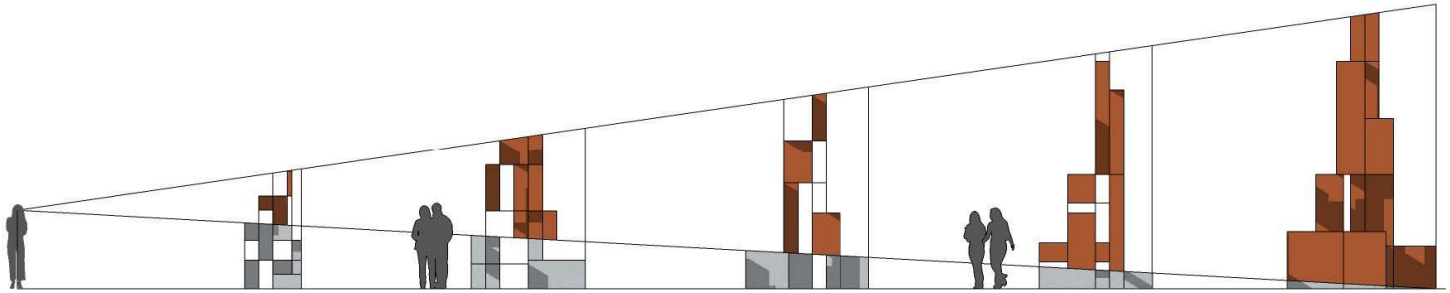


View from the Northwest

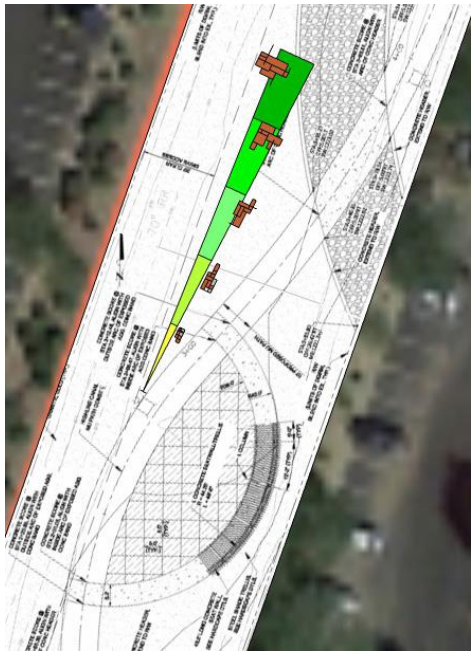
Artwork Conceptual Design – Highline Pinnacles



- Rusted steel above (shown yellow) with stainless or mirrored steel below (shown gray)
- Spaced at 20-foot intervals, the *Highline Pinnacles* parallel the Highline Canal Path
- Made of cut, plate steel in varying sizes to create unique perspectives in the loop link area where the canal goes underground



Artwork Conceptual Design – Highline Pinnacles



- Five blocks spaced 20 ft apart shown from different perspectives
- Idea is based in perception of space and movement
- Intended to engage path users as they move through the loop link node of the Highline Canal Path

Public Art Next Steps

- Public Meeting - September 11, 2017; comment online at www.tempe.gov/highlinecanal Sept. 11 to 24.
- Design Complete – December 2017
- Fabrication Complete – October 2018
- Installation - December 2018

MEMORANDUM

Public Works Department

AGENDA ITEM 7

Date: August 31, 2017

To: Transportation Commission

From: Shelly Seyler, Deputy Public Works Director (350-8854)

Subject: Small Area Transportation Study and Development Fee Land Use Assumptions

PURPOSE

The purpose of this memo is to present the Commission with an update of the Small Area Transportation Study and related Development Fee Land Use Assumptions.

BACKGROUND

The system network in the downtown and Novus Innovation Corridor area is an important part of the continued success and economic health and vitality of downtown Tempe. As businesses choose to locate in Tempe, the question of how the transportation system will operate is an important factor. As Tempe continues to attract infill high density projects, the city needs a holistic and interactive model to better understand the full range of modal issues. Increased density in the urban core will continue to create conflict, inconvenience and pressure on the transportation system.

In order to gather information needed to answer these questions, ASU and Tempe in a joint effort commissioned a "Small Area Transportation Study" with CivTech, a firm that offers expertise in network transportation modeling, to examine the existing and future conditions of the downtown and Novus Innovation Corridor. The Small Area Traffic Study takes a holistic approach to understanding the effects of development on the area, the surrounding neighborhoods and the regional network

CONCURRENT DEVELOPMENT FEE STUDY

Cumulatively, developments have a significant impact on service levels and quality of life and should be accounted for in the city's Infrastructure Improvement Plan (IIP) which ensures that growth pays its proportional fair share. Concurrently with CivTech's work, staff are updating the Development Fees in the areas of Transportation and Water/Wastewater to ensure that adequate fees are being assessed to help fund growth-related projects identified through the Small Area Transportation Study. The process for updating Development Fees requires three distinct outputs:

1. Land Use Assumptions
2. 10-Year Infrastructure Improvement Plan (IIP) with specific projects
3. Fee Calculation

Staff are currently in Step 1, looking at Land Use Assumptions and projecting population, jobs and housing units over the next 10 years, broken out in north and south service areas. A draft summary of these projections is included in

the presentation. The full Land Use Assumptions report will be on a future Council agenda for adoption. Steps 2 and 3 will follow over the next several months.

METHODOLOGY

The city, ASU and CivTech staff met regularly to discuss the elements of the modelling and provide input on the data collected to date. Tasks included:

- Identifying the study area, which has been defined as the SR202 Red Mountain Freeway on the north to Apache Boulevard on the south, from Priest Drive to Price Road.
- Collecting existing traffic data.
- Projecting traffic, pedestrians and bicycles using the street network in 2040 using the current entitlements, parking locations, future masterplans (where provided) and future transit improvements planned by 2040.
- Analyzing the needs of the network areas.
- Modelling all modes of transportation allowing the city and ASU to pin-point areas that need attention and identifying strategies to ensure the system is operating as efficiently as possible given the Council's vision for growth and prosperity.
- Identifying areas in need of pedestrian treatments, additional mode transfer beyond that already predicted to occur by 2040, and roadway limitations with regional solutions considered.

Options to address these needs were evaluated and included both smaller improvements and larger regional roadway and transit solutions. Each option was evaluated separately to determine the level of improvement realized in the area. The model used is an organic tool and can be updated routinely to accommodate Council decisions, General Plan amendments and proposals that need additional evaluation.

BIG IDEAS ANALYSIS

In performing the analysis, the following principles were used to identify solutions.

Insight
- Identify areas needing improvements
- Identify large scale efforts to improve transportation system operations

Quantitative & Qualitative Values
- Cost
- Benefit to System Overall
- Benefit at Specific Location
- Increase in Safety
- Economic Development Potential
- Community Support

Inter-relationship between ideas
- Some projects provide more benefit when implemented together

BIG IDEA PROJECT LIST AND RANKING ANALYSIS

Using the modeling tool as described above, the following projects were proposed and analyzed using ranking criteria to identify which alternatives provided the greatest benefits to the system. Table 1 shows the Decision Ranking Criteria and Table 2 shows the results.

1. University Drive Traffic Calming – Project alternative would reduce the number of vehicle lanes on University Drive or add traffic calming elements slowing vehicle speeds while keeping traffic volumes at today's level.
2. Metro Rail Grade Separation at University Drive and Rural Road – Project alternative would create grade separation of light rail, pedestrians and bikes at University Drive and Rural Road decreasing conflicts between modes that exist today.
3. Close University Drive – Project alternative would close University Drive between Mill Avenue and Rural Road (exact locations not determined) to help increase pedestrian and bike safety and better connect the campus.
4. Widen Rural Road Bridge – Project alternative would add an additional lane in each direction to Rural Road between the SR202 and Rio Salado Parkway adding vehicular capacity.
5. Rural Road and Rio Salado Parkway Intersection Improvements – Project alternative would add left turn and right turn lanes to the intersection creating dual-lefts at locations that currently do not have them resulting in increased intersection capacity allowing for better traffic flow.
6. Dorsey Lane Connection (University Drive to McClintock Drive) – Project alternative would extend Dorsey Lane from where it terminates north of University Drive across Rio Salado Parkway connecting to McClintock Drive to provide additional travel options.
7. Eastbound SR202 Ramps at McClintock Drive – Project alternative would add on and off-ramps to the east side of McClintock Drive at the SR202 providing additional options for accessing the freeway system.
8. Priest Parkway – Project alternative would implement access management strategies emphasizing the ability to increase vehicular capacity on Priest Drive resulting in reduced congestion on other major north-south arterials.
9. Pedestrian Separation at Key Intersections – Project alternative would build overpasses or underpasses at key locations to increase pedestrian safety and remove vehicle/pedestrian conflicts.
10. Park and Ride and Personal Rapid Transit – Project alternative would build a new park and ride or utilize existing park and rides while also implementing personal rapid transit as a way of getting people to their destinations in the downtown reducing single occupant vehicle trips.
11. Increase Number of Lanes on Rio Salado Parkway to Six – Project alternative would add an additional lane in each direction on Rio Salado Parkway from Packard Drive to Price Road increasing capacity and the ability to better handle increased development in the downtown and Novus Innovation Corridor area.

Table 1 - Decision Ranking Criteria

Key Criteria	Detailed Screening Factor	Weight	Range of scores	Description
Access	**Travel Time**	1	1 -3	This factor included a quantitative measurement taken from the model to identify travel time to Tempe's core downtown area from downtown Mesa, Scottsdale and Sky Harbor Airport. Projects which had a greater impact on reducing travel times were awarded a higher score.
Safety	**Opportunity to Reduce Crash Frequency or Severity**	1	1-3	This factor included a quantitative measurement using the Crash Modification Adjustment from the Highway Safety Manual. Projects which had a greater impact on crash reduction were awarded a higher score.
Community Support	**Impact on Roadway Capacity**	1	1-3	This factor included a quantitative measurement taken from the model to determine the impact on roadway capacity. Projects which had a greater impact on increasing capacity were awarded a higher score.
	Existing Neighborhood/Resident Impact	2	1-3	This factor included a qualitative analysis on the potential to increase or decrease mobility and the potential for cut-through in existing adjacent neighborhoods. Projects which increased mobility while having little impact on neighborhood cut-through were awarded a higher score. This factor was weighted at 2 times compared to other factors.
	Regional or Community Acceptance	2	1-3	This factor included a qualitative analysis on the potential for neighborhood and regional support. Projects that were likely to have support were awarded a higher score. This factor was weighted at 2 times compared to other factors.
Environment	**Walkability**	1	1-3	This factor included a qualitative analysis on the ease of walking for pedestrians who are already using the system. Projects that were likely to have a positive impact on walkability were awarded a higher score.
Multimodal Mobility	**Pedestrian and Bike Mobility**	1	1-3	This factor included a qualitative analysis on the potential for increasing the number of bikes and pedestrians using the system due to better mobility. Projects that were likely to have a positive impact on walkability and biking were awarded a higher score.
	Effects on Transit Ridership	1	1-3	This factor included a quantitative analysis on the potential for increasing ridership on LRT, streetcar and bus. Projects that were likely to have a positive impact on ridership were awarded a higher score.

The ideas (Options 1 -11) were ranked by assigning point values as described above and then categorized into red, yellow and green with green receiving the highest number of points and the most viable alternatives to pursue.

Table 2 – Decision Ranking Results

Key Criteria	Detailed Screening	Description	Option 1 University Road Calming	Option 2 Metro Rail Grade Sep	Option 3 Close University Dr.	Option 4 Widen Rural Rd. Bridge	Option 5 Rural/Rio Intersection	Option 6 Dorsey Lane Connection	Option 7 EB 202 Ramps @ McClintock	Option 8 Priest Parkway	Option 9 Pedestrian Seperation	Option 10 Park & Ride Hub & Spoke	Option 11 6 Lane Rio Salado
Access	Travel Time	Travel to core from downtown Mesa, Scottsdale and Sky Harbor Airport from DTIM	🟡	🟡	🔴	🟡	🟢	🟡	🟡	🟡	🔴	🟢	🟢
Safety	Opportunity to reduce crash frequency or severity	Crash Modification Adjustment from the Highway Safety Manual	🟡	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🟢	🟡	🔴
Community Support	Economic Development Potential	Capacity increase or decrease on Rio, Rural, McClintock, Priest from DTIM	🟡	🔴	🔴	🔴	🟢	🟡	🔴	🟢	🟡	🟡	🟢
	Existing Neighborhood/Resident Impact	Decreased mobility or potential for increase cut through traffic in existing neighborhoods	🟡	🟡	🔴	🟢	🟢	🟢	🟡	🟡	🟢	🟡	🟢
	Regional or Community Acceptance	Likelihood of neighborhood and regional support	🟡	🟢	🔴	🟢	🟢	🟢	🟢	🔴	🟢	🟢	🟡
Environment	Walkability	Increase to the ease of walking for the existing pedestrians on the system	🟢	🟢	🟢	🔴	🔴	🟢	🟡	🟡	🟢	🟡	🔴
Multimodal Mobility	Pedestrian and Bike Mobility	Increase the number of bikes and pedestrians due to better mobility	🟢	🟢	🟢	🔴	🔴	🟢	🟡	🟡	🟢	🟢	🔴
	Effects on Transit Ridership	Increase or decease in ridership on LRT, Streetcar and Bus from DTIM	🟢	🟡	🟢	🔴	🟡	🔴	🔴	🔴	🟢	🟢	🔴
			23	23	16	20	24	25	20	18	27	25	20

Design & Construction Cost	Rough magnitude of cost using County's cost estimation model	$500,000 - $2,000,000	$43,000,000	$150,000	$12,000,000	$5,000,000	$3,052,500	$53,500,000	$15,200,000	$5,500,000 each	$2,000,000	$11,000,000
Time to Implement		Medium	Long	Medium	Long	Short	Short	Long	Long	Medium	Short	Long

Staff then used the ranked list to identify stakeholders that would need to be involved for implementation to take place. Those projects identified in the first section would be jointly pursued by ASU, Tempe, and Catellus. Those identified second would involve ASU and Tempe but would also include regional partners like Valley Metro. The final project identified would involve Tempe and regional partners including MAG and ADOT.

<u>ASU/TEMPE/NOVUS INNOVATION CORRIDOR</u>

1. Dorsey Lane Connection (University Drive to McClintock Drive)
2. Rural Road and Rio Salado Parkway intersection improvements
3. Pedestrian separation at key intersections

<u>ASU/TEMPE/REGIONAL</u>

4. University Drive Traffic Calming
5. Metro Rail Grade Separation at University Drive and Rural Road

<u>TEMPE/REGIONAL</u>

6. Park and Ride and Personal Rapid Transit
7. Widen Rural Road Bridge or Eastbound SR202 Ramps at McClintock Drive

**Future Option: Extend Streetcar then review feasibility of increasing number of lanes on Rio Salado Parkway to 6 lanes

The Development Fee process requires public hearings and Council approval at various stages of the process. Staff anticipates these steps being completed over the next six to nine months.

ATTACHMENTS

- PowerPoint
- Decision Ranking Results

Small Area Transportation Study and Development Fee Land Use Assumptions

Transportation Commission
September 12, 2017

Tempe ASU

Background

- Transportation Master Plan & Tempe General Plan include multi-modal strategies and solutions
- Increased density will create conflict, inconvenience and pressure on the transportation system
- ASU and Tempe partnered to commission a “Small Area Transportation Study” with CivTech
- Holistic approach to understanding the effects of development
- Phase II of Development Fee Study with updated Land Use Assumptions being conducted concurrently

Development Fees – Phase II

- Previous Development Fee Studies
  - Water and Wastewater – 2014
  - Police, Fire, Transportation and Parks – 2016

- Development Fee Update
  - Water, Wastewater and Transportation

Land Use Assumptions

1 – Land Use Assumptions

- Population, Housing Unit and Job projections
  - MAG 2016
  - Small Area Transportation Study 2016

2 – Infrastructure Improvement Plan

3 – Fee Calculation

Land Use Assumptions

	2015	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	10-Year
		Base Yr	1	2	3	4	5	6	7	8	9	10	Increase
Total Population	**172,104**	**177,662**	**180,506**	**183,396**	**186,334**	**188,796**	**191,309**	**193,872**	**196,489**	**199,160**	**201,888**	**204,673**	**27,011**
North Service Area	67,249	70,793	72,630	74,513	76,442	78,379	80,367	82,405	84,497	86,643	88,846	91,106	20,313
South Service Area	104,855	106,869	107,876	108,883	109,892	110,417	110,942	111,467	111,992	112,517	113,042	113,567	6,698
Total Jobs	**183,998**	**190,447**	**193,746**	**197,099**	**200,500**	**202,762**	**205,084**	**207,467**	**209,917**	**212,437**	**215,029**	**217,698**	**27,251**
North Tempe Jobs	**82,041**	**86,032**	**88,102**	**90,226**	**92,403**	**94,105**	**95,867**	**97,690**	**99,580**	**101,540**	**103,572**	**105,681**	**19,649**
South Tempe Jobs	**101,957**	**104,415**	**105,644**	**106,873**	**108,097**	**108,657**	**109,217**	**109,777**	**110,337**	**110,897**	**111,457**	**112,017**	**7,602**
Dwelling Units	**76,801**	**78,382**	**79,201**	**80,040**	**80,899**	**81,792**	**82,707**	**83,644**	**84,605**	**85,588**	**86,596**	**87,630**	**9,248**
North Service Area	30,445	31,810	32,521	33,252	34,004	34,820	35,658	36,518	37,402	38,308	39,239	40,196	8,386
South Service Area	46,356	46,572	46,680	46,788	46,895	46,972	47,049	47,126	47,203	47,280	47,357	47,434	862

10-Year Population Growth
Citywide 15%
North 29%

10-Year Jobs Growth
Citywide 14%
North 23%

Need

- City has approved several development plans with increased density and a multi-modal outlook
- ASU is moving forward with the development of the Novus Innovation Corridor
- Lake front development is adding pressure on the system
- Off campus student housing development is changing pedestrian needs and vehicular interaction

Big Idea Analysis

Insight

- Identify areas needing improvements
- Identify large scale efforts to improve transportation system operations

Quantitative & Qualitative Values

- Cost
- Benefit to system overall
- Benefit to specific location
- Increase in safety
- Economic development potential
- Community support

Inter-relationship between ideas

- Some projects benefit when implemented together

Big Idea Project List

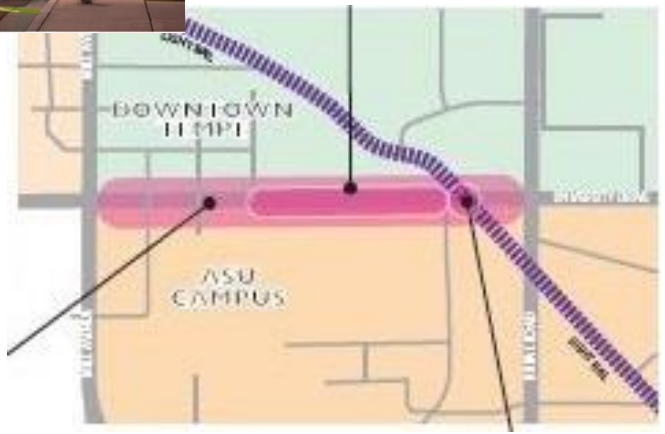
- City Opportunities
  - Priest Parkway
- Joint Tempe/ASU Opportunities
  - University Drive Traffic Calming
  - Close University Drive
  - Rural Road and Rio Salado Parkway intersection improvements
  - Dorsey Lane connection (University Drive to McClintock Drive)
  - Pedestrian separation at key intersections
  - Increase number of lanes on Rio Salado Parkway to 6
- Regional Opportunities
  - Metro Rail Grade Separation at University Drive and Rural Road
  - Widen Rural Road Bridge
  - Eastbound SR202 ramps at McClintock Drive
  - Park and Ride and Personal Rapid Transit

Big idea 1 – University Drive Road Calming

- Maintain current vehicle capacity
- Increased safety for pedestrians

Window of opportunity

Calming would likely be in median.
Adjacent ownership increases the window of opportunity for construction.



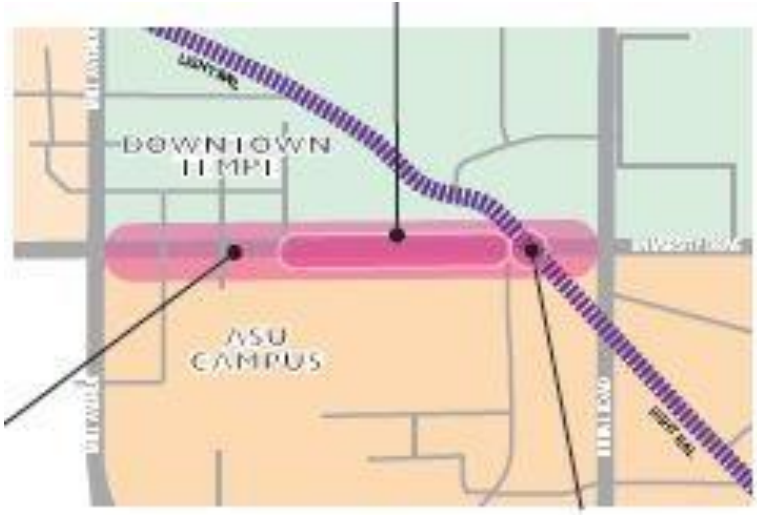
Big idea 2 – Metro Rail Grade Separation

- Increased capacity at intersection of Rural and University
- Increased safety for pedestrians/bicyclists

Window of opportunity

Requires regional involvement.

Potential funding from Proposition 500.

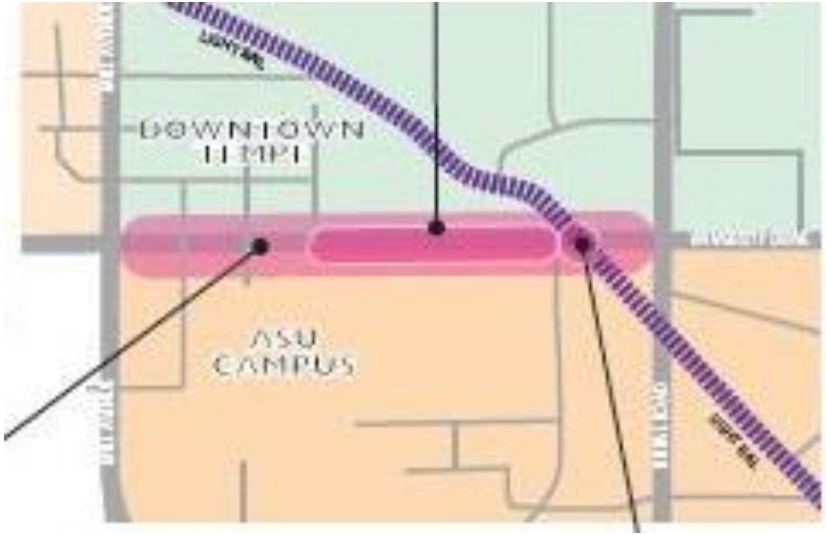


Big idea 3 – Close University Drive

- Increased safety for pedestrians/bicyclists by creating pedestrian/ bicycle mall
- Increased congestion at intersections east and west of closure
- Increased neighborhood cut-through likely as a result of back up

Window of opportunity

Implementation timeframe based on limits of closure.



Big idea 4 – Widen Rural Road Bridge

- Increased vehicle capacity on Rural Rd
- May increase pedestrian crossing times at intersections

Window of opportunity

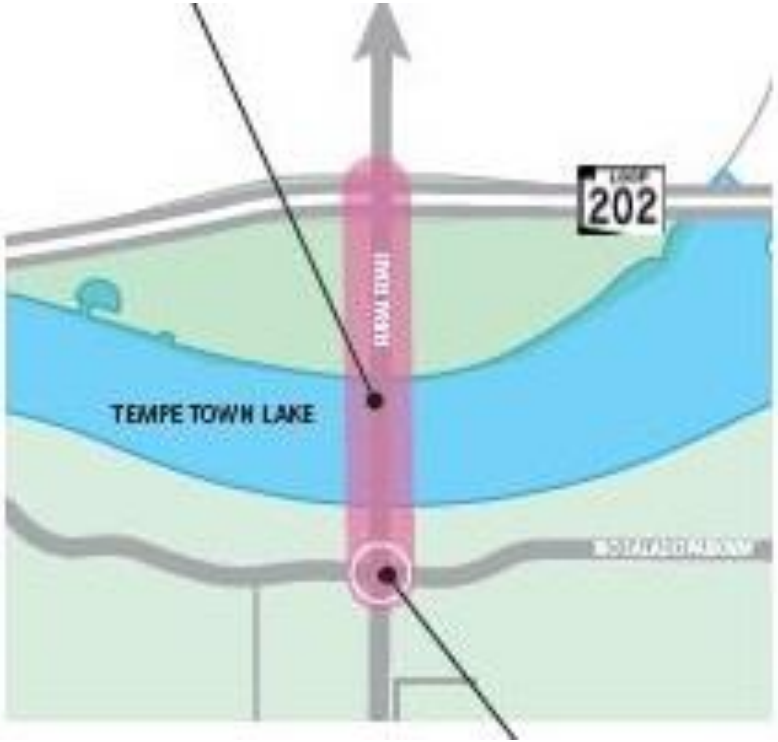
Implementation timeframe based on limits of widening. Requires partnership with ADOT on construction.

Big idea 5 – Rural/Rio Intersection Improvements

- Increased vehicle capacity on Rural Rd and Rio Salado Pkwy
- Increased pedestrian crossing times at intersection

Window of opportunity

With ownership by ASU on all corners, implementation should occur while ownership is maintained.

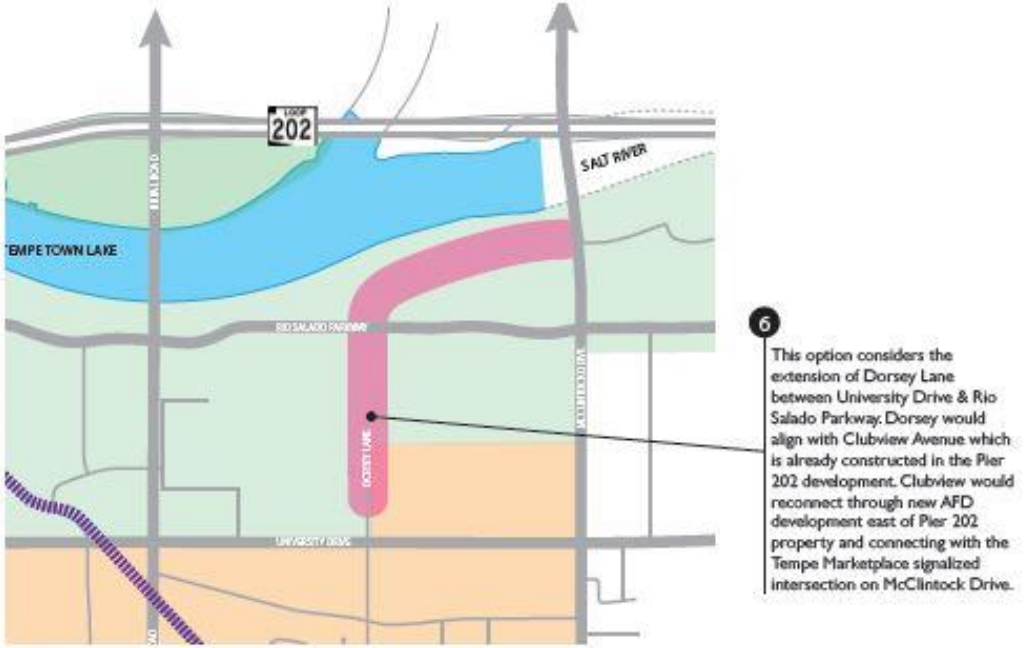


Big idea 6 – Dorsey Lane Connection

- Increased vehicle capacity on roadway network

- Window of opportunity

Implementation will occur with the Novus Innovation Corridor.



Big idea 7 – Eastbound 202 Ramps @ McClintock

- Increased vehicle capacity on roadway network

- Window of opportunity

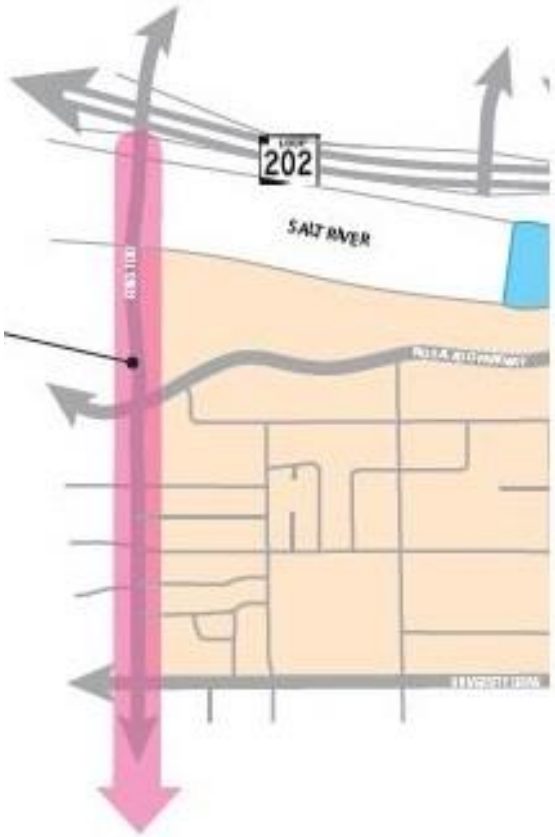
  Requires regional involvement. Potential funding from Proposition 500.

Big idea 8 – Priest Parkway

- Increased vehicle capacity on roadway network
- Opposition from adjacent neighborhoods likely as Priest Dr. volumes increase

Window of opportunity

Implementation is not dependent on other opportunities and would occur within existing right-of-way.



Big idea 9 – Pedestrian Separation (4 locations)

- Increased vehicle capacity at intersections
- Increased pedestrian/bicycle safety

Window of opportunity

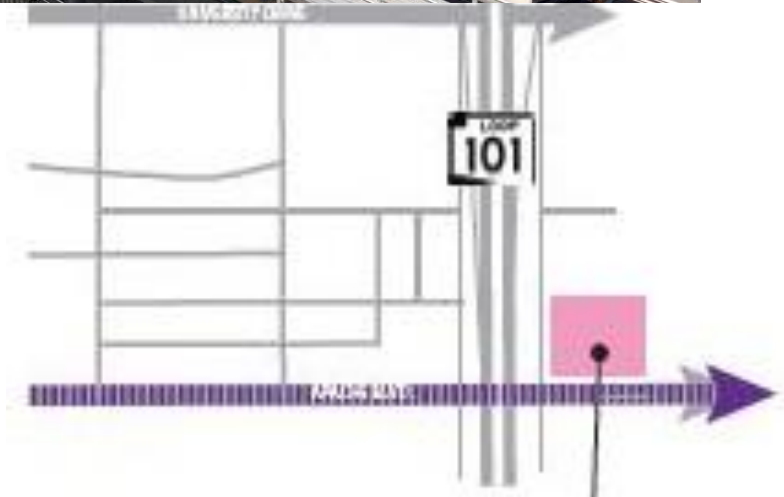
Requires coordination by multiple property owners. Pedestrian separation at some locations can occur with construction of the Novus Innovation Corridor.

Big idea 10 – Park-n-Ride with PRT

- Relieves congestion in downtown
- Provides alternate travel options

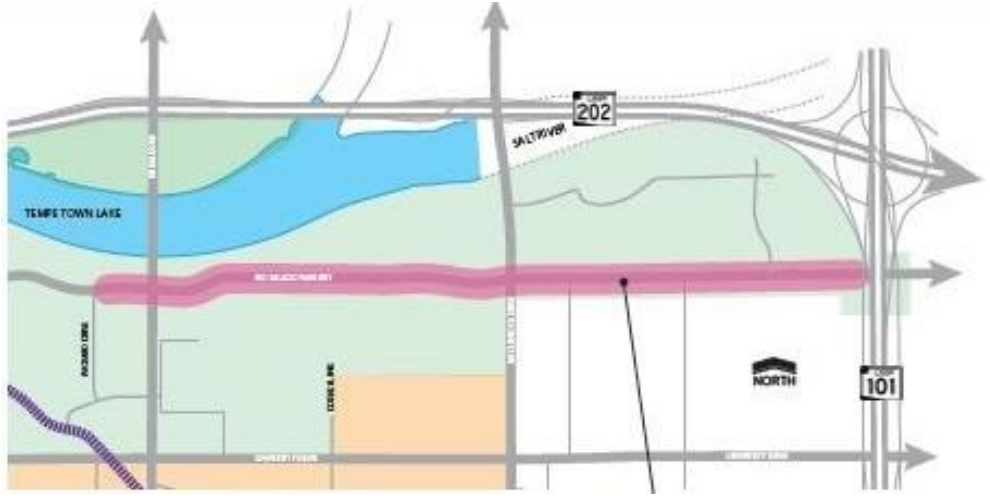
Window of opportunity

Requires regional coordination. Implementation of Personal Rapid Transit still being analyzed across nation.



Big idea 11 – 6 Lane Rio Salado Parkway

- Widening from Packard to Price Rd
- Increased vehicle capacity on roadway network and Rio Salado intersection
- Increased pedestrian crossing times as a result of widening.



Window of opportunity

Future opportunity should be evaluated after possible extension of streetcar. Right-of-way should be obtained as development continues.

Decision Ranking Criteria

Key Criteria	Detailed Screening	Description	Option 1 University Road Calming	Option 2 Metro Rail Grade Sep	Option 3 Close University Dr.	Option 4 Widen Rural Rd. Bridge	Option 5 Rural/Rio Intersection	Option 6 Dorsey Lane Connection	Option 7 EB 202 Ramps @ McClintock	Option 8 Priest Parkway	Option 9 Pedestrian Seperation	Option 10 Park & Ride Hub & Spoke	Option 11 6 Lane Rio Salado
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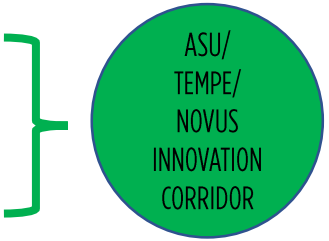
Time to Implement		Medium	Long	Medium	Long	Short	Short	Long	Long	Medium	Short	Long

Recommended Solution Set – Cost & Control

1. Dorsey Lane Connection (University Drive to McClintock Drive)
2. Rural Road and Rio Salado Parkway intersection improvements
3. Pedestrian separation at key intersections



4. University Drive Traffic Calming
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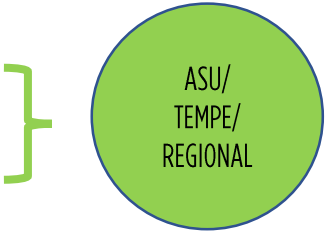
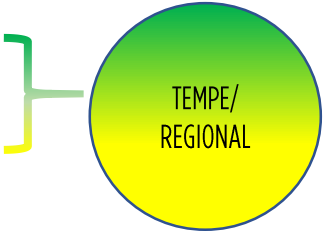


6. Park and Ride and Personal Rapid Transit
7. Widen Rural Road Bridge or Eastbound SR202 Ramps at McClintock Drive



**Future Option: Extend Streetcar then review feasibility of increasing number of lanes on Rio Salado Parkway to 6 lanes

Next Steps and Council Direction

Next Steps

- Identify outreach plan
- Identify opportunities for implementation of Big Ideas (ASU, City, Joint, Regional)
- Develop Infrastructure Improvement Plan
- Update Streets/Water-Wastewater Development Impact fees to better reflect current conditions

Key Criteria	Detailed Screening	Description	Option 1 University Road Calming	Option 2 Metro Rail Grade Sep	Option 3 Close University Dr.	Option 4 Widen Rural Rd. Bridge	Option 5 Rural/Rio Intersection	Option 6 Dorsey Lane Connection	Option 7 EB 202 Ramps @ McClintock	Option 8 Priest Parkway	Option 9 Pedestrian Seperation	Option 10 Park & Ride Hub & Spoke	Option 11 6 Lane Rio Salado
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Time to Implement		Medium	Long	Medium	Long	Short	Short	Long	Long	Medium	Short	Long

Attachment 2: Decision Ranking Matrix

CITY OF TEMPE
TRANSPORTATION COMMISSION

STAFF REPORT

AGENDA ITEM 9

DATE
September 1, 2017

SUBJECT
Future Agenda Items

PURPOSE
The Chair will request future agenda items from the Commission members.

BACKGROUND
The following future agenda items have been previously identified by the Commission or staff:

- October 10
  - Fifth Street Streetscape Design
  - Annual Report
  - Autonomous Vehicles
- November 12
  - Plan for Expansion of Bicycle/Pedestrian Paths
  - Bike Share
  - Streetcar
  - Maintenance Procedures for Sidewalk Shade Trees near Overhead Power Lines
- December 12
- January 9
  - Commission Business
  - Speed Limits
  - North/South Railroad Spur MUP
  - Crash Data, Enforcement and Texting
  - Western Canal Expansion MUP Final Design
- February 13
  - FY 18/19 Paid Media Plan
  - Prop 500
  - Bike Hero Award
- March 13
  - Capital Improvement Project Update
  - Alameda Drive Streetscape
  - Upstream Dam Bridge
- April 10
- May 8
  - MAG Design Assistance Grants
- TBD: Bicycle/Pedestrian Signal Activate Operations Update

RECOMMENDATION
This item is for information only.

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