

# TOWN OF PARADISE VALLEY

## WALK & BIKE PARADISE VALLEY

The Paradise Valley Bicycle & Pedestrian Master Plan



Town Council  
April 27, 2017



## Purpose of Today's Meeting

1. Key Questions
2. Where at Today / What Heard
3. Pedestrian Facility Summary
4. Bicycle Facility Summary
5. Other Plan Components
  - Education and Enforcement
6. Corridor Details (Review as needed)
  - Direction Heard
  - General Plan
  - Challenges/Advantages
  - Ideas
  - Plan Recommendation
  - Existing Condition
7. Key Questions Summary

## KEY QUESTIONS

- What level of accommodation is appropriate for bikes?
- What level of accommodation is appropriate for pedestrians?
- Does the plan address necessary policy and program implementation strategies?
- What is the next step in the process?



WHERE AT TODAY / WHAT HEARD



## WHAT WE HEARD at the 2.23.17 Council Study Session

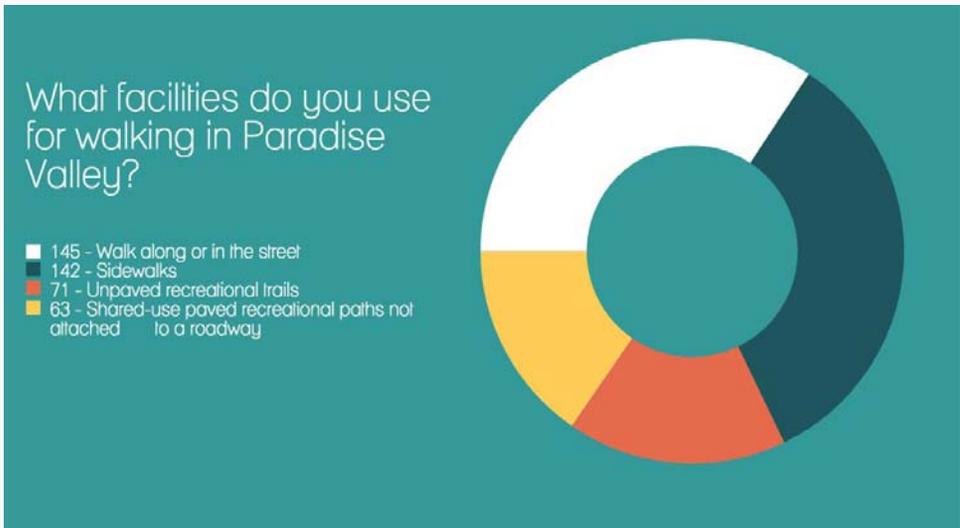
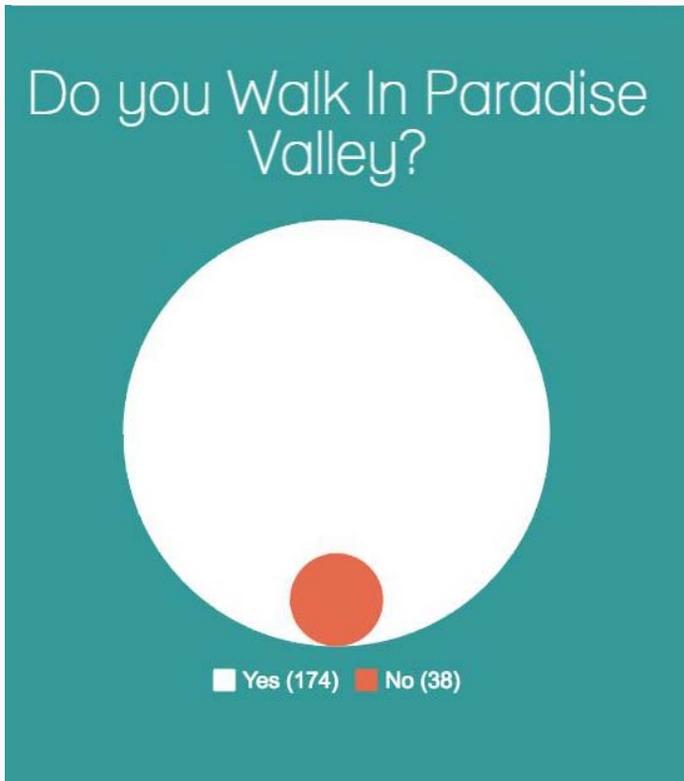
- **Emphasize pedestrian facilities**
  - Compatible to their street class
  - In character with its surroundings
  - Avoid more urban elements (striping and signage)
- **Address mitigation of conflicts**
  - Following the rules of the road
  - Creation of a non-confrontational environment
  - Discouragement of cut-through travel
  - Abatement of unintended nuisances (noise and crime)
  - Accommodate storm water passage
- **Provide adequate cost detail to assess the nature of the improvement**



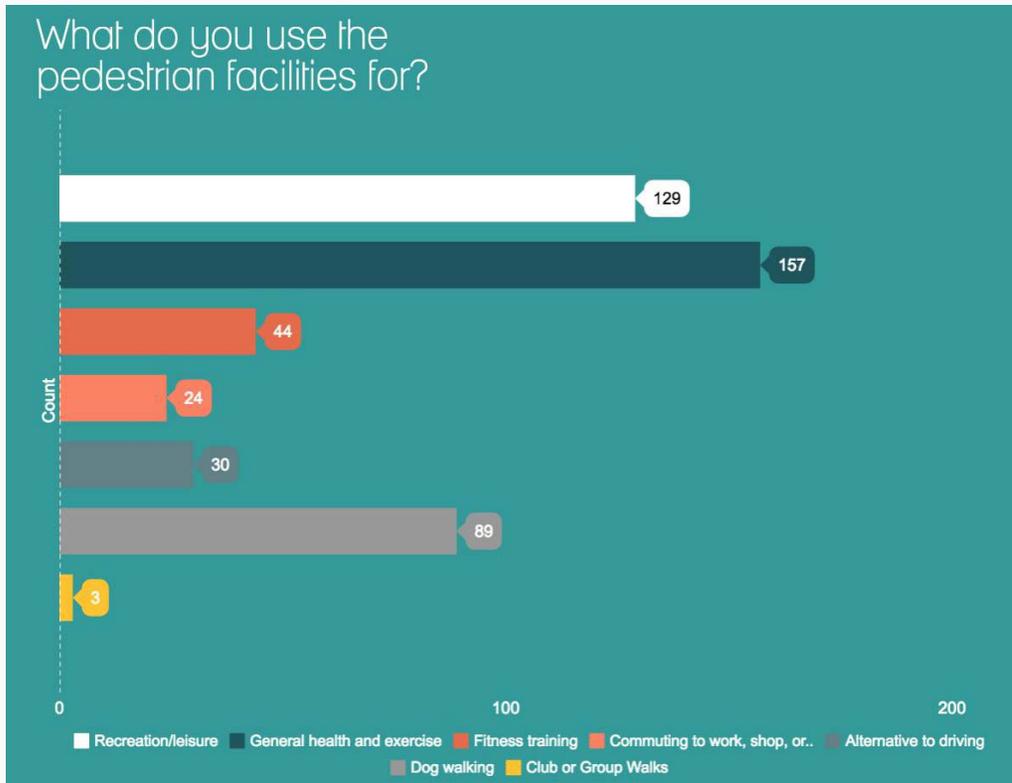
# PEDESTRIAN FACILITIES



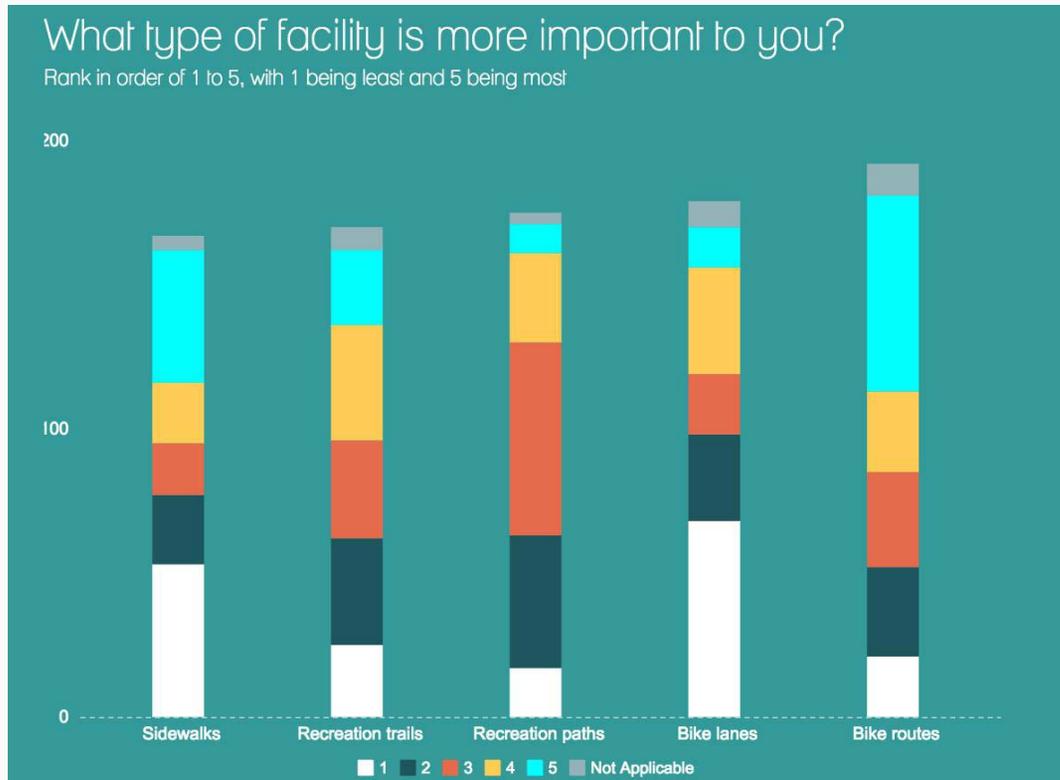
# PEDESTRIANS in Paradise Valley



# PEDESTRIANS in Paradise Valley



# PEDESTRIANS in Paradise Valley



# PEDESTRIANS in Paradise Valley

WHO	WHAT FACILITIES	WHERE
Casual/Recreational <sup>1</sup>	In-Street <sup>1 2 3</sup>	Off-Road <sup>1</sup>
Avid Individuals/Pairs <sup>2</sup>	Trail <sup>1 2</sup>	Local <sup>1 2</sup>
Avid Groups <sup>3</sup>	Sidewalk <sup>1 2 3</sup>	Enhanced Local <sup>1 2</sup>
	Shared Path <sup>1 2 3</sup>	Minor Collector <sup>1 2 3</sup>
		Major Collector <sup>1 2 3</sup>
		Minor Arterial <sup>1 2 3</sup>
		Major Arterial <sup>1 2 3</sup>

# PEDESTRIANS in Paradise Valley

## 3 Types

- **Casual/Recreational Walking/Joggings/Dog Walking**
- **Avid Walking/Jogging/Running Individuals/Pairs**
- **Avid Walking/Jogging/Running Groups**



# PEDESTRIANS in Paradise Valley

## Casual/Recreational Walking/Joggings/Dog Walking

- Adults with or without children, or youth
- Periodic use (regular with dog walking)
- Typically on-street along local streets or along sidewalks/trails
- Travel under 6 miles/trip
- May include resort guests

### *Facility/System Response*

- Increase **Safety** by slowing vehicular traffic with narrower travel lanes
- Increase **Safety** with additional pedestrian facilities that separate pedestrians & bikes
- Increase **Privacy** by discouraging local road use
- **Connections** to local and nearby destinations (i.e. trailheads, resorts, schools, Town Hall)

### *Policy Response*

- Increase **Safety** and **Privacy** by enforcing local/state laws
- Increase **Safety**, **Connectivity** and **Privacy** by educating on local/state laws & **Connectivity** via signage, maps and apps



# PEDESTRIANS in Paradise Valley

## Avid Walking/Jogging/Running Individuals/Pairs

- Periodic activity
- Typically on-street along collectors & local streets or along sidewalks/trails
- Travel 6-12 miles/trip



## Facility/System Response

- Increase **Safety** with additional pedestrian facilities that separate pedestrians, bikes & vehicular traffic
- Increase **Safety** by slowing vehicular traffic with narrower travel lanes
- Increase **Privacy** by discouraging local road use
- Focus on non-local roads for **Connections** In/out of town and to destinations (trailheads/resorts)

## Policy Response

- Increase **Safety** and **Privacy** by enforcing local/state laws
- Increase **Safety**, **Connectivity** and **Privacy** by educating on local/state laws via signage, maps and apps

# PEDESTRIANS in Paradise Valley

## Avid Walking/Jogging/Running Groups

- School cross country teams from within PV or adjacent
- Typically on-street along collectors & local streets
- Regular schedules
- Travel 12+ miles/trip



## Facility/System Response

- Increase **Safety** by slowing vehicular traffic with narrower travel lanes
- Increase **Safety** with additional pedestrian facilities that separate pedestrians, vehicles & bikes
- Increase **Privacy** by discouraging local road use
- Focus on non-local roads for **Connections** In/out of town

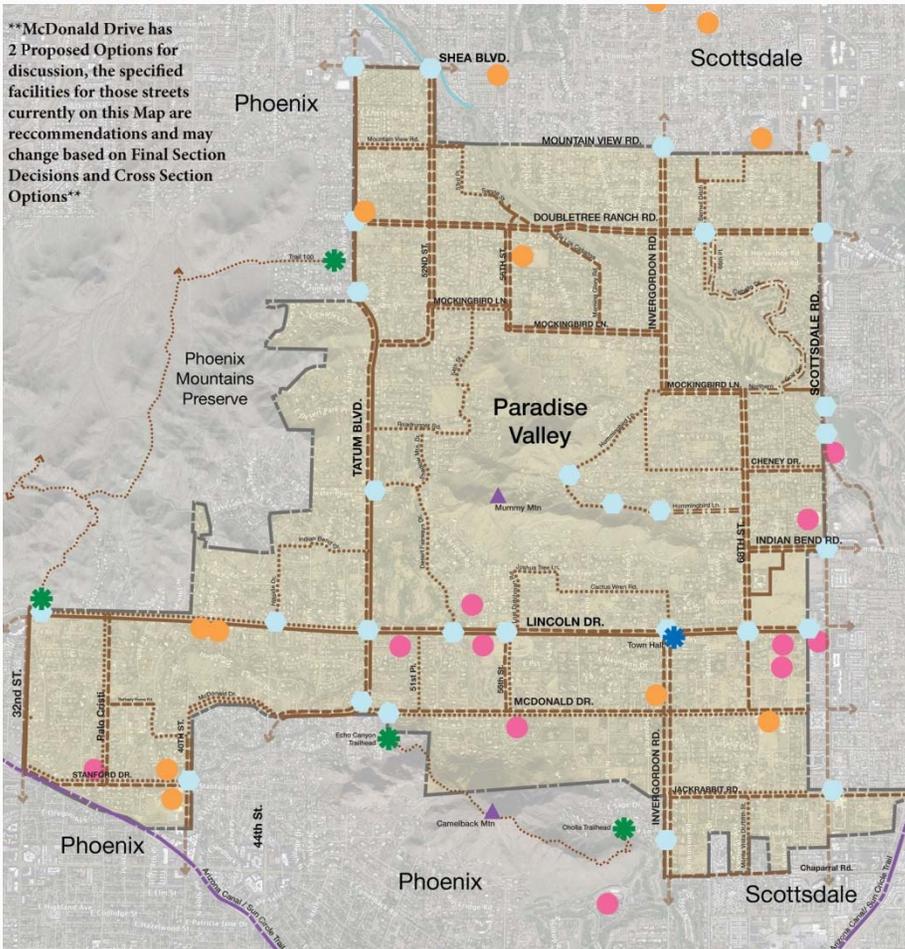
## Policy Response

- Increase **Safety** and **Privacy** by enforcing local/state laws
- Increase **Safety**, **Connectivity** and **Privacy** by educating on local/state laws via signage, maps and apps
- Protect **Privacy** by mitigating nuisances (e.g. traffic congestion, noise)

# PEDESTRIAN FACILITY SUMMARY Proposed Plan

<p><b>In-Street</b></p>	<ul style="list-style-type: none"> <li>• Areas of asphalt road striped to separate from vehicular traffic</li> <li>• Variable width with minimum 4'</li> </ul>
<p><b>Trail</b></p>	<ul style="list-style-type: none"> <li>• 4-6 feet gently meandering unpaved (i.e. compacted natural surface or decomposed granite is considered ADA accessible)</li> <li>• Set back 5 feet from traffic lane where possible to create a landscape buffer</li> <li>• Does not have to be associated with a street</li> <li>• May be attached to roadway as a shoulder</li> <li>• Open to any non-motorized user that prefers a natural surface rather than a paved surface</li> <li>• Examples: along Arizona Canal and in Phoenix Mountains Preserve</li> </ul>
<p><b>Sidewalk</b></p>	<ul style="list-style-type: none"> <li>• 6 feet gently meandering (or attached to roadway where necessary, asphalt or colored concrete)</li> <li>• Set back 5 feet from motorized traffic lane where possible to create a landscape buffer</li> <li>• Can be independent of a street</li> </ul>
<p><b>Shared Use Path</b></p>	<ul style="list-style-type: none"> <li>• 10 feet wide off-street paved (asphalt or colored concrete)</li> <li>• May be striped to separate directional traffic</li> <li>• For all non-motorized users</li> </ul>

# PEDESTRIAN FACILITY SUMMARY Proposed Plan



**Legend:\***  
 Shared-Use Path  
 Sidewalk  
 Trail  
 In-Street Facilities

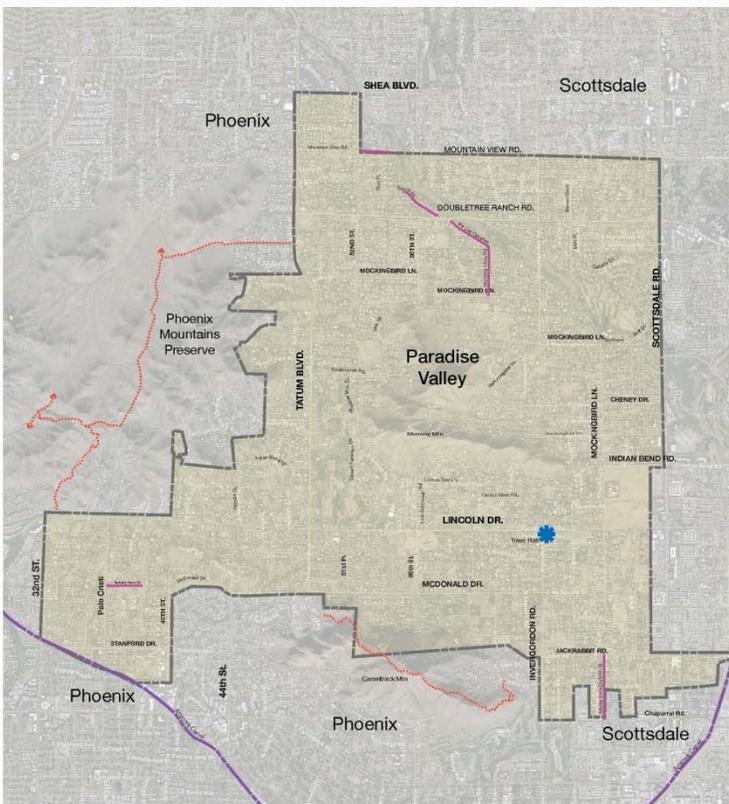
- Town Hall ● Resort ● Proposed Enhanced Intersection ● Trail —
- School ● Trailhead ● Peak ▲ Canal —

\*Specific Sections subject to change based upon final selection of cross section  
 \*\*Final Facilities for Major & Minor Arterial to be chosen through additional public review at Planning Commission and Town Council meetings.

**WALK & BIKE PARADISE VALLEY**

The Paradise Valley Bicycle and Pedestrian Master Plan

# PEDESTRIAN FACILITY SUMMARY Sidewalks



\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

Enhanced Local Sidewalk



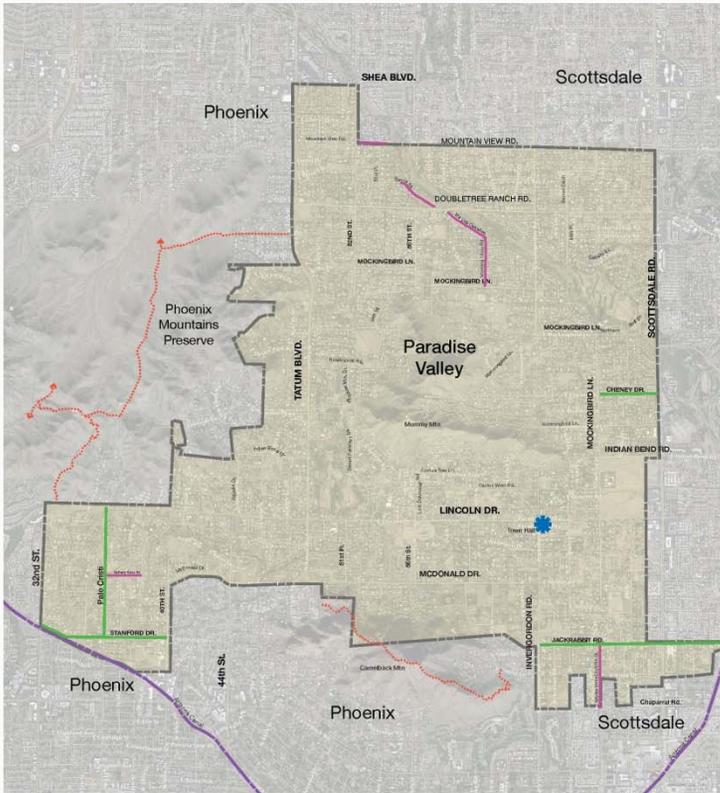
## Enhanced Local

- 6' wide on one side
- Gently meandering or attached
- Setback 5' from traffic lane where possible

### NOTE:

- OPTION for 4' wide Trail in lieu of Sidewalk

# PEDESTRIAN FACILITY SUMMARY Sidewalks



Enhanced Local Sidewalk —  
 Minor Collector Sidewalk —



## Minor Collector

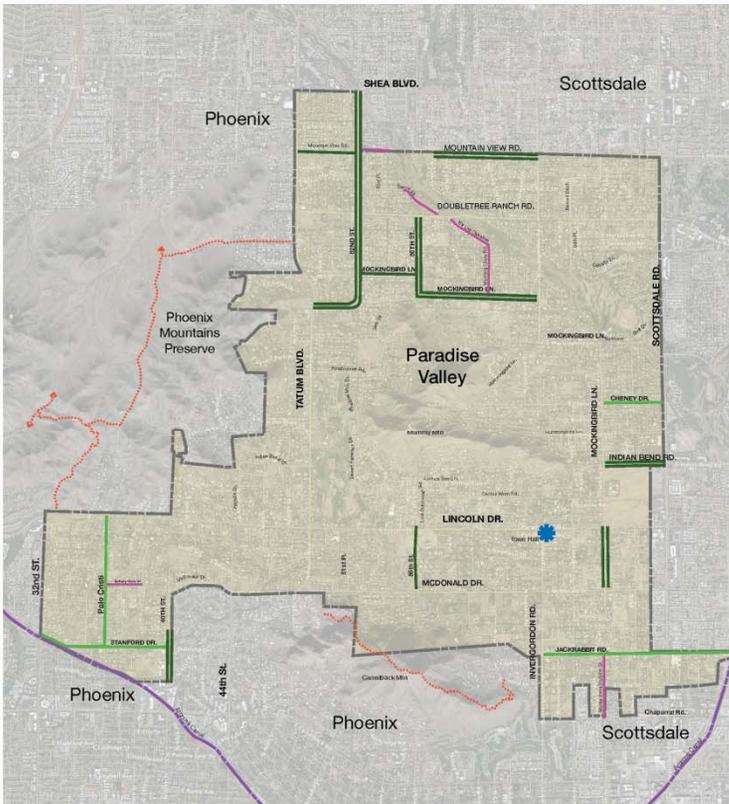
- 6' wide on one side
- Gently meandering or attached
- Setback 5' from traffic lane where possible

### NOTE:

- OPTION for 4' wide Trail in lieu of Sidewalk
- OPTION for 6' sidewalk OR 4' Trail on opposite side

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Sidewalks



- Enhanced Local Sidewalk
- Minor Collector Sidewalk
- Major Collector Sidewalk



## Major Collector

- 6' wide on one side
- Gently meandering or attached
- Setback 5' from traffic lane where possible

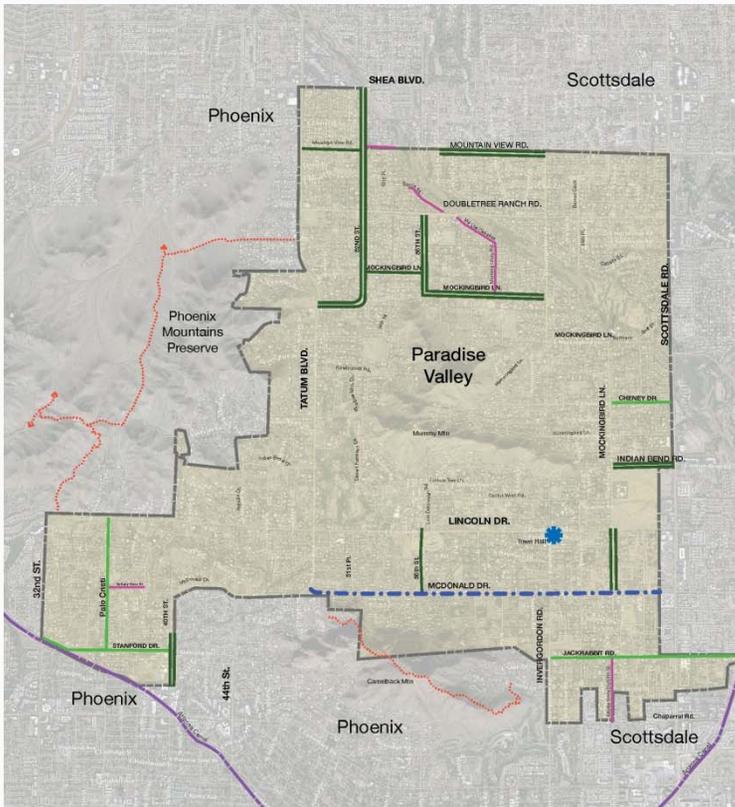


## NOTE:

- 4' wide Trail on opposite side of street
- Gently meandering or attached
- Setback 5' from traffic lane where possible

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Sidewalks



- Enhanced Local Sidewalk —
- Minor Collector Sidewalk —
- Major Collector Sidewalk —
- McDonald Sidewalk\*\* - - - -



## McDonald Dr.

- 6' wide one side
- Gently meandering or attached
- Setback 5' from traffic lane where possible

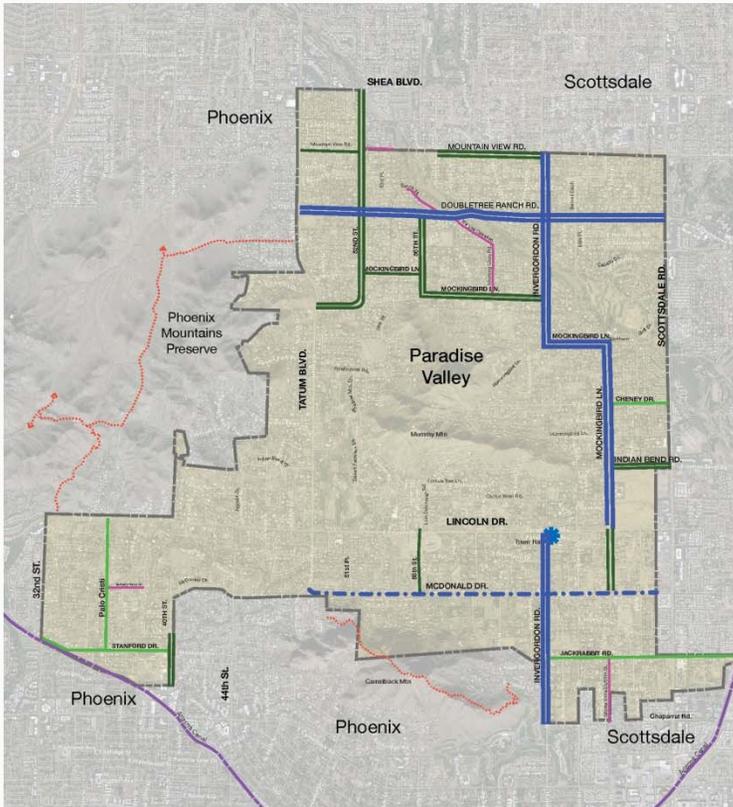


## NOTE:

- 4' wide Trail on opposite side of street
- Gently meandering or attached
- Setback 5' from traffic lane where possible

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Sidewalks



- Enhanced Local Sidewalk
- Minor Collector Sidewalk
- Major Collector Sidewalk
- McDonald Sidewalk\*\*
- Minor Arterial Sidewalk

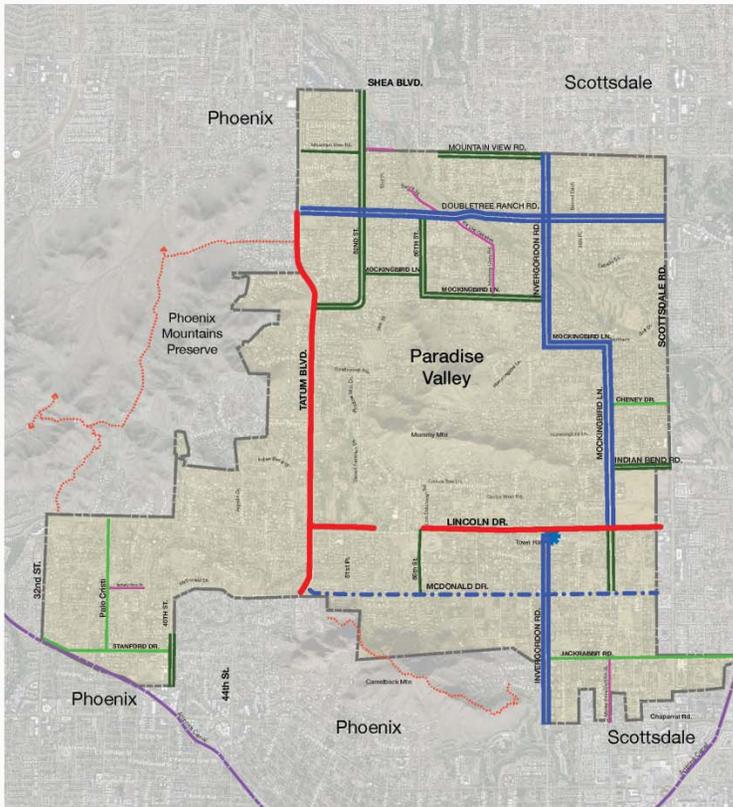


## Minor Arterial

- 6' wide one side w/6' sidewalk OR 4' trail on opposite side
- Gently meandering or attached
- Setback 5' from traffic lane where possible

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Sidewalks



- Enhanced Local Sidewalk —
- Minor Collector Sidewalk —
- Major Collector Sidewalk —
- McDonald Sidewalk\*\* - - - -
- Minor Arterial Sidewalk —
- Major Arterial Sidewalk —



## Major Arterial

- 6' wide
- Gently meandering or attached
- Setback 5' from traffic lane where possible
- Can be independent of a street

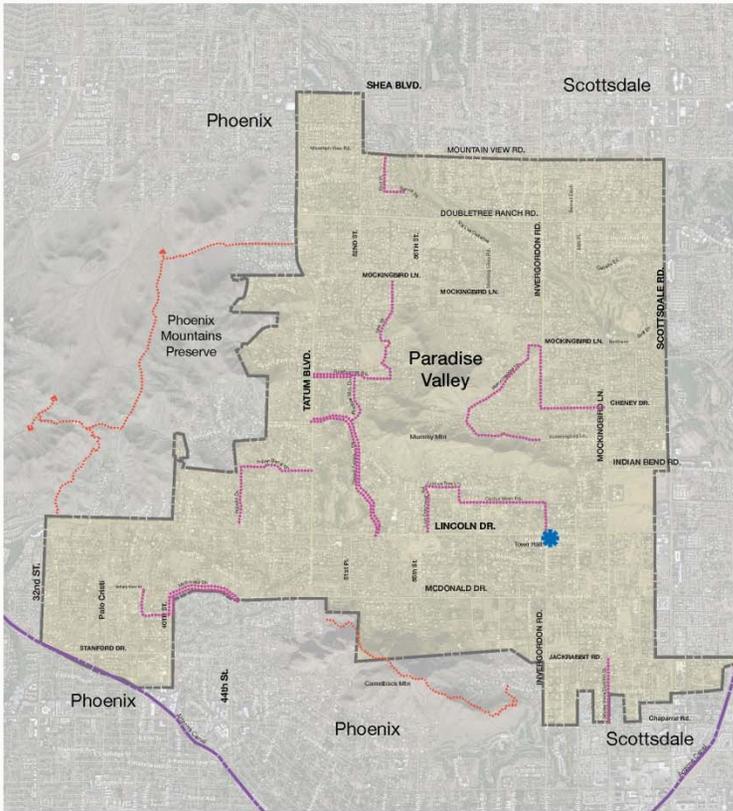


## NOTE:

- 10' wide Recreational Path on opposite side of street
- Gently meandering or attached
- Setback 5' from traffic lane where possible

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Trails



\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

Enhanced Local Trail



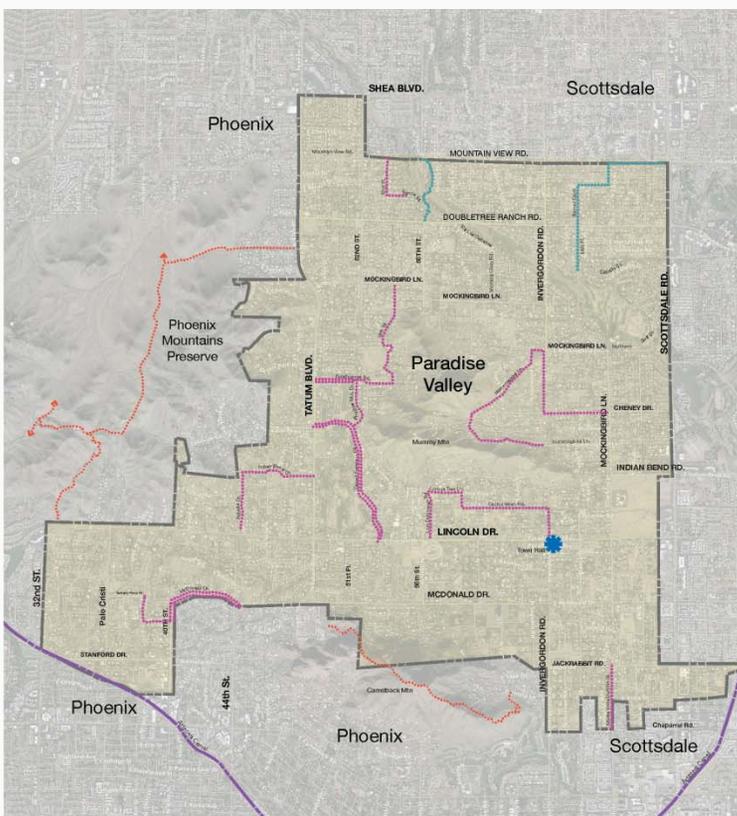
## Enhanced Local

- 4' wide Trail on one side
- Gently meandering or attached
- Setback 5' from traffic lane where possible

### NOTE:

- OPTION for Sidewalk in lieu of Trail on one side

# PEDESTRIAN FACILITY SUMMARY Trails



Enhanced Local Trail



Off-Street Trail



## Off-Street

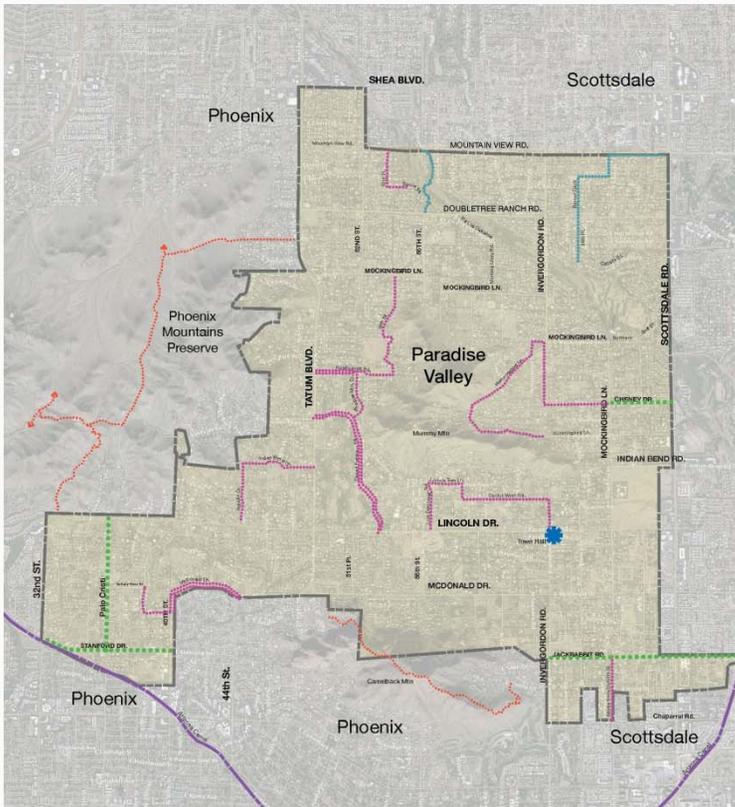
- 10' wide Trail along Berniel Ditch and through golf course
- Landscape buffer from adjacent property
- Can be manicured or more natural



\*All facilities may vary based upon cross section options

\*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Trails



- Enhanced Local Trail ●●●●●●
- Off-Street Trail ●●●●●●
- Minor Collector Trail ●●●●●●



## Minor Collector

- 4' wide Trail on one side
- Gently meandering or attached
- Setback 5' from traffic lane where possible

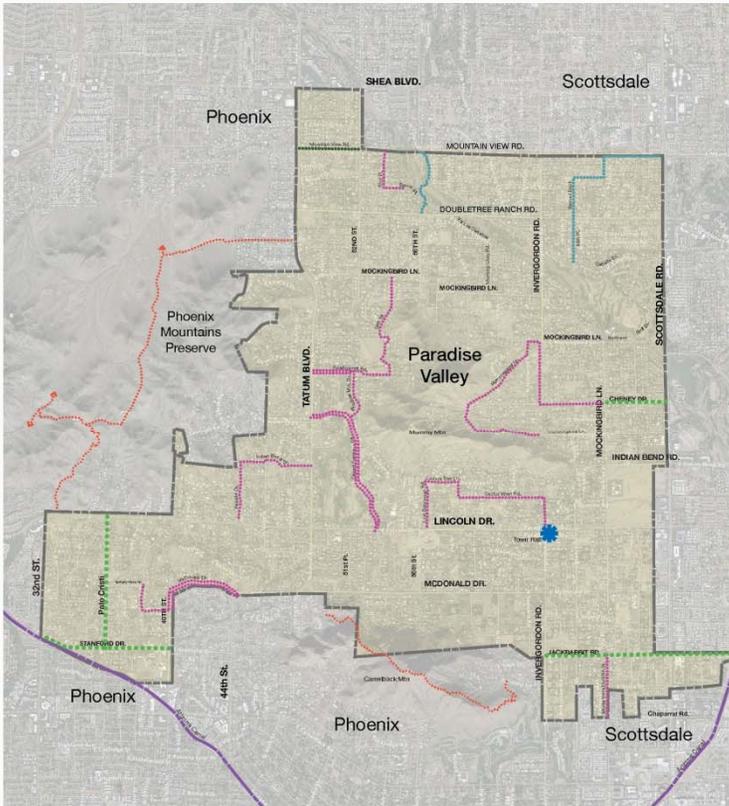


### NOTE:

- OPTION for 6' wide Sidewalk in lieu of Trail
- OPTION for 6' sidewalk OR 4' Trail on opposite side

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Trails



- Enhanced Local Trail ●●●●●●●●
- Off-Street Trail ●●●●●●●●
- Minor Collector Trail ●●●●●●●●
- Major Collector Trail ●●●●●●●●



## Major Collector

- 4' wide Trail on one side of street
- Gently meandering or attached
- Setback 5' from traffic lane where possible

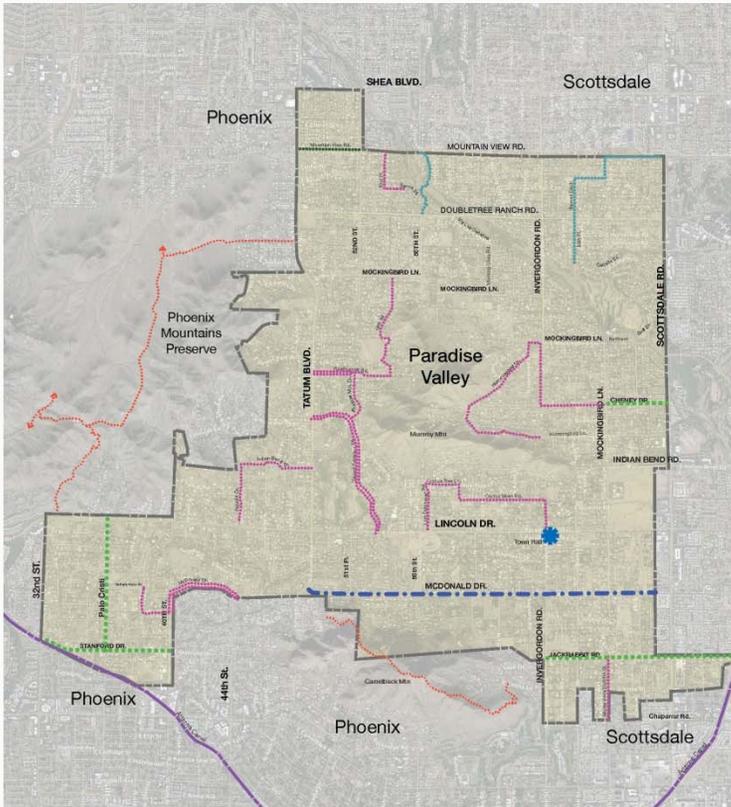


## NOTE:

- 6' wide Sidewalk on opposite side
- Gently meandering or attached
- Setback 5' from traffic lane where possible

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Trails



- Enhanced Local Trail ●●●●●●
- Off-Street Trail ●●●●●●
- Minor Collector Trail ●●●●●●
- Major Collector Trail ●●●●●●
- McDonald Dr. Trail\*\* — — — — —



## McDonald Dr.

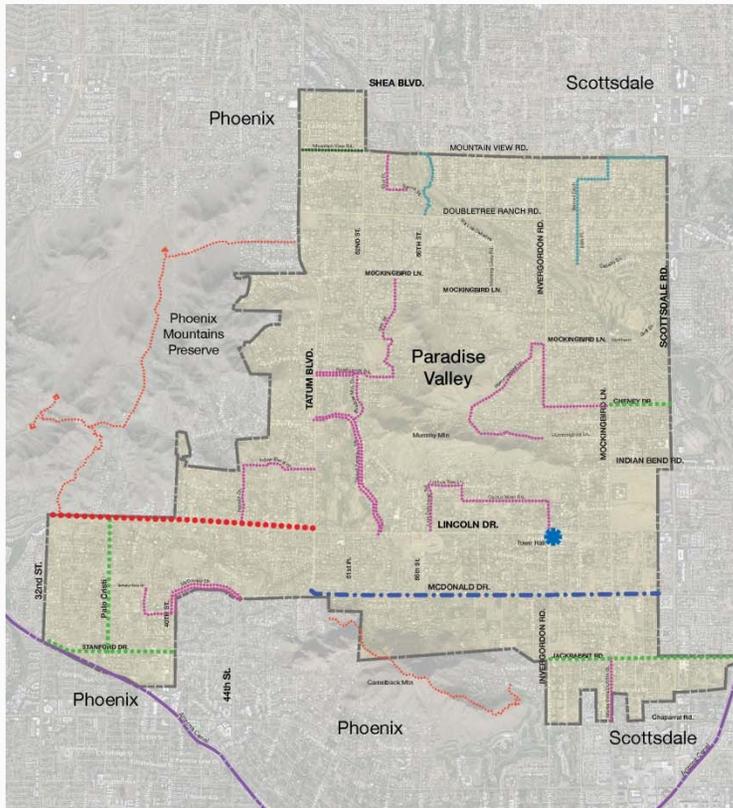
- 4' wide Trail on south side of street
- Gently meandering or attached
- Setback 5' from traffic lane where possible
- Avoid or bury drainage swale to create space for trail

### NOTE:

- 6' wide sidewalk OR 10' Shared Use Path on part of north side
- Meander to avoid utilities & landscaping

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Trails



- Enhanced Local Trail ●●●●●
- Off-Street Trail ●●●●●
- Minor Collector Trail ●●●●●
- Major Collector Trail ●●●●●
- McDonald Dr. Trail\*\* — — — — —
- Major Arterial Trail ●●●●●



## Major Arterial

- 4' wide Trail on one north side of Lincoln west of Tatum
- Gently meandering or attached
- Setback 5' from traffic lane where possible

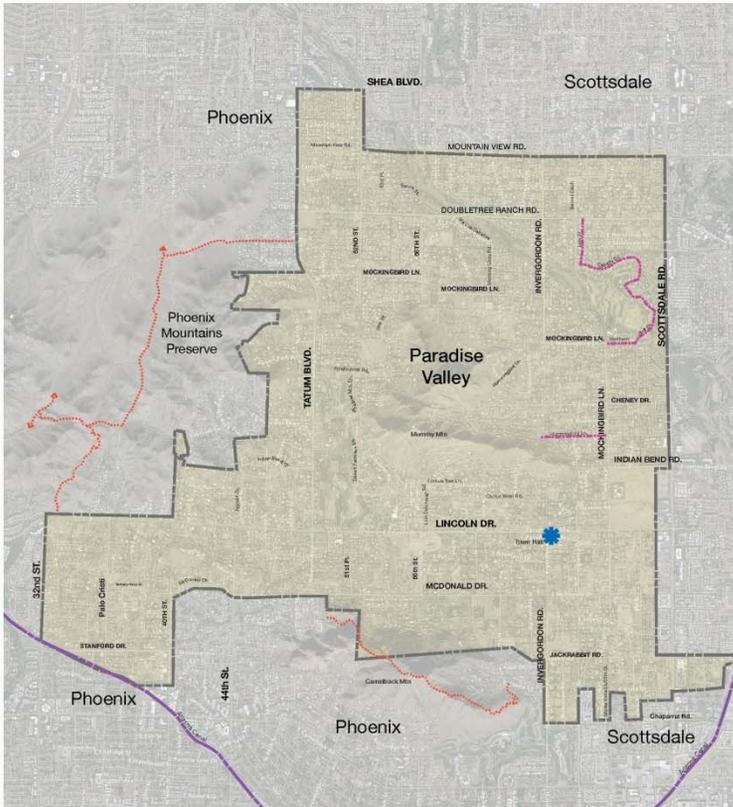


### NOTE:

- OPTION for Sidewalk in lieu of Trail on north side of Lincoln west of Tatum
- Sidewalks and Shared-Use Path elsewhere along roads

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY In-Street



Enhanced Local w/ In-Street Shoulder

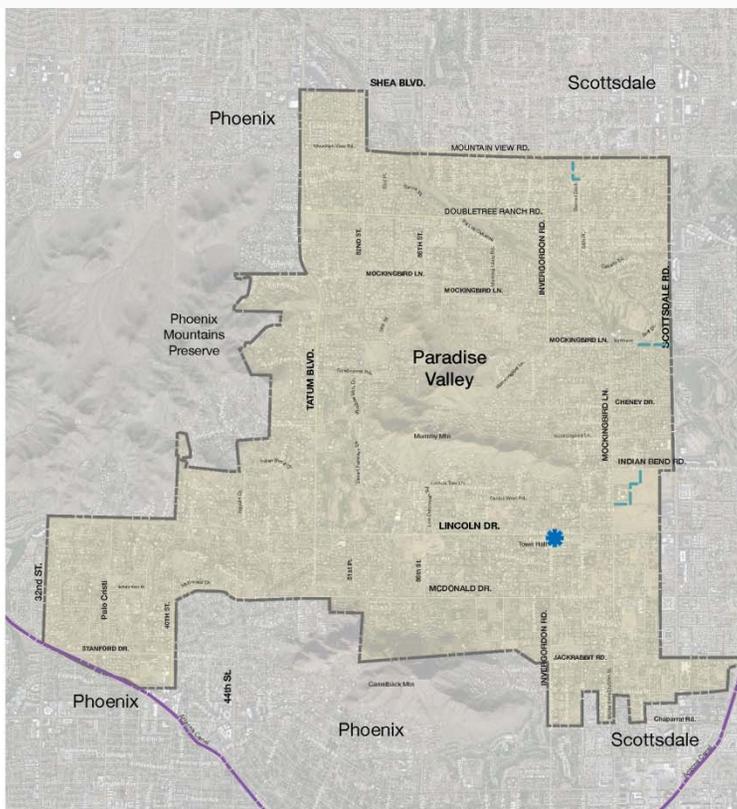


## Enhanced Local

- 4' wide Walkable Paved Shoulder on both sides of the street
- Create space with buffer stripe of exposed aggregate or other decorative material

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# PEDESTRIAN FACILITY SUMMARY Shared-Use Path



\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

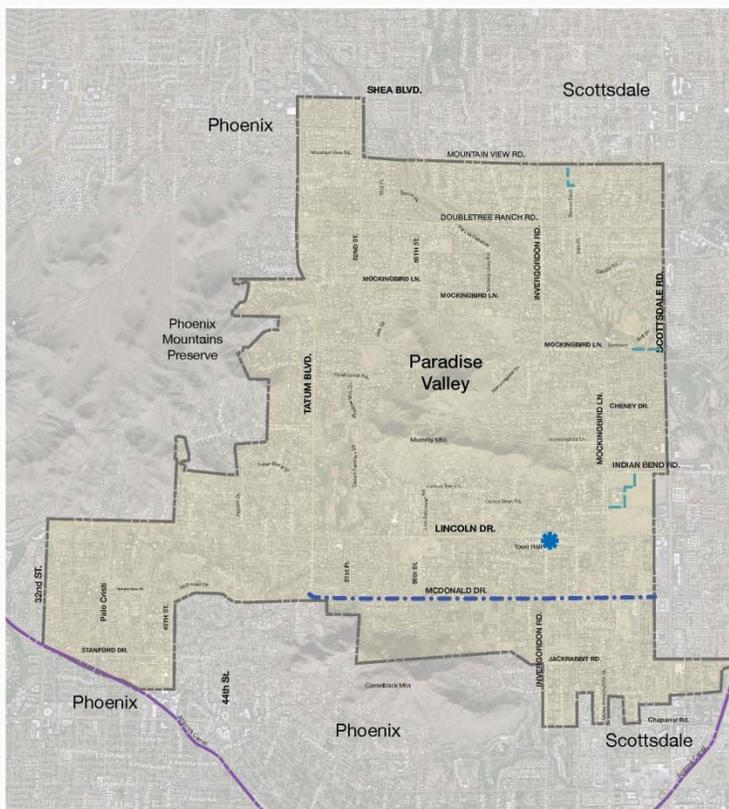
Off-Street



## Off-Street

- 10' Paved Path through Ritz Carlton and Northern Ave. alignment to Scottsdale Rd.
- Gently meandering
- Landscaping buffer to adjacent private property

# PEDESTRIAN FACILITY SUMMARY Shared-Use Path



Off-Street  
McDonald Dr. Path\*\*



## McDonald Dr.

- 10' wide Path on north side
- Gently meandering or attached
- Setback 5' from traffic lane where possible
- Meander to avoid utilities & landscaping

### NOTE:

- 4' wide Trail on south side
- Gently meandering or attached
- Setback 5' from traffic lane where possible
- Avoid or bury drainage swale to create space for trail

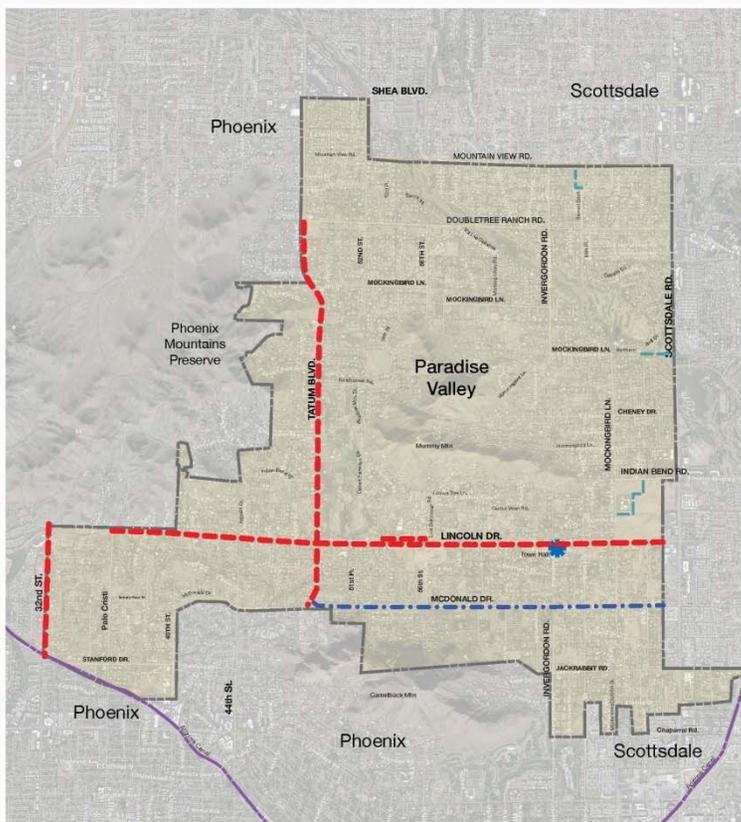
\*All facilities may vary based upon cross section options

\*\*Final cross sections and facilities will depend upon the final selected cross section

WALK & BIKE PARADISE VALLEY

The Paradise Valley Bicycle and Pedestrian Master Plan

# PEDESTRIAN FACILITY SUMMARY Shared-Use Path



Off-Street  
 McDonald Dr. Path\*\*  
 Major Arterial Path



## Major Arterial

- 10' wide Path on one side of street – sides to be confirmed
- Gently meandering or attached
- Setback 5' from traffic lane where possible

### NOTE:

- 6' wide Sidewalk on opposite side of street
- Gently meandering or attached
- Setback 5' from traffic lane where possible

\*All facilities may vary based upon cross section options

\*\*Final cross sections and facilities will depend upon the final selected cross section

## KEY QUESTIONS

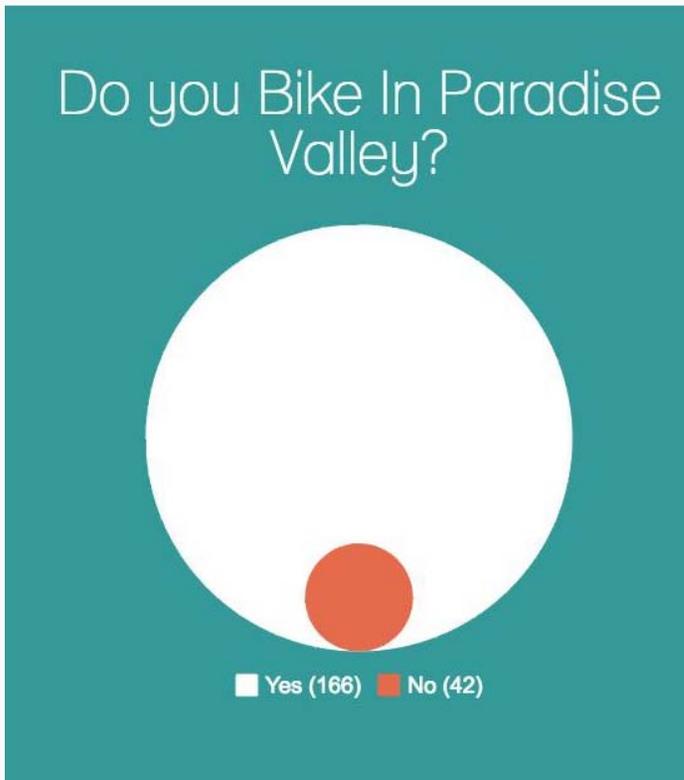
- What level of accommodation is appropriate for pedestrians?



# BICYCLE FACILITIES



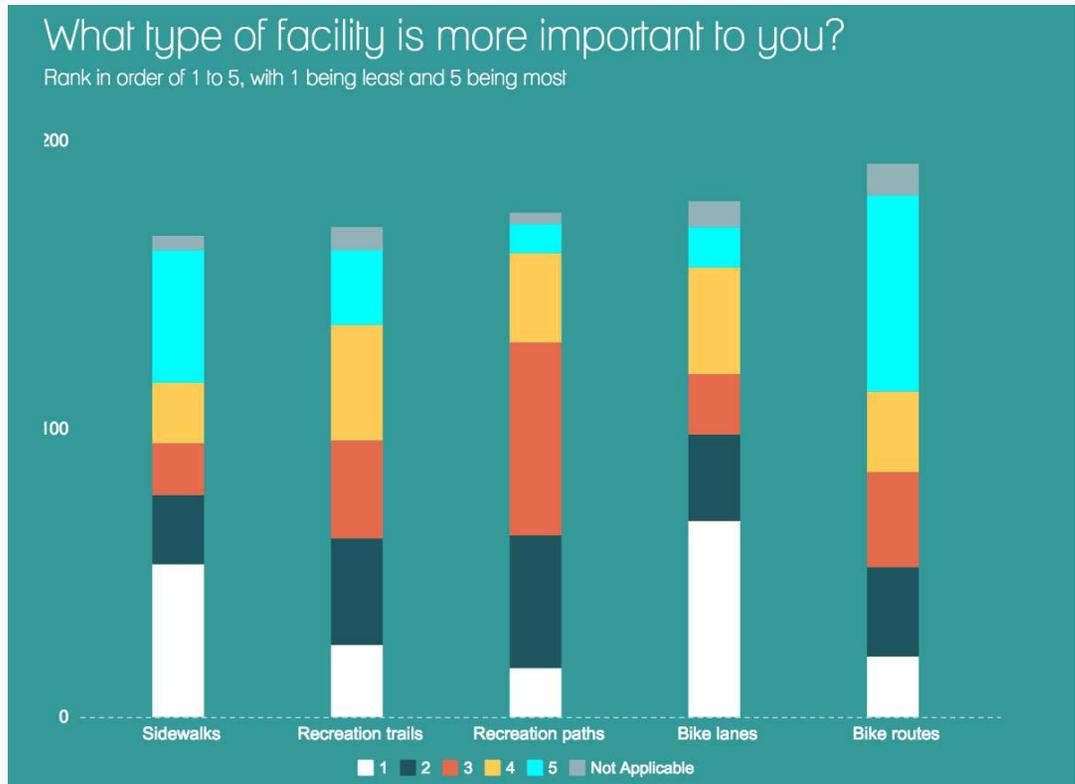
# BICYCLISTS in Paradise Valley



# BICYCLISTS in Paradise Valley



# BICYCLISTS in Paradise Valley



# BICYCLISTS in Paradise Valley

WHO	WHAT FACILITIES	WHERE
Family/Recreational <sup>1</sup>	In-Street <sup>1 2 3 4</sup>	Off-Road <sup>1</sup>
Avid Individuals/Pairs <sup>2</sup>	Trail <sup>1</sup>	Local <sup>1 2</sup>
Avid Groups <sup>3</sup>	Sidewalk <sup>1</sup>	Enhanced Local <sup>1 2</sup>
Individual Commuting <sup>4</sup>	Shared Path <sup>1 2 3 4</sup>	Minor Collector <sup>1 2 3 4</sup>
		Major Collector <sup>1 2 3 4</sup>
		Minor Arterial <sup>1 2 3 4</sup>
		Major Arterial <sup>1 2 3 4</sup>

# BICYCLISTS in Paradise Valley

## 4 Types

- **Family Recreational Small Groups**
- **Avid Recreational Individuals/Pairs**
- **Avid Recreational Groups (Pelotons: 3- 15 riders)**
- **Individual Commuting**



# BICYCLISTS in Paradise Valley

## Family Recreational Small Groups

- Typically use collectors w/bike lanes, bike routes, local streets & sidewalks
- Prefer not crossing major streets and having short trips
- Rides within or just outside of PV to local & nearby destinations
- May include resort guests

## Facility/System Response

- Increase **Safety** and Comfort through additional Recreational Paths, Sidewalks and Trails that separate pedestrians & bikes
- Increase **Safety** with buffered bike lanes for greater separation from vehicles
- Increase **Safety** by slowing vehicular traffic with narrower travel lanes
- Increase **Privacy** by discouraging local road use
- Focus on non-local roads for **Connections** In/out of town to destinations (i.e. trailheads, resorts, etc.)

## Policy Response

- Increase **Safety** and **Privacy** by enforcing local/state laws (e.g. 2 abreast rule)
- Increase **Safety**, **Connectivity** and **Privacy** by educating on local/state laws & **Connectivity** via signage, maps and apps
- Protect **Privacy** by mitigating nuisances (e.g. traffic congestion, noise)



# BICYCLISTS in Paradise Valley

## Avid Recreational Individuals/Pairs

- Typically use collectors w/bike lanes, bike routes & local streets
- Rides within or just outside of PV to local & nearby destinations
- May include resort guests

## Facility/System Response

- Increase **Safety** with buffered bike lanes for greater separation from vehicles
- Increase **Safety** by slowing vehicular traffic with narrower travel lanes
- Increase **Safety** with additional pedestrian facilities that separate peds & bikes
- Increase **Privacy** by discouraging local road use
- Focus on non-local roads for **Connections** In/out of town to destinations (i.e. trailheads, resorts, etc.)

## Policy Response

- Increase **Safety** and **Privacy** by enforcing local/state laws (e.g. 2 abreast rule)
- Increase **Safety**, **Connectivity** and **Privacy** by educating on local/state laws via signage, maps and apps
- Protect **Privacy** by mitigating nuisances (e.g. traffic congestion, noise)



# BICYCLISTS in Paradise Valley

## Individual Commuting

- Use collectors w/bike lanes & major streets
- Often passing through PV to work destination

## Facility/System Response

- Increase **Safety** with buffered bike lanes for greater separation from vehicles
- Increase **Safety** by slowing vehicular traffic with narrower travel lanes
- Increase **Safety** with additional pedestrian facilities that separate peds & bikes
- Increase **Privacy** by discouraging local road use
- Focus on non-local roads for **Connections** In/out of town
- Discourage through additional Recreational Paths

## Policy Response

- Increase **Safety** and **Privacy** by enforcing local/state laws (e.g. 2 abreast rule)
- Increase **Safety**, **Connectivity** and **Privacy** by educating on local/state laws via signage, maps and apps
- Protect **Privacy** by mitigating nuisances (e.g. traffic congestion, noise)

# BICYCLISTS in Paradise Valley

## Avid Recreational Groups (Pelotons: 3- 15 riders)

- Typically use collectors w/bike lanes & bike routes
- Scheduled days of the week
- Often start/stop outside PV

### *Facility/System Response*

- Increase **Safety** with buffered bike lanes for greater separation from vehicles
- Increase **Safety** by slowing vehicular traffic with narrower travel lanes
- Increase **Safety** with additional pedestrian facilities that separate peds & bikes
- Increase **Privacy** by discouraging local road use
- Focus on non-local roads for **Connections** In/out of town

### *Policy Response*

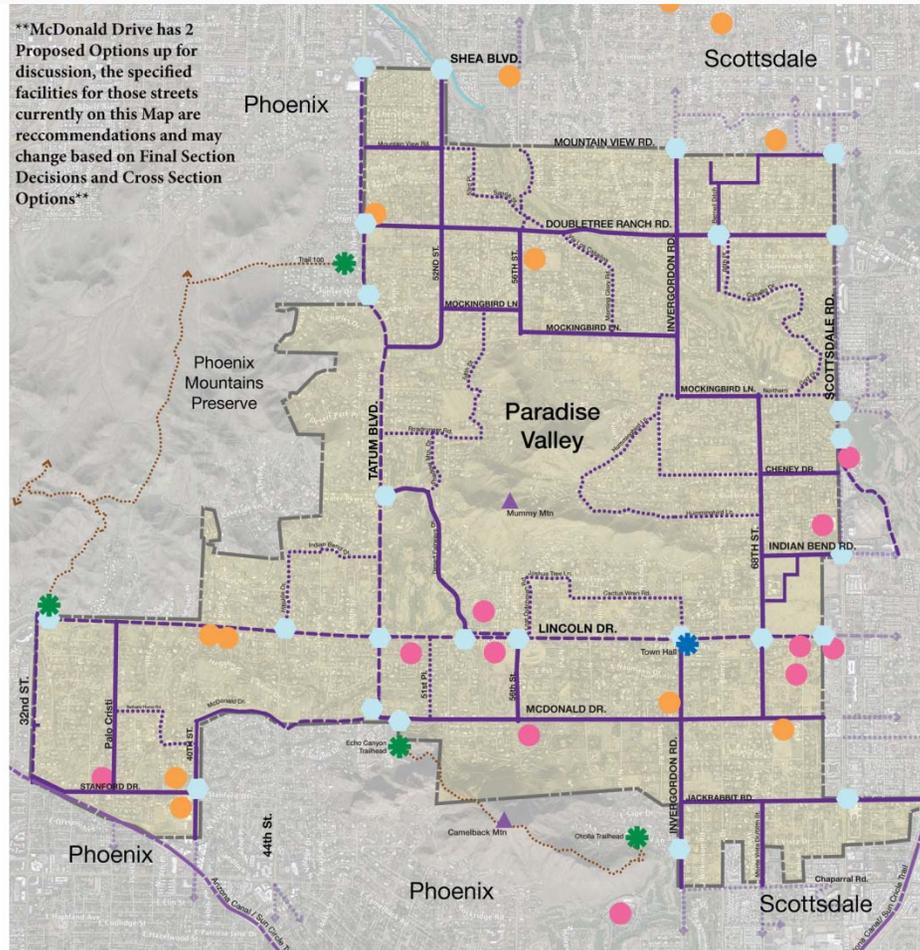
- Increase **Safety** and **Privacy** by enforcing local/state laws (e.g. 2 abreast rule)
- Increase **Safety**, **Connectivity** and **Privacy** by educating on local/state laws via signage, maps and apps
- Protect **Privacy** by mitigating nuisances (e.g. traffic congestion, noise)



# BICYCLE FACILITY SUMMARY Proposed Plan

<p><b>In-Street</b></p>	<ul style="list-style-type: none"> <li>• Bicycle traffic shares the roadway with motor vehicles</li> <li>• No designation/signage for bikes</li> </ul>
<p><b>Bike Route</b></p>	<ul style="list-style-type: none"> <li>• Bicycle traffic shares the roadway with motor vehicles</li> <li>• No bike lanes provided</li> <li>• Route may be distinguished by vertical 'bike route' signage AND/OR by lane markings such as custom sharrows at major intersections</li> <li>• Motorized vehicle speed limit below 35mph</li> <li>• Special regulations may be enacted and posted along such facilities to control motor vehicle speeds or restrict parking to enhance bicycling safety</li> </ul>
<p><b>Shared-Use Path</b></p>	<ul style="list-style-type: none"> <li>• 10 feet wide off-street paved (asphalt or colored concrete)</li> <li>• May be striped to separate directional traffic</li> <li>• For all non-motorized users</li> </ul>
<p><b>Buffered/Separated Bike Lane</b></p>	<ul style="list-style-type: none"> <li>• Pavement markings or specialty paving creating a horizontal buffer delineating a minimum 4 feet width lane, exclusive of curb &amp; gutter, unless the gutter is a fully integrated pan the full width of the bike lane</li> <li>• Distinguished by signage and/or pavement markings</li> <li>• Designed to delineate the right-of-way assigned to bicyclists and motorists with a larger more visible barrier, to provide more predictable and controlled movements by both, creating a safer environment</li> </ul>

# BICYCLE FACILITY SUMMARY Proposed Plan

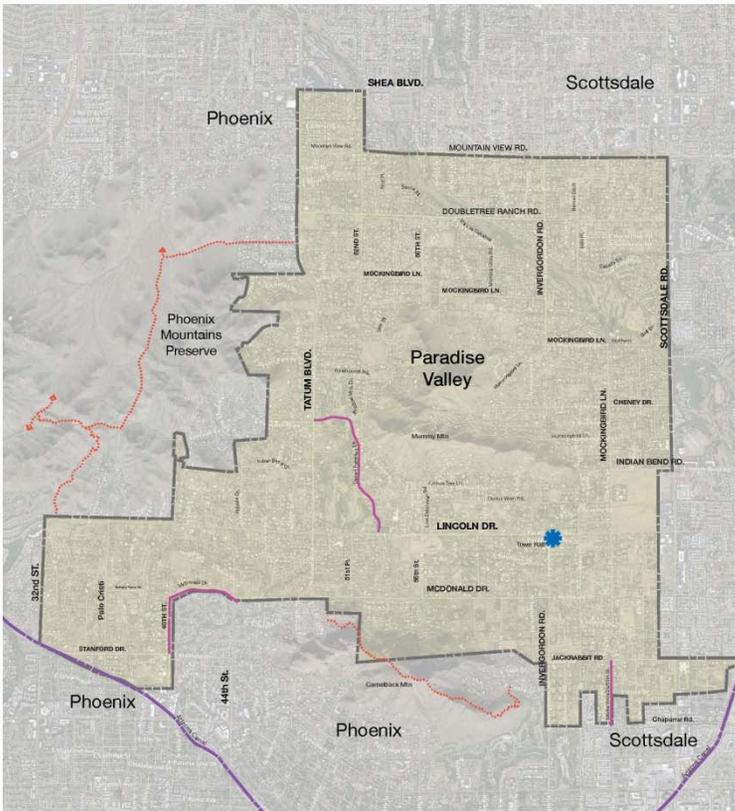


**Legend:\***

- Buffered Bike Lane
- Bike Route
- Shared-Use Path
- Town Hall
- School
- Resort
- Trailhead
- Proposed Enhanced Intersection
- Peak
- Trail
- Canal

\*Specific Sections subject to change based upon final selection of cross section  
 \*\*Final Facilities for Major & Minor Arterial to be chosen through additional public review at Planning Commission and Town Council meetings.

# BICYCLE FACILITY SUMMARY Buffered Bike Lanes



Enhanced Local Streets Bike Lanes



## Enhanced Local

- 4' lane exclusive of curb/gutter
- 2' min. horiz. buffer striped or decorative pavement
- Both sides of street on 2 way streets
- Pavement markings OR signage

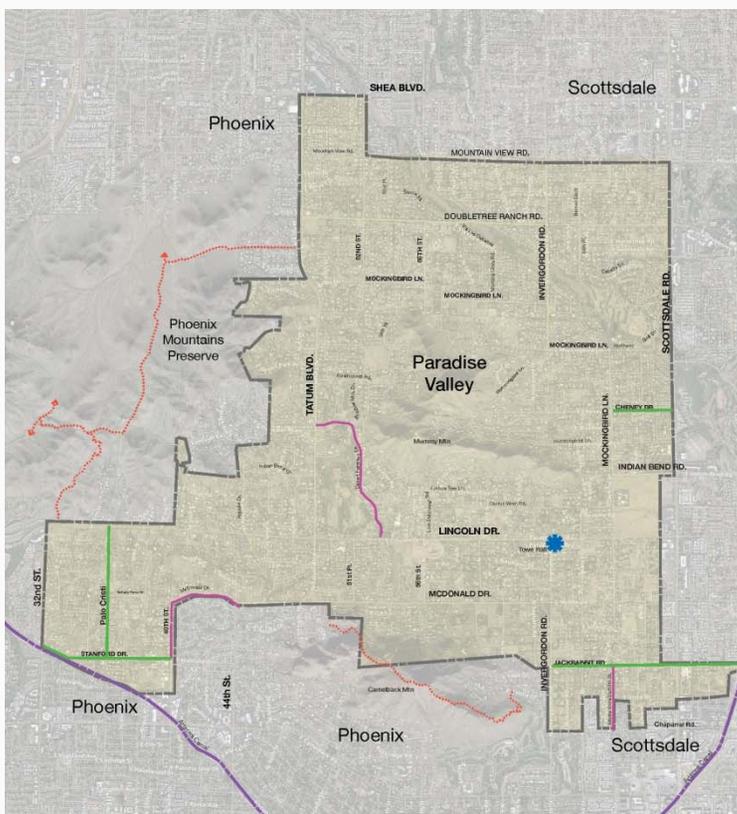
### NOTE:

- 6' Sidewalk OR 4' Trail on one sides and OPTIONAL Sidewalk or Trail on opposite side

\*All facilities may vary based upon cross section options

\*\*Final cross sections and facilities will depend upon the final selected cross section

# BICYCLE FACILITY SUMMARY Buffered Bike Lanes



Enhanced Local Streets Bike Lanes



Minor Collector Bike Lanes



## Minor Collector

- 4' lane exclusive of curb/gutter
- 2' min. horiz. buffer striped or decorative pavement
- Both sides of street on 2 way streets
- Pavement markings OR signage

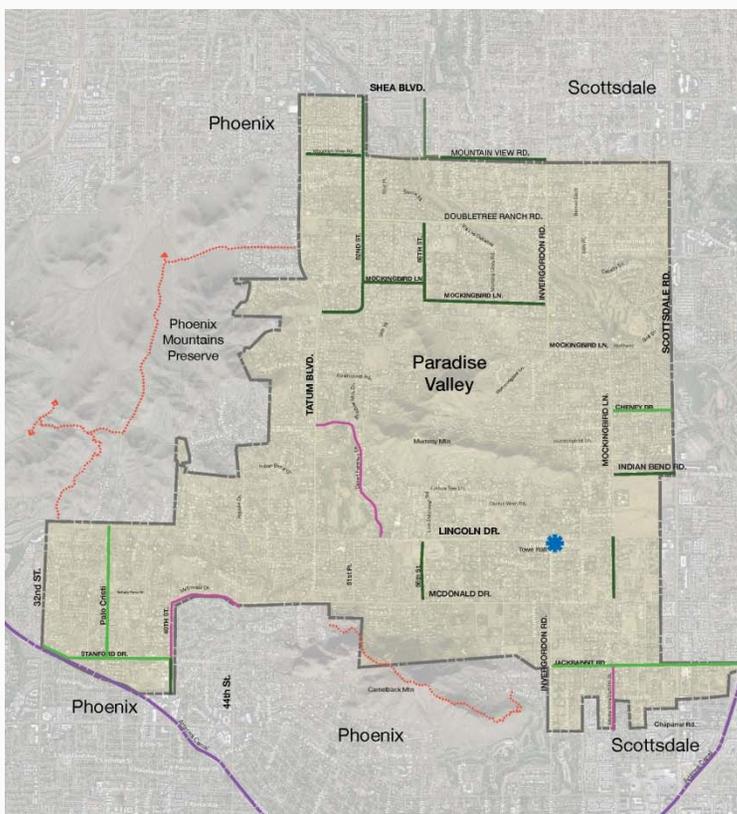
### NOTE:

- 6' sidewalk OR 4' Trail on one side and OPTIONAL Sidewalk or Trail on opposite side

\*All facilities may vary based upon cross section options

\*\*Final cross sections and facilities will depend upon the final selected cross section

# BICYCLE FACILITY SUMMARY Buffered Bike Lanes



- Enhanced Local Streets Bike Lanes
- Minor Collector Bike Lanes
- Major Collector Bike Lanes



## Major Collector

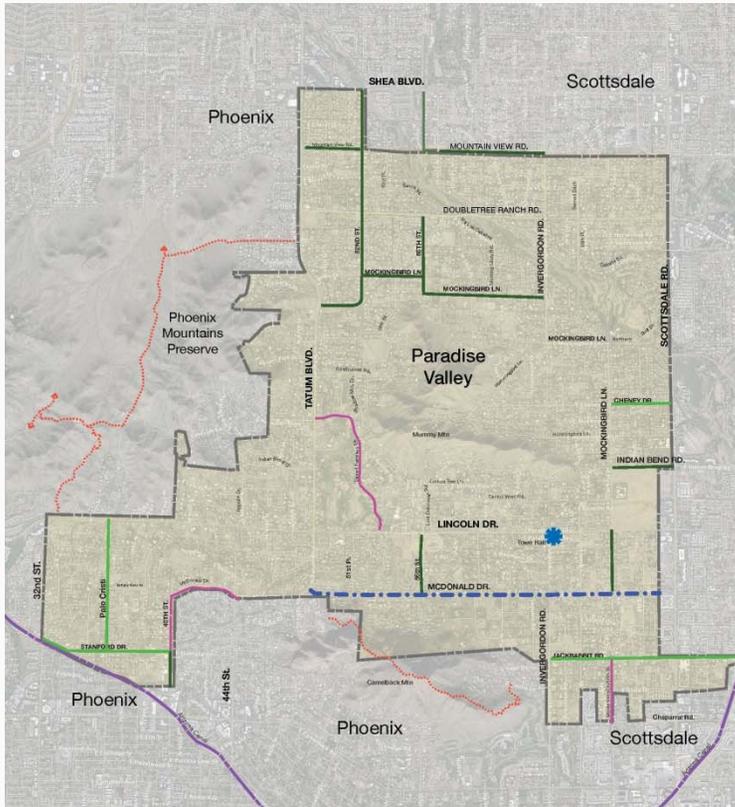
- 4' lane exclusive of curb/gutter
- 2' min. horiz. buffer striped or decorative pavement
- Both sides of street on 2 way streets
- Pavement markings OR signage

### NOTE:

- 6' sidewalk on one side and 4' Trail on opposite side

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# BICYCLE FACILITY SUMMARY Buffered Bike Lanes



- Enhanced Local Streets Bike Lanes
- Minor Collector Bike Lanes
- Major Collector Bike Lanes
- McDonald Dr. Bike Lanes\*\*



## McDonald Dr.

- 4' lane exclusive of curb/gutter
- 2' min. horiz. buffer striped or decorative pavement
- Both sides of street
- Bikes share travel lane @ median bump outs
- Pavement markings OR signage

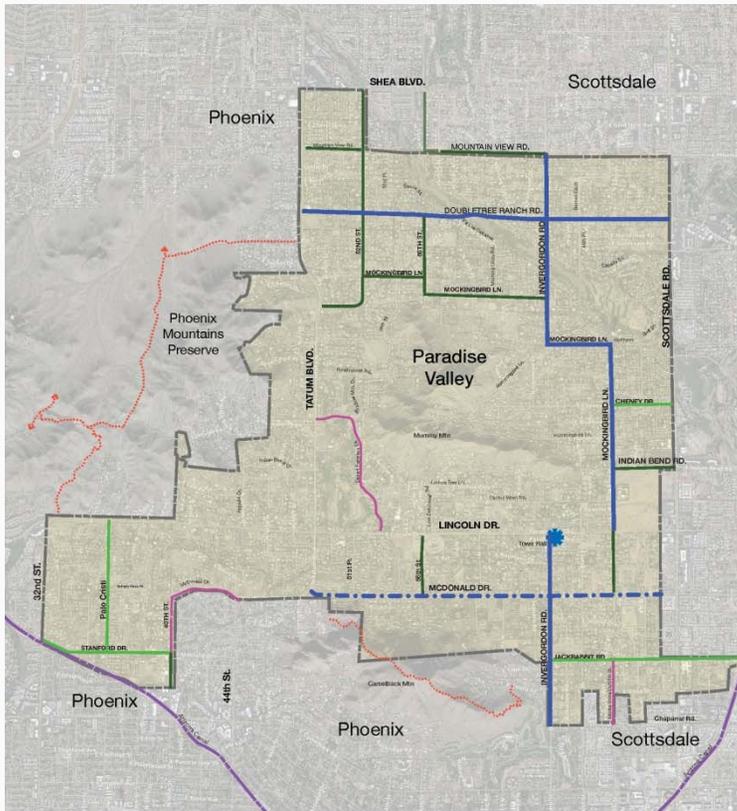
### NOTE:

- 6' sidewalk on north side and Trail on south side
- Potential Shared-Use Path on part of north side in lieu of bike lanes and sidewalk

\*All facilities may vary based upon cross section options

\*\*Final cross sections and facilities will depend upon the final selected cross section

# BICYCLE FACILITY SUMMARY Buffered Bike Lanes



- Enhanced Local Streets Bike Lanes
- Minor Collector Bike Lanes
- Major Collector Bike Lanes
- McDonald Dr. Bike Lanes\*\*
- Minor Arterial Bike Lanes



## Minor Arterial

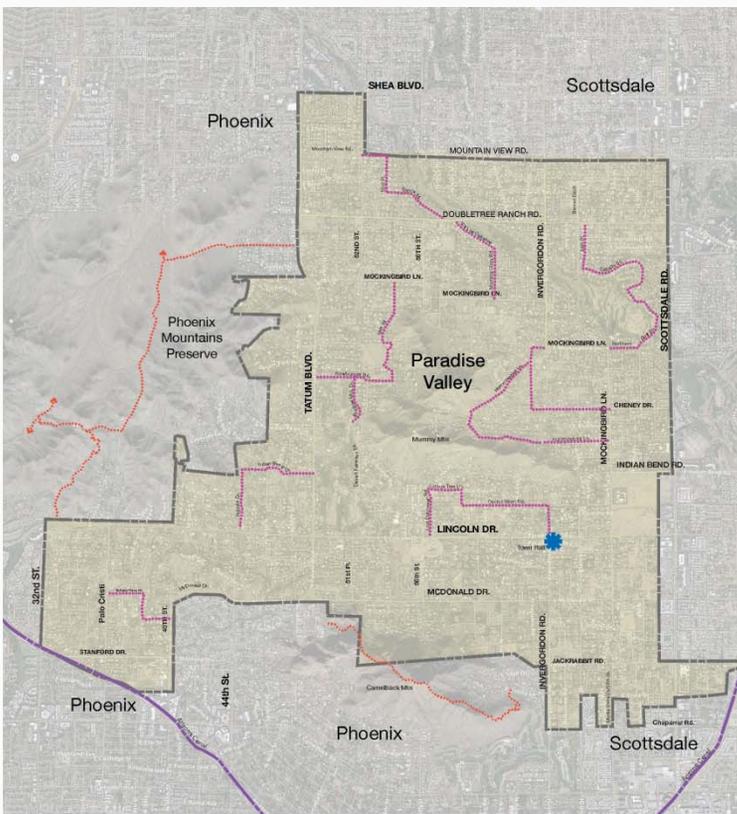
- 4' lane exclusive of curb/gutter or gutter is fully integrated pan the full width of the bike lane
- 2' min. horizontal buffer striped or decorative pavement
- Both sides of street on 2 way streets
- Pavement markings OR signage

### NOTE:

- 6' Sidewalk on one side and Sidewalk or Trail on opposite side

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# BICYCLE FACILITY SUMMARY Bike Routes



Enhanced Local Streets Bike Route ●●●●●●

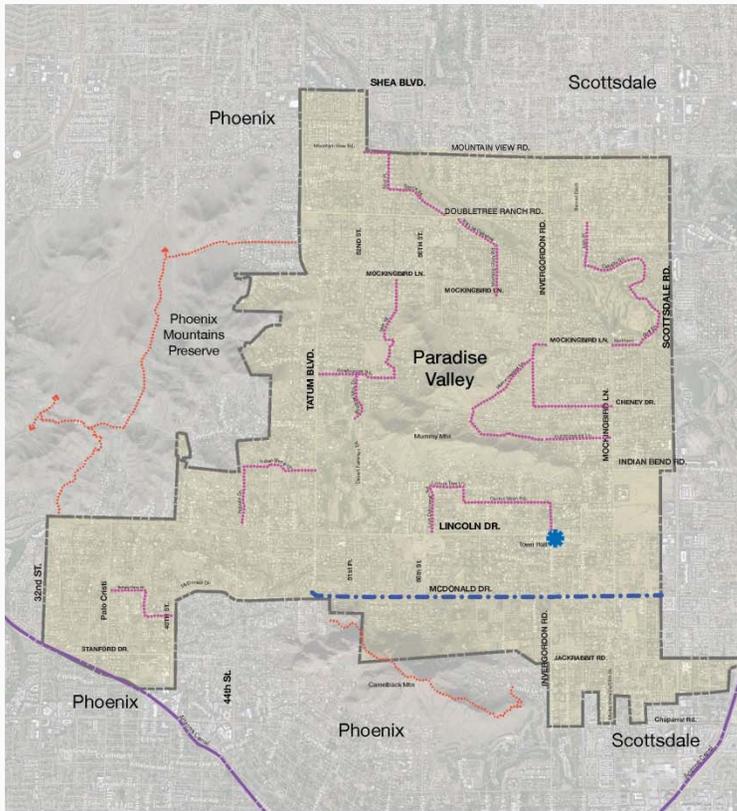


## Enhanced Local

- No lanes or Shared-Use Path
- Pavement ‘Sharrow’ markings OR signage
- Optional curbs
- Optional lane striping

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# BICYCLE FACILITY SUMMARY Bike Routes



Enhanced Local Streets Bike Route ●●●●●●  
 McDonald Dr. Bike Route\*\* ———

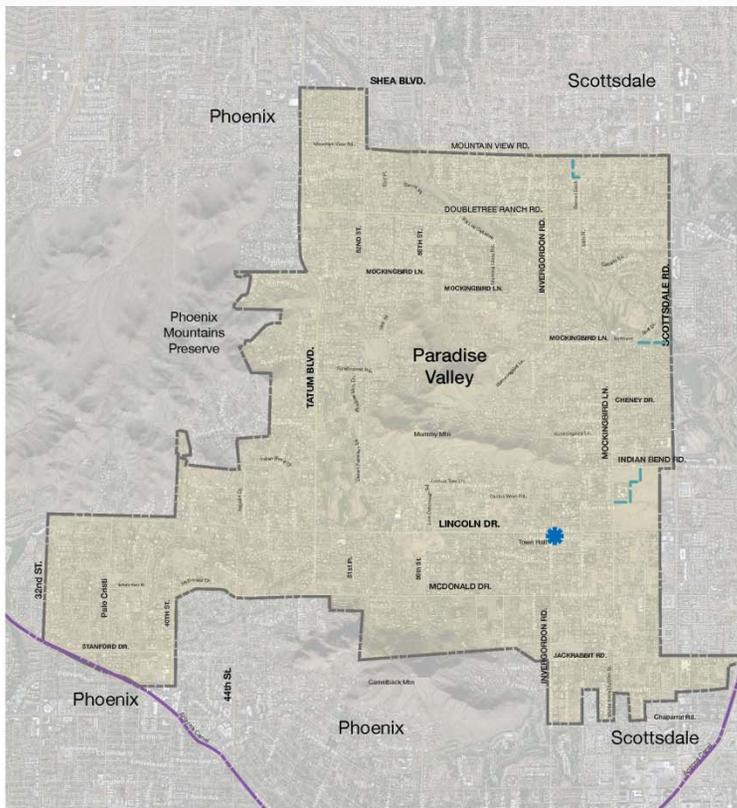


## McDonald Dr.

- No lanes or Shared-Use Path
- Pavement ‘Sharrow’ markings OR signage
- No changes to curbs, medians, center turn lane or sidewalks

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

# BICYCLE FACILITY SUMMARY Shared-Use Path



\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

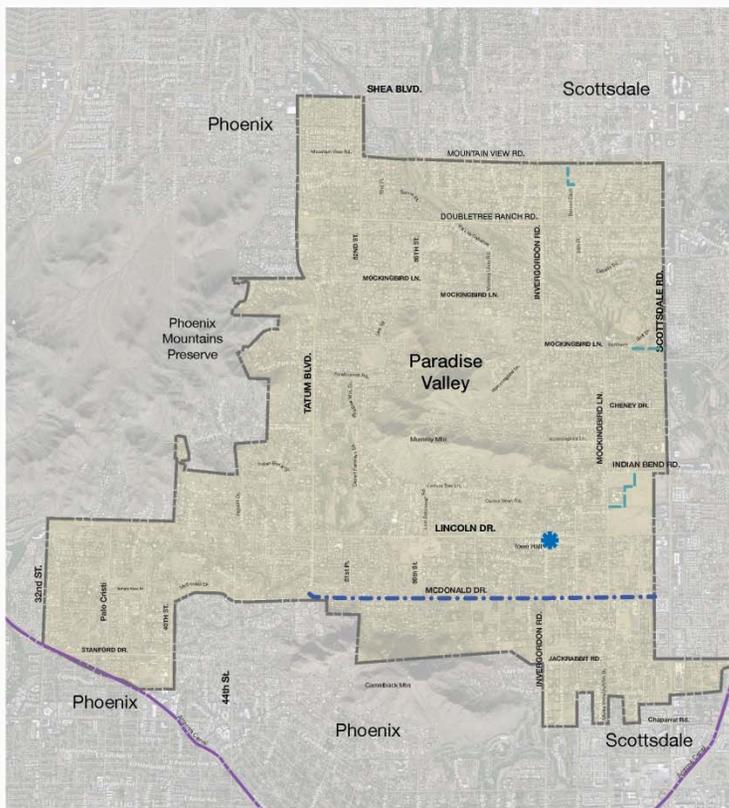
Off-Street



## Off-Street

- 10' Paved Path through Ritz Carlton and Northern Ave. alignment to Scottsdale Rd.
- Gently meandering
- Landscaping buffer to adjacent private property

# BICYCLE FACILITY SUMMARY Shared-Use Path



\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

Off-Street  
 McDonald Dr. Path\*\*



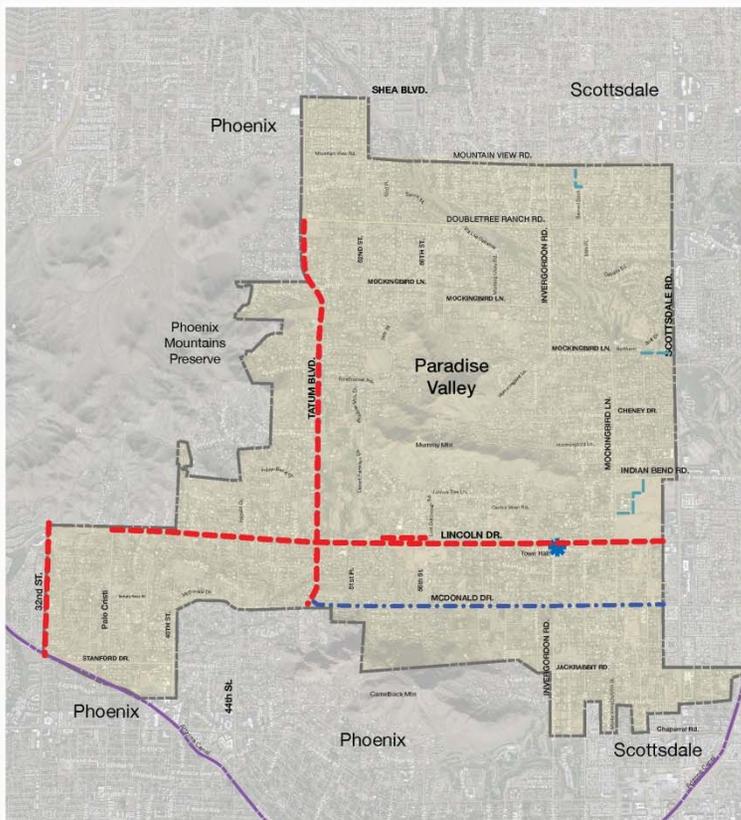
## McDonald Dr.

- 10' wide Path on north side
- Gently meandering or attached
- Setback 5' from traffic lane where possible
- Meander to avoid utilities & landscaping

### NOTE:

- 4' wide Trail on south side
- Gently meandering or attached
- Setback 5' from traffic lane where possible
- Avoid or bury drainage swale to create space for trail

# BICYCLE FACILITY SUMMARY Shared-Use Path



## Major Arterial

- 10' wide Path on one side of street – sides to be confirmed
- Gently meandering or attached
- Setback 5' from traffic lane where possible

## NOTE:

- 6' wide Sidewalk on opposite side of street
- Gently meandering or attached
- Setback 5' from traffic lane where possible

\*All facilities may vary based upon cross section options  
 \*\*Final cross sections and facilities will depend upon the final selected cross section

## KEY QUESTIONS

- What level of accommodation is appropriate for bikes?



## OTHER PLAN COMPONENTS



## EDUCATION & ENFORCEMENT Recommended Implementation Measures

- Develop education and enforcement programs, activities, and web based and print materials
  - Maps
    - Distribute maps and information in Town offices, resorts, etc.
  - Education Events and Activities
  - Traffic enforcement days/weeks
  - School visits
  - Walk and Bike days
  - Exclusive use times/days on select bicycle facilities.
  - Solicit advertisers and sponsors to offset costs.

## KEY QUESTIONS

- Does the plan address necessary policy and program implementation strategies?
- What is the next step in the process?

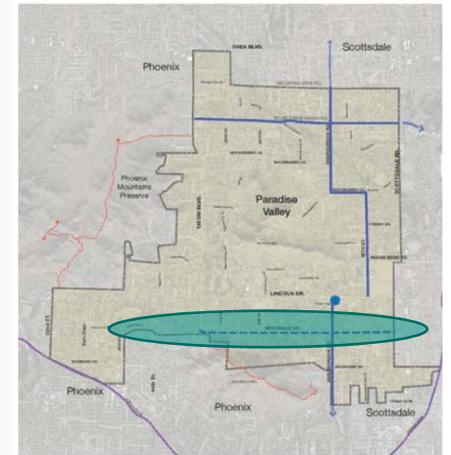


## CORRIDOR DETAILS



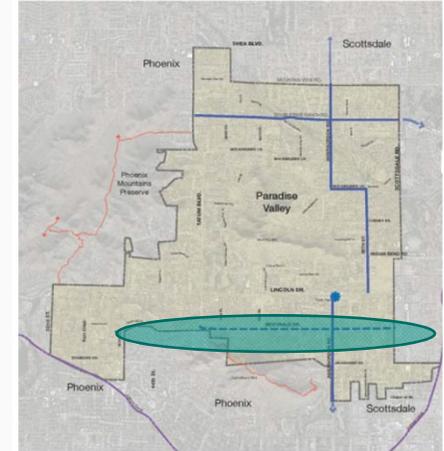
## MCDONALD DRIVE Direction Heard

- Not to follow General Plan cross-section with bike lanes
- Pedestrian facilities focus
  - On one side of street sidewalk
  - Opposite side trail may be ok
- No to limited signage
- Keep turn lanes and medians
- Consider ribbon curb for drainage/widen at medians



## MCDONALD DRIVE General Plan

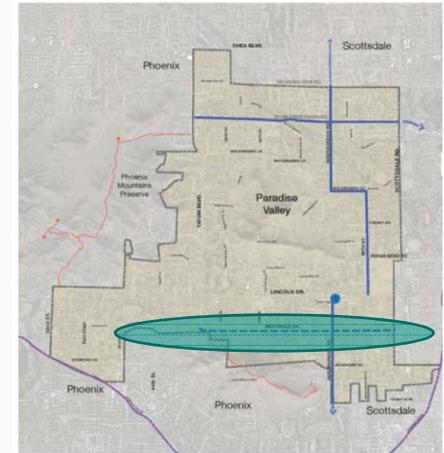
- 3 different street classifications
  - Scottsdale Rd to Tatum curve – Minor Arterial
  - Tatum curve to 45<sup>th</sup> St – Major Arterial
  - West of 45<sup>th</sup> St – Local (proposed Enhanced Local)
- Typical General Plan ROW width is 50'/66'/80'/130'
- Pavement width guidelines
  - Generally need 56' from back of sidewalk to back of sidewalk
- Typical suggested minimums
  - 10' for travel lane (new suggested minimum)\*
  - 10' median (including curb)



\* McDonald Drive of Tatum curve follows Major Arterial standard

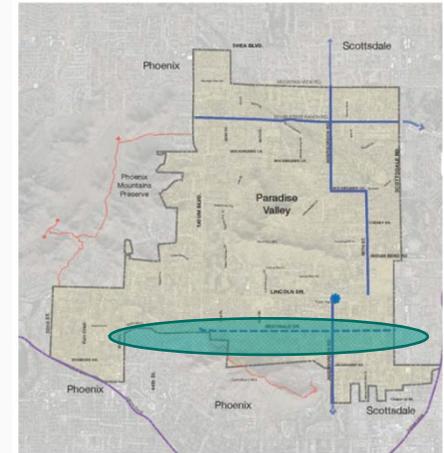
## MCDONALD DRIVE Challenges

- Generally 66' ROW east of Invergorden which may not be enough if want to add bike facilities
- Portions of street carry through traffic
- Washes/topography/drainage exist
- West portion borders City of Phoenix on south side



## MCDONALD DRIVE Advantages

- Opportunity to reduce pavement width
  - Several areas with extra lane widths
- Many portions of the street with large distances from back of curb to property line
- Access to several destinations
  - 4 of the 38 SUP sites
  - Kiva Elementary
  - Echo Canyon Trailhead
- Majority of corridor at typical right-of-way width
  - 80' with medians or 130' (Tatum curve portion)
  - 66' without medians



\* McDonald Drive of Tatum curve follows Major Arterial standard

# MCDONALD DRIVE Existing Condition

Scottsdale Rd to Mockingbird Ln

- 66' ROW
- 4' extra lane/median width, with no extra ROW
- Existing sidewalk on north side and small portion on south side
- Private walls close to ROW
- Back of curb: 6'/12'/15' on north and 12'/15' south



# MCDONALD DRIVE Existing Condition

Mockingbird Ln to Invergordon Rd

- 66' ROW, 73' ROW and 98' ROW
- 4' extra lane/median width, places with 0' to 18' extra ROW
- Existing sidewalk on north side only
- Drainage ditch on south side
- Back of curb: 6'/12'/15' on north and 12'/15' on south



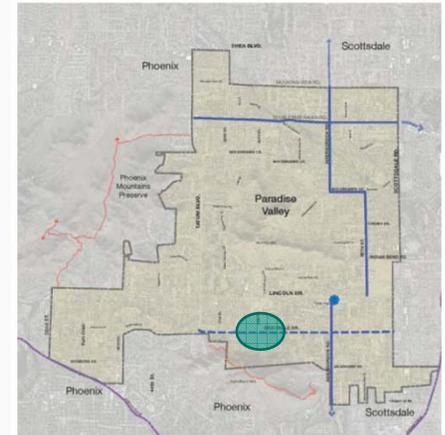




# MCDONALD DRIVE Existing Condition

56<sup>th</sup> St to 52<sup>nd</sup> Pl

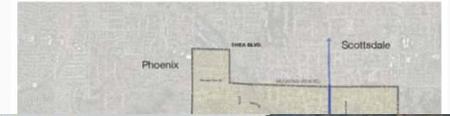
- 80' ROW
- Utility boxes setback 12' from curb
- 4' extra lane/median width, no extra ROW
- Existing sidewalk on north side only
- Back of curb: 22' on north and 22' on south



# MCDONALD DRIVE Existing Condition

52<sup>nd</sup> Pl to Tatum Curve

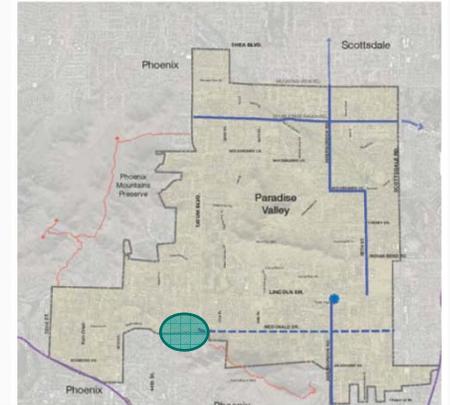
- 80' ROW
- Grade changes and road dips
- 4' extra lane/median width, no extra ROW
- Existing sidewalk on north side
- Existing sidewalk on south west of roundabout
- Back of curb: 22' on north and 22' on south



# MCDONALD DRIVE Existing Condition

Tatum Curve to 44<sup>th</sup> St

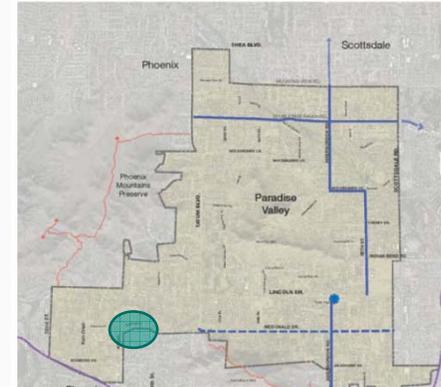
- 80' / 130'+ ROW
- Major wash crossing, drainage channel north side
- 4' to 8' extra lane/median width, no extra ROW
- Existing sidewalk on both sides
- Back of curb: 5' / 50'+ on north (15' varies to wall) and 12'+ on south



# MCDONALD DRIVE Existing Condition

44<sup>th</sup> St to 40<sup>th</sup> St

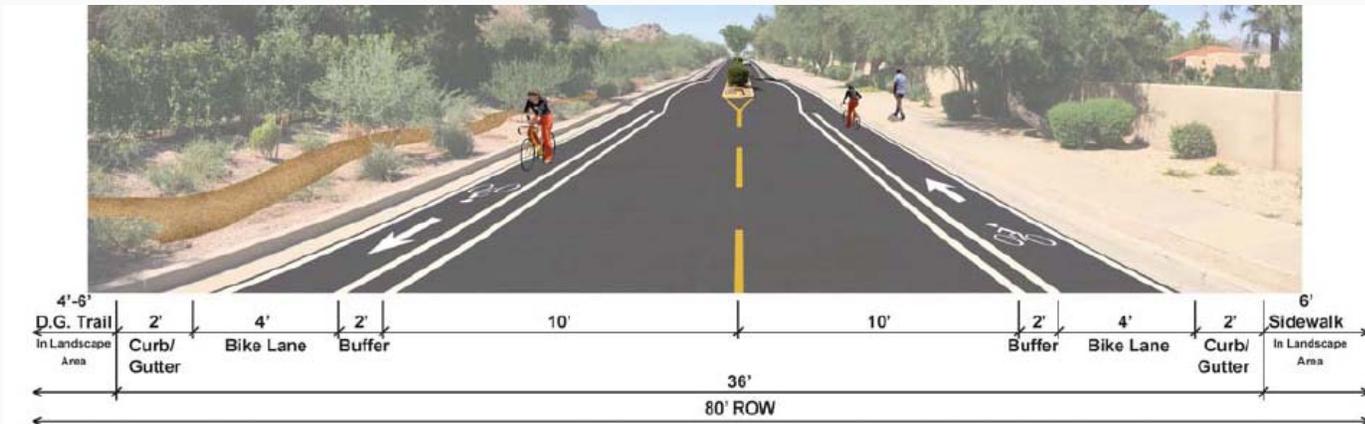
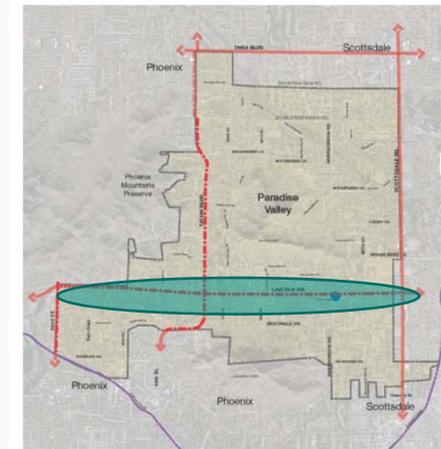
- 130' ROW, separated roadway
- Lanes 22' to 24' wide, with median 60' wide
- Extra lane/median/ROW width
- No sidewalks
- Back of curb: 8' both sides
- Grade changes



# MCDONALD DRIVE Plan Recommendation

- Two Options
  - A. 4' wide bike lanes with 2' buffer/sidewalk one side and DG trail other side/reducing travel lanes from 11' to 10'/remove turn lane in spots/keep medians
- Enhanced Intersections : Tatum, Echo Canyon trailhead

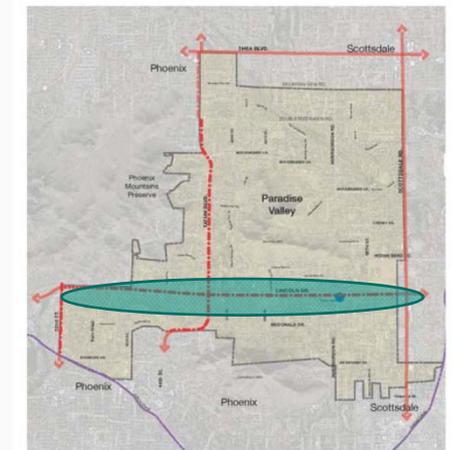
## Option A



# MCDONALD DRIVE Plan Recommendation

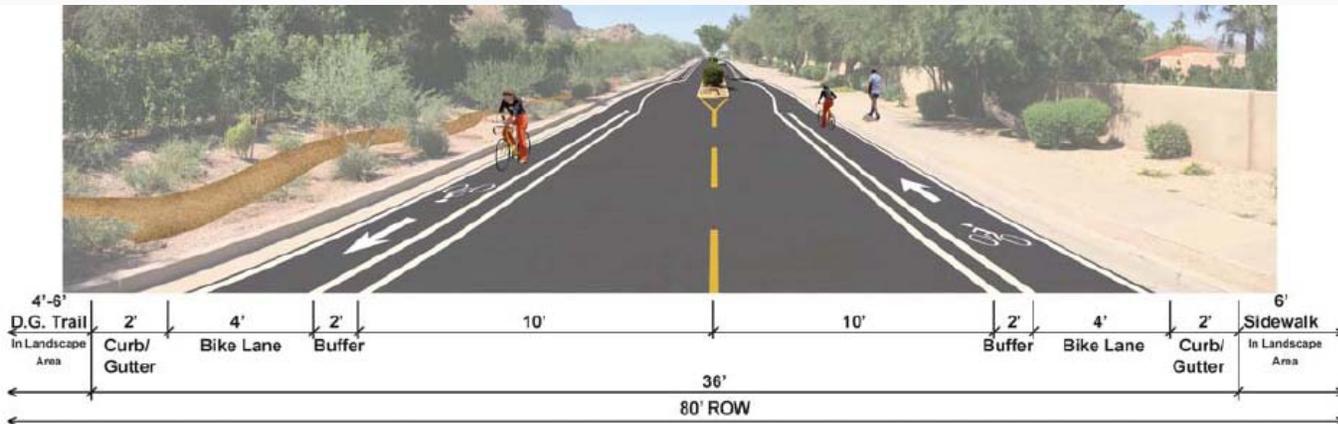
- Two Options
  - A. 4' wide bike lanes with 2' buffer/sidewalk one side and DG trail other side/reducing travel lanes from 11' to 10'/remove turn lane in spots/keep medians
  - B. Add bike pavement markings/ buffer/sidewalk one side and DG trail other side
- Enhanced Intersections : Tatum, Echo Canyon trailhead

## Option B



## McDonald Drive Ideas

- East of Invergordon Rd (requires new curb/gutter)
  - Meandering 6' wide sidewalk on both sides
  - 4' bike lanes with 2' buffer (or 10' path on south side)
  - 10' landscaped median/turn lane
  - Provides connection to Invergordon Rd and Mockingbird Ln
  - Enhanced intersection at Invergordon Rd
  - Designate as bike lane or route, limited signage required



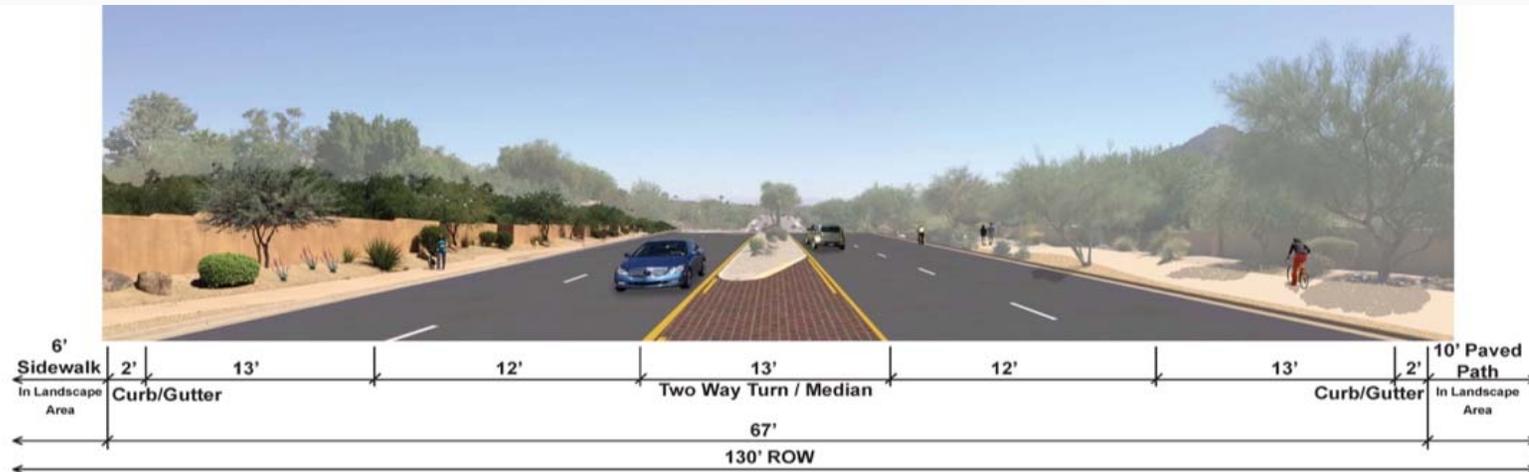
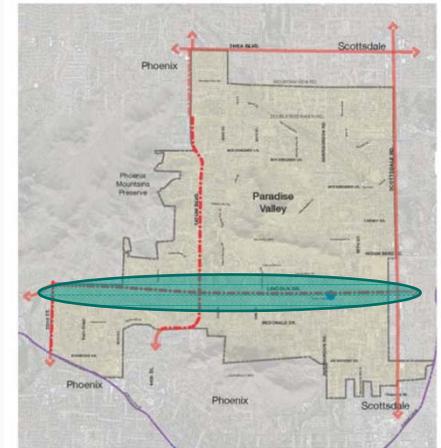
## McDonald Drive Ideas

- Invergordon Rd to Tatum Curve
  - Optional 4' wide DG trail on south side
  - Consider widening travel lane at medians by approximately 2' to accommodate passing area
  - Where possible, modify curb type to a ribbon curb on south side
  - Consider widening 6' sidewalk to 10' path on north side west of 56<sup>th</sup> St as a connection to Echo Trailhead
  - Do not designate as bike lane/route; no signage
- Tatum Curve to 44<sup>th</sup> St
  - Treat like Tatum Blvd and Lincoln Dr
    - Widen 6' sidewalk to 10' path on north side
    - Optional enhancement at 44<sup>th</sup> St since large unimproved ROW
    - Designate as a bike route, signage optional
- 44<sup>th</sup> St to 40<sup>th</sup> St (one way splits)
  - Widen the striped shoulder on outside lane edge to 8' to allow for walking/biking (or 4' DG shoulder)
  - Designate as a bike route, signage optional



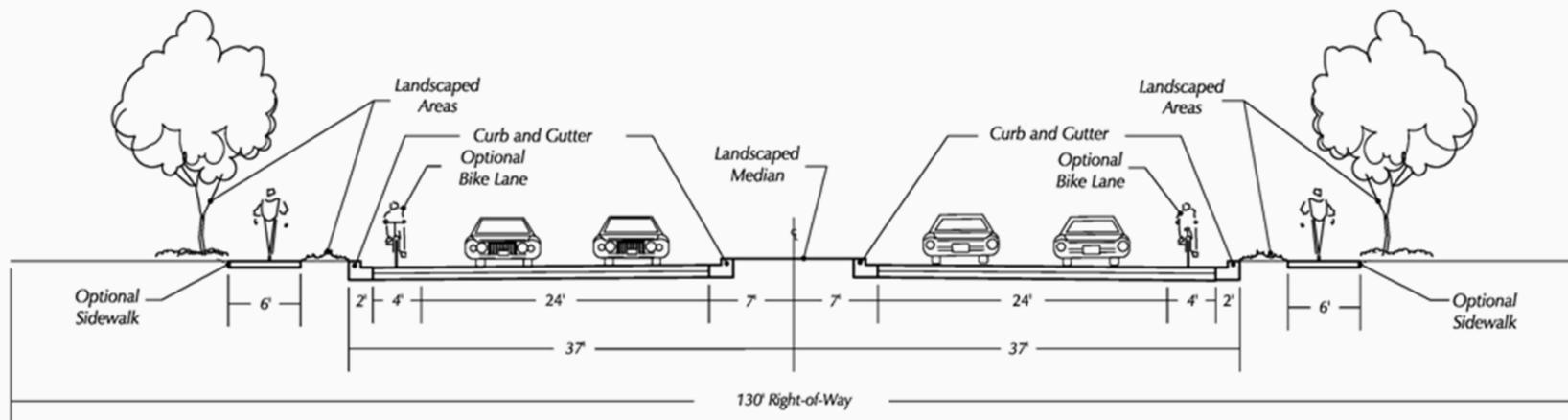
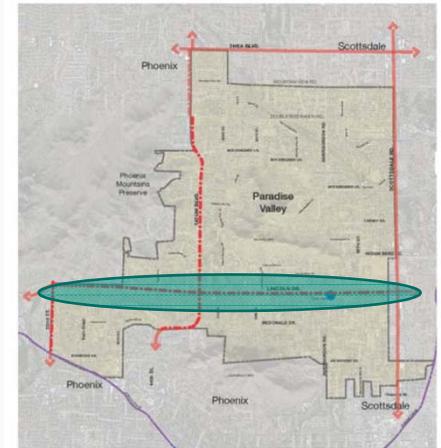
## LINCOLN DRIVE Direction Heard

- Add pedestrian facilities both sides of street
  - 6' wide meandering sidewalk
  - Consider a 10' wide path on one side – could change sides
- No bike lanes and no signage
- Limit changes within existing roadway curbs



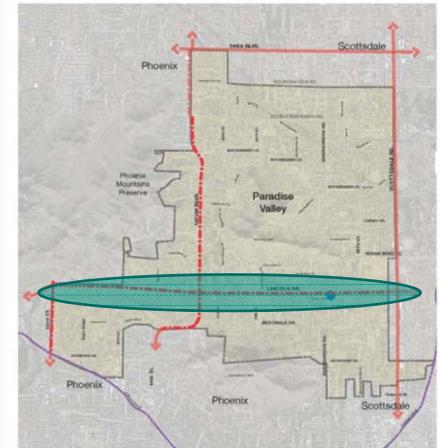
# LINCOLN DRIVE General Plan

- Classified as a Major Arterial
- Generally need ~ total improved width of 96' (to back of sidewalk w/ 5' landscape zone)



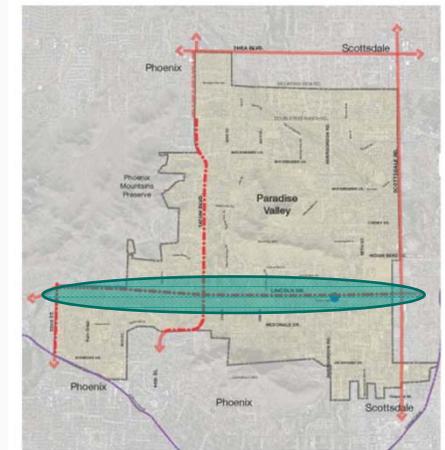
## LINCOLN DRIVE Challenges

- Majority not at typical 130' right-of-way width
- Relatively new existing curb/gutter/sidewalk
- Highly traveled connective roadway – through traffic for vehicles and bicyclists
- Washes/topography/drainage exist
- Major arterials create a barrier to cross
- Recent improvements @ Mountain Shadows
- No bicycle facilities proposed in Phoenix



## LINCOLN DRIVE Opportunities

- Sidewalk project in design phase
- Visually Significant Corridor master plan in process
- Opportunity to reduce pavement width
  - Several areas with extra lane/median widths
- Direct access to 14 of the 38 SUP sites are on Lincoln
- Available ROW is more ROW than General Plan requires
- Linkage to Phoenix Mountains Preserve Trailhead @ 32<sup>nd</sup> Street
- Bike Lanes in Scottsdale east of Scottsdale Road



# Lincoln Drive Ideas

- No bike lanes
- 10' Path through Paradise Valley, changing sides of road dependent on available ROW
- 6' sidewalk everywhere else
- Enhanced crossings where Lincoln intersects with other north/south Paths, Routes or Bike Lanes

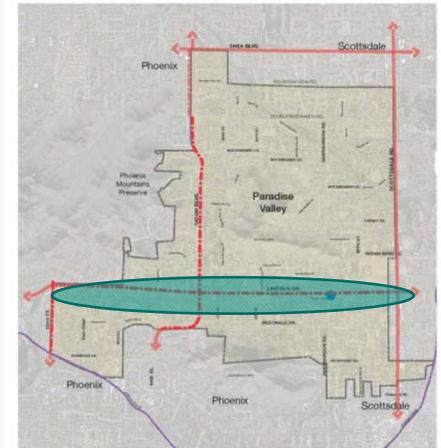
- - - - 10' Shared-Use Path
- — 6' Sidewalk
- ● Enhanced Crossings



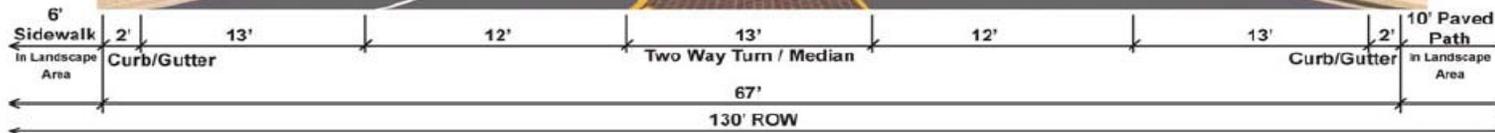
# LINCOLN DRIVE Plan Recommendation

Add 10' path one side with sidewalk other side/ no other changes- Path on south side between Quail Run to 40<sup>th</sup> st. with the path on the north side between 56<sup>th</sup> st. and desert fairways dr. and 40<sup>th</sup> st. to 32<sup>nd</sup> st.

- Enhanced intersections : 32<sup>nd</sup>, 40<sup>th</sup> st. Hillside, Tatum, Desert Fairways, 56<sup>th</sup>, Invergordon, Mockingbird, Quail Run



## Option B



WALK & BIKE PARADISE VALLEY

The Paradise Valley Bicycle and Pedestrian Master Plan

# LINCOLN DRIVE Existing Condition

Lincoln Drive (32<sup>nd</sup> St to Palo Cristi Rd)

- Meet the 130' ROW
- No extra lane/median width, with no extra ROW
- Existing 6' wide sidewalk on south side
- Grade change on south side
- North side Mtn trailhead
- Back of curb: 25' on north and 30' on south





# LINCOLN DRIVE Existing Condition

38<sup>th</sup> St to 40<sup>th</sup> St

- 95' ROW
- No extra lane/median/ROW width
- Existing sidewalk on south side at ROW line
- Back of curb: 30' on north and 8' on south
- May need easement along Estate
- Wash crossing after Paradise Reserve



# LINCOLN DRIVE Existing Condition

40<sup>th</sup> St to 43<sup>rd</sup> Pl

- 95' ROW
- No extra lane/median/ROW width
- Additional 25' roadway easement on 3 SUP sites
- Existing sidewalk on south side
- Back of curb: 6' on north and 10' on south



# LINCOLN DRIVE Existing Condition

43<sup>rd</sup> Pl to 46<sup>th</sup> St

- 105' ROW
- No extra lane/median/ROW width
- Additional 25' roadway easement on SUP sites & others
- Existing sidewalk on south side and north starts at Hillside Dr
- Back of curb: 6' on north and 10'/36' on south
- Grade changes on both sides



# LINCOLN DRIVE Existing Condition

46<sup>th</sup> St to Tatum Blvd

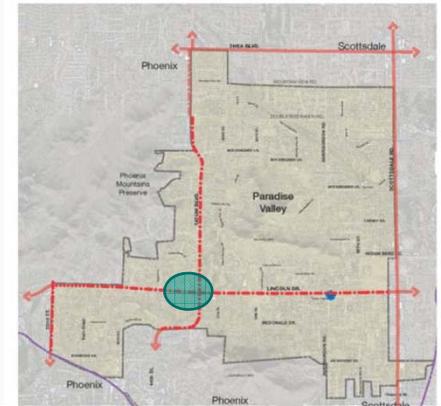
- 105' to 130' ROW
- ~ 2' to 3' extra lane/median pavement/ no extra ROW
- Existing sidewalk on north and south side
- Back of curb: 30'/8' on north and 34' on south
- Grade changes on both sides



# LINCOLN DRIVE Existing Condition

Tatum Blvd to Camelback Manor Dr

- 80' ROW and 25' ROW easement along SUP
- No extra lane/median/ROW width
- Existing sidewalk on north and south side
- Back of curb: 6'/48' on north and 6'/12'/27' on south
- Drainage/topo constraints north and side sides
- Private walls close to ROW
- Turn lane constraints at Tatum/Lincoln



# LINCOLN DRIVE Existing Condition

Camelback Manor Dr to 56<sup>th</sup> St

- 95' ROW and 25' or 15' ROW easement along SUP
- Utility boxes
- ~ 1' to 2' extra lane/median pavement/ no extra ROW
- Existing sidewalk on north and south side
- Back of curb: 15'/20' on north and 5'/12' on south
- SUP sites sidewalks just completed and 56<sup>th</sup> connection



# LINCOLN DRIVE Existing Condition

56<sup>th</sup> St to 59<sup>th</sup> Pl

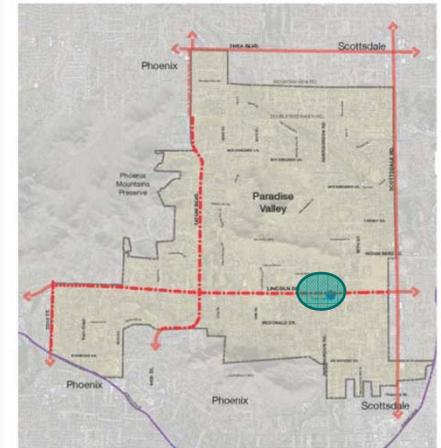
- 95' ROW and 25' ROW easement along Mtn Shadows SUP
- ~ 1' to 2' extra lane/median pavement/ no extra ROW
- Existing sidewalk on north and south side
- Back of curb: 0'/6' on north and 12'/28' on south
- Many spots ROW line at back of sidewalk
- Need ROW from Franciscan Renewal



# LINCOLN DRIVE Existing Condition

59<sup>th</sup> Pl to Invergordon Rd

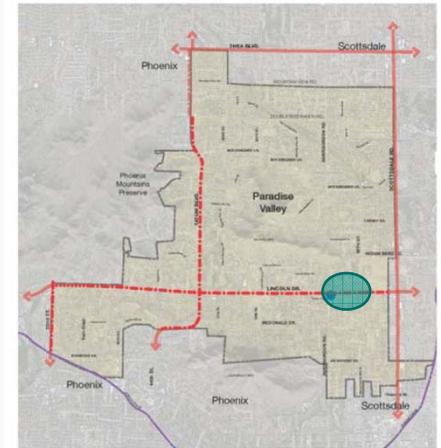
- 73' ROW and 95' ROW
- ~ 1' to 2' extra lane/median pavement/ no extra ROW
- Existing sidewalk on north and south side
- Back of curb: 0'/6' on north and 6'/20'/24' on south
- Many spots ROW line at back of sidewalk
- More space to accommodate path on south side
- Private walls close to ROW



# LINCOLN DRIVE Existing Condition

Invergordon Rd to Mockingbird Ln

- Generally 95' ROW
- Some limited extra median pavement to shift travel lanes inward
- Existing sidewalk on all north and south side west of Casa Blanca Dr
- Back of curb: 6'/20' on north and 5'/15'/38' on south
- Many spots ROW line at back of sidewalk
- Easier to accommodate path on south side with Town Hall and less residential lots



# LINCOLN DRIVE Existing Condition

Mockingbird Ln to Scottsdale Rd

- 73' ROW and 80' ROW, and 25' ROW easement along Ritz SUP
- Some limited extra median pavement to shift travel lanes inward
- Existing sidewalk on portions on south side
- Ritz required to improve north side
- Many spots ROW line at back of sidewalk on south side
- Easier to accommodate path on north without more ROW
- Back of curb: 30' on north and 6'/12' on south



# Lincoln Drive Ideas

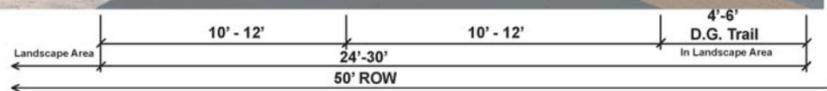
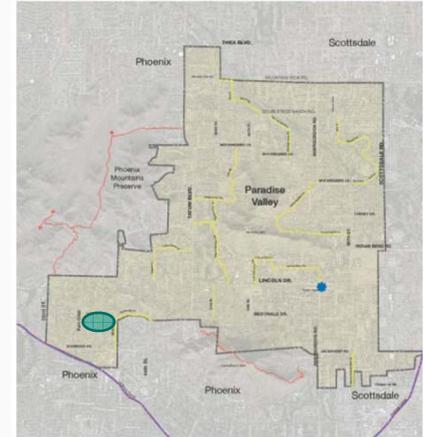
- No bike lanes
- 10' Path through Paradise Valley, changing sides of road dependent on available ROW
- 6' sidewalk everywhere else
- Enhanced crossings where Lincoln intersects with other north/south Paths, Routes or Bike Lanes

- - - - 10' Shared-Use Path
- — 6' Sidewalk
- ● Enhanced Crossings



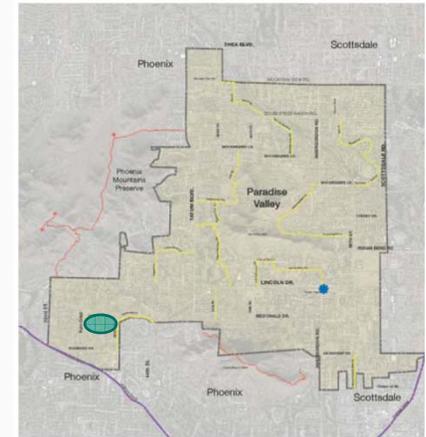
## BETHANY HOME RD Direction Heard

- General local street direction
  - Avoid bike routes on local streets
  - Avoid pavement markings and signage
- This specific street was not discussed



## BETHANY HOME RD General Plan

- Classified as a Local Road, Enhanced Local in Draft Plan
- Typical General Plan ROW width is 50'
- Pavement width guidelines
  - 26' pavement (bc to bc) for all but 40<sup>th</sup> St
  - 46' pavement (bc to bc) on 40<sup>th</sup> St to allow for median/turn lane option (suggested)

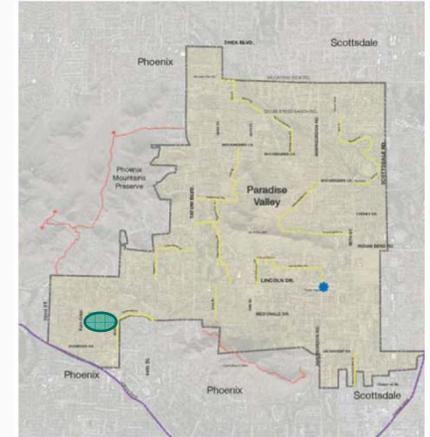


## BETHANY HOME RD Challenges

- 10' less ROW than typical close to Palo Cristi Rd
- Many homes front on these streets
- Yards extend to street pavement
- Except, 40<sup>th</sup> St, no pavement markings existing

## BETHANY HOME RD Advantages

- 80' wide ROW on 40<sup>th</sup> St
- Some limited places can reduce pavement
- Already sidewalk on Bethany Home Rd
- Already edge lane striping on 40<sup>th</sup> St
- 40<sup>th</sup> St direct connection to Stanford Dr that has 4 SUP sites as a destination and existing bike lanes

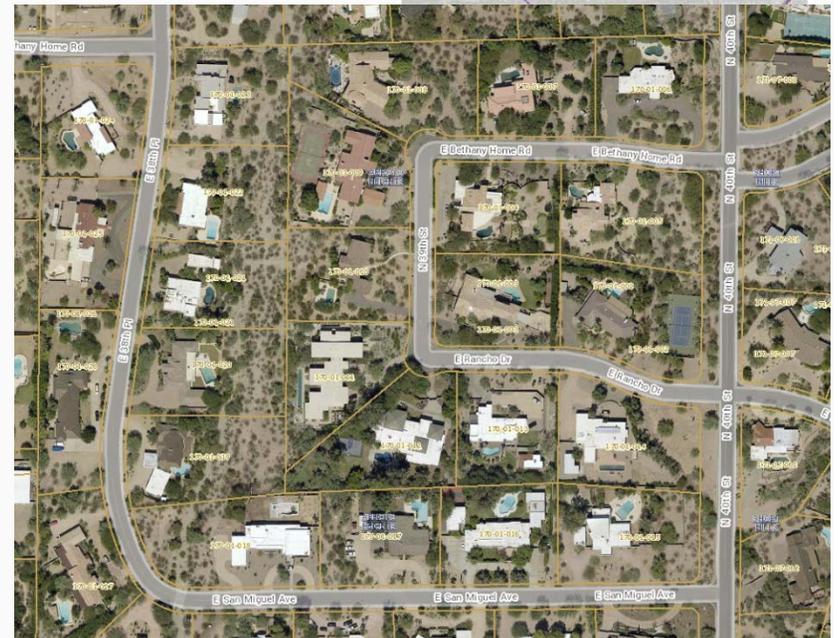
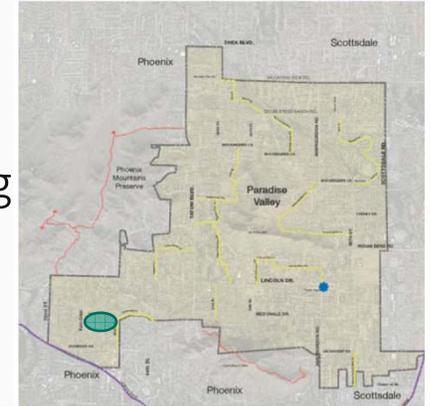


# BETHANY HOME RD

## Existing Condition

40<sup>th</sup> St to 38<sup>th</sup> Pl

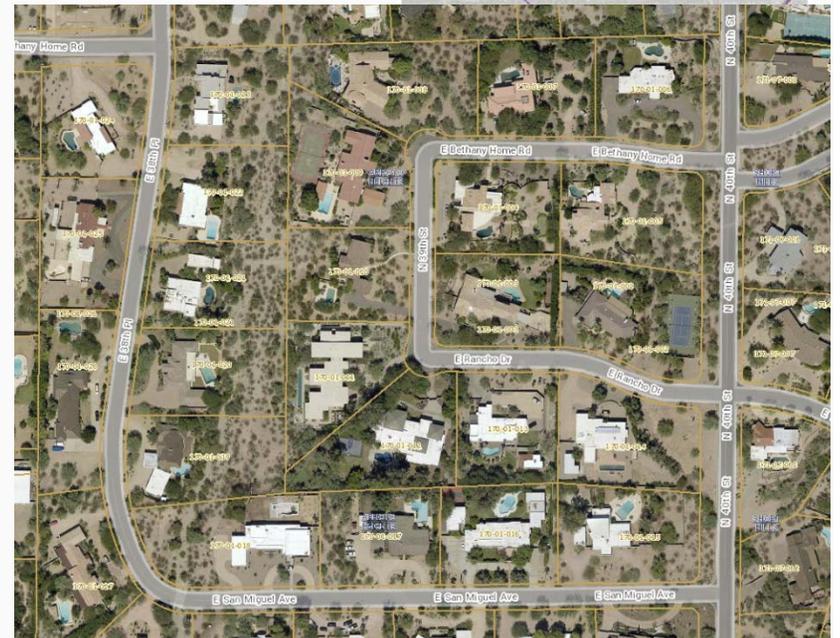
- 80' ROW on 40<sup>th</sup> St, roadway 36' wide with shoulder striping
- 50' ROW San Miguel and 38<sup>th</sup> Pl, roadway 30' wide
- 4' extra pavement width, no extra ROW on San Miguel/38<sup>th</sup>
- Extra lane/ROW width on 40<sup>th</sup> St
- No sidewalks either side
- Many homes front on these streets
- Yards extend to street pavement
- Back of curb: 6'-10' each side of San Miguel/38<sup>th</sup>
- Back of curb: 30' on west and 10' on east of 40<sup>th</sup> St



# BETHANY HOME RD

40<sup>th</sup> St to 38<sup>th</sup> Pl

## Existing Condition

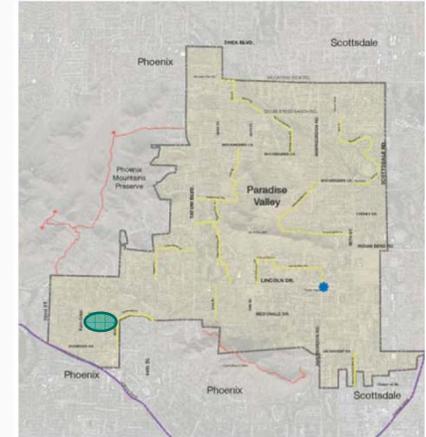


# BETHANY HOME RD

## Existing Condition

38<sup>th</sup> Pl to Palo Cristi Dr

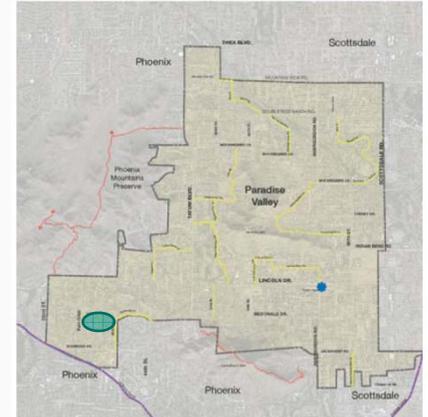
- 40'/70'/80' ROW
- Roadway 22'/26'/40' wide
- Some extra pavement/ROW width on east half of segment
- Sidewalk on most of north side, none on south side
- Back of curb: 6'/12' on north and 10'/15'/45' on south



# BETHANY HOME RD

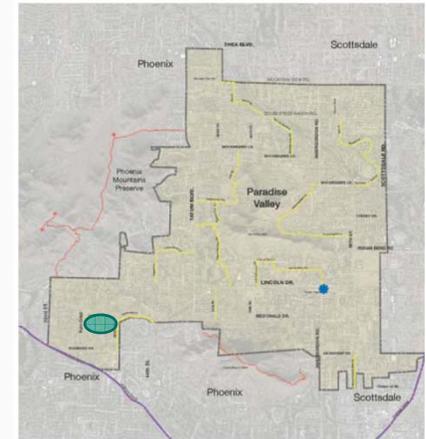
38<sup>th</sup> Pl to Palo Cristi Dr

## Existing Condition



# BETHANY HOME RD Plan Recommendation

- Sidewalk both sides east of 38<sup>th</sup> St
- DG trail one side of street west of 38<sup>th</sup> St
- Designated as bike route with or without signs



## BETHANY HOME RD Ideas

- 40<sup>th</sup> St
  - Many options due to 80' ROW width
    - Sidewalk both sides
    - Buffered bike lanes both sides
    - 10' path on west side if do not want bike lanes
    - Add landscape median/turn lane option
    - Designate as a bike route/ no signage to connect to Stanford Dr
- San Miguel/38<sup>th</sup> Pl
  - Complete missing ribbon curbs
  - Reduce road pavement where can to 26' total (bc to bc)
  - Add sidewalk or DG trail on the east/north side out to 40<sup>th</sup> St
  - Do not designate as a bike route, no signage
- Bethany Home to Palo Cristi
  - Complete missing ribbon curbs
  - Finish last part of sidewalk on north side
  - Add sidewalk on south side

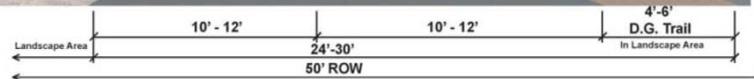
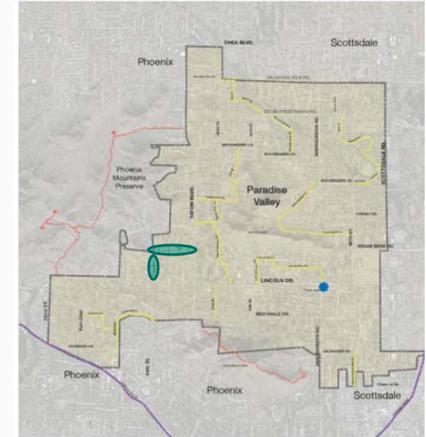


WALK & BIKE PARADISE VALLEY

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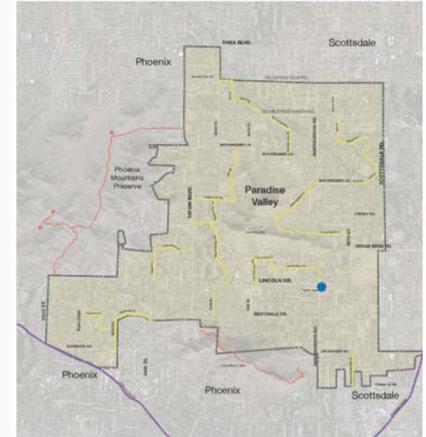
## HILLSIDE DR/INDIAN BEND RD Direction Heard

- General local street direction
  - Avoid bike routes on local streets
  - Avoid pavement markings and signage
- This specific street was not discussed



## HILLSIDE DR/INDIAN BEND RD General Plan

- Classified as a Local Road, Enhanced Local in Draft Plan
- Typical General Plan ROW width is 50'
- Pavement width guidelines
  - 26' pavement (bc to bc)



## HILLSIDE DR/INDIAN BEND RD

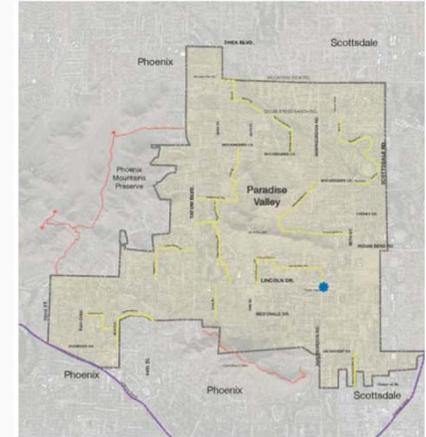
- Many homes front on these streets
- Most lots mailbox at edge of pavement
- Some places grade/topo changes at edge of pavement
- Some utility boxes at edge of pavement (west side Hillside Dr)

## Challenges

## HILLSIDE DR/INDIAN BEND RD

- 4' to 16' extra ROW throughout corridor
- Most of roads have center yellow striping
- Connects to existing sidewalk on Lincoln Dr and Tatum Blvd

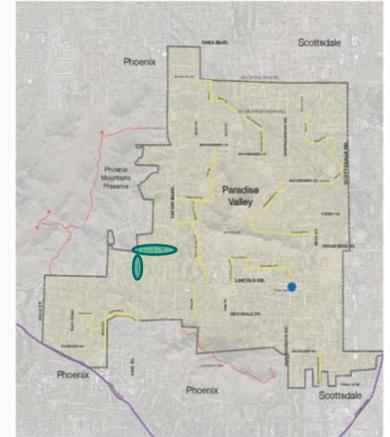
## Advantages



## HILLSIDE DR/INDIAN BEND RD Existing Condition

Indian Bend Rd from Tatum Blvd to 47<sup>th</sup> St

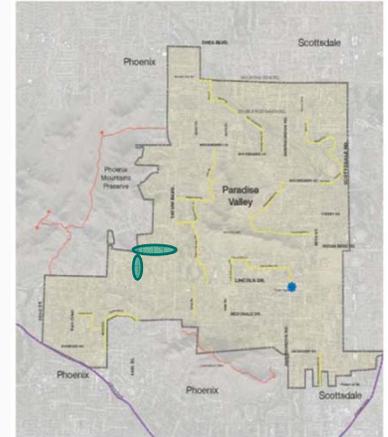
- 58'/66' ROW, with center lane striping
- 22' and 26' pavement width, places missing curbing
- No extra pavement width, 8' and 16' extra ROW
- No sidewalks either side
- Many homes front on these streets
- Back of curb: 8'/18' on north side and 22'/32' on south side



# HILLSIDE DR/INDIAN BEND RD Existing Condition

Indian Bend Rd from 47<sup>th</sup> St to 46<sup>th</sup> St

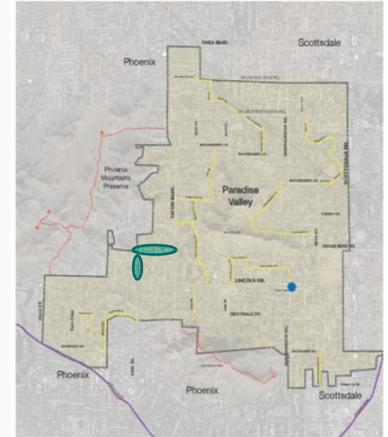
- 50'/60' ROW, with center lane striping on Indian Bend Dr
- 30' with curbs (except 46<sup>th</sup> St no curbs)
- 4' extra pavement width, 10' extra ROW on 46<sup>th</sup> St
- No sidewalks either side
- Many homes front on these streets
- Back of curb: 6'/10' on north side and 10' on south side'
- Back of curb 46<sup>th</sup> St: 14' on west side and 18' on east side



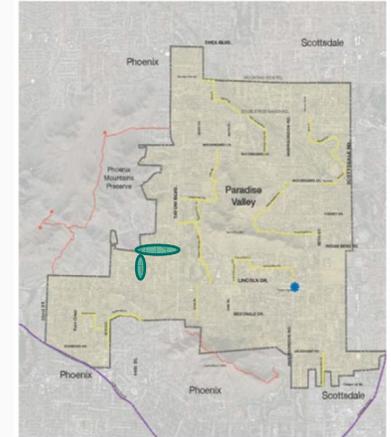
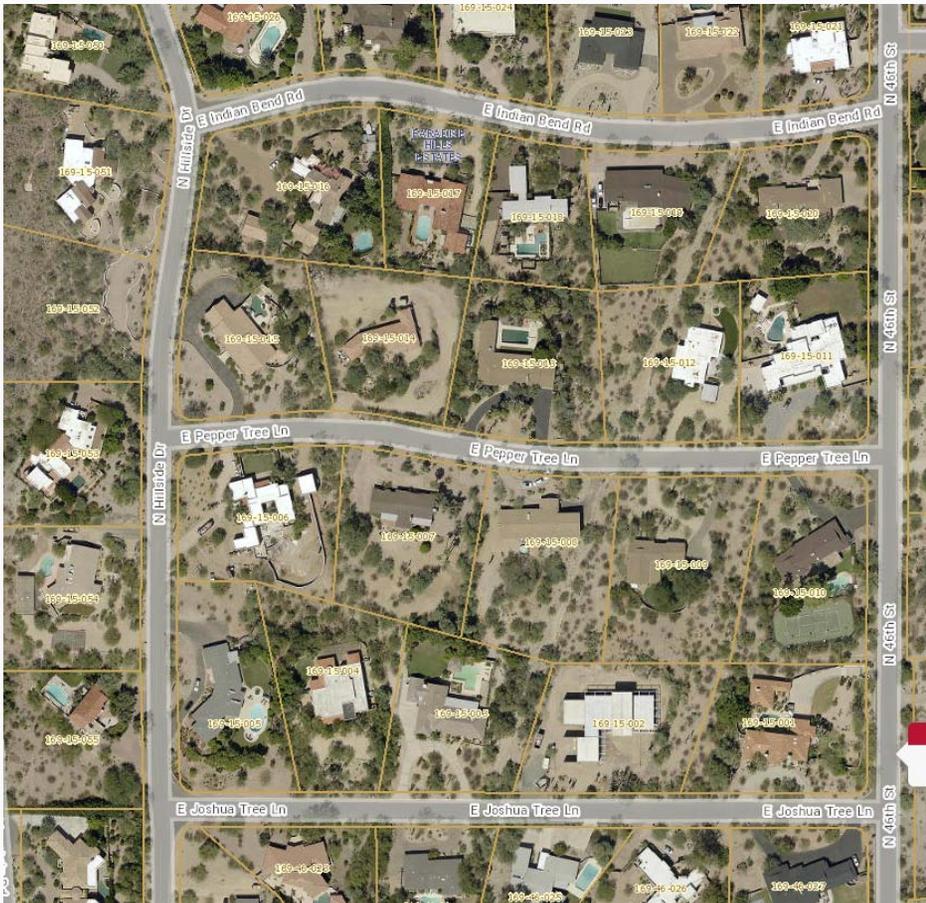
# HILLSIDE DR/INDIAN BEND RD Existing Condition

Indian Bend Rd from 47<sup>th</sup> St to Hillside Dr

- 54' ROW, no lane striping
- 22' with no curbs
- No extra pavement width, 4' extra ROW
- No sidewalks either side
- Many homes front on these streets
- Back of curb: 15' both sides



# HILLSIDE DR/INDIAN BEND RD Existing Condition



Hillside Dr from Indian Bend Dr to Joshua Tree Ln

- 54' ROW, with center lane striping
- 22'-24' pavement width, mostly no curbs
- No extra pavement width, 4' extra ROW
- No sidewalks either side
- Many homes front on these streets
- Back of curb: 8' west side and 18' east side

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# HILLSIDE DR/INDIAN BEND RD



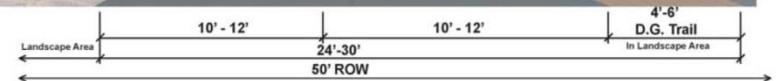
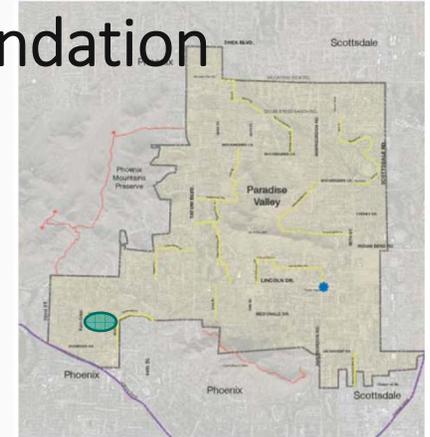
# Existing Condition



# HILLSIDE DR/INDIAN BEND RD

# Plan Recommendation

- DG trail one side of street
- Designated as bike route with or without signs



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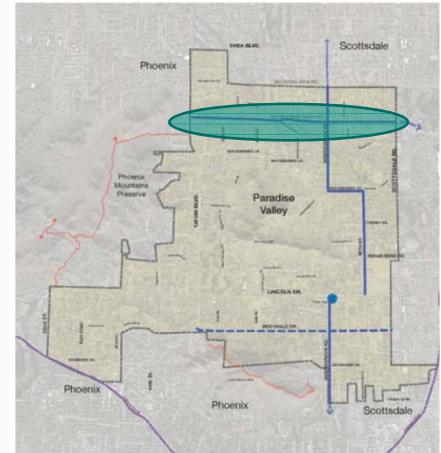
## HILLSIDE DR/INDIAN BEND RD Ideas

- Indian Bend Rd
  - Many options due to extra ROW width and extra back curb width
    - Wide shoulder on one side (south)
      - Asphalt with shoulder stripe, or
      - 4' wide ribbon curb, or
      - DG path
    - Wide shoulder on both sides possible with extra ROW
    - Complete missing ribbon curbs on both sides
    - Do not designate as a bike route, no signage
- Hillside Dr
  - Wide shoulder on one side (east, suggest match Indian Bend Rd)
    - Asphalt with shoulder stripe, or
    - 4' wide ribbon curb, or
    - DG path
  - Wide shoulder on both sides possible, but many utility boxes on west side
  - Complete missing ribbon curbs on both sides
  - Do not designate as a bike route, no signage



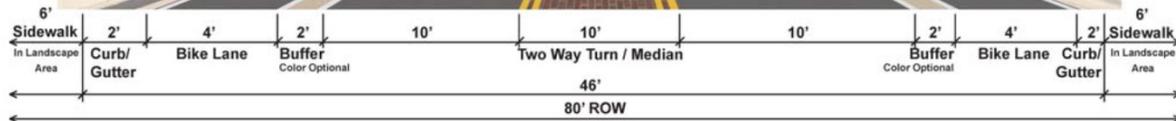
# DOUBLETREE RANCH RD Direction Heard

- Not discussed



## Minor Arterial

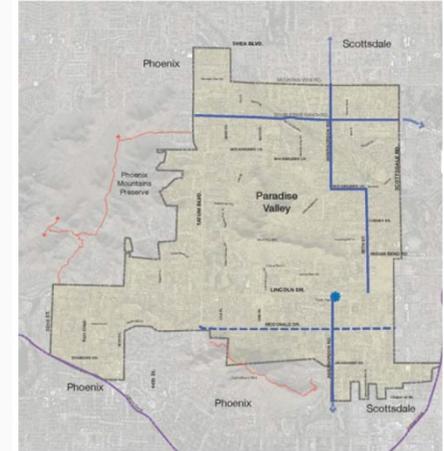
### Section A



## DOUBLETREE RANCH RD

## General Plan

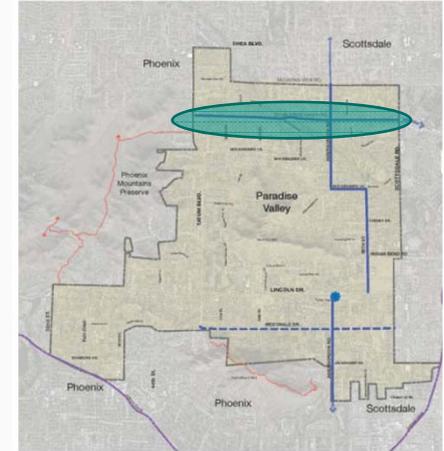
- Classified as a Minor Arterial
- Typical General Plan ROW width is 80'
- Pavement width guidelines
  - Generally need total improved width of ~66'
- Typical suggested minimums
  - 10' for travel lane (new suggested minimum)
  - 10' median (including curb)



## DOUBLETREE RANCH RD

## Challenges

- 7' less ROW than typical 80' west of Invergordon Rd
- Through traffic
- Bridges over Berneil Ditch and Indian Bend wash
- Many homes/driveways that front on this street



## DOUBLETREE RANCH RD

## Advantages

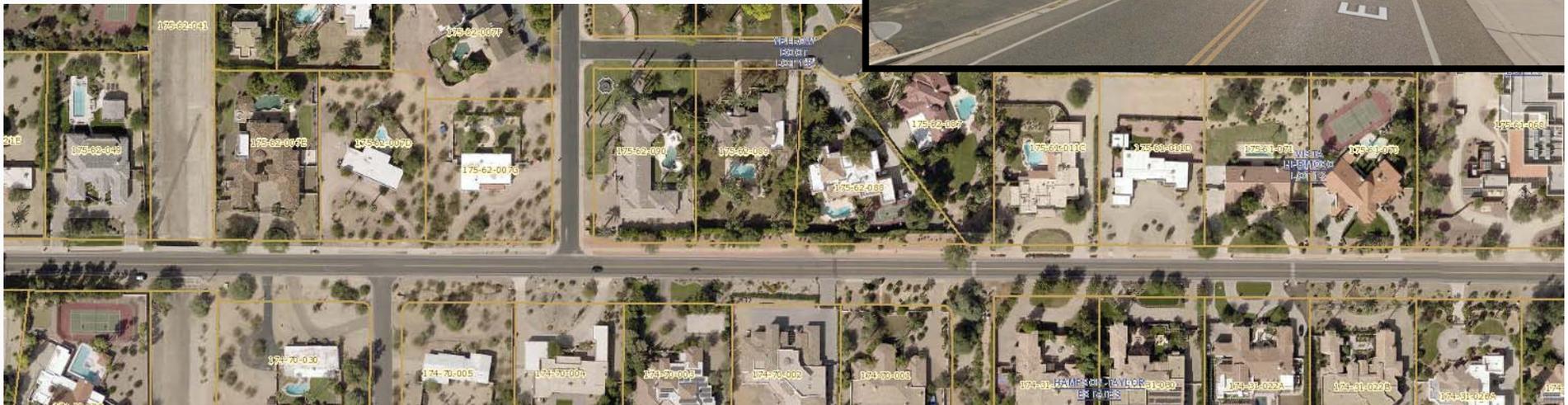
- West of Invergordon Rd already has sidewalk/bike lanes
- Have the ROW to complete sidewalk/bike lanes
- Provides access to trail at Tatum, Soleri, and Scottsdale/Phoenix



# DOUBLETREE RANCH RD Existing Condition

Switching Facility to Berneil Ditch

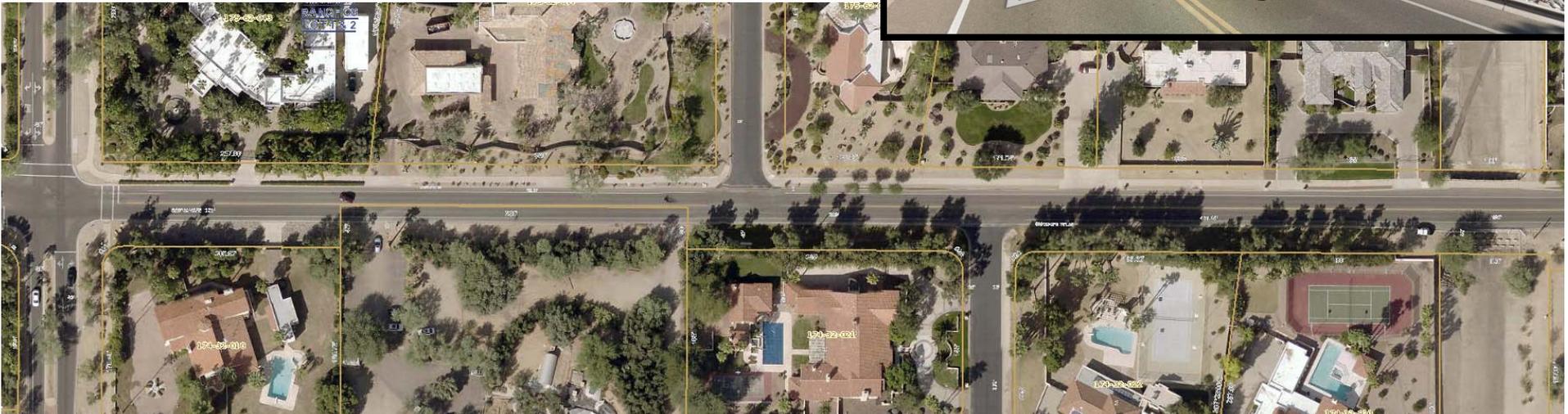
- 80' ROW
- 36' from bc to bc, 12' wide lanes, 46' width at bridge
- 4' extra lane width, with no extra ROW
- Existing sidewalk on north side
- 4' shoulders acting as bike lanes
- Back of curb: 20' on north and 24' south



# DOUBLETREE RANCH RD Existing Condition

Berneil Ditch to Invergordon Rd

- 80' ROW, except at Soleri 40' ROW
- 36' from bc to bc, 12' wide lanes
- 4' extra lane width, with no extra ROW
- Existing sidewalk on north side
- 4' shoulders acting as bike lanes
- Back of curb: 20' on north and 24' south



# DOUBLETREE RANCH RD Existing Condition

Invergordon Rd to 60<sup>th</sup> St

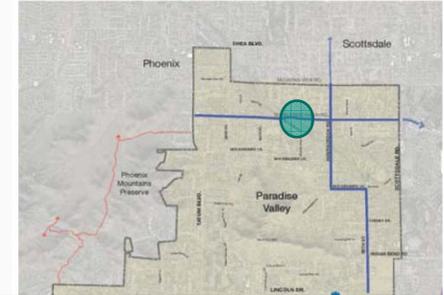
- 80' ROW
- 49' from bc to bc, 11' wide lanes and 15' median
- 2' extra lane width, 5' extra median width, no extra ROW
- Existing sidewalk on north side
- 4' signed bike lanes
- 2 at grade drainage crossings; walls near bc on south side
- Back of curb: varies 5' to 20' on both sides



# DOUBLETREE RANCH RD Existing Condition

60<sup>th</sup> St to 56<sup>th</sup> St

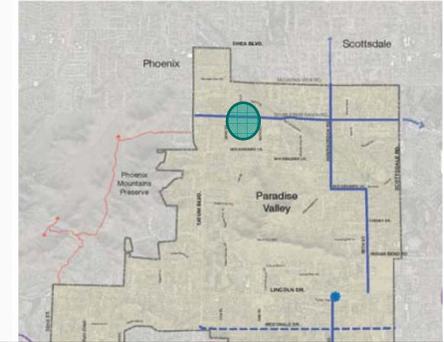
- 80' ROW
- 49' from bc to bc, 11' wide lanes and 15' median
- 2' extra lane width, 5' extra median width, no extra ROW
- Existing sidewalk on north side
- 4' signed bike lanes
- Indian Bend Wash bridge
- Back of curb: varies 5' to 20' on both sides



# DOUBLETREE RANCH RD Existing Condition

56<sup>th</sup> St to 52<sup>nd</sup> St

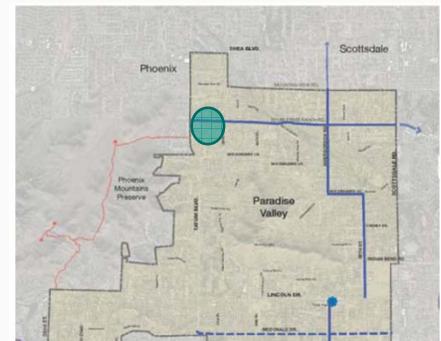
- 80' ROW
- 49' from bc to bc, 11' wide lanes and 15' median
- 2' extra lane width, 5' extra median width, no extra ROW
- Existing sidewalk on north side
- 4' signed bike lanes
- Back of curb: varies 5' to 20' on both sides



# DOUBLETREE RANCH RD Existing Condition

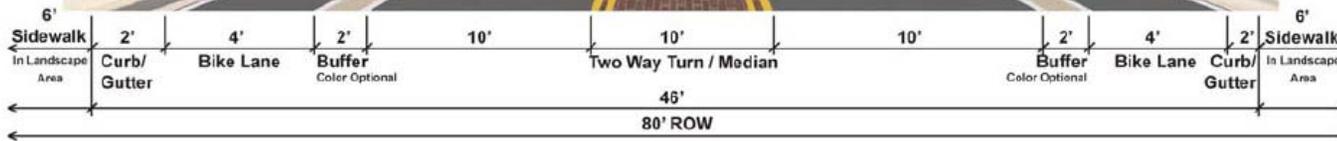
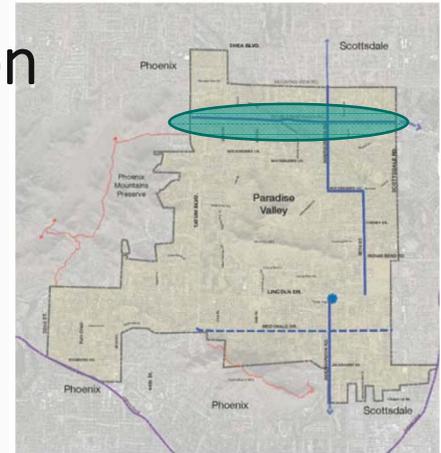
52<sup>nd</sup> St to Tatum Blvd

- 80' ROW
- 49' from bc to bc, 11' wide lanes and 15' median
- 2' extra lane width, 5' extra median width, no extra ROW
- Existing sidewalk on north side
- 4' signed bike lanes
- Back of curb: varies 5' to 20' on both sides



# DOUBLETREE RANCH RD Plan Recommendation

- 4' wide bike lanes with 2' buffer/sidewalks both sides/reducing travel lanes from 11' to 10'
- Enhanced intersections : Scottsdale, Berneil Ditch, Tatum



## DOUBLETREE RANCH RD

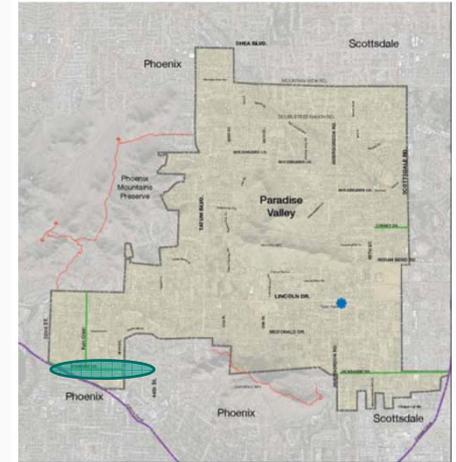
## Ideas

- East of Invergordon Rd (Match General Plan)
  - Finish meandering 6' wide sidewalk on south side
  - 4' bike lanes (with 2' buffer as suggested in master plan)
  - Add in 10' landscaped median/turn lane
  - No median at bridge crossing
  - Provides connection to Invergordon Rd and Phoenix/Scottsdale
  - Designate as bike lane, limited signage required
- West of Invergordon Rd (Match General Plan)
  - Finish meandering 6' wide sidewalk on south side
    - Tatum to 52<sup>nd</sup> St - connect to 52<sup>nd</sup> St sidewalk system
    - Option 52<sup>nd</sup> St to 56<sup>th</sup> St (connect to Cherokee School) or Sanna St (back curb constraints)
  - Travel lanes/median/north sidewalk already done (no changes)
  - Provides connection to Tatum Blvd, Tesseract school, and Phoenix/Scottsdale
  - Enhanced crossing at Tatum Blvd
  - Designate as bike lane, limited signage required



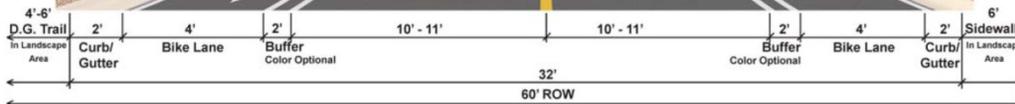
# STANFORD DRIVE Direction Heard

- General local street direction
  - Avoid bike routes on local streets
  - Avoid pavement markings and signage
- This specific street was not discussed



## Minor Collector

### Section A



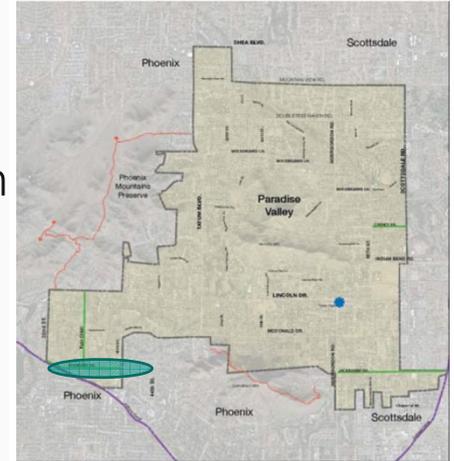
## WALK & BIKE PARADISE VALLEY

The Paradise Valley Bicycle and Pedestrian Master Plan

## STANFORD DRIVE

## General Plan

- Classified as a Collector Road, Minor Collector in Draft Plan
- Typical General Plan ROW width is 66'
- Pavement width guidelines
  - Generally need total improved width of ~66'
- Typical suggested minimums
  - 10' for travel lane (new suggested minimum)
  - 10' median (including curb)



## STANFORD DRIVE

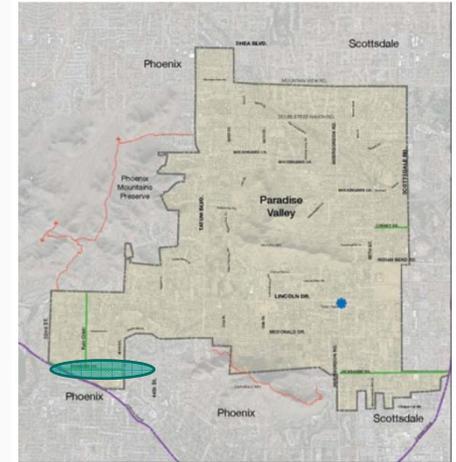
- Through traffic
- Road improvements recently completed
- Culverted washes that cross street

## Challenges

## STANFORD DRIVE

- Most of the corridor already has bike lanes/sidewalk
- Have extra ROW to complete sidewalk/bike lanes
- Provides access to regional AZ Canal/Sun Circle Trail
- 4 SUP sites located on Stanford Dr

## Advantages

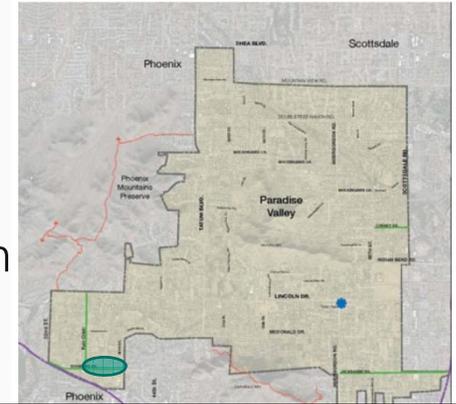


# STANFORD DRIVE

## Existing Condition

40<sup>th</sup> St to Palo Cristi Dr

- 66'/73' ROW
- Pavement varies 36' – 45' from bc to bc, 10' wide lanes/median
- No extra lane/median width, 6' and 13' extra ROW width
- Existing sidewalk on north side, partial on south side
- 4' signed bike lanes both sides
- Back of curb: varies 5' to 20' on both sides

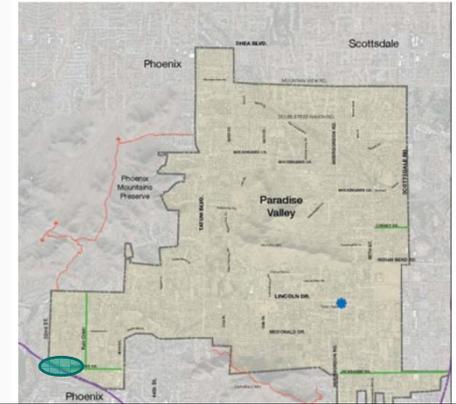


# STANFORD DRIVE

# Existing Condition

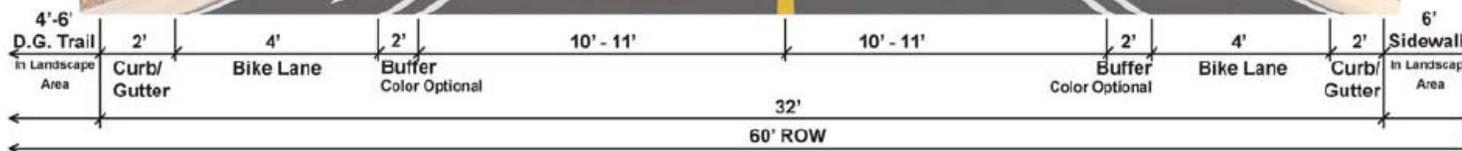
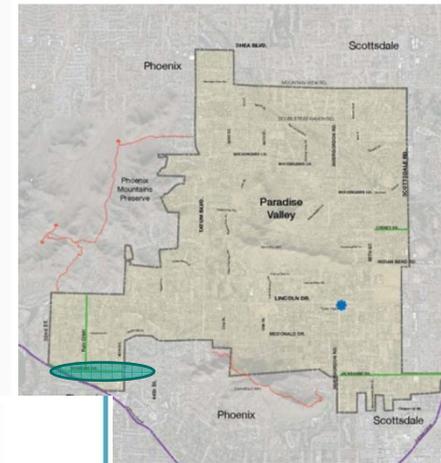
Palo Cristi Dr to 32<sup>nd</sup> St

- 60'/70'/73' ROW
- Pavement varies 32' – 38' from bc to bc, 10' wide lanes
- No extra lane/median width, 10' and 13' extra ROW width
- Existing sidewalk on north side, partial on south side
- 4' signed bike lanes both sides
- Borders canal near 32<sup>nd</sup> St
- Back of curb: varies 8' to 25' on both sides



# STANFORD DRIVE Plan Recommendation

- 4' wide bike lanes with 2' buffer/DG trail on one side of street/sidewalk on other side of street/reducing travel lanes from 11' to 10' in spots
- Designate as bike lane, limited signage required
- Enhanced intersections : 40<sup>th</sup> St



## STANFORD DRIVE

- Complete the sidewalk on the south side or DG Trail
- Opt not to add in 2' bike buffer since most street completed
- Designate as bike lane, limited signage required



## Ideas



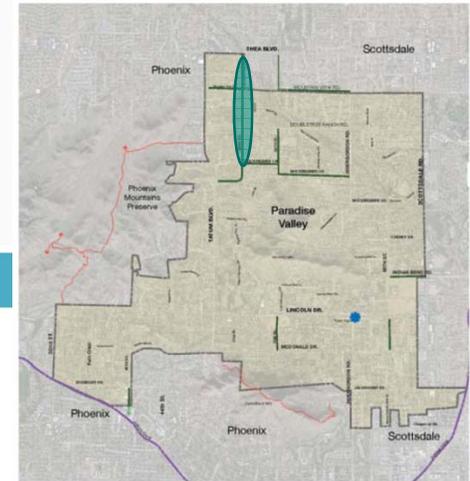
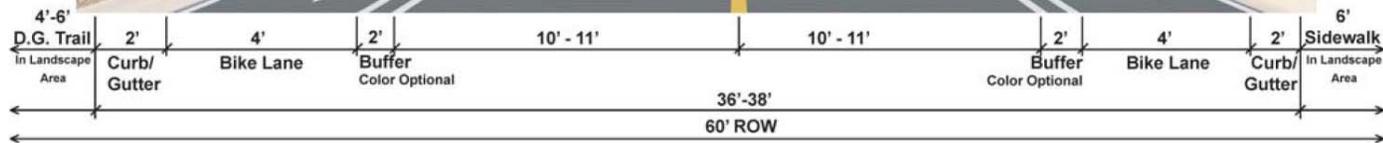
# 52<sup>nd</sup> STREET

- Not discussed

# Direction Heard

## Major Collector

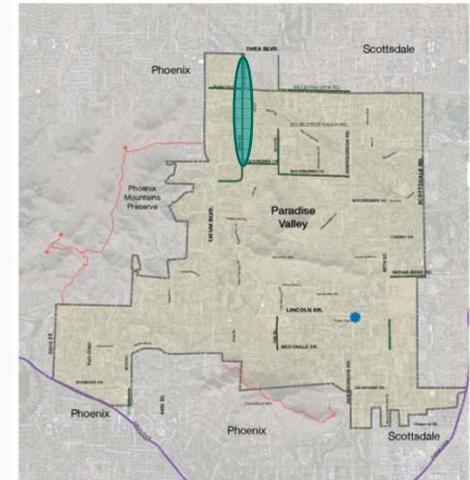
### Section A



## 52<sup>nd</sup> STREET

## General Plan

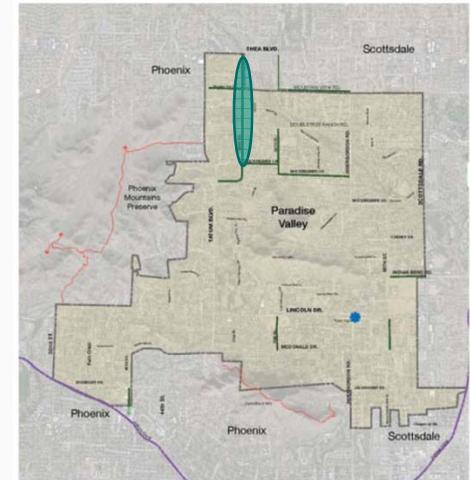
- Classified as a Local Road, Enhanced Local in Draft Plan
- Generally need total improved width of ~66'
- Typical suggested minimums
  - 10' for travel lane (new suggested minimum)
  - 10' median (including curb)



## 52<sup>nd</sup> STREET

- Through traffic

## Constraints



## 52<sup>nd</sup> STREET

- Most of the corridor already has bike lanes/sidewalk
- Have ROW to complete sidewalk/bike lanes
- Provides access to Shea and Phoenix system

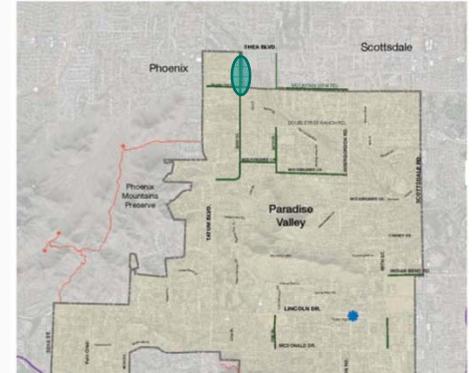
## Advantages

# 52<sup>nd</sup> STREET

## Existing Condition

Shea Blvd to Mtn View Rd

- 63’/73’ ROW
- Pavement varies 40’ – 42’ from bc to bc, 14’/15’ wide lanes
- 4’-5’ extra lane width, 3’ and 13’ extra ROW width
- No median, use chicanes
- Existing sidewalk on both sides
- 4’ signed bike lanes both sides
- Back of curb: 8’/15’ on west side and 15’/16’ on east side



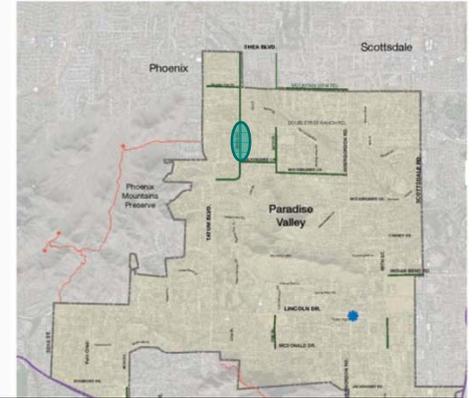


# 52<sup>nd</sup> STREET

## Existing Condition

Doubletree Ranch Rd to Mockingbird Ln

- 65'/80' ROW
- Pavement varies 34' – 39' from bc to bc, mostly 11' wide lanes
- 4' extra lane width (one stretch), 5' - 20' extra ROW width
- Medians at end of corridor
- Existing sidewalk on west side only
- 4' signed bike lanes both sides
- Back of curb: ~13'-27' on west side and 18'-21' on east side



# 52<sup>nd</sup> STREET

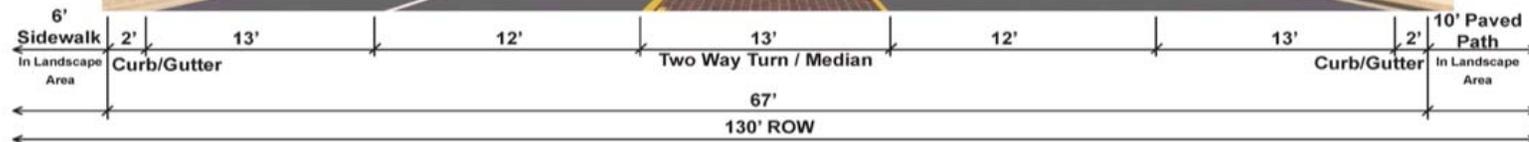
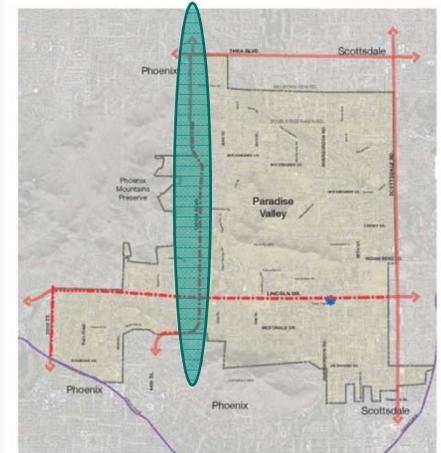
## Ideas

- Complete the sidewalk on the east side or DG trail
- Replace existing asphalt sidewalk with concrete
- Optional add in 2' bike buffer to the existing bike lanes
- Keep designates as bike lane, limited signage required



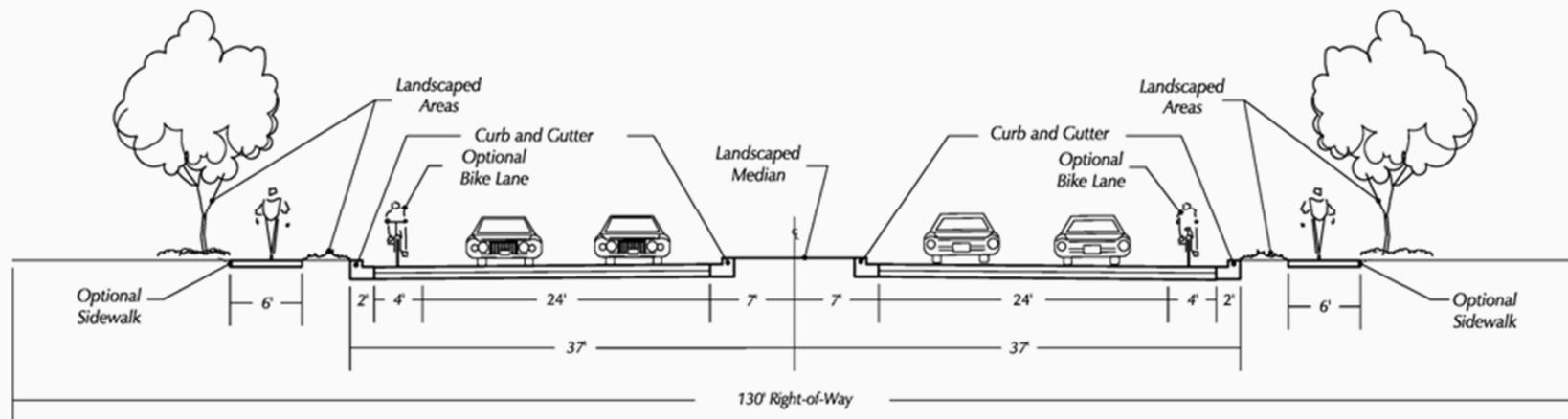
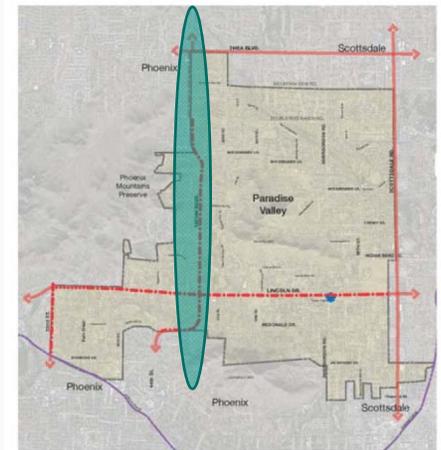
## TATUM BLVD Direction Heard

- Add pedestrian facilities both sides of street
  - 6' wide meandering sidewalk
  - Consider a 10' wide path on one side – could change sides
- No bike lanes and no signage
- Limit changes within existing roadway curbs



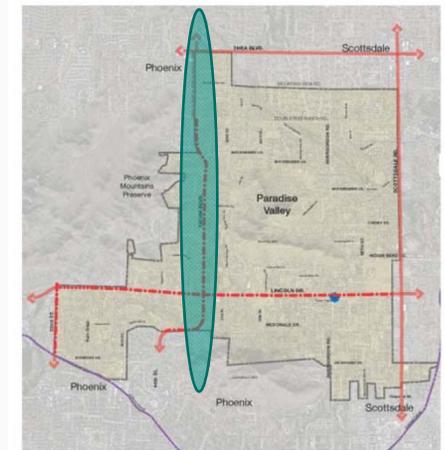
# TATUM BLVD General Plan

- Classified as a Major Arterial (Like Lincoln)
- Generally need ~ total improved width of 96' (to back of sidewalk w/ 5' landscape zone)



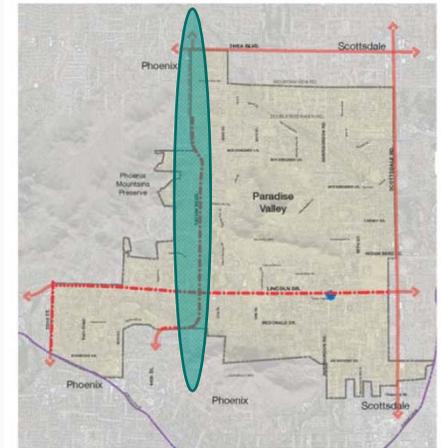
## TATUM BLVD Challenges

- Majority not at typical 130' right-of-way width varying from 80' to 120'
- Sidewalks are inconsistent
- Landscaping, walls and utility boxes in available ROW
- City of Phoenix ROW ownership north of Doubletree
- Highly traveled connective roadway – through traffic for vehicles and less so for bicyclists
- Washes/topography/drainage exist
- Traffic speed and volume create barriers for pedestrians and cyclists wanting to access destination west of Tatum, i.e. Trail 100 Trailhead @ Tomahawk
- No bicycle facilities proposed in Phoenix



## TATUM BLVD Opportunities

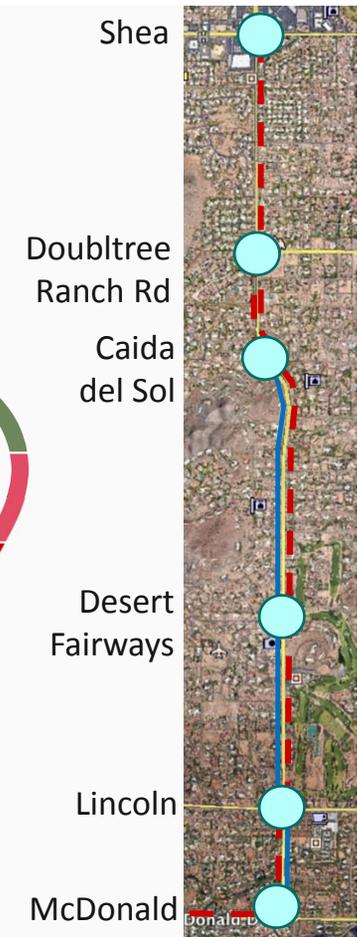
- Sidewalk project in PV CIP north of Doubletree
- Visually Significant Corridor master plan in process
- Opportunity to reduce pavement width
  - Several areas with extra lane/median widths
- Linkage to Phoenix Mountains Preserve Trailhead @ Tomahawk Trail
- Much sidewalk exists



# TATUM BLVD Ideas

- No bike lanes
- Minimize impact to existing curb/gutter
- North of McDonald Drive
  - Widen existing 6' Sidewalk to 10' Path on west side to Lincoln Drive
  - Widen existing 6' Sidewalk to 10' Path on east side to Shea Boulevard
  - Use excess shoulder on both sides from Desert Jewel to Tomahawk Trail for pavement reduction to allow more room for 10' Path on east side and 6' sidewalk west side or to create a walkable shoulder
  - Add 10' Path from Sunset/Caida del Sol north to Trail 100 trailhead @ Tomahawk on the west side
  - Add 10' Path from Trail 100 trailhead north to Doubletree Ranch Road
- Enhanced crossings where Lincoln intersects with other north/south Paths, Routes or Bike Lanes

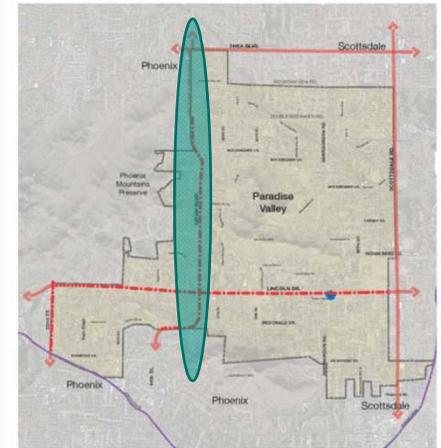
- - - - 10' Shared-Use Path (Consider a narrower unsigned path: 8')
- — 6' Sidewalk
- ○ Enhanced Crossings



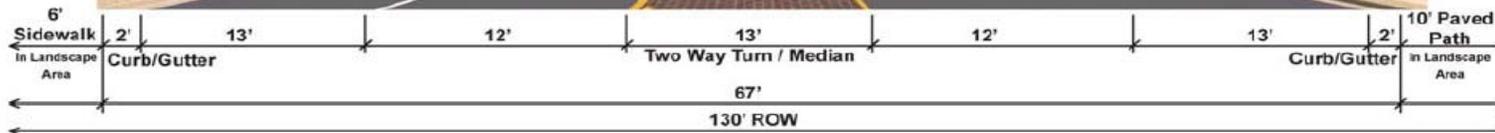
# TATUM BLVD Plan Recommendation

Add 10' path one side with sidewalk other side/ no other changes

- Enhanced intersections : McDonald, Lincoln, Desert Fairways, Caida del Sol, Doubletree Ranch Rd and Shea Blvd



## Option B



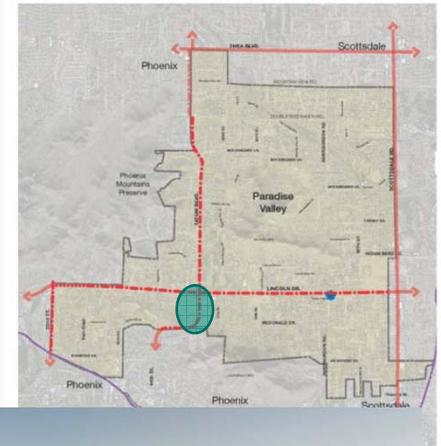
WALK & BIKE PARADISE VALLEY

The Paradise Valley Bicycle and Pedestrian Master Plan

# TATUM BLVD Existing Condition

McDonald Drive to Lincoln Drive

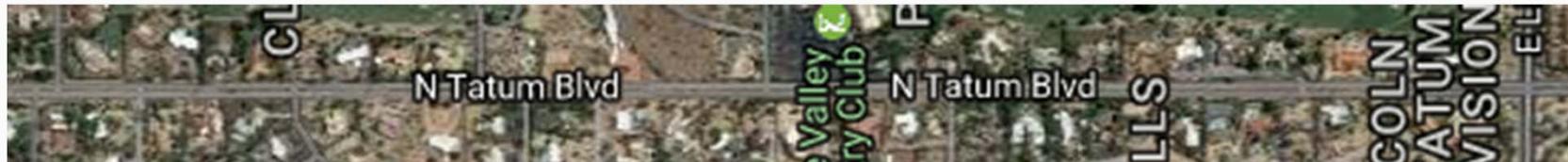
- ROW from 83' to 105'
- Extra lane width near McDonald, with minimal extra ROW
- Existing 6' wide sidewalk on both sides
- Existing walls constrict east side of ROW
- Generous space north side of McDonald west of Tatum



# TATUM BLVD Existing Condition

Lincoln Drive to Roadrunner

- ROW from 80' to 105'
- No extra lane width
- Existing 6' wide sidewalk on both sides
- Existing walls and landscaping constrict both sides of ROW, major grading issues on west side
- Existing bike route sign for northbound just south of Desert Fairways



# TATUM BLVD Existing Condition

Roadrunner to Caida Del Sol Drive

- ROW from 80' to 101'
- Excess shoulder on both sides from Desert Jewel to Tomahawk Trail
- Existing 6' sidewalk on both sides up to Desert Jewel, no sidewalk on west side north of Desert Jewel to Trail 100
- Path meanders to east north of Desert Jewel



# TATUM BLVD Existing Condition

Caida Del Sol Drive to Doubletree Ranch Road

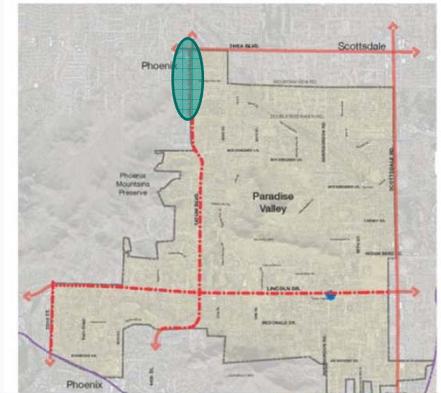
- ROW from 80' to 120'
- Extra lane width from Caida Del Sol to Tomahawk on east side
- Existing meandering 6' sidewalk on east side
- No sidewalk north of Caida Del Sol to Tomahawk Trail on west side
- Trail 100 Trailhead on west side at Tomahawk Trail
- 6' sidewalk on west side from Trail 100 to Shea



# TATUM BLVD Existing Condition

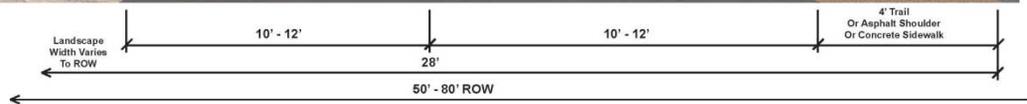
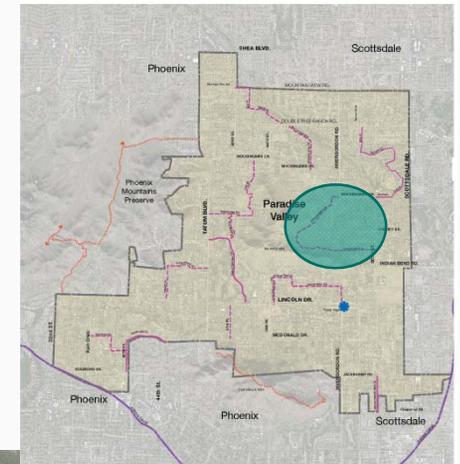
Doubletree Ranch Road to Shea Blvd

- ROW from 95' to 120'
- Minimal and inconsistent extra lane width
- Existing 6' wide sidewalk on west side
- Frontage road and ample ROW on east side
- CIP project to provide sidewalk on east side from Doubletree Ranch Road to Mountain View
- Existing 6' sidewalk on east side north of Mountain View



# HUMMINGBIRD LN. Direction Heard

- Reduce accidents by increasing safety
  - Slow both bicycle and car traffic
  - Provide safe environments for both bicyclists and pedestrians
- No bike lanes with limited to no signage

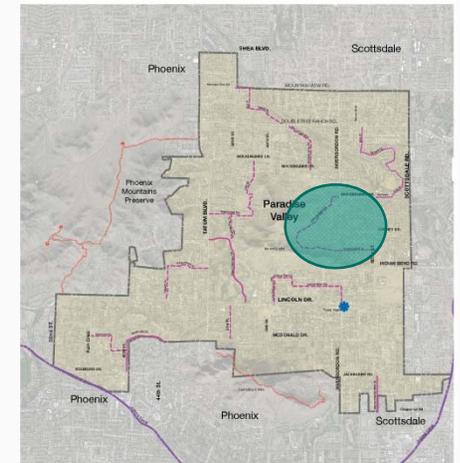
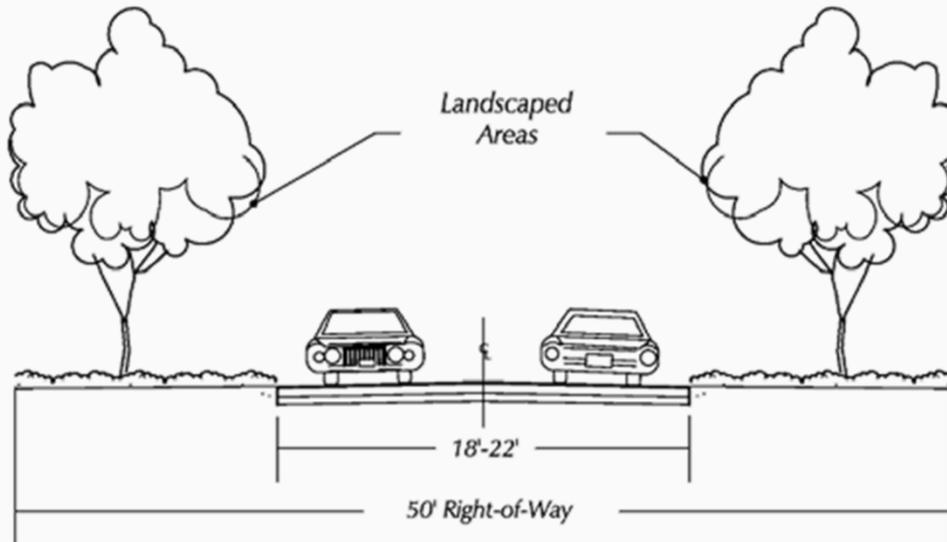


WALK & BIKE PARADISE VALLEY

The Paradise Valley Bicycle and Pedestrian Master Plan

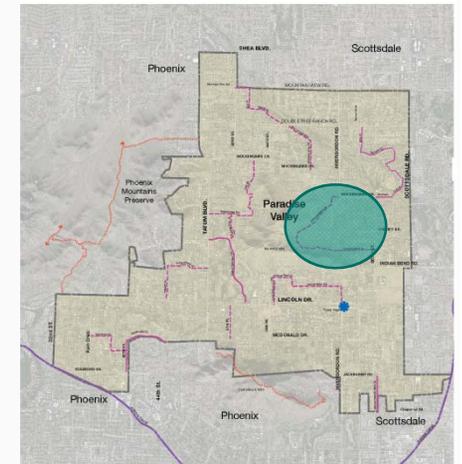
## HUMMINGBIRD LN. General Plan

- Classified as a local street Section C
- Generally need ~ total improved width of 22' (to edge of roadway pavement)
- 50' Right-Of-Way
- No pedestrian or bicycle facilities provided



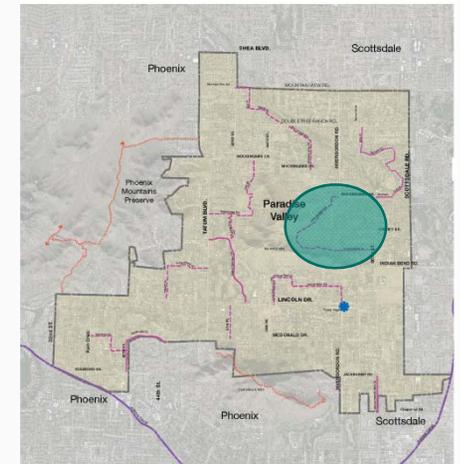
## HUMMINGBIRD LN. Challenges

- Majority at typical 50' right-of-way width with some locations narrowing to 30'
- There are slopes on both sides of the road in some places
- Highly frequented loop by cars, pedestrians, and bicyclists, a number of accidents have occurred
- Washes/topography/drainage exist
- May be a neighborhood concern



## HUMMINGBIRD LN. Opportunities

- Provides a route for local residents to avoid higher traffic streets
- Opportunity to reduce traffic accidents along route
- Possible reduction in pavement width in some locations
  - Reduce traffic speed
- Available ROW is adequate along most of the route



## HUMMINGBIRD LN. Ideas

- No bike lanes
- Provide a pedestrian facility off of the street, via trail
- Implement traffic reduction implements, such as chicanes, mini-round-a-bouts, and speed bumps that go the entire width of the roadway(helps to reduce bicycle speeds)

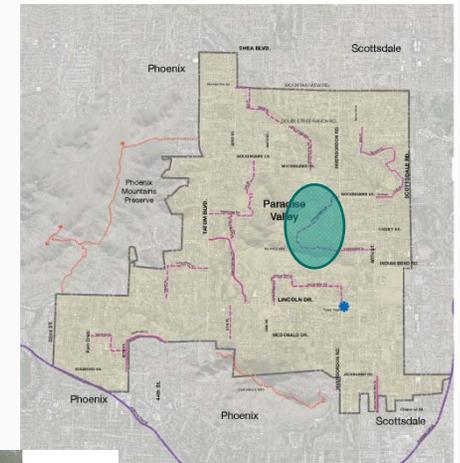
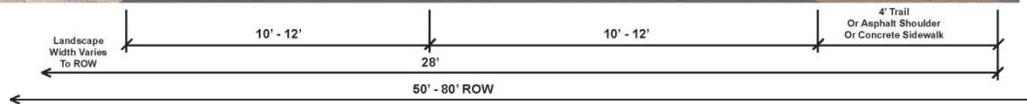


# HUMMINGBIRD LN. Plan Recommendation

Creates Decompose Granite Trail OR 5' Sidewalk on 1 side or both sides, whatever seems in character with the neighborhood. Optional Decorative in-Pavement markings OR vertical Signage at major intersections and obstructed sight lines (curves/hills) for bike routes.

- Section A is to be used along Hummingbird Ln. from Quartz Mountain rd. to Northern

## Section A

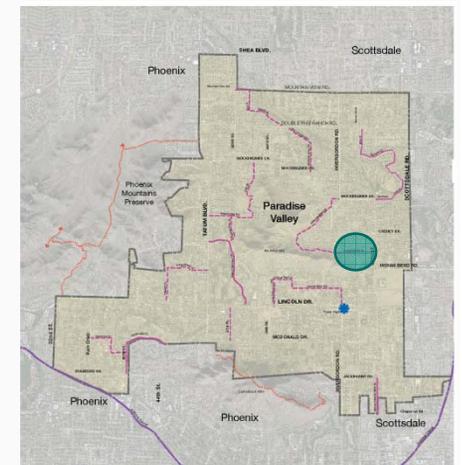
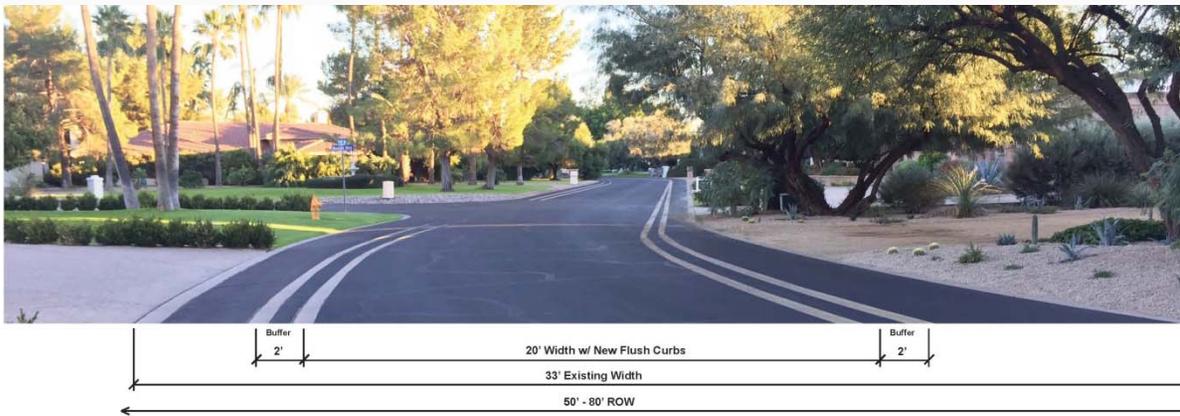


# HUMMINGBIRD LN. Plan Recommendation

4' Walkable Paved shoulder on both sides of street with a shoulder stripe of exposed aggregate material. Optional Decorative in-Pavement markings OR vertical Signage at major intersections and obstructed sight lines (curves/hills) for Bike routes. Include existing Rolled/ Vertical/Ribbon Curbs.

- Section C is to be used along Hummingbird Ln. from Quartz Mountain rd. to Northern

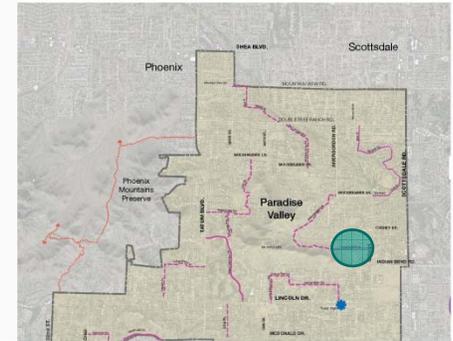
## Section C



# HUMMINGBIRD LN. Existing Condition

Hummingbird Ln.(Mockingbird to Quartz Mountain Rd.)

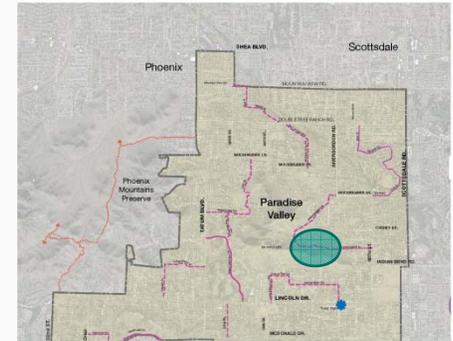
- Exceeds the 50' ROW
- Exceeds pavement width required by G.P.
- Rolled curbs on both sides



# HUMMINGBIRD LN. Existing Condition

Hummingbird Ln.(Quartz Mountain Rd. to Cheney Dr.)

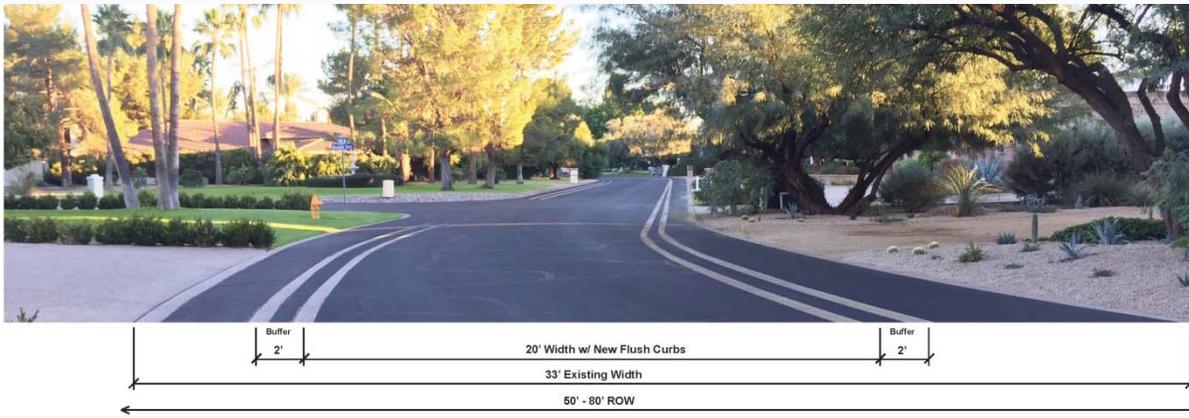
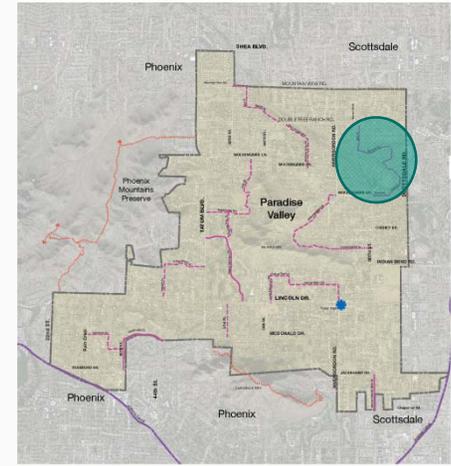
- Meets the 50' ROW in most locations
- Meets and/or Exceeds pavement width required by G.P. in most locations
- No curbing on either side
- Steep slopes present in some areas





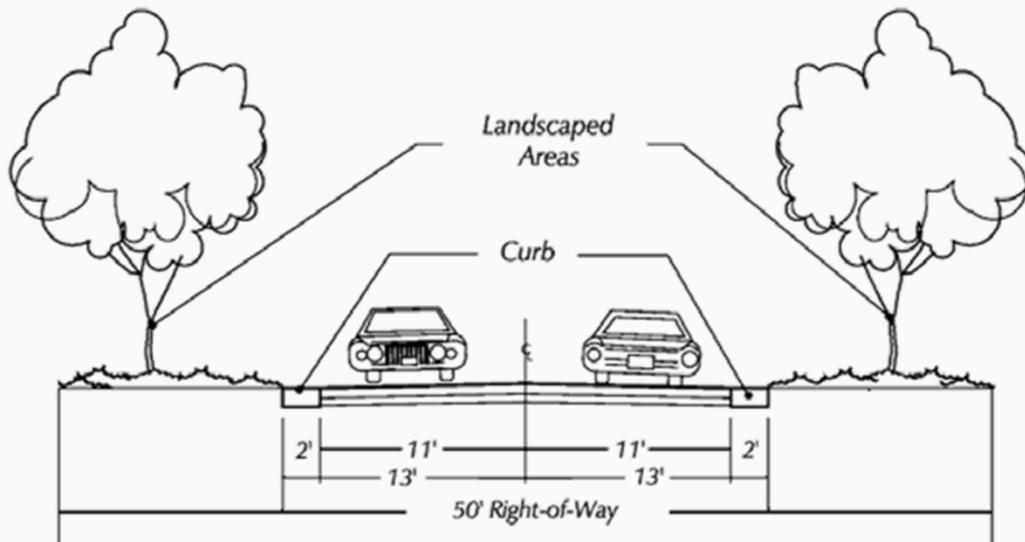
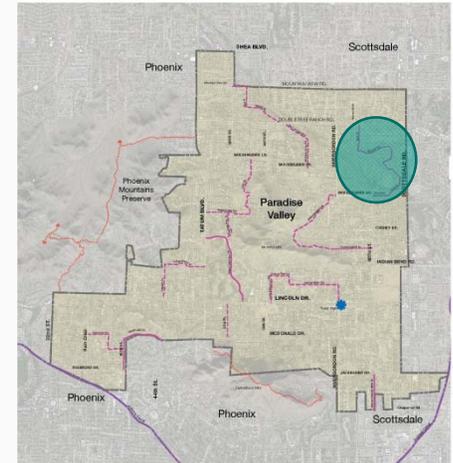
# GOLF DR. Direction Heard

- Minimal to no signage
- Maintain aesthetic quality
- For Local pedestrian use
- No bike lanes



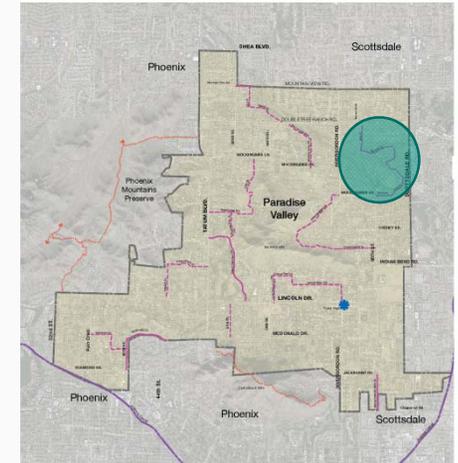
## GOLF DR. General Plan

- Classified as a local street Section B
- Generally need ~ total improved width of 24' (to edge of roadway pavement)
- 50' Right-Of-Way
- No pedestrian or bicycle facilities provided



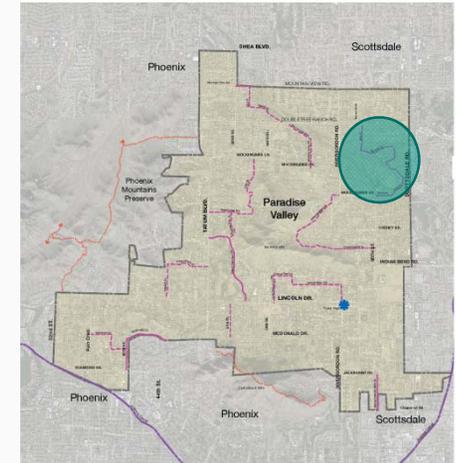
## GOLF DR. Challenges

- A Quiet neighborhood
- Limited to no signage
- Creating a facility without causing extreme change to the built environment.



## GOLF DR. Opportunities

- Provides a route for local residents to avoid higher traffic streets
- Reduction in travel lane width in some locations
  - Reduce traffic speed
- Available ROW is adequate along the route
- The pavement wide enough to allow in-street facilities



Add a graphic to show the idea of the corridor

## GOLF DR. Ideas

- No bike lanes
- Provide a pedestrian facility in the existing street
- Implement traffic speed reduction by reducing the travel lanes

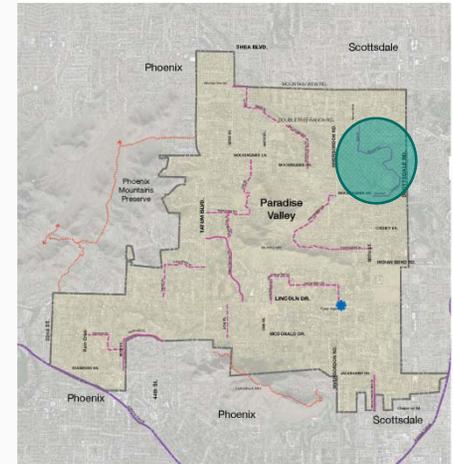
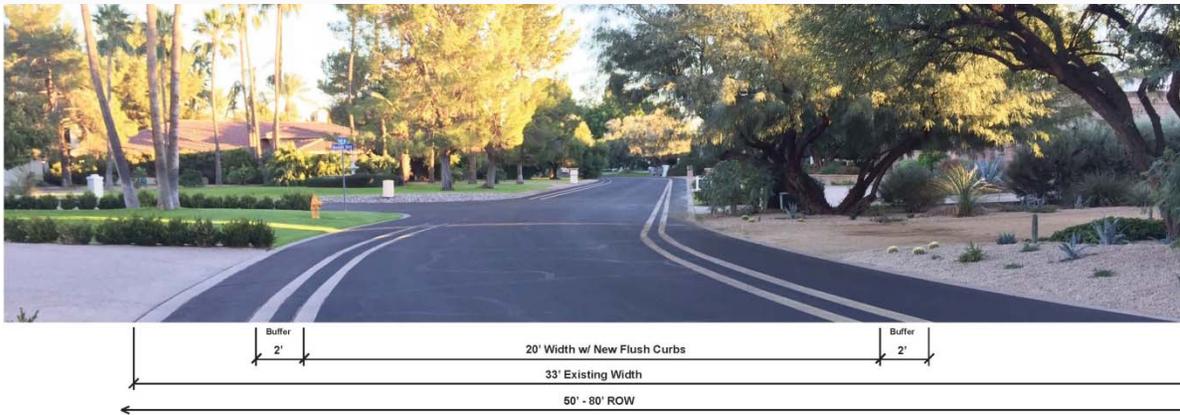


# GOLF DR. Plan Recommendation

4' Walkable Paved shoulder on both sides of street with a shoulder stripe of exposed aggregate material. Optional Decorative in-Pavement markings OR vertical Signage at major intersections and obstructed sight lines (curves/hills) for Bike routes. Include existing Rolled/ Vertical/Ribbon Curbs.

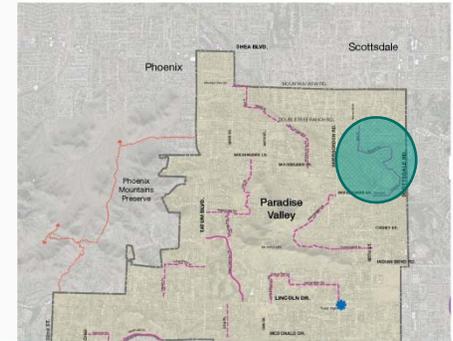
- Section C is to be used along the entire stretch of Golf Dr., Caballo Dr., and 66<sup>th</sup> Pl. to Doubletree Ranch Rd.

## Section C



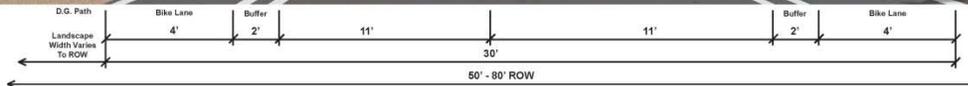
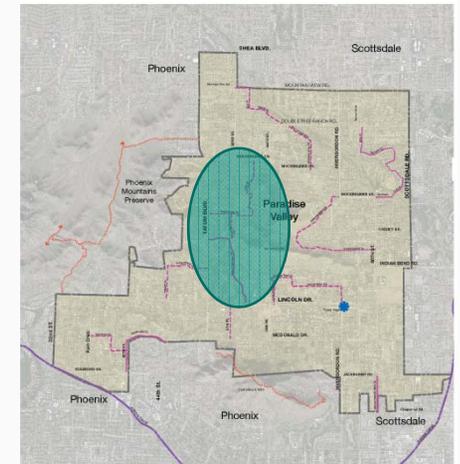
# GOLF DR. Existing Condition

- Meets or Exceeds the 50' ROW
- Exceeds pavement width required by G.P.
- Rolled curbs on both sides



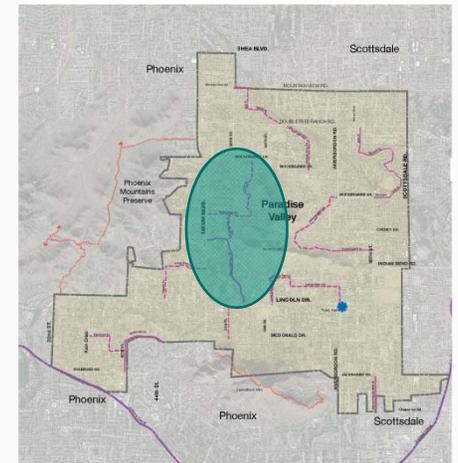
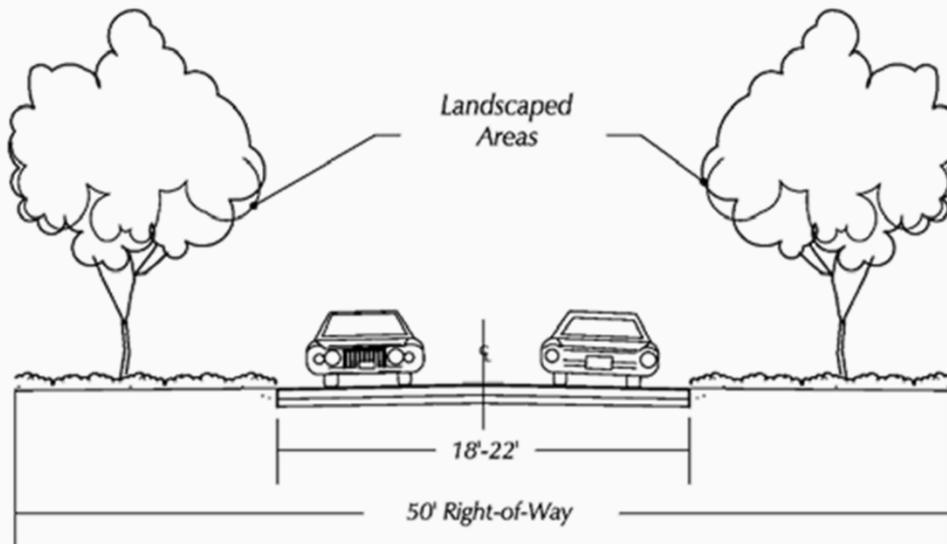
# DESERT FAIRWAYS DR. Direction Heard

- Reduce accidents by increasing safety
  - Slow both bicycle and car traffic
  - Provide safe environments for both bicyclists and pedestrians
- Minimal to no signage
- Maintain aesthetic quality



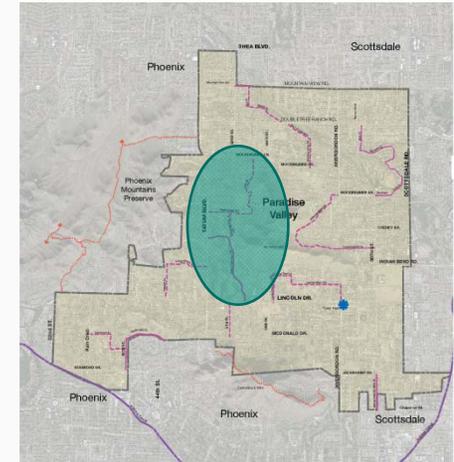
## DESERT FAIRWAYS DR. General Plan

- Classified as a local street Section C
- Generally need ~ total improved width of 22' (to edge of roadway pavement)
- 50' Right-Of-Way
- No pedestrian or bicycle facilities provided



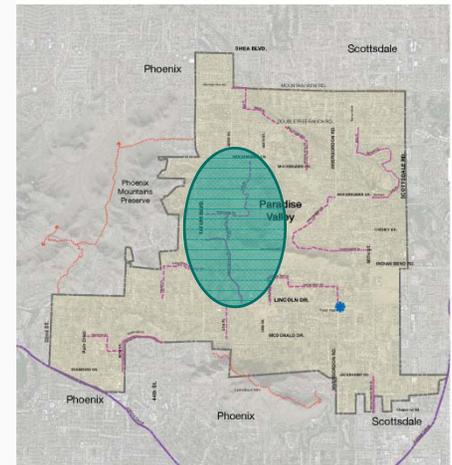
## DESERT FAIRWAYS DR. Challenges

- There are steep slopes on both sides of the road in some places
- Encroachment by private land owners into the Right-Of-Way
- Highly frequented loop by cars, pedestrians, and bicyclists.
  - A number of accidents have occurred
- Washes/topography/drainage exist
- May be a neighborhood concern



## DESERT FAIRWAYS DR. Opportunities

- Provides a route for local residents to avoid higher traffic streets
- Opportunity to reduce traffic accidents along route
- Possible reduction in pavement width in some locations
  - Reduce traffic speed
- Available ROW is adequate along the route
- There is already a large paved shoulder and detached walkway in some areas
- Road is heavily stripped already



## DESERT FAIRWAYS DR. Ideas

- No bike lanes
- Provide a pedestrian facility off of the street, via trail
- Implement traffic reduction implements, such as chicanes, mini-round-a-bouts, and speed bumps that go the entire width of the roadway(helps to reduce bicycle speeds)

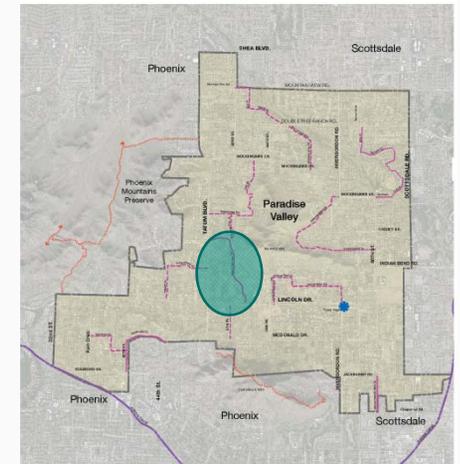
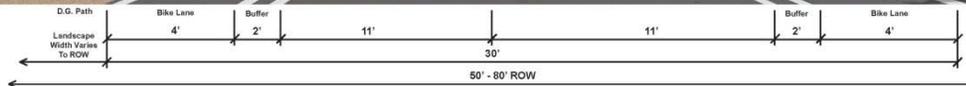


# DESERT FAIRWAYS DR. Plan Recommendation

Decomposed Granite Shoulder Trail on 1 side OR both sides. 4' minimum Bike Lanes on both sides with 2 Lanes of Traffic, 9' to 11' wide. Optional ribbon Curb, unless existing OR vertical/rolled curb required for drainage/erosion control\*Traffic Calming influence due to 9' - 11' lane widths, which is a "pavement reduction" in several areas of town

- Section B is to be used along Desert Fairways from Lincoln to Tatum

## Section B

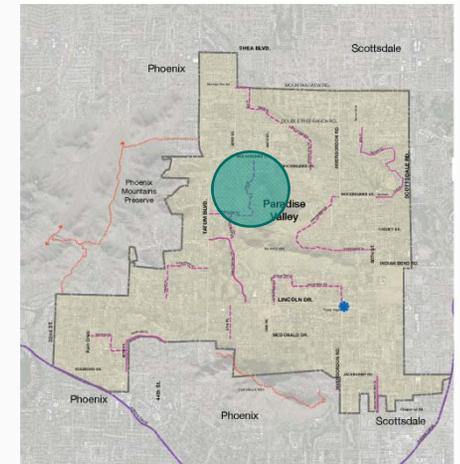
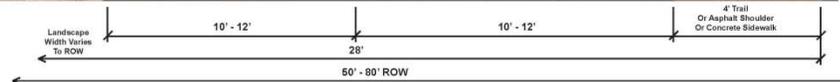


# DESERT FAIRWAYS DR. Plan Recommendation

Creates Decompose Granite Trail OR 5' Sidewalk on 1 side or both sides, whatever seems in character with the neighborhood. Optional Decorative in-Pavement markings OR vertical Signage at major intersections and obstructed sight lines (curves/hills) for bike routes.

- Section A is to be used along Shadow Mtn. Dr, Roadrunner, and 54th st. to Mockingbird

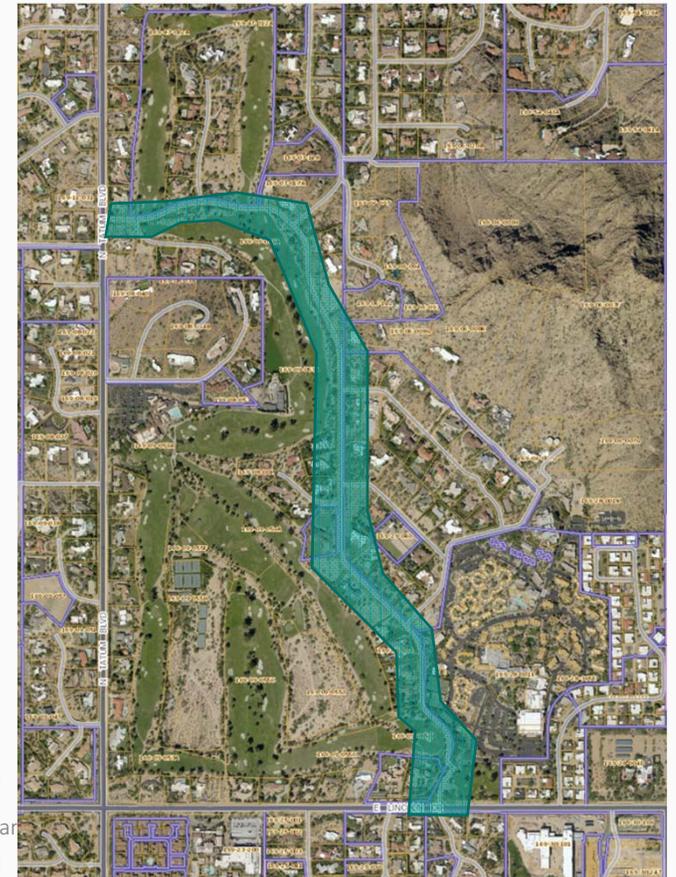
## Section A



## DESERT FAIRWAYS DR. Existing Condition

Desert Fairways Ln.(Lincoln to Tatum)

- Exceeds the 50' ROW
- Exceeds pavement width required by G.P.
- Curbs exist in some areas
- Has detached walkable asphalt shoulder in some locations





# BERNEIL DITCH

- Not discussed

# Direction Heard



## Off-Street Canals, Ditches, Etc.

### Section A



8' - 10'  
Compacted Decomposed  
Granite 8' - 10' Trail OR  
10' Min. Shared-Use Paved Path

## BERNEIL DITCH

## Constraints

- Borders the rear lots of homes
- No existing legal connection across golf course on portion south of Doubletree Ranch Rd



## BERNEIL DITCH

## Advantages

- Town already maintains portion north of Doubletree Ranch Rd as a trail
- Connection point to Chaparral High and golf course

# BERNEIL DITCH

## Existing Condition

- 100' wide
- Concrete-lined drainage channel
- In CIP for improvements



# BERNEIL DITCH

# Plan Recommendation

- Improve the trail on the one side with landscaping adjoining the homes



## Off-Street Canals, Ditches, Etc.

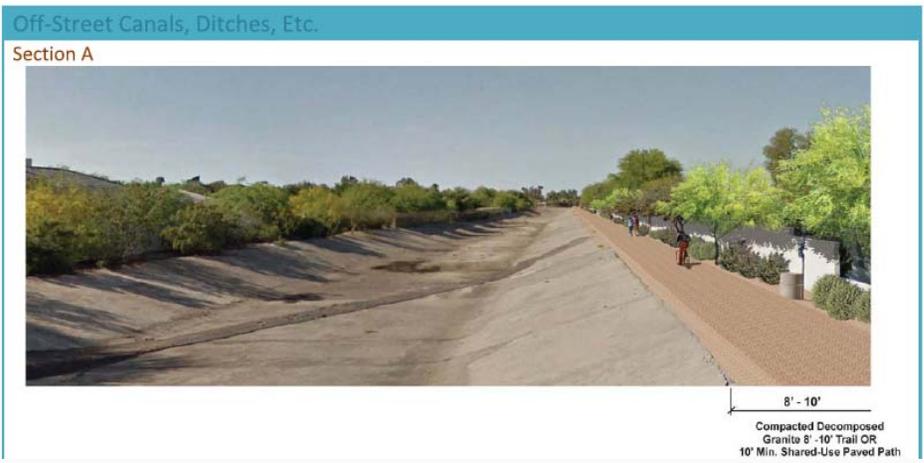
### Section A



8' - 10'  
Compacted Decomposed  
Granite 8' - 10' Trail OR  
10' Min. Shared-Use Paved Path

# BERNEIL DITCH

- Remove the concrete lining, make more natural
- Not complete the portion south of Doubletree Ranch Rd since there is no thru connection



# Ideas



# KEY QUESTIONS SUMMARY



## KEY QUESTIONS

- What level of accommodation is appropriate for bikes?
- What level of accommodation is appropriate for pedestrians?
- Does the plan address necessary policy and program implementation strategies?
- What is the next step in the process?



# QUESTIONS?

## WALK & BIKE PARADISE VALLEY

The Paradise Valley Bicycle & Pedestrian Master Plan

