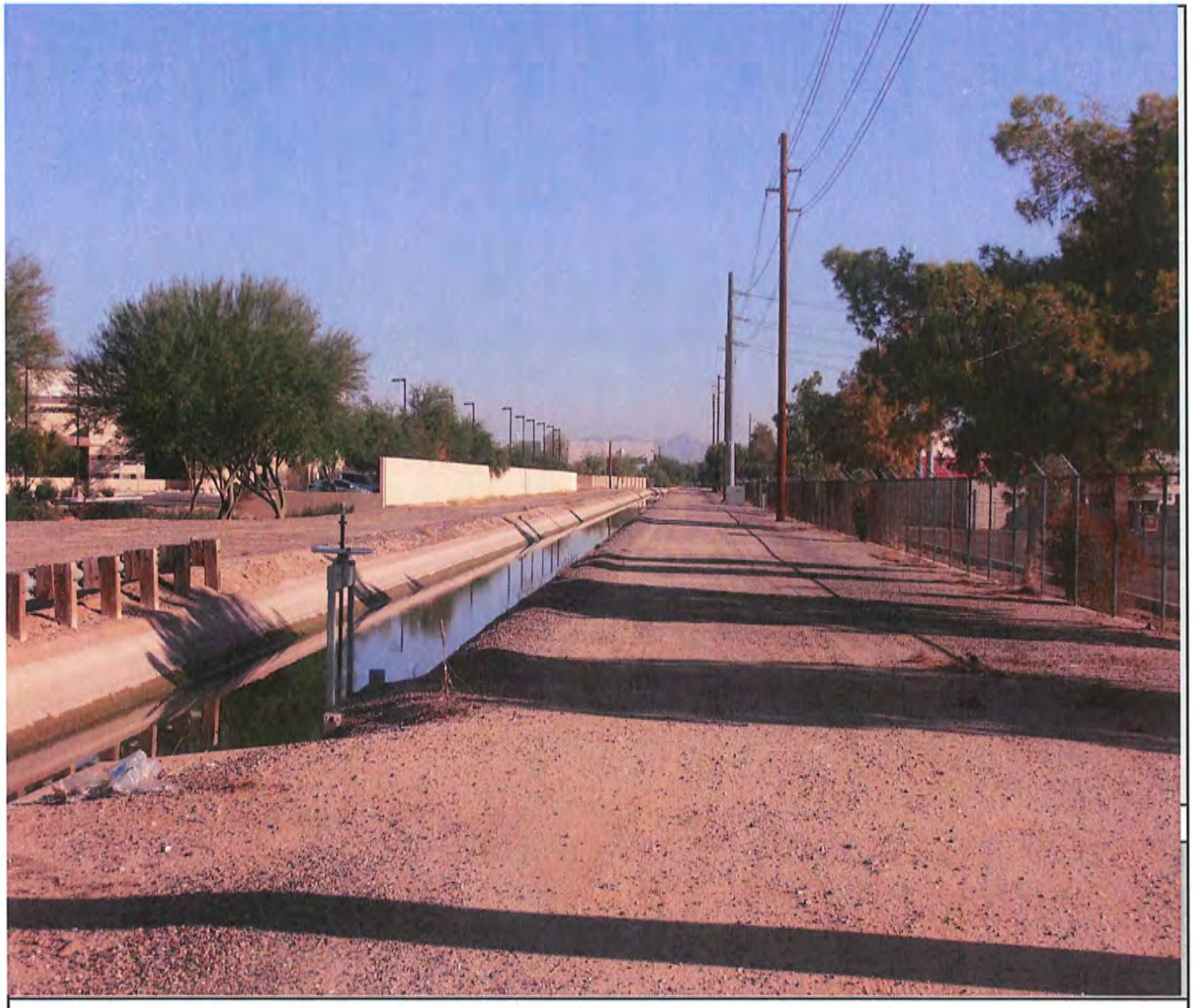


Highland Canal Multi-Use Path Project Phase II

City of Tempe

APPLICATIONS ARE DUE AT MAG OFFICES BY
Tuesday, October 22, 2013 at 10:00 a.m.

(LATE AND/OR INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED)

PART A - CONTACT AND PROJECT DESCRIPTION	
Contact Information	
1. Name of Sponsoring Agency	Tempe
2. Agency Contact Name	Jeff Kulaga
3. Phone Number of Agency Contact	480-350-8844
4. E-Mail Address of Agency Contact	jeff_kulaga@tempe.gov
5. Mailing Address of Agency Contact	City of Tempe City Manager's Office 31 E 5th St Tempe AZ 85281
Project Description	
6. Please provide the Project Title.	Highland Canal Multi-Use Path Phase II
7. Please provide a concise, specific description of the project (250 character limit):	
Highland Canal Phase II extends 1.5 miles from Auto Dr. to the southern City of Tempe boundary. Project includes street crossing treatments, bridges, landscaping, lighting, concrete path and meets all ADA and transportation design standards.	
8. Please provide the project limits:	
The Highline Canal Multi-use Path Project Phase II project will extend from Auto Drive in the City of Tempe, along the Highland Canal, to the City of Tempe border with the City of Chandler. The proposed multi-use path is 1. 5 miles in Tempe.	
Safe Routes to School (if project is NOT a Safe Routes to School project, proceed to Part B)	
9. School Name	
10. School Address	
11. School City, State, ZIP Code	

PART B-PROJECT DESCRIPTION

This part of the form identifies the current characteristics and proposed improvements for each project.

The purpose of Part B is to provide sufficient information to evaluate the cost estimate for the project and to provide assurance that the project will be capable of meeting the ADOT administered federal design review and clearance process. This process requires environmental, ROW and utilities clearances and a bid ready design prior to FHWA approval to encumber federal funding for construction.

NOTE: For Part B, Questions 12-13 and 15-18, the specified distance will vary (and update automatically) depending on the project type identified in Part B, Question 1. Pedestrian-only projects will use a distance of 1/4 mile, while bicycle and Shared-Use projects will use a distance of 1/2 mile.

1. What type of project is this? (Check only one)

	Bicycle lane (4' min. w/o curb/gutter)
	Bicycle lane (5' min. with curb/gutter)
X	Shared-use path (10' min.)
	Detached Sidewalk with 4' min. buffer
	Sidewalk (5' min.)
	Wide Sidewalk (8' min.)

Other:

2. What other major elements are included in this project? (Check all that apply)

	Bridge (overpass)
	Tunnel (underpass)
	Safe Routes to School
1	Signalized Crossing
0	Signalized midblock crossing/HAWK
5	Countdown Pedestrian Signal
20	Number of Bike racks/lockers
0	Number of Drinking Fountains
30	Number of Way-finding Signs
20	Number of Trash receptacles
0	Number of new openings in street walls
200	Number of Trees
2	Number of Shade Structures
5	Number of Seating/Rest Area(s)
6	Number of bicycle/pedestrian counting devices

Other:

3. Please describe the existing condition of the project site and any problem(s) being addressed.

The project area Salt River Project and City of Tempe right-of-way area that is largely unpaved, unlit and non-ADA accessible. The proposed multi-use path would connect residents from south Tempe, Guadalupe and Phoenix to numerous shopping and employment centers. The proposed project site is currently an unpaved canal bank and non-ADA accessible. The project would provide a continuous non-motorized path that will connect residents from the cities of Tempe, and Phoenix and the Town of Guadalupe to shopping, employment centers, schools, parks and transit services.

4. Please describe the work being done and improvements being made as part of this project.

The project consists of paving 10-foot wide multi use path; striping for bicycle lanes; developing and installing way-finding signs; lighting; signalized crossing; bike and ped amenities, such as bike racks,

5. What do you hope to achieve with this project?

Provide bike and pedestrian commute and recreational facility that connects activity centers within the City of Tempe and also to the cities of Phoenix, Chandler, and Guadalupe.

6. Please provide a site safety / crash history, and provide a source for this information.

Please describe any car-bicycle and car-pedestrian crashes on streets within 2-mile radius of the project (within the last 5 years). You may attach crash reports or summarize their results below.

Total Bike Accidents- 6 - 0 Fatal; Total Pedestrian Accidents - 3 - 0 Fatal. Data collected is only for 2 years.

7. Safety improvements to be included for this project: (Check all that apply)

	Wide bike lanes (6'-7')
	Wide sidewalk (8' min.)
	Grade-separated crossing (overpass or underpass)
X	Signalized crossing/Ped countdown/HAWK
X	Lighting
X	Striping/re-striping of roadway
X	Countdown signals

Buffer Zone, Width

Other

PART B-PROJECT DESCRIPTION

8. How does this project improve upon an existing safety issue?

The project will provide off-street bike and pedestrian facilities that will minimize conflict between automobiles and bikes and pedestrians.

9. How does the project improve ADA facilities for persons with disabilities?

The project will provide 10-foot wide concrete path and ADA compliant access points at canal crossings. The project will also provide signalized crossings that will make it easier for people with disabilities to safely cross major arterial and collector streets. Any non-ADA compliant driveway will also be improved to meet ADA guidelines.

10. How does the project create a sense of place?

Developing a 10-foot wide multi-use path will encourage people to use Highland Canal as major recreational destination. With the addition of pedestrian and bike amenities such as benches and shading such as trees, and the addition of art at

11. Connectivity: (Check all that apply)

[X] Project fills a gap in the system
Explain:
Path would link Tempe, Guadalupe, Chandler, and Phoenix. No continous pathway system exist between the

[X] Project connects to other local bikeways
List of connected bikeways:
Western Canal; Kyrene Path;

[X] Multi Jurisdicional Project
List of Participating Jurisdictions:
Town of Guadalupe Phase 1

[15] Total length of facilities connected by this project (in miles)

12. Number of transit stops this project will connect to. Do NOT count major transit facilities (park and rides, transit centers, etc.) in this question. List associated route(s) and their peak frequency, using Valley Metro as the source.

[20] Within 1/2 mile
List routes and frequency:
56 - 15 Peak- 30 Minute all day, 108 -30 Minute all day (Tempe), 65-30 Minute all day; 66 - 30 Minute all day.

13. Number of major transit facilities (park and rides, transit centers, etc.) served by this project:

[0] Within 1/2 mile
List:

14. Describe how this project will improve access from nearby neighborhoods and/or adjacent uses:

This path project would link neighborhoods from the Cities of Tempe and Chandler from Orchid Lane to the south to Auto Drive in Tempe . The proposed project would provide a more direct route to major regional shopping and employment destinations and a more comfortable travel corridor for all citizens, especially the less experienced and recreational bike users . The project would provide easier access, along a safe, convenient, and dedicated non-motorized

PART B-PROJECT DESCRIPTION

15. Number of activity centers (parks, libraries, senior centers, recreational centers, etc.) this project will benefit:

2 Within 1/2 mile

List:

Tempe Sports Complex; Tempe Police Station South Facility and Community Center

16. Number of commercial and employment destinations (malls, retail centers, business parks, etc.) this project will benefit (for example, a mall is ONE destination; do NOT count every store in a mall as a separate destination):

29 Within 1/2 mile

List:

29 Business/Commercial Parks - 92 Business Units

17. Number of K-8 public schools this project will benefit:

1 Within 1/2 mile

List:

Kyrene de Las Manitas Elementary School

18. Number of other schools (charter schools, high schools, colleges, and universities) this project will benefit:

2 Within 1/2 mile

List:

Aveda Institute; Everest University

19. What are the demographics of the area served:

1167 People Per Square Mile

6.9 % Families in Poverty

MAG Demographic Mapping

Use the MAG Demographic Mapping link above. Zoom in to your project area. On the right-hand side of the screen, under "Reporting," select "Custom." Next, select "Corridor of Interest." Left-click to begin drawing. Draw a line through all census blocks adjacent to your project, left-clicking where needed to change the direction of the line Double-click to finish drawing the line. The selected census blocks will become highlighted in blue. A pop-up box will appear with "Results for Selected Block Groups." Select the "Summary Report" tab, and use the data found there. You may export the results to Excel (click the printer icon at the top-right side of the pop-up window) for your records.

PART B-PROJECT DESCRIPTION

20. Please provide the following information on the facility on which the improvement will be located.

For a linear project, please enter the Facility Name, Starting Limit and Ending Limit:

Highland Canal from Auto Drive in the City of Tempe to the City Boundary with the City of Chandler.

For a point project (e.g. an intersection or crossing), please enter a Facility Name and a Crossing Feature:

Federal Functional Classification of the Facility:

Not Classified

Link to MAG webpage for Federal Functional Classification Map

Type of Facility the Improvement will be located on:

Project is Off-Street

1.5 Length (in Miles)

n/a Posted Speed Limit (MPH)

n/a Number of Travel Lanes

21. Please provide an estimated traffic volume (ADT) below. If project is not on a road (ex. Canal path), use nearest parallel arterial.

18,344 ADT Estimate

6/1/11 Date Counted

Name of road the traffic count was taken from

Priest Drive

Description of Methodology and Source used for the ADT Estimate

Actual count.

22. Federal law requires that all federally funded projects comply with a federal environmental clearance. For projects that have a minimum ground disturbance, environmental surveys are required and an environmental document will need to be prepared, which typically requires 12 months to complete.

Describe any known cultural, historical and biological resources, hazardous materials or other environmental issues that could affect work on the segment.

None.

23. Current ROW: (Check all that apply)

	Agency owns all ROW Needed		Agency owns easement
	ROW to be acquired	X	Agency has right-of-use (i.e. canal)
	Owners will donate ROW		Condemnation may be required

24. Please describe any right of way issues associated with the project.

None

25. Current Utilities in or abutting the alignment: (Check all that apply)

	No Utility in or abutting the alignment		Private Structures
X	Canals & Drainage		
X	Power Lines & Cables	Other:	
	Pipelines, Sewer and Water		

PART B-PROJECT DESCRIPTION

26. Please describe any utility conflicts that will need to be addressed.

None

27. Guidelines used to develop project: (Check all that apply)

X	AASHTO Guide for Bicycle Facilities
X	MAG Pedestrian Policies and Design Guidelines
X	MAG Complete Streets Guide
X	MAG Designing Transit Accessible Communities
X	NACTO Urban Bikeway Design Guide
	RPTA Bus Stop Program and Standards

Other:
City of Tempe Design Guidelines

28. Jurisdiction has the following policies for improved bicycle/shared use facilties:

With new development and capital improvement projects, bike lanes on arterial streets are:	Recommended
With new development and capital improvement projects, bike lanes on collector streets are:	Recommended
With pavement restoration or regular pavement maintenance on arterial streets, bike lanes are:	Recommended
With new development or during development retrofits, shared-use paths are:	Required
Bicycle program implemented, including bike education, safety events, and bike maps	Yes
Complete Streets Policy	Yes

29. The project is: (Check one)

X Identified in General Plan, council adopted policy, or Capital Improvements Program (provide source)
List:
Tempe General Plan 2030; Tempe Capital Improvement Program FY 2013-2018

Consistent with general policy/practices, but not formally identified (provide source)
Explain:

Not addressed by jurisdiction's plans, policies, or practices
Explain:

30. Identify the organization(s) responsible for on-going maintenance and repairs of the project:

City of Tempe Public Works -Transportation

31. How will the applicant measure the success of this project?

Bike and Pedestrian counts.

32. Will bicycle/pedestrian count technology be incorporated? Will the devices broadcast automatic updates or require manual data collection? If manual, how will the agency identify staff resources to dedicate to collecting the data?

Yes, as part of the project, Tempe is requesting web accessible bicycle and pedestrian counters to be installed at locations along the proposed facility.

33. Will the project include an education/marketing component upon completion of construction, to publicize the project and increase citizen awareness of the project impact and benefits? If yes, please describe below.

Yes. The City of Tempe will prepare Press Releases; post opening date on City of Tempe website; and send postcards to neighborhoods within 1/4 mile of the facility.

Part C - Required Attachments

Listed below are the required attachments for this project application. These attachments are intended to demonstrate the need of the project. They should clearly show the segment alignment and features that connect to other bicycle, pedestrian, and/or shared-use facilities, as well as washes, canals, railroad crossings, and other crossing features that may affect the project.

PLEASE INCLUDE EACH ATTACHMENT AS A SEPARATE .JPEG OR .PDF FILE ON YOUR APPLICATION CD.

Please insert ALL attachments between Part B and Part D on your printed application, in the order they are listed below. See below for alternate submission requirements for GIS coverage files.

Required Attachments:

1) Please attach a map with streets labeled showing the location(s) of the proposed project, including a north arrow.

2) Please attach up to four photos indicating existing conditions in the project area (two 4x6 photos per page).

3) Please attach a simple diagram of the current typical cross section, including widths, of the segment that shows the right of way limits, sidewalks and shoulders (if any), and the lanes of travel.

OPTIONAL Attachments:

(OPTIONAL) Attach up to two photos showing what the completed project will look like, if available (these can be photoshop, renderings, etc.).

(OPTIONAL) Attach any crash report(s) referenced in Part B, Section 2, #6.

(OPTIONAL) If the applicant will be providing a GIS coverage (shapefile or geodatabase), please see the tab labeled "GIS Transmittal Instructions"

PART D - TRANSPORTATION ALTERNATIVES COST ESTIMATE FORM

Please provide a detailed cost estimate for this project. The data entered in this cost estimate sheet will automatically transfer into the correct fields in Part E. Rows 1-9 will remain visible at the top of this page at all times.

Sponsoring Agency:	City of Tempe-City of Chandler	Project Title:	Highland Canal Multi-Use Path Project Phase II	Application Date:	Oct-13

Part	Item Description			Unit	Quan.	Unit Price	Total	Federally Eligible	Federal Funds (94.3%)	Local Funds (5.7%)	Note(s)
A. Scoping (15% Preliminary Engineering Design)	1. SITE TOPOGRAPHIC SURVEY			LS	1	$50,000.00	$50,000.00	No	$0.00	$50,000.00	
	2. PROJECT ASSESSMENT REPORT or DETAILED WORKPLAN			LS	1	$15,000.00	$15,000.00	No	$0.00	$15,000.00	
	3. ENVIRONMENTAL DETERMINATION (Infrastructure projects, including technical supporting documents)			LS	1	$65,000.00	$65,000.00	No	$0.00	$65,000.00	
	4. HAZMAT ASSESSMENT			LS	1	$15,000.00	$15,000.00	No	$0.00	$15,000.00	
	Subtotal Scoping (Part A)						**$145,000.00**		**$0.00**	**$145,000.00**	
B. Final Preliminary Engineering Design - Stages II, III, IV And PS&E	1. Plans, Special Provisions or Bid Manual, Cost Estimate & Schedules.			LS	1	$95,000.00	$95,000.00	No	$0.00	$95,000.00	
	2. GEOTECHNICAL INVESTIGATION and Materials & Pavement Design Report			LS	1	$15,000.00	$15,000.00	No	$0.00	$15,000.00	
	3. DRAINAGE REPORT			LS	1	$15,000.00	$15,000.00	No	$0.00	$15,000.00	
	4. SWPPP			LS	1	$15,000.00	$15,000.00	No	$0.00	$15,000.00	
	Subtotal PE (Part B)						**$140,000.00**		**$0.00**	**$140,000.00**	
	Subtotal Preliminary Engineering (Part A + Part B)						**$285,000.00**		**$0.00**	**$285,000.00**	
C. Right-of-Way Acquisition	1. Right-of-Way Acquisition			LS	1	$0.00	$0.00	No	$0.00	$0.00	
	Subtotal Right-of-Way Acquisition (Part C)						**$0.00**		**$0.00**	**$0.00**	
D. Utility Relocation	1. Utility Relocation			LS	1	$10,000.00	$10,000.00	No	$0.00	$10,000.00	
	Subtotal Utility Relocation (Part D)						**$10,000.00**		**$0.00**	**$10,000.00**	
E. Construction Or Implementation [For Non-Infrastructure Projects (No Ground Disturbing Activities), Address Only Part 4]	1. Hardscape Construction	Installation Of SWPP Measures		LS	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Site Preparation		LS	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Demolition	Sawcut	LF	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Remove Structures and Obstructions	LS	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Remove Fencing	LF	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Remove Structural Concrete	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Remove Asphaltic Concrete Pavement	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Remove Concrete Sidewalks, Slabs	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Hazmat Abatement		LS	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Retaining Wall - Reinforced Concrete Cantilevered		SF	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Earthwork	General Excavation	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Drainage Excavation	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Structural Excavation	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Structural Backfill	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Borrow (In Place)	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Curb & Gutter		LF	600	$12.00	$7,200.00	Yes	$6,789.60	$410.40	
		Aggregate Base		CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Pathway Or Sidewalk Materials	Concrete	SF	95,040	$8.00	$760,320.00	Yes	$716,981.76	$43,338.24	
			Colored Concrete	SF	1,000	$20.00	$20,000.00	Yes	$18,860.00	$1,140.00	
			Stamped Color Concrete	SF	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Precast Concrete Pavers	SF	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Asphaltic Concrete	Ton	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Polymer or Resin Stabilized Surface	SF	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Crosswalk Enhancement	Concrete Pavers	SF	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Stamped Asphalt	SF	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Stamped Concrete	SF	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Concrete	SF	10,000	$8.00	$80,000.00	Yes	$75,440.00	$4,560.00	
			Integral Color Concrete	SF	5,000	$15.00	$75,000.00	Yes	$70,725.00	$4,275.00	
		Pedestrian ADA Ramp		SF	10	$2,500.00	$25,000.00	Yes	$23,575.00	$1,425.00	
		Culvert Extensions		LF	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Pedestrian Lighting Including Conduit And Trenching		Each	70	$4,000.00	$280,000.00	Yes	$264,040.00	$15,960.00	
		Handrail	Standard	LF	201	$35.00	$7,035.00	Yes	$6,634.01	$401.00	
			Decorative	LF	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Subtotal Hardscape Construction					$1,254,555.00		$1,183,045.37	$71,509.64	

PART D - TRANSPORTATION ALTERNATIVES COST ESTIMATE FORM

Please provide a detailed cost estimate for this project. The data entered in this cost estimate sheet will automatically transfer into the correct fields in Part E. Rows 1-9 will remain visible at the top of this page at all times.

Sponsoring Agency:	City of Tempe-City of Chandler	Project Title:	Highland Canal Multi-Use Path Project Phase II	Application Date:	Oct-13

Part	Item Description			Unit	Quan.	Unit Price	Total	Federally Eligible	Federal Funds (94.3%)	Local Funds (5.7%)	Note(s)
E. Construction Or Implementation [For Non-Infrastructure Projects (No Ground Disturbing Activities), Address Only Part 4]	2. Landscaping & Irrigation Items	Requirements		Each	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Trees (15 Gallon Size)		Each	120	$600.00	$72,000.00	Yes	$67,896.00	$4,104.00	
		Trees (5 Gallon Size)		Each	80	$250.00	$20,000.00	Yes	$18,860.00	$1,140.00	
		Shrubs (5 Gallon Size)		Each	200	$120.00	$24,000.00	Yes	$22,632.00	$1,368.00	
		Shrubs (1 Gallon Size)		Each	200	$80.00	$16,000.00	Yes	$15,088.00	$912.00	
		Cactus (5 Gallon Size)		Each	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Mulch	Decomposed Granite	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Organic	CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Topsoil		CY	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Seeding		Acre	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Turf Sod		SY	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Boulders		Each	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Irrigation System	Drip	SF	80,000	$1.00	$80,000.00	Yes	$75,440.00	$4,560.00	
			Turf	SF	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Sleeving For Irrigation System	Directional Bore	LF	1	$0.00	$0.00	Yes	$0.00	$0.00	
			Cut and Patch	LF	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Landscape Header Curb		LF	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Landscape Establishment		LS	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Subtotal Landscaping & Irrigation Items					$212,000.00		$199,916.00	$12,084.00	
	3. Site Furnishings	Benches		Each	20	$400.00	$8,000.00	Yes	$7,544.00	$456.00	
		Seatwalls		LF	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Bike Racks		Each	20	$65.00	$1,300.00	Yes	$1,225.90	$74.10	
		Trash Receptacles		Each	20	$300.00	$6,000.00	Yes	$5,658.00	$342.00	
		Drinking Fountains		Each	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Signage (Standard Traffic Control)		Each	30	$65.00	$1,950.00	Yes	$1,838.85	$111.15	
		Signage (Wayfinding)		Each	30	$600.00	$18,000.00	Yes	$16,974.00	$1,026.00	
		Tree Grates		Each	1	$0.00	$0.00	Yes	$0.00	$0.00	
		Subtotal Site Furnishings					$35,250.00		$33,240.75	$2,009.25	
	4. Other Construction Items. Also, Itemized Line Items For Non-Infrastructure Projects. (Insert Additional Rows If Necessary)	Bicycle and Pedestrian Counter		Each	4	$4,000.00	$16,000.00	Yes	$15,088.00	$912.00	
		Traffic Signal			1	$200,000.00	$200,000.00	Yes	$188,600.00	$11,400.00	
							$0.00	Yes	$0.00	$0.00	
							$0.00	Yes	$0.00	$0.00	
					1		$0.00	Yes	$0.00	$0.00	
					1	$0.00	$0.00	Yes	$0.00	$0.00	
					1	$0.00	$0.00	Yes	$0.00	$0.00	
					1	$0.00	$0.00	Yes	$0.00	$0.00	
					1	$0.00	$0.00	Yes	$0.00	$0.00	
					1	$0.00	$0.00	Yes	$0.00	$0.00	
		Sutotal Other Construction					$216,000.00		$203,688.00	$12,312.00	
	5. Mobilization And Administration Costs	Contractor Mobilization		LS	1	$12,000.00	$12,000.00	No	$0.00	$12,000.00	
		Traffic Control		LS	1	$15,000.00	$15,000.00	Yes	$14,145.00	$855.00	
		Construction Survey & Layout		LS	1	$60,000.00	$60,000.00	Yes	$56,580.00	$3,420.00	
		Construction Contingencies		LS	1	$142,000.00	$142,000.00	Yes	$133,906.00	$8,094.00	
		Construction Administration		LS	1	$45,000.00	$45,000.00	Yes	$42,435.00	$2,565.00	
		Subtotal Mobilization & Administration Costs					$274,000.00		$247,066.00	$26,934.00	
	Subtotal Construction Or Implementation Cost (Part E)						$1,991,805.00		$1,866,956.12	$124,848.89	
F. Total Scoping, PE, Right-of-Way Acquisition, Utility Relocation, and Construction (Part A, B, C, D, and E)							$2,286,805.00		$1,866,956.12	$419,848.89	
G. Adot Fee For Pe Reviews And Staff Charges (The higher of $20,000 or 2% of Total Cost (Part F))							$45,736.10	No	$0.00	$45,736.10	
H. Total Project Cost Including ADOT Fees (Part F + Part G)							$2,332,541.10		$1,866,956.12	$465,584.99	

PART E - TOTAL PROJECT SCHEDULE AND BUDGET INCLUDING ALL SEGMENTS

Please verify that the cost and programming estimates for the total project are correct below. The numeric values on this sheet (in GREY) are automatically populated from the cost estimate sheet (Part D) and cannot be modified. If there are any errors in the numeric values on this sheet, please verify and correct the numbers you have entered into the cost estimate sheet (Part D). You MUST fill in the GREEN portions of Part E manually.

The design for the project should be programmed at least 1 year, preferably 2 years, prior to construction. Utilities and right of way should be programmed at least 1 year prior to construction, but may occur in the same year as construction depending on utility and right of way concerns that are identified in questions 23-26 in Part B.

Cost Estimate for the Project Including ALL Segments	Cost	Additional Notes (if needed)
1.ADOT Fee	$45,736	
2. Design	$285,000	
3. Right of way	$0	
4. Utilities	$10,000	
5. Construction	$1,991,805	
6. Total Cost	$2,332,541	

7. Will the agency maintain the improvement after it is completed?	Yes
8. Expected Annual Maintenance Cost	4,000
9. Identify Source of Maintenance Funds	Transit Tax

Requested MAG Programming	Year	Local Funding Source	Local Cost	Federal Cost	Total Cost
10. Design	2015	Sales Tax	$285,000	Not Available	$285,000
11. ADOT Fee	2016	Sales Tax	$45,736	Not Available	$45,736
12. Right of way and Utilities	2016		$10,000	Not Available	$10,000
13. Construction	2017	Sales Tax	$124,849	$1,866,956	$1,991,805
14. Total Costs			$465,585	$1,866,956	$2,332,541

PART F - SIGNATURE AND CHECKLIST

Checklist

This checklist is included to facilitate applicant review and verification that all required fields in the form have been completed.

COVER SHEET	Complete?
Cover Sheet is completely filled out	Yes
PART A - Contacts and Project Description Fields	**Complete?**
Contact Information, fields 1 – 5 are complete	Yes
Project Description, fields 6 - 8 are complete	Yes
Safe Routes to School, fields 9-12 are complete (if applicable)	Yes
PART B - Project Description	**Complete?**
Fields 1 - 11 (Project Description) are complete	Yes
Fields 12– 14 (Transit and Access) are complete	Yes
Fields 15 – 19 (Attractors and Demographics) are complete	Yes
Fields 20 – 26 (Traffic, Environmental, ROW, and Utilities) are complete	Yes
Fields 27 – 29 (Guidelines, Policies, and Plans) are complete	Yes
Fields 30 – 33 (Maintenance and Performance Measurement) are complete	Yes
PART C - Required Attachments	**Complete?**
Field 1 - Project map is provided in the printed application and the PDF application	Yes
Field 2 - Up to 4 photos of existing conditions are provided in the printed application and the PDF application (two 4x6 per page).	Yes
Field 3 - Cross-section(s) provided in the printed application and the PDF application.	Yes
(OPTIONAL)- Up to 2 photos/renderings of the completed project are provided in the printed application and the PDF application.	Yes
(OPTIONAL) - Crash report(s) are provided in the printed application and the PDF application	Yes
(OPTIONAL) - GIS coverage (shapefile or geodatabase) is provided on the CD with the application.	No
PART D - Cost Estimate Worksheet	**Complete?**
Sponsoring Agency, Project Title, and Application Date are complete	Yes
Part A - Scoping is complete	Yes
Part B - Final Preliminary Engineering Design is complete	Yes
Part C - Right-of-Way Acquisition is complete	Yes
Part D - Utility Relocation is complete	Yes
Part E - Construction or Implementation is complete	Yes
Parts F, G, and H - Costs are complete and accurate	Yes
PART E - Total Project Schedule and Budget Including All Segment Fields	**Complete?**
Fields 1 – 6 are complete and costs are accurate	Yes
Field 7 - 9 are complete	Yes
Fields 10 – 13 Years are complete	Yes
Fields 10 – 13 Local Funding Sources are complete	Yes
Fields 10 – 13 Local Costs are complete and accurate	Yes
Field 10 - 13 Federal Costs are complete and accurate	Yes
Field 14 Total Costs are complete and accurate	Yes
PART F - Signature and Checklist	**Complete?**
Entire checklist is completed.	Yes
Form is signed by MAG member agency's manager/administrator or designated representative.	Yes
Name, title and date fields under the signature are completed.	Yes
(SAFE ROUTES TO SCHOOL PROJECTS ONLY) - Additional signatures and related name, date, and title are completed.	No

SIGNATURE(S):

As the MAG member agency's *manager/administrator or designated representative*, I certify that this application is accurate and complete and that the project will be included in the sponsoring MAG member agency's local CIP/TIP if the project is selected for federal funding.

Signature:	Andrew B. Ching
Name:	Andrew Ching
Title:	City Manager - City of Tempe
Date:	21-Oct-13

Complete the following ONLY if this is a Safe Routes to School Project.

Note: All signatures indicate an agreement in principle and a partnership on this project between the applicant and the signing organization. Although not all signatures are required, applications that include more signatures will be ranked higher

School/Site Official (required):
(Principal, assistant principal, teacher-in-charge, PE Teacher, SRTS coordinator)

Signature:	
Name:	
Title:	
Date:	

School District official (required):

Signature:	
Name:	
Title:	
Date:	

Law Enforcement Official (required):

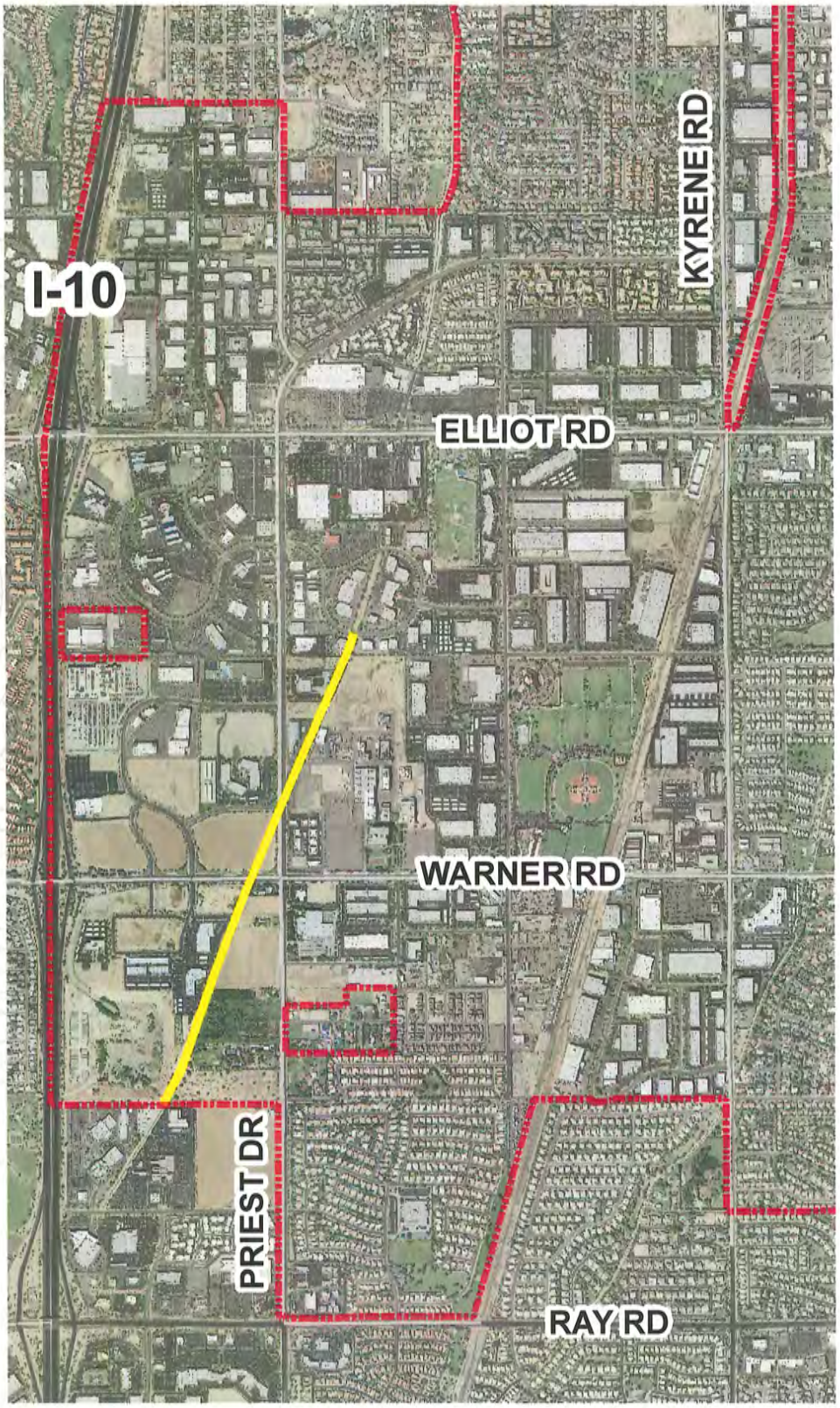
Signature:	
Name:	
Title:	
Date:	

Highline Canal Multi-Use Path Phase II

Attachments

Tempe Highline Canal - Phase 2

Tempe



Legend

Highline Canal

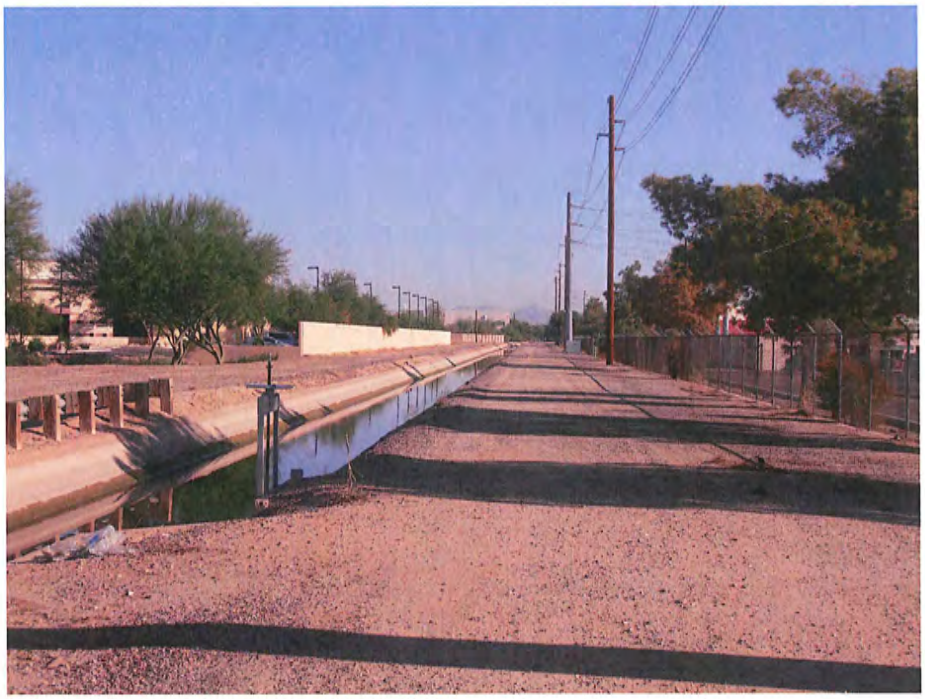
0 0.125 0.25 0.5 Miles

N

Source:
City of Tempe, Public Works, Transportation Division

Created: October 21, 2013

Highline Canal Multi-Use Path Phase II

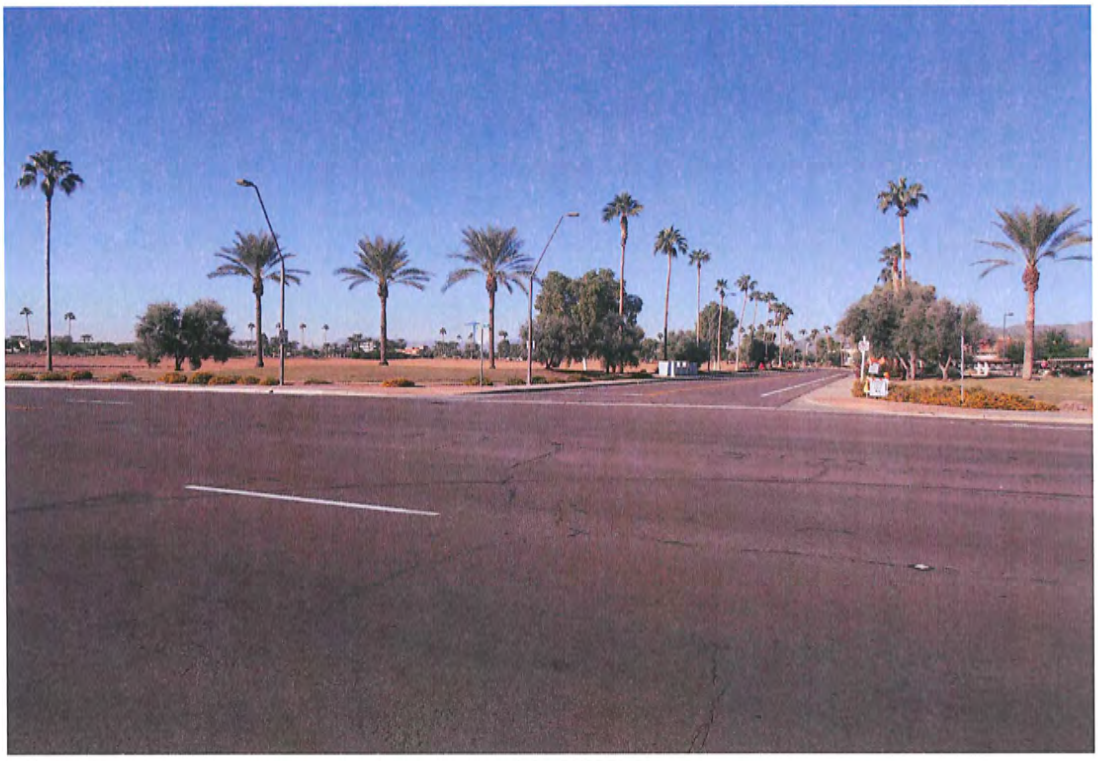


Highline Canal at Priest Looking North

Highline Canal at Priest Looking North

Highline Canal Multi-Use Path Phase II

Highline Canal at Warner Road Looking South



Highline Canal at Intersection with Commerce Drive

Bicycle Crashes Between 2010 and 2012
South of Auto Drive

Legend

Bicycle Crash Locations

- 1 Crash
- 2 Crashes
- CityLimits

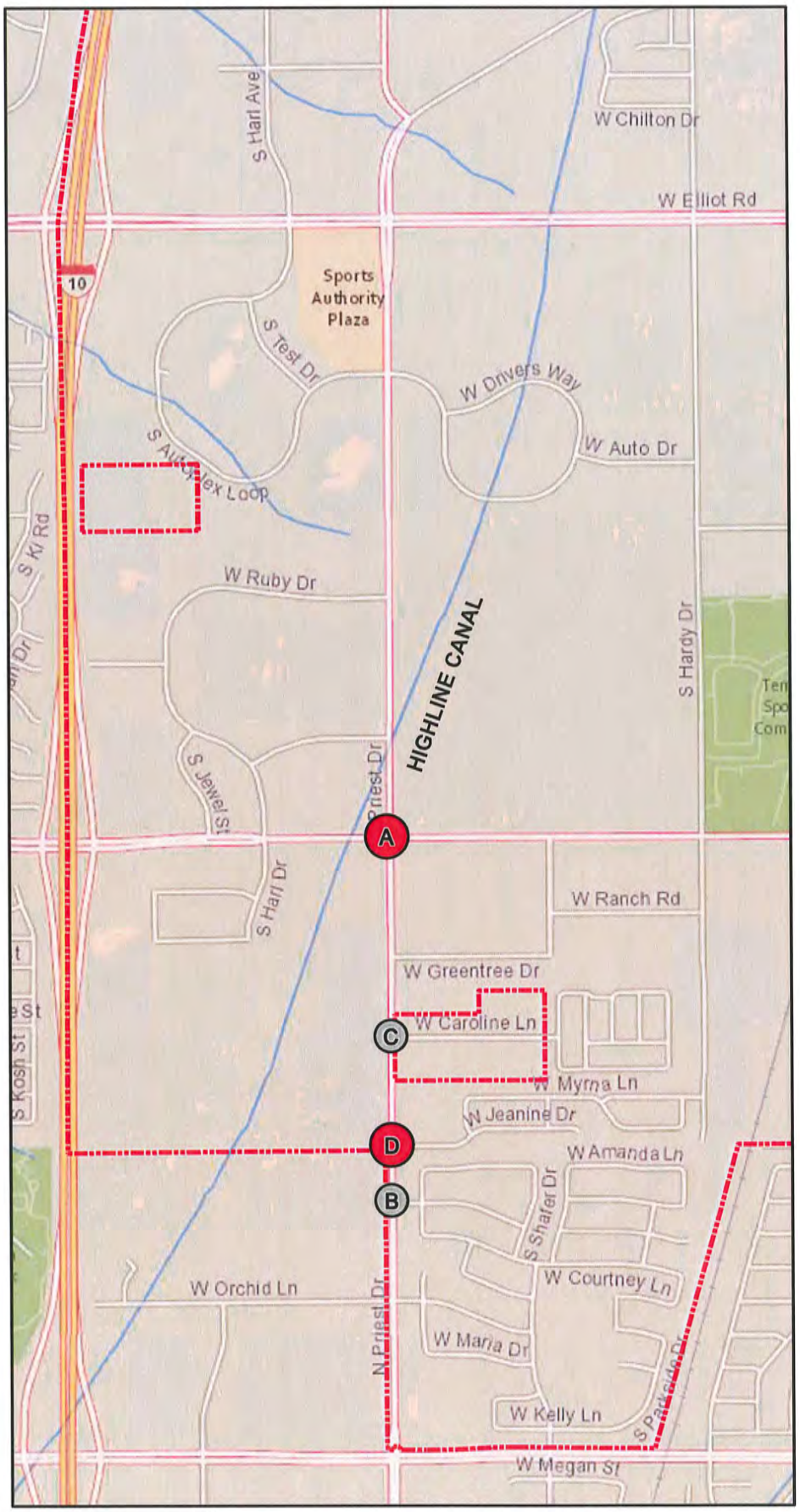
A-Warner Rd & Priest Dr	
No Injury	1
Non-Incapacitating Injury	1
B-Priest Dr & Lisa Ln	
Possible Injury	1
C-Priest Dr & Caroline Ln	
Non-Incapacitating Injury	1
D-Priest Dr & Knox Rd	
Possible Injury	1
Non-Incapacitating Injury	1

Injury Severity	Count
No Injury	1
Possible Injury	2
Non Incapacitating Injury	3
Incapacitating Injury	0
Fatal	0
Total Crashes	**6**

Crashes shown are located within a half mile of the portion of the Highline Canal located within Tempe city limits between Auto Drive and Ray Road.

N

1 inch equals 0.25 miles



Pedestrian Crashes Between 2010 and 2012

Legend

Pedestrian Crash Locations

- 1 Crash
- 3 Crashes
- CityLimits

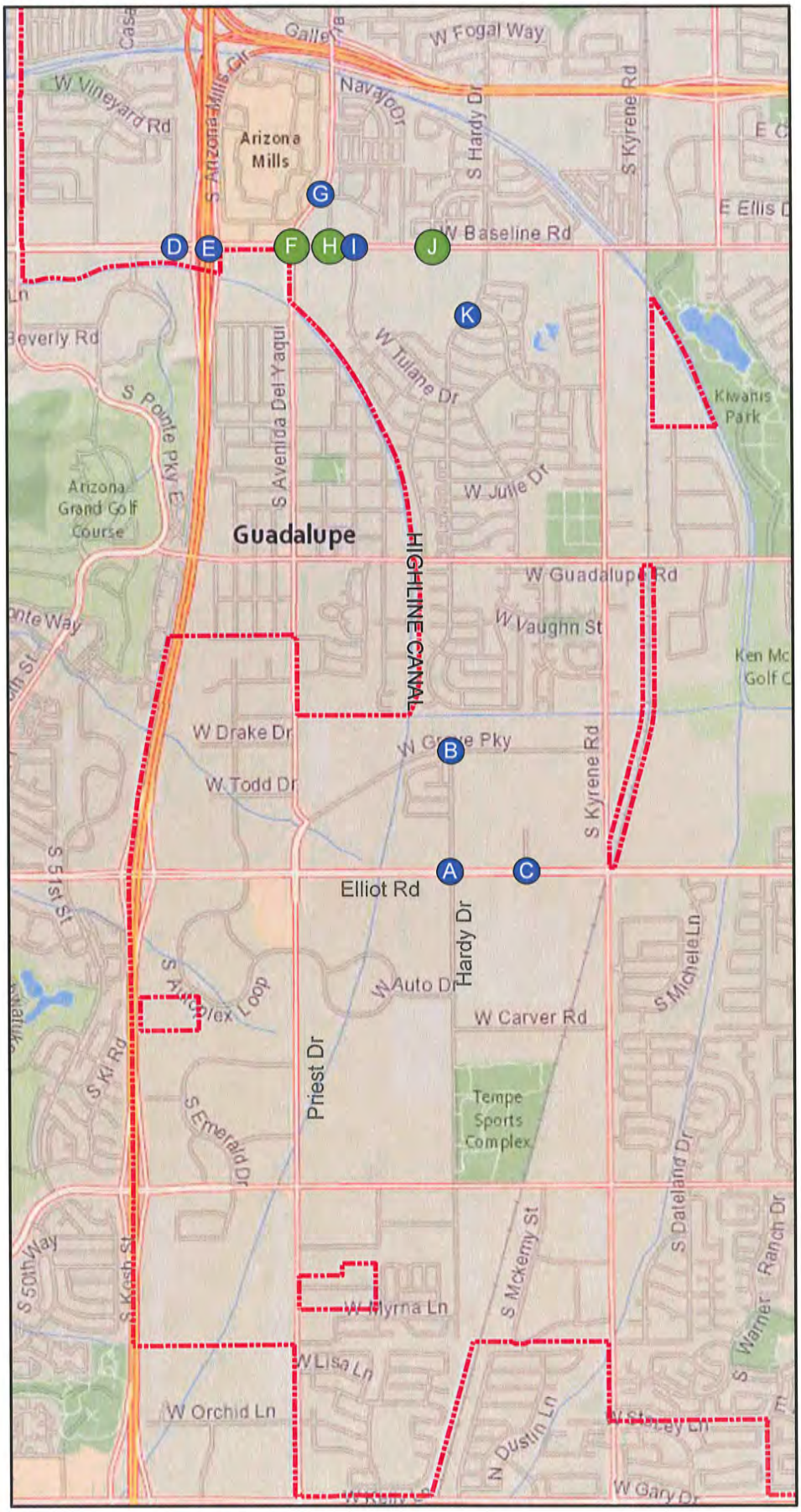
A-Hardy Dr & Elliot Rd	
Non Incapacitating Injury	1
B-Hardy Dr & Grove Pkwy	
Possible Injury	1
C-Roosevelt St & Elliot Rd	
Non Incapacitating Injury	1
D-Baseline Rd & Wendler Dr	
Non Incapacitating Injury	1
E-Baseline Rd & I-10 Fwy	
Possible Injury	1
F-Priest Dr & Baseline Rd	
Possible Injury	1
Non Incapacitating Injury	2
G-Priest Dr & Darrow Dr	
Non Incapacitating Injury	1
H-Baseline Rd & Darrow Dr	
Possible Injury	2
Non Incapacitating Injury	1
I-Baseline Rd & Beck Ave	
Possible Injury	1
J-Baseline Rd & Terry Ln	
Possible Injury	2
Incapacitating Injury	1
K-Hardy Dr & Harvard Dr	
Non Incapacitating Injury	1

Injury Severity	Count
No Injury	0
Possible Injury	8
Non Incapacitating Injury	8
Incapacitating Injury	1
Fatal	0
Total Pedestrian Crashes	**17**

Crashes shown are located within a half mile of the portion of the Highline Canal located within Tempe city limits between Ray Road and Priest Drive.

N

1 inch equals 0.5 miles

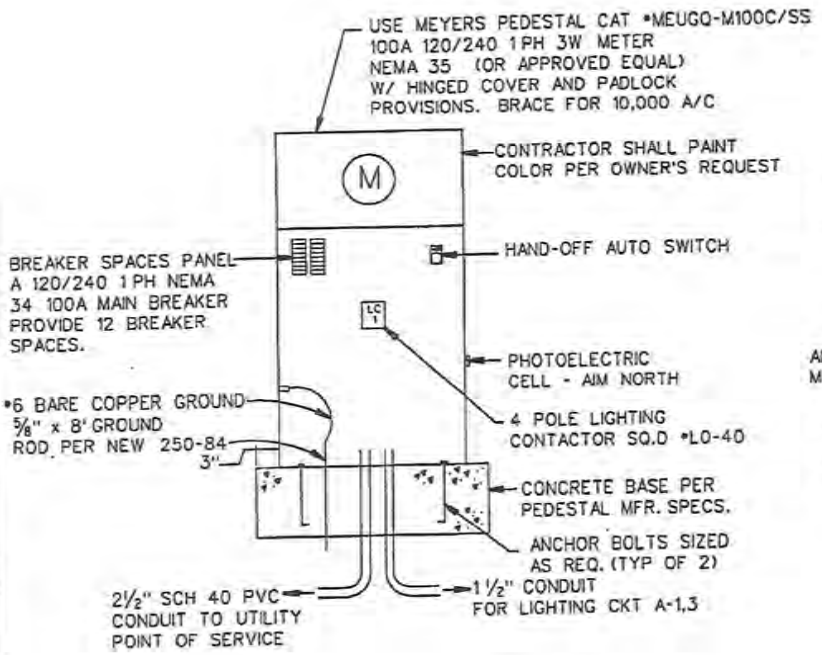


TEMPE SUPPLEMENT TO THE M.A.G. UNIFORM STANDARD DETAILS AND SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

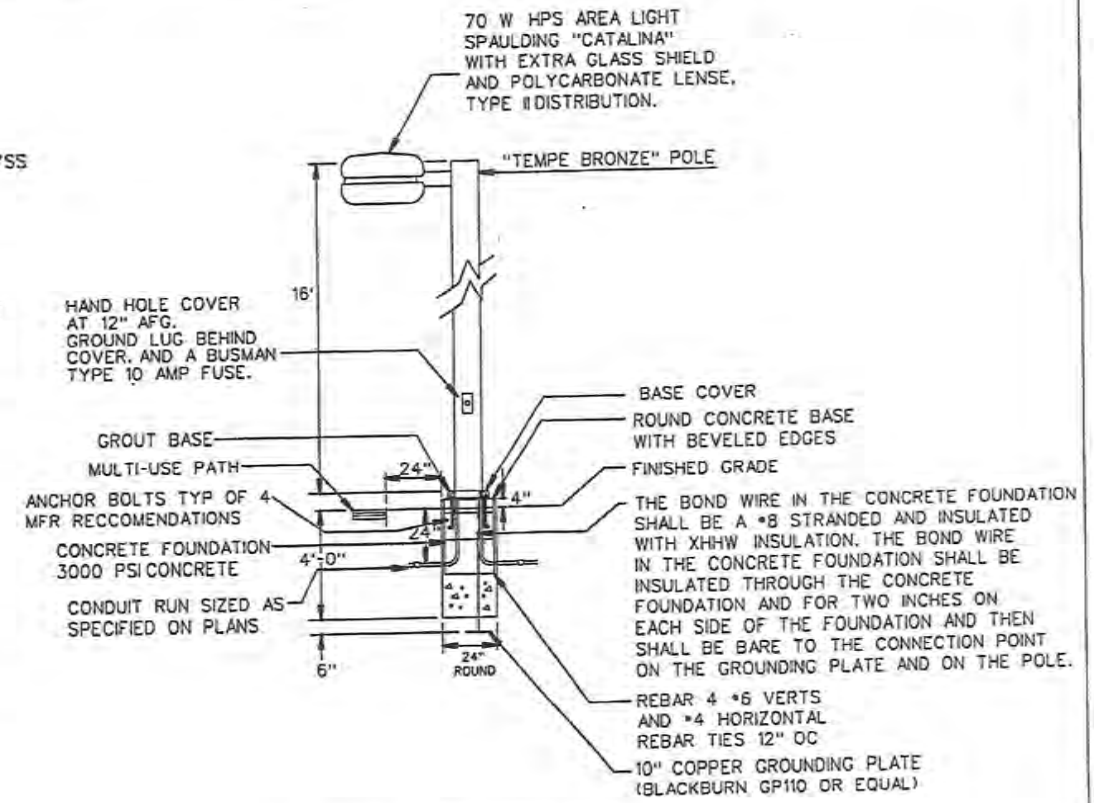
PUBLIC WORKS DEPARTMENT

2010
ARIZONA

The details and specifications are also accessible through our web site at www.tempe.gov/engineering



ELECTRICAL SERVICE - PEDESTAL DETAIL
MEYERS #MEUGLD/S-M200/TB-AZ-24 CKT
OR APPROVED EQUAL



MULTI-USE PATH LIGHT DETAIL

GENERAL NOTES

1. MULTI-USE PATH LIGHT TO BE INSTALLED 2' BACK OF PATH TO FACE POLE UNLESS NOTED OTHERWISE ON PLANS

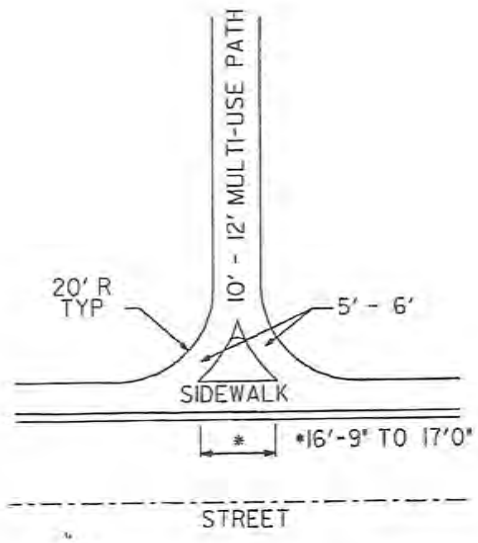
2. MULTI-USE PATH LIGTING WITHIN RIO SALADO OVERLAY DISTRICT SHALL FOLLOW THE RIO SALADO DESIGN GUIDELINES AND DETAILS

3. ALL POLES TO BE FUSED USING WATERPROOF FUSE HOLDERS IN HAND HOLE AND IN J-BOX. BUSMAN BUHEBAA OR EQUIVALENT FUSE HOLDER.

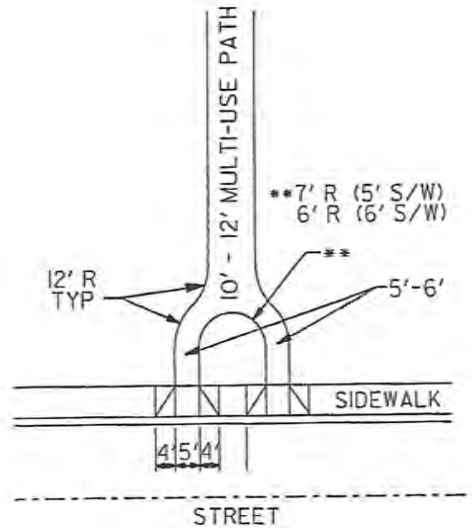
4. FOR INSTALLATIONS IN APS AREA, A BUSMAN TYPE 15 AMP FUSE IS REQUIRED IN THE J-BOX AND A 10 AMP INLINE FUSE IN THE HANDHOLE.

APPROVED: Andy 6/11/2010
DEPUTY PUBLIC WORKS MANAGER / CITY ENGINEER — DATE

CITY OF TEMPE PUBLIC WORKS DEPARTMENT	MULTI-USE PATH LIGHTING DETAILS	DETAIL T-656 1 OF 3 REVISED 4, 2010

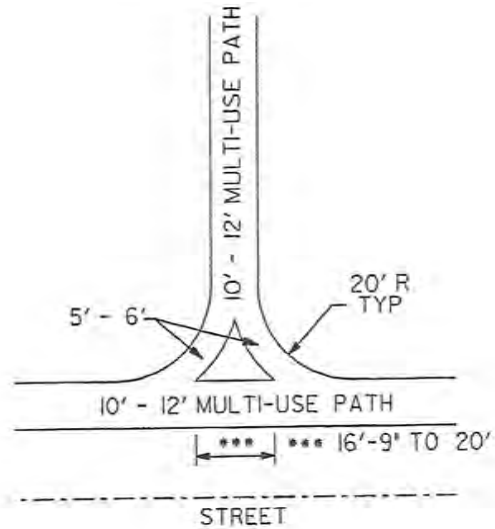


Example 'A'
MULTI-USE PATH INTERSECTION AT STREET WITHOUT A CROSSING



WING WIDTH
4" CURB = 4' WING
6" CURB = 6' WING
7" CURB = 7' WING

Example 'B'
MULTI-USE PATH INTERSECTION AT STREET WITH CROSSING

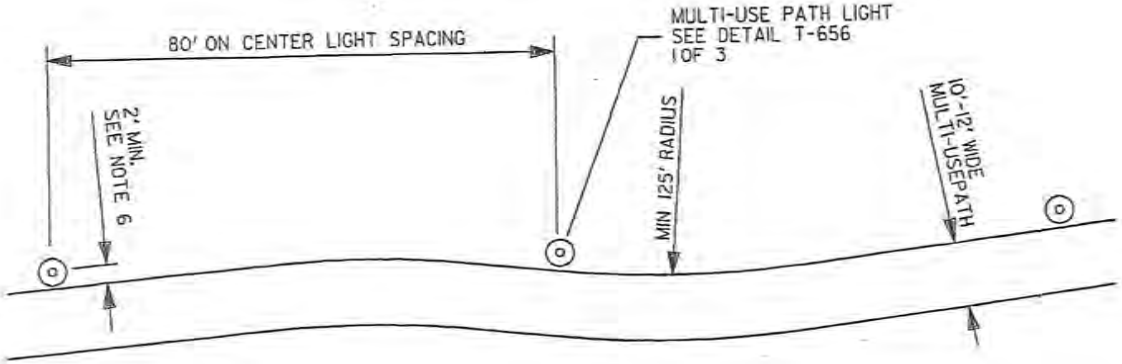


Example 'C'
MULTI-USE PATH AT MULTI-USE PATH INTERSECTION

APPROVED: Harry Trudeau 6/19/98
DEPUTY PUBLIC WORKS DIRECTOR — DATE

APPROVED: Howard C. Hayes 12/3/98
CITY ENGINEER — DATE

CITY OF TEMPE PUBLIC WORKS DEPARTMENT	MULTI-USE PATH AT T-INTERSECTIONS	DETAIL T-656 2 OF 3 REVISED 1998



LIGHTING

1. LUMINAIRE FIXTURE SHALL BE SPAULDING "CATALINA" OR EQUAL.

2. LUMINAIRE SHALL BE 70 WATT HIGH PRESSURE SODIUM VAPOR, TYPE II DISTRIBUTION.

3. LUMINAIRE SHALL BE MOUNTED AT 16 FOOT MOUNTING HEIGHT ON POLES TO CONCRETE FOUNDATIONS PER MANUFACTURER'S SPECIFICATIONS.

4. POLES SHALL BE PLACED AT 80 FEET ON CENTER.

5. PROVIDE 1" CONDUIT SCHEDULE 40 FOR CONDUIT RUNS AND TO THE BASE OF THE POLE.

6. POLES SHALL BE 2 FEET FROM THE EDGE OF THE MULTI-USE FACILITY TO THE FACE OF POLE UNLESS NOTED OTHERWISE ON PLANS.

7. LUMINAIRES SHALL BE WIRED FOR 120/240 VOLT APPLICATION.

8. LIGHTING SYSTEMS SHALL BE METERED USING MEYERS 100 AMP 120/240 SINGLE PHASE 3W METER PEDESTAL. THIS INCLUDES A HAND-OFF-AUTO SWITCH, PHOTO ELECTRIC CELL AIMED NORTH, AND A 4 POLE LIGHTING CONTACTOR SQ. D# LO-40.

RECOMMENDED MULTI-USE PATH DESIGN CRITERIA	
DESIGN SPEED	20 MPH
MAXIMUM GRADE	5%
MINIMUM PATH WIDTH	10 FEET
RECOMMENDED PATH WIDTH	12 FEET
* MINIMUIM CURVE RADIUS	95 FEET
* RECOMMENDED CURVE RADIUS	125 FEET
HORIZONTAL CLEARANCE	2 FEET ON EACH SIDE OF MULTI-USE FACILITY
VERTICAL CLEARANCE	8 FEET FOR ANYTHING OVER MULTI-USE FACILITY
DIRECTIONAL DIVISIONS	MULTI-USE PATHS SHALL HAVE DIRECTIONAL DIVISIONS AT INTERSECTIONS WITH A STREET OR ANOTHER MULTI-USE PATH

*CURVELINEAR MULTIUSE PATHS NOT DESIRABLE, BUT WHEN UNAVOIDABLE, THESE RADII APPLY.

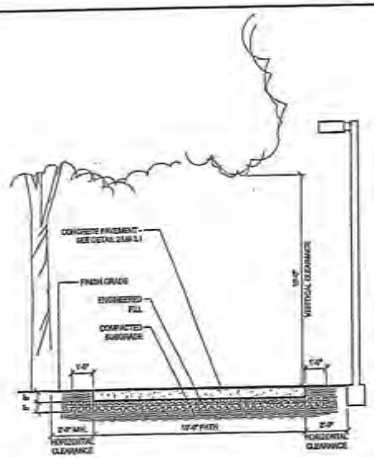
APPROVED: Harvey Friedman 6/19/98
DEPUTY PUBLIC WORKS DIRECTOR DATE

APPROVED: Howard C. Vargas 12/3/98
CITY ENGINEER DATE

CITY OF TEMPE
PUBLIC WORKS DEPARTMENT

MULTI-USE PATH
DESIGN AND LIGHTING DETAILS

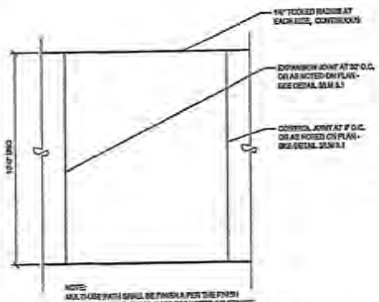
DETAIL T-656
3 OF 3
REVISED 1998



NOTES:
1. CONCRETE COLOR AND FINISH PER FINISH SCHEDULE
2. WHERE PATH MEETS EXISTING OR NEW PAVED SURFACES THE TWO SURFACES SHALL BE FLUSH.
3. MAXIMUM LONGITUDINAL GRADE SHALL BE 4.8%.

1 MULTI-USE PATH

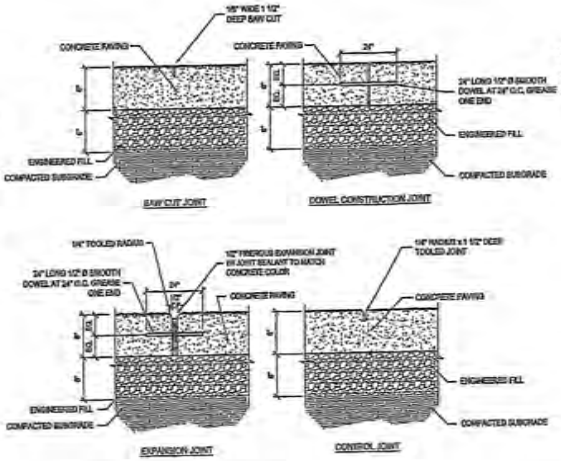
SCALE: 3/8" = 1'-0"



NOTE:
MID-CHAIRE PATH SHALL BE FINISHED PER THE FINISH SCHEDULE (DETAIL 7/LM-3.1) UNLESS NOTED OTHERWISE ON PLAN

2 CONCRETE PAVEMENT

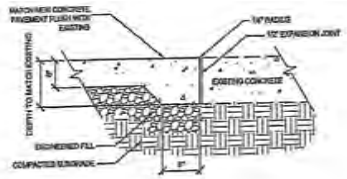
SCALE: 3/8" = 1'-0"



NOTES:
1. WALKWAYS SHOWN ON PLANS AS HAVING CURVE REAR SHAPES ARE TO HAVE SMOOTH RADIUS AND CURVE TRANSITIONS, AND ARE TO BE FORMED TO ACHIEVE THIS CONDITION.
2. INSTALL VOID GAP OVER TOP EDGE OF EXPANSION JOINT PRIOR TO POURING CONCRETE, REMOVE ONLY PRIOR TO CAULKING INSTALLATION.
3. FINAL GRADE AT DECOMPOSED GRANITE TO BE 1" BELOW ADJACENT PAVING, FINISHED GRADE AT TURF TO BE 1" BELOW ADJACENT PAVING.

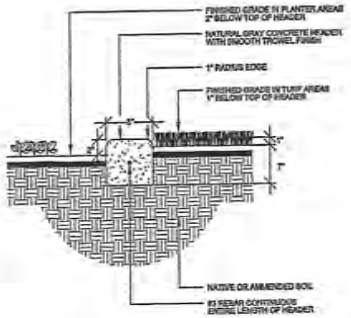
3 CONCRETE JOINTS

SCALE: N.T.S.



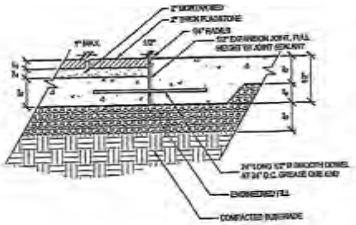
4 NEW CONCRETE ADJACENT TO OLD

SCALE: 1" = 1'-0"



5 CONCRETE HEADER CITY OF TEMPE DETAIL SLD011

SCALE: NTS



6 FLAGSTONE PAVING

SCALE: 1" = 1'-0"

RECORD DRAWINGS

FINISH SCHEDULE

CONCRETE FINISHES		
LABEL	FINISH	COLOR
A	MEDIUM BROOM	NATURAL GRAY
B	EXPOSED AGGREGATE	INTEGRAL COLOR BUFF
C	EXPOSED AGGREGATE	INTEGRAL COLOR BROWNSTONE
D	PAVERS	LIGHT AND CREAMY TAN
E	MEDIUM BROOM FINISH	INTEGRAL COLOR WHITE
F	WOOD FLOAT FINISH	INTEGRAL COLOR BROWNSTONE
G	VERY HEAVY BROOM	INTEGRAL COLOR BROWNSTONE
H	SMOOTH	INTEGRAL COLOR BROWNSTONE
I	HEAVY SAND BLAST	INTEGRAL COLOR BROWNSTONE
METAL FINISHES		
J	ELECTROSTATIC	BLUE
K	ELECTROSTATIC	BROWN

7 FINISH SCHEDULE

SCALE: NO SCALE

epg
6141 E 32nd STREET
SUITE 200
TUCSON, ARIZONA 85710
PHONE: 520 886-8551
FAX: 520 886-0551
CONTACT: SCOTT FERRIS, RLA

SCOTT C. FERRIS
ARIZONA
RLA
03-31-2006

DEPARTMENT OF PUBLIC WORKS

CITY OF TEMPE
DIVISION OF ENGINEERING
P.O. BOX 5002, TEMPE, ARIZONA 85280

SURVEYED: DJBSLE	REVISION	DATE: APRIL 2006
DESIGNED: EPG		PROJECT NO. 6000421
DRAWN: EPG		SHT. 5 OF 22
CHECKED: MDP		
SCALE: AS NOTED		

6000421