Project Assessment

for

Five Points Pedestrian Improvements

A Combined Transportation Enhancement and Surface Transportation Program Project

14th Street to 21st Street, 5th Avenue to 7th/Stone Avenue

Project No. STP TUC 0(228)A
TRACS No. 0000 PM TUC SS776 01C

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Prepared for:
City of Tucson
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Submitted to
Arizona Department of Transportation
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1.0 Introduction

Federal Project Number:	TEA TUC 0(228)A
TRACS Number:	0000 PM TUC SS776 01C
Project:	Five Points Pedestrian Improvements
Project Route No.	14th Street to 21st Street, 5th Avenue to 7th/Stone Avenue
ADOT Contact:	Natalie Clark, NClark@azdot.gov, (520) 388-4252
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This project is located within the City of Tucson, Pima County, ADOT Tucson District

This project assessment document has been prepared to present pertinent information related to the Five Points Pedestrian Improvements, located in the City of Tucson, Pima County Arizona. The project includes features which will be funded by Transportation Enhancement (TE) funds and a gateway feature funded by Surface Transportation Project (STP) funds. Pima County Neighborhood Reinvestment Funds (PCNR) and City of Tucson matching funds will be used to supplement these funds. The Project will fill in gaps in the pedestrian system by constructing sidewalks, ADA compliant ramps with truncated domes, and pedestrian level lighting in and around the intersection of South Stone Avenue, South Sixth Avenue, and 18th Street. This intersection has long been considered as the southern gateway to Tucson and is commonly referred to as "Five Points". More specifically, the improvements will be located in the area north of 21st Street, west of 5th Avenue, south of 14th Street and east of 7th Avenue and Stone Avenue (see Location Map on page 18).

The City of Tucson will bid and administer all three funding sources for this project according to the City's certification acceptance procedures.

No new right-of-way will be required for this project.

The State Map, Vicinity Map and Project Location Map are shown in Pages 16, 17 and 18. The 15% plan sheets are attached beginning on page 21.

This project combines an STP project and a TE project, both of which are included in the 2010-2014 Regional Transportation Improvement Plan as TIP #s 79.07 and 103.08 respectively.

Estimated Total Cost	$1,491,278.00
Pima County Neighborhood Reinvestment (PCNR) Funds	$ 496,880.00
Federal Aid (TE) Funds	$ 494,398.00
Federal Aid (STP) Funds	$ 500,000.00
City Local Match Funds (5.7% of TE plus STP)	$ 56,681.00
Estimated Construction Cost	$1,285,138.00
Estimated Design Cost	$ 206,140.00

This project was developed during the City of Tucson's Stone Avenue/Sixth Avenue/18th Street Intersection & Miscellaneous Improvements Project constructed in 2008 which completed rebuilding South Sixth Avenue south of 18th Street and rehabilitated Sixth and Stone Avenues north of 18th Street converting them from one-way to two-way traffic. While that project was underway, the surrounding neighborhoods requested additional work to connect the neighborhoods to the new improvements along Sixth Avenue by filling gaps in the existing sidewalks on multiple residential streets, providing pedestrian level lighting along 18th Street and improving pedestrian lighting along Sixth and Stone Avenues north of 18th Street. The City received notification that the project was approved for funding under Transportation Enhancement Round 15 in the fall of 2007. The neighborhoods were also desirous of reemphasizing and revitalizing the southern gateway by placement of a gateway feature or markers, and requested that Surface Transportation Program funds be utilized for this effort. Realizing that the Transportation Enhancement and Surface Transportation Funds would not be sufficient to provide all the desired sidewalks and desired pedestrian level lighting along Stone and Sixth Avenues, the neighborhoods applied for and received Pima County Neighborhood Revitalization (PCNR) funding in the amount of $496,880.

The City of Tucson requested that these two projects be combined to streamline the clearance process. ADOT approved this request on January 2, 2009.

The estimated project schedule shows that the project will be bid in September of 2013, with construction to begin in December 2013 and the project to be completed by August 2014. A detailed estimated project schedule is provided on Page 19.

2.0 Background Data

2.1 Purpose and Justification

The improvements in this project are centered around the southern gateway to Tucson at Five Points (the 6th Avenue, Stone Avenue, 18th Street intersection). In the project area, pedestrian level lighting is lacking and visibility is poor. Sidewalks are discontinuous and there are no ADA access ramps at intersections. The gateway and four adjoining neighborhoods lack community cohesion.

Primary project goals are to fill in sidewalk gaps to provide a continuous sidewalk on at least one side of each residential street in the project area. ADA access ramps will be provided at each intersection. These improvements will enhance pedestrian access to the heavily traveled bus route along Sixth Avenue. Along all the streets connecting directly to the Five Points intersection (18th Street, 6th Avenue and Stone Avenue), pedestrian level lighting will be provided that will improve visibility for pedestrians at night and provide a lit connection from the adjacent neighborhoods to the Five Points traffic signal and nearby bus stops. Gateway markers or a Gateway feature will enhance the intersection and provide needed neighborhood identity. These markers or features will be developed through public participation and will involve the Tucson-Pima Arts Council.

The improvements in this project are centered around the southern gateway to Tucson at Five Points and along Sixth and Stone Avenues which are classified as arterial roadways in the City's Major Streets and Routes Plan. North of 18th Street, both Stone and Sixth Avenues are three-lane roadways with two travel lanes in each direction, a bike lane in each direction, a center continuous left turn lane, and parking along the curbs. There are continuous sidewalks located between the curb and right-of-way line.

South of 18th Street, Sixth Avenue is a 5-lane roadway with two travel lanes in each direction and a center continuous left turn lane. There are no bike lanes. There are continuous sidewalks located between the curb and right-of-way line. The right-of-way along both Sixth and Stone Avenues is 79 feet.

The residential side streets range in width from about 40 feet to 55 feet. Most of them are not striped but accommodate a single "lane" of traffic in both directions with parking along the curbs. Sidewalks are intermittent, a situation this project will partially correct. The majority of the existing sidewalks do not have ADA access ramps at intersections.

Between 14th Street and 21st Street along Stone Avenue and Sixth Avenue, there is one traffic signal at the Five Points intersection. There are three pedestrian activated signalized crosswalks located at 14th Street and Sixth Avenue, at Cushing Street and Stone Avenue and at 20th Street and Sixth Avenue. This last signalized crosswalk has a protective pedestrian refuge structure in the striped median.

Within the project area from 14th Street to 21st Street and on both sides of Stone and Sixth Avenues, there is continuous street-level lighting with luminaries extending out over the roadway. On both sides of Stone Avenue south of 18th Street, pedestrian level lighting is also provided on each street light pole. North of 18th Street, only street-level lighting is present. Street trees often prevent the lighting from reaching the sidewalk and thus pedestrian visibility is poor. Along the residential side streets, there is no pedestrian lighting.

The South Sixth Avenue bus route is heavily utilized. Within the project area there are six bus stops along Sixth and Stone Avenues. Two of them have bus pads, shelters, benches and trash cans.

The Stone/Sixth Avenue arterial traffic volume has remained constant at about 15,000 ADT for the past decade.

2.2 Original and Subsequent Construction Projects

The Transportation Enhancement Project and the Surface Transportation Program Project were included under the Pima Association of Governments Regional

Transportation Improvement Program as TIP #'s 103.08 and 79.07 respectively. The TIP includes other similar projects that are shown in the table below:

Table 1 Similar Projects in TIP

TIP ID #	Project Name	Project Description	Status
32.06	Campbell Main Street	Provide streetscaping and pedestrian amenities	In early design
37.06	Cambio Grande Street Revitalization	Provide landscape nodes and pedestrian lighting to enhance pedestrian activity along Grande Avenue	Under Design
105.01	South 4th Avenue Streetscape Enhancement	Install ADA access ramps, repair sidewalks	In Bid process
18.01	Stone Avenue Corridor: 6th St. to Speedway	Streetscape, bike and pedestrian improvements	Complete

2.3 Project Area

This project is located in an area surrounding the Five Points intersection in the City of Tucson, Pima County Arizona. The project area is bounded by 14th and Cushing Streets on the north, 21st Street on the south, Fifth Avenue on the east and Seventh Avenue and Stone Avenue on the west. The project area is located a mile south of the downtown Tucson central business district. This location falls in the center portion of Section 13, Township 14 South, Range 13 East. The project area length measured along Sixth Avenue is approximately 3,325 feet. No additional right-of-way is needed to accomplish this project.

Existing drainage is conveyed mostly by local streets to three storm drains under Stone Avenue north of 17th Street, under 19th Street, and under 21st Street. All these storm drains convey water westerly to the Santa Cruz River.

There are no bridges, box culverts or other structures within the Five Points project area.

3.0 Project Scope

3.1 Description

The project scope includes:

- installing approximately 5,400 SF of new 5-foot sidewalk to fill in gaps on 8 different residential side street segments with improved ADA accessible driveway aprons as necessary.
- installing new curb access ramps with truncated domes at 13 intersections and adding truncated domes to existing curb access ramps without them,

- installing 21 new pedestrian level lighting along 18th Street between 7th Avenue and 5th Avenue,
- retrofitting existing street light poles with pedestrian lighting along Stone and Sixth Avenues from 14th/Cushing Street to 18th Street, and
- installing a gateway feature or gateway markers.

A Gateway feature or markers will be placed at or near the Five Points intersection to provide neighborhood identity and provide a sense of arrival. The exact nature of the Gateway features or markers will be determined during the public participation process.

Once design is complete, the City will bid the construction of the project, and administer the construction contract under the City's certification acceptance procedures.

This project will be implemented in accordance with Pima County/City of Tucson Standard Specifications for Public Improvements, 2003 edition, which is consistent with ADOT standards.

Federal Transportation Enhancement Project funding in the amount of $494,398 will be used for construction of this project. The local match will be provided by City of Tucson in the amount of $28,181. Additional federal funding will be provided by the City of Tucson from their STP funds in the amount of $500,000 and matched with $28,500. The total City of Tucson match to federal funding amounts to $56,681. Additional funding will come from Pima County Neighborhood Reinvestment funds in the amount of $496,880.

After project completion, the source of funds for maintenance and operation for the entire design life of the project will be through the City of Tucson's operating budget.

This project will not impact any existing drainage or irrigation facilities.

4.0 Project Development Considerations

4.1 Environmental Overview

Based on the project scope, the following environmental requirements have been evaluated as described.

4.1.1 Species Investigation Plants and Animals

No known threatened or endangered species habitat exists in the project area. However, a species investigation will be conducted during the Environmental Clearance Process. Because the project area is in an urban area, it is assumed that the project will qualify for an Urban Biology Form.

4.1.2 Wetland and Riparian Resources

There are no wetlands or riparian areas present within the project limits, therefore, there will be no impacts to these areas.

4.1.3 Floodplain Encroachment

The project area is classified as Zone X in the FEMA floodplain maps (Map #04019C2228K and #04019C2229K). There are no revisions to these maps. The scope of this project involves installation of ADA access ramps, sidewalks, and pedestrian level lighting, and will not modify the topography of the project area. Therefore, no floodplain impacts are anticipated. However, during the environmental clearance process, the City of Tucson will coordinate with the City Floodplain Manager to verify that the project will not result in floodplain impacts, and will provide a letter from the Floodplain Manager. (See Appendix A).

4.1.4 Section 401/404

There are no jurisdictional waters within the project limits and therefore, no 404 permit and no 401 certification are required.

4.1.5 Section 4(f) Impacts

The two Historic Districts and one eligible and one potentially eligible historic neighborhood are subject to 4(f). Five Points Park is also within the project area. Visual impacts to the historic and eligible historic districts will be evaluated in the environmental process. No permanent 4(f) impacts to Five Points Park are anticipated. No new sidewalk is to be installed adjacent to this park. There are two existing street lights adjacent to this park which will be retrofitted with pedestrian level lighting. During construction there could be short-term (less than a day) impacts to the on-street parking adjacent to the park. Therefore construction will be coordinated with City of Tucson Parks and Recreation and will be scheduled to avoid any special events at the park.

4.1.6 Hazardous Materials

There are no known contaminated sites within the project limits, however, a Preliminary Initial Site Assessment will be prepared during the environmental clearance process.

4.1.7 Socioeconomic Impacts

This project will enhance pedestrian access to businesses and public transit along Stone Avenue and Sixth Avenue by providing sidewalks and pedestrian lighting. No permanent adverse social or economic impacts are anticipated as a result of this project. During construction there could be short-term (less than a day) impacts to bus stops. Construction will be coordinated with Sun Tran and temporary bus stops and/or pedestrian access to bus stops will be provided. In a like manner, on-street parking adjacent to some businesses or social service and community

organizations could be impacted short-term (less than one day). The City will notify impacted property owners, residents and Sun Tran prior to construction. The bike lanes along Stone and Sixth Avenues could also require short-term closure. Appropriate detours will be provided as necessary.

4.1.8 Cultural Resources Investigation

This project is located in two historic districts and one eligible and one potentially eligible historic neighborhood. The Cultural Resources Survey identified historic sidewalk and curb markings and recommended their avoidance if possible by redesign of ADA ramps and sidewalk configurations. If avoidance is not possible, the survey recommended fully documenting the inscriptions by an archaeologist prior to destruction. The Cultural Resources Survey will be reviewed and approved by ADOT and under ADOT will undergo consultation pursuant to Section 106 of the National Historic Preservation Act of 1966. It is also likely that following the environmental clearance, consultation with the State Historic Preservation Office (SHPO) would be required for each subsequent plan set review through final plans.

4.1.9 Scenic and Historic Route

This project is not located along a designated scenic or historic route.

4.1.10 Public Outreach

This project was developed by the residents of four neighborhoods – Armory Park, Barrio Libre (Viejo), Barrio Santa Rosa, and Barrio Santa Rita. They were involved in the planning of the project, and have been working with the City of Tucson over an 8 year period in the planning of this and related existing projects. This effort included a residents' task force working on the design and scope of this project; as well as other improvements needed in these neighborhoods. Involvement has included numerous public meetings that were well attended by residents and business owners from all four neighborhoods, and coordination with various city departments and staff from Council Members offices. Additional public outreach will be conducted during the environmental clearance process. Outreach efforts will be documented in accordance with ADOT's guidance documents.

The key stakeholders for this project are the residents of the four neighborhoods surrounding the Five Points Gateway that developed the concept for the project:

- Barrio Libre (Viejo), a Local and National Historic District
- Armory Park, a Local and National Historic District
- Barrio Santa Rosa, which is currently working on obtaining National Historic Designation through the City of Tucson

- Barrio Santa Rita Neighborhood, which may also be eligible for listing as a National Historic District.

They will continue to be involved in the project development and will be invited to comment on the final design of the project. Prior to construction, a neighborhood meeting will be held to discuss the construction process. Upon completion, the neighborhoods and ADOT will be invited to the project dedication.

The Categorical Exclusion document will be prepared by an environmental consultant, reviewed by the City of Tucson and submitted to ADOT and Federal Highway Administration (FHWA) for review and approval.

4.2 Design and Construction Contract Method

This project has been designed under a City of Tucson on-call design contract and that contract was competitively bid and awarded.

Upon completion of the design, the City will competitively bid and award the project to the lowest responsive bid. The City will administer the project and has certification acceptance.

4.3 Geotechnical and Drainage Requirements

This project will be installed within the City of Tucson right-of-way, and in areas with existing drainage structures. Based on the scope of work, which involves only minimal ground disturbance, no geotechnical or drainage studies will be preformed.

4.4 Critical Outside Agency Involvement

This project is located in the historic Armory Park and Barrio Libre (Viejo) neighborhoods, and also in historic register eligible Barrio Santa Rosa and potentially eligible Barrio Santa Rita neighborhoods. It is anticipated that SHPO consultation will be required to ensure that this project does not adversely impact the historic character of the neighborhoods.

City of Tucson Department of Transportation staff will coordinate with the City's bus service provider, Sun Tran and will include mitigation measures in the project specifications to require that access to bus stops be maintained during project construction. The City will coordinate with the Tucson Police Department and the Tucson Fire Department regarding the construction of this project.

4.5 Right-of-Way Requirements

The City of Tucson owns all of the existing right-of-way within the project limits. No new right-of-way or TCE's are anticipated for the project.

4.6 Existing Land Use

The existing land use in the project area is mixed. Along Stone Avenue and Sixth Avenue there are private commercial establishments and social service agencies and community organizations. In the adjoining neighborhoods behind the commercial there are private residential uses.

The Five Points Park is located on the west side of Stone Avenue between 17th and 18th Streets.

There are no schools in the project area.

The Mexican Consulate office for Tucson is located on the east side of Stone Avenue between 16th and 17th.

There are two churches in the project area along the west side of Stone Avenue. Primera Iglesia Bautista is located between Simpson Street and Kennedy Street, and Prince Chapel is located on the northwest corner of Stone Avenue and 17th Street. In addition, the St. Augustine Cathedral Religious Education Center is on the east side of 6th Avenue between 14th & 15th Streets. Also, there is a former house of worship on the west side of Stone Avenue between Kennedy and 17th Streets, the first synagogue in Tucson, now the Jewish History Museum. The museum is a registered historic property which has applied for landmark status with the City of Tucson.

A number of social service and other community agencies are located within the project area.

Commercial development is scattered along Stone Avenue and Sixth Avenue and in a few incidences extends back along the side streets intersecting the arterials.

4.7 Utility Relocation Requirements

The existing utilities within the project area are listed in Table 2 below:

Table 2 Utility Companies within Project Area

OWNER	UTILITY/FACILITY
City of Tucson DOT	Traffic Signal, Street Lighting
City of Tucson Communications	Fiber Optics
Cox Communication	Coax Cable TV, Fiber Optics
PCRWRD	Sanitary Sewer
Qwest	Telephone, Fiber Optics
Southwest Gas	Natural Gas
Tucson Electric Power	Electric, Street Lighting
Tucson Water	Water, Reclaimed Water

Excavation for sidewalk improvements is expected to disturb up to a maximum 6 inch depth and should not disturb any underground utility lines. Street light

foundation and pull box locations and conduits will be adjusted to avoid underground utilities. Thus no utility relocations are anticipated.

Coordination with Tucson Water will be needed in order to address water meter relocations and or adjustments.

This project will require a utility clearance, which will be completed in conformance with the City's certification acceptance procedures prior to the request for funding authorization.

4.8 Seasonal Considerations

Because a portion of the project involves construction along an arterial roadway, no activities along the arterial will be conducted during severe or inclement weather. The remaining project design and development tasks do not involve any activities that would be impacted by seasonal considerations. Construction will be scheduled to avoid special events or other major activities, if any, at the Five Points Park. The City also observes a holiday moratorium on arterial roadway construction from Thanksgiving through New Years. In addition the City restricts any congestion generating construction in the downtown area during the annual Gem and Mineral Show in February.

4.9 Traffic Requirements

Impacts to traffic are expected to be minimal. If needed, traffic control will be in accordance with the most current *Manual on Uniform Traffic Control Devices for Streets and Highways*, published by the US Department of Transportation, Federal Highway Administration including any revisions or additions, and/or associated provisions in the project plans, as determined by the City of Tucson during the administration of the project.

During construction traffic impacts include:

- Temporary traffic control.
- Partial lane closures; however, access will be maintained to businesses and to members of the public traveling on all streets in the project area.
- No detours will be required and no work will be performed during severe weather.
- The project will not affect the cross section of any existing highway.
- The project will not affect any existing pavement section. This project will not affect any existing striping and pavement markings.
- This project will not affect any existing signs or traffic signals.

4.10 Design Criteria

The project will be implemented in accordance with Pima County/City of Tucson Standard Specifications for Public Improvements, 2003 edition, which is consistent with Arizona Department of Transportation standards. Additional

design guidelines are listed below: Additional guidance manuals that will be utilized include:

- Transportation Access Management Guidelines for the City of Tucson, Arizona, March 2003.
- Policy on Geometric Design of Highways and Streets, 'Green Book,' AASHTO, 2007.
- Manual on Uniform Traffic Control Devices, 2003 Edition (MUTCD)
- AASHTO Roadside Design Guide, 2002.

4.11 Exceptions

This project will require a Categorical Exclusion in accordance with 23 CFR 771.117(c) and the Arizona Programmatic Categorical Exclusion.

No AASHTO design exceptions apply to this project.

5.0 Other Requirements

The federal funding source is the Transportation Enhancement and Surface Transportation Program. Following design by the City's on-call design consultant, the estimated project schedule calls for the project to be competitively bid in September of 2013, with construction to begin in December 2013. It is anticipated that the project construction will be completed by August 2014. The estimated, detailed project development schedule is provided on page 19. The City of Tucson will perform project management and has certification acceptance.

6.0 Estimated Cost

The total project costs are estimated at $1,491,278. Federal Transportation enhancement funds in the amount of $494,398 and Surface Transportation Program funds in the amount of $500,000 have been programmed through the 2010-2014 Transportation Improvement Plan. The local match of $56,681 will be provided by the City of Tucson. Pima County will provide $496,880 in PCNR funds. A detailed project cost estimate is provided on page 14, and a cost breakdown by funding source is provided on page 15.

6.1 Itemized Estimate:

Section 6.1 provides the itemized cost estimate for this project.

FIVE POINTS PEDESTRIAN IMPROVEMENTS
JOB NO. S355
PRELIMINARY CONSTRUCTION COST ESTIMATE - 30% SUBMITTAL

PLAN NO. F-2008-003

BID ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1070001	AZPDES (Original)	L.S.	1	$50,000	$50,000
1070011	AZPDES (Modifications)	F.A.	1	$10,000	$10,000
2020025	Removal of Concrete Sidewalks, Driveways and Slabs	S.F.	548	$30	$16,550
2020020	Removal of Curb	L.F.	207	$30	$6,251
6070035	Sign Post (Perforated)(single)	L.F.	11	$75	$825
6070110	Foundation for Sign Post (Perforated)	E.A.	1	$674	$674
6070220	Remove and Relocate Signs (Traffic Signs)	E.A.	1	$700	$700
7010005	Maintenance & Protection of Traffic	L.S.	1	$75,000	$75,000
7320400	# 3-1/2 Pullbox	E.A.	18	$375	$6,750
7320420	# 7 Pullbox	E.A.	2	$400	$800
7320015	Electrical Conduit (1 1/2") (PVC)	L.F.	135	$6	$810
7320020	Electrical Conduit (2") (PVC)	L.F.	1,497	$7	$10,479
7320025	Electrical Conduit (2-1/2") (PVC)	L.F.	295	$6	$1,770
7320040	Electrical Conduit (4") (PVC)	L.F.	885	$9	$7,965
732xxxx	Pedestrian Light Pole Base	E.A.	74	$2,500	$185,000
732xxxx	Two Way Mast Arm for Pedestrian Lights	E.A.	74	$500	$37,000
732xxxx	Pedestrian Light Fixture	E.A.	148	$200	$29,600
732xxxx	LED Luminaire (8 watt)	E.A.	148	$50	$7,400
732xxxx	Pedestrian Lighting Style Pole	E.A.	21	$3,000	$63,000
732xxxx	Pole Foundation (Special)	E.A.	21	$700	$14,700
7320622	Conductors (No.10) (Insulated)	L.F.	6,586	$1	$7,256
7320628	Conductors (Bare Bond)(No.8)	L.F.	3,293	$0.75	$2,470
8080632	Pipe, Copper (CU), 3/4"	L.F.	85	$30	$2,550
8108123	Meter Relocation, Service Line Adjustment, 3/4" (M/A)	E.A.	3	$1,150	$3,450
9010001	Mobilization	L.S.	1	$30,000	$30,000
9080005	Concrete Vertical Curb (PC/COT Std. Dtl. 209, Type 2) (H=6")	L.F.	106	$13	$1,378
9080041	Concrete Curb (Retaining Curb, 6" to 18", Detail 3)	L.F.	76	$24	$1,812
9080201	Concrete Sidewalk, (PC/COT Std. Dtl. 200)	S.F.	5,349	$5	$26,745
9080281	Curb Access Ramp (PC/COT Std. Dtl. 207, Type 2)	E.A.	2	$1,200	$2,400
9080282	Curb Access Ramp (PC/COT Std. Dtl. 207, Type 3)	E.A.	12	$1,200	$14,400
9080303	Concrete Driveway Apron (PC/COT Std. Dtl. 206)	S.F.	2,945	$9	$26,505
9090011	Truncated Domes	E.A.	16	$160	$2,560
9240001	Miscellaneous Work (Gateway Feature)	L.S.	1	$424,083	$424,083

CONSTRUCTION SUBTOTAL	$1,070,883
Contingency (5%)	$39,928
Construction Administration (15%)	$174,327
TOTAL	$1,285,138
30% Design	$106,140
FINAL DESIGN	$100,000
TOTAL	$1,491,278

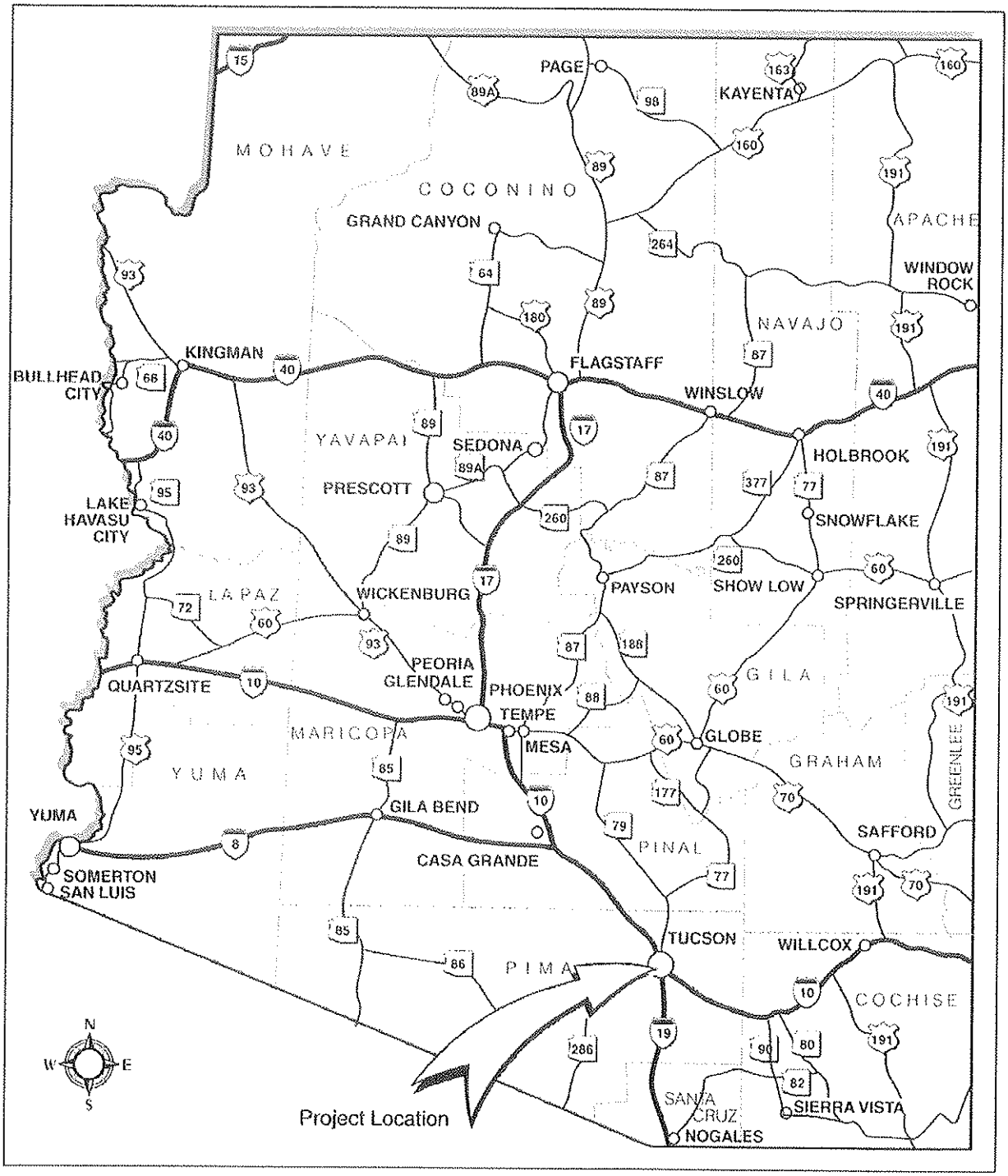
6.2 Estimate By Funding Source:

Section 6.2 provides the cost estimate by funding source for this project.

FIVE POINTS PEDESTRIAN IMPROVEMENTS
JOB NO. S355
PRELIMINARY CONSTRUCTION COST ESTIMATE - 30% SUBMITTAL

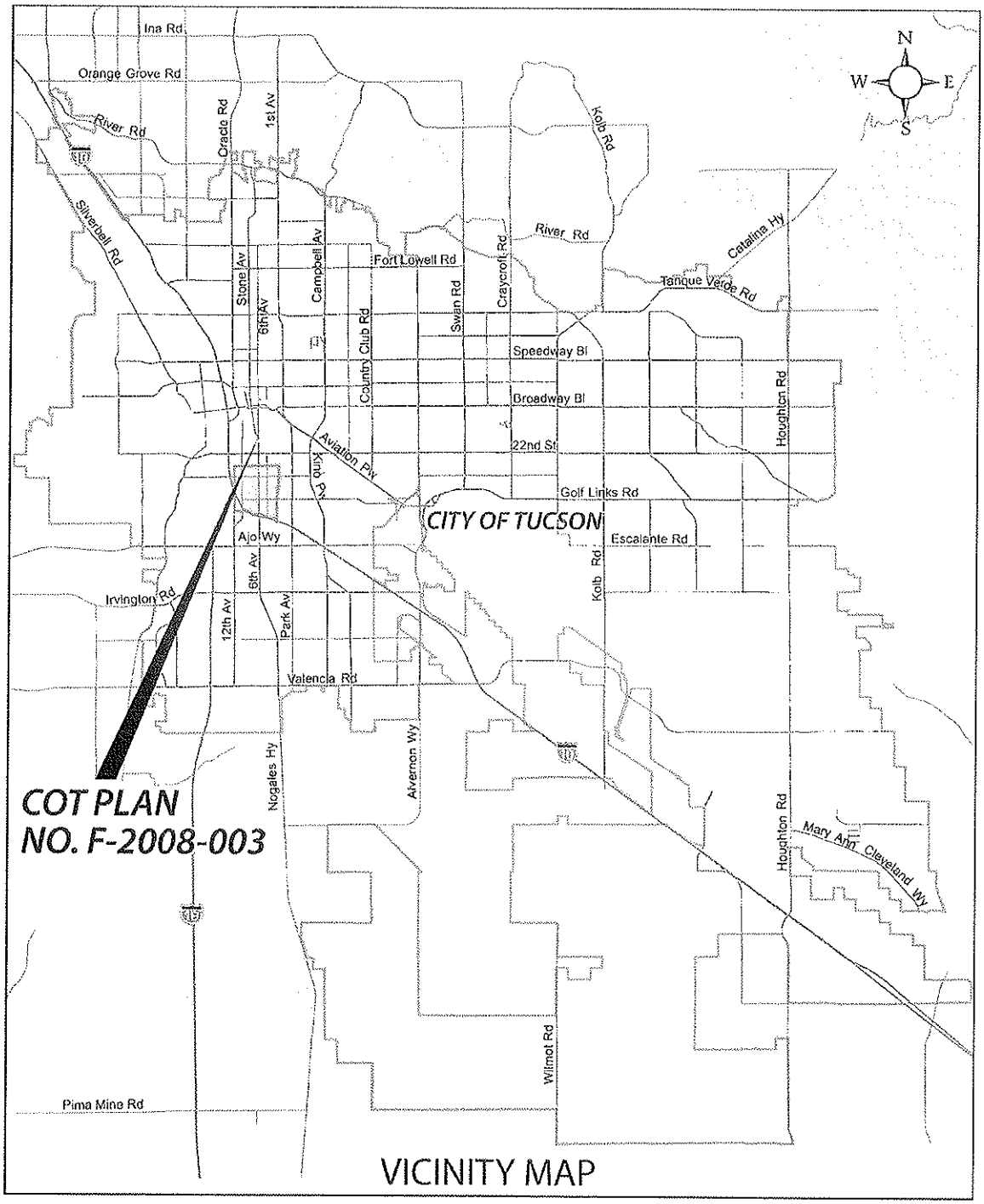
ITEM DESCRIPTION	UNIT	Quantity	UNIT PRICE	Estimated Amount	Pima Co Reinvestment Funds $496,880	TE Funds (94.3% Federal Share) $494,398	STP Funds (94.3% Federal Share) $500,000	Local Cost Share (5.7%)
30% Design	L.S.	1	$106,140	$106,140			$100,090	$6,050
Final Design (estimate)	L.S.	1	$100,000	$100,000		$94,300		$5,700
Design Subtotal				$206,140	$0	$94,300	$100,090	$11,750
Traffic Control	L.S.	1	$75,000	$75,000	$30,392	$44,608		
Demolition	L.S.	1	$25,000	$25,000	$13,175	$11,825		
Concrete Sidewalk & Drives	L.S.	1	$75,800	$75,800		$75,800		
Pedestrian Lighting	L.S.	1	$375,000	$375,000	$240,000	$135,000		
Water Modifications	L.S.	1	$6,000	$6,000	$6,000			
Gateway Feature	L.S.	1	$424,083	$424,083	$95,402		$304,508	$24,173
AZPDES (Original)	L.S.	1	$50,000	$50,000	$26,348	$23,652		
AZDES (Modifications)	F.A.	1	$10,000	$10,000	$5,270	$4,730		
Contractor Mobilization	L.S.	1	$30,000	$30,000	$15,808	$14,192		
Contingency (5%)	L.S.	1	$39,928	$39,928	$5,710	$15,422	$15,225	$3,571
Construction Admin. (15%)	L.S.	1	$174,327	$174,327	$58,775	$46,688	$51,677	$17,187
Construction Subtotal				$1,285,138	$496,880	$371,917	$371,410	$44,931
Total Cost				**$1,491,278**	**$496,880**	**$466,217**	**$471,500**	**$56,681**
Available Funds								
TE				$494,398		$466,217		$28,181
STP				$500,000			$471,500	$28,500
Pima Co Reinvestment Funds				$496,880	$496,880			
Total Available Funds				**$1,491,278**	**$496,880**	**$466,217**	**$471,500**	**$56,681**

7.0 State Map



Project Assessment Document
Project Name: Five Points Pedestrian Improvements
Project Number: STP TUC 0(228)A
TRACS Number: 0000 PM TUC SS776 01C

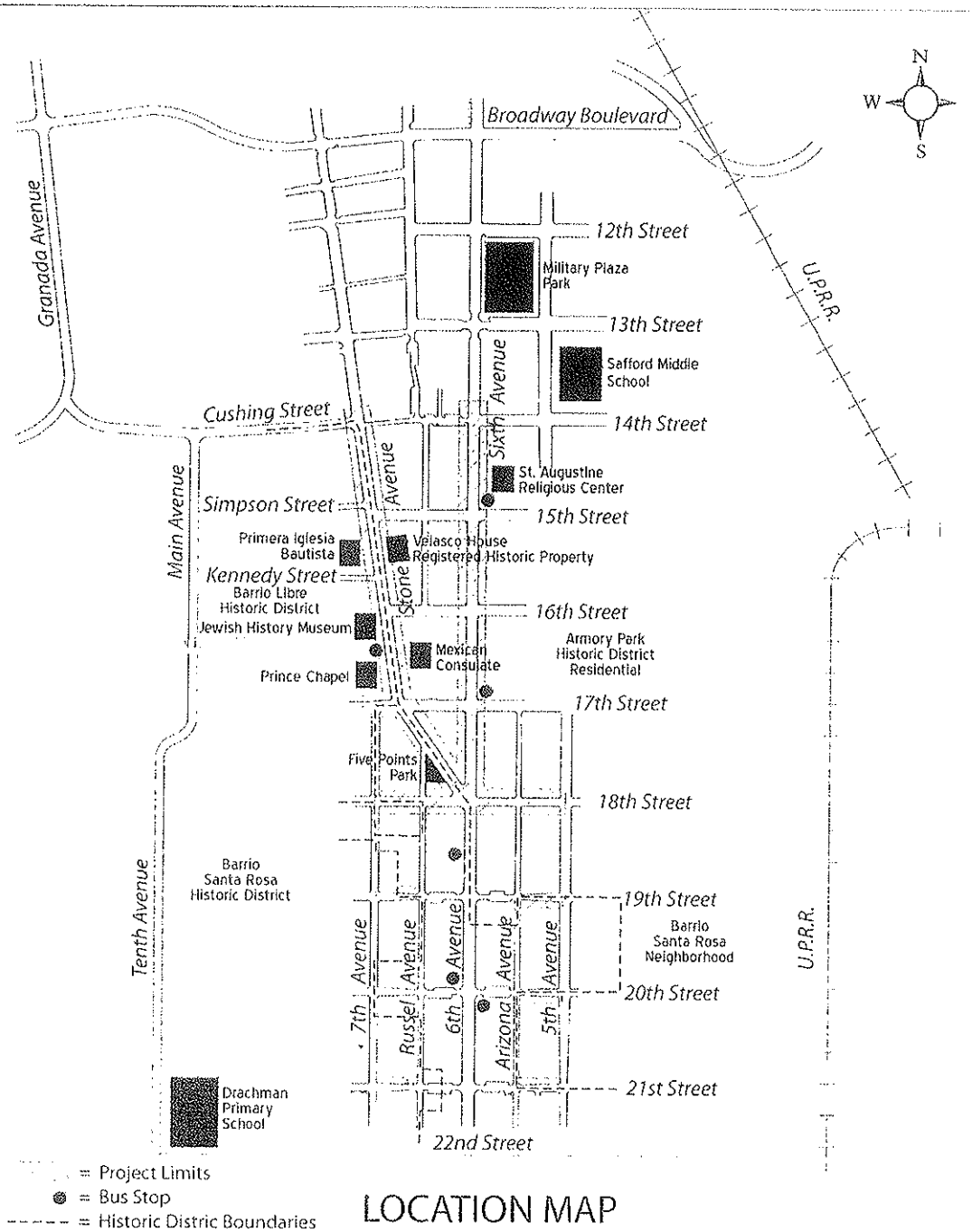
8.0 Vicinity Map



N.T.S.

Project Assessment Document
Project Name: Five Points Pedestrian Improvements
Project Number: STP TUC 0(228)A
TRACS Number: 0000 PM TUC SS776 01C

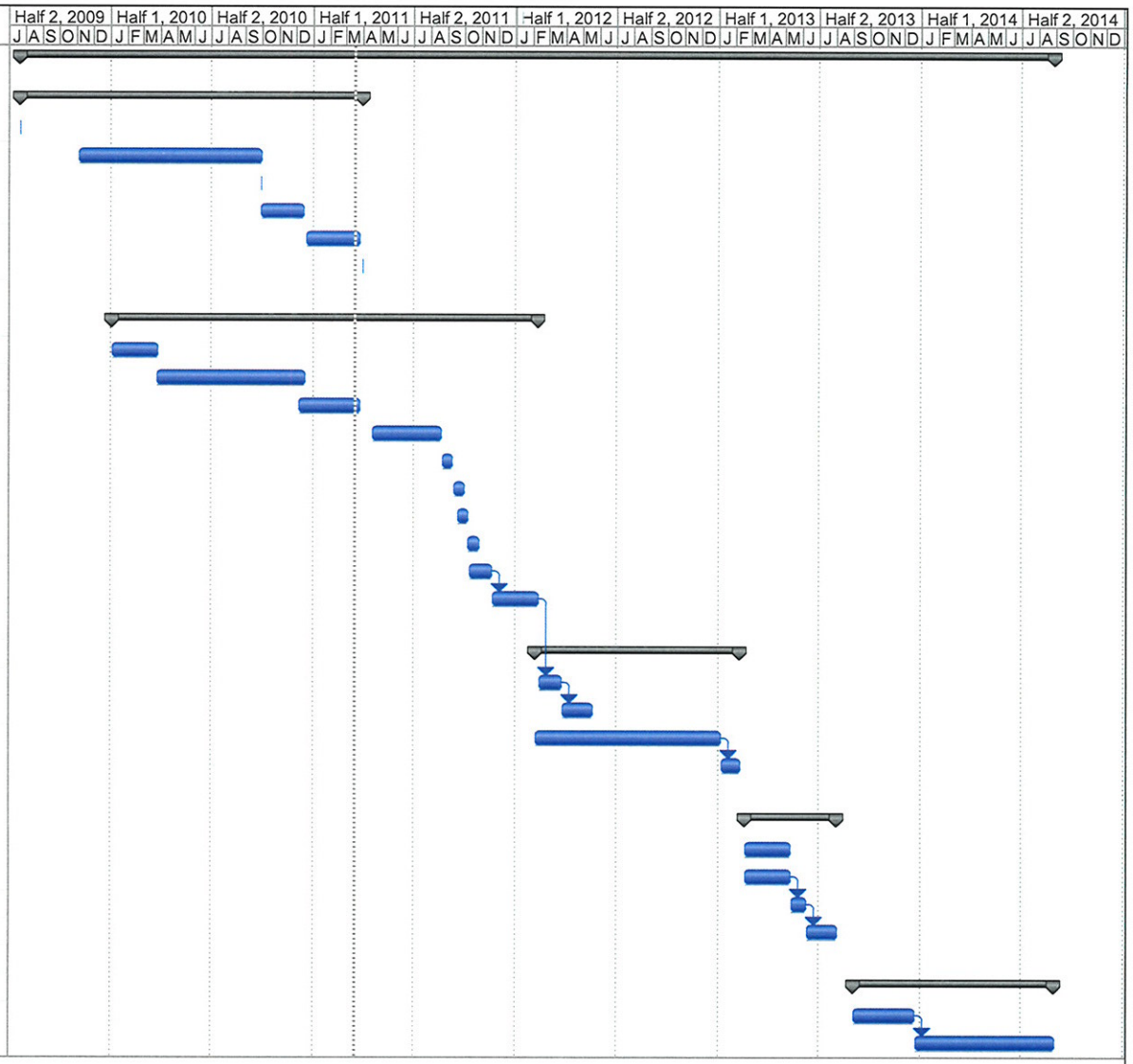
9.0 Location Map



LOCATION MAP

N. T. S.

ID	Task Name	Duration
1	**Five Points - Pedestrian Improvements**	**1334 days**
2	**Project Setup**	**443 days**
3	Project Kickoff Meeting	1 day
4	Prepare Project Assessment Document	236 days
5	Submit Project Assessment Document	1 day
6	ADOT Review of Project Assessment	55 days
7	Response to ADOT Comments	70 days
8	ADOT Approval of Final Project Assessment	1 day
9		
10	**Environmental**	**550 days**
11	Prepare Cultral Report	60 days
12	ADOT Review of Cultral Report	190 days
13	Respond to ADOT Comments	80 days
14	Final ADOT Review of Cultral Report	90 days
15	Prepare Urban Biological Form	14 days
16	ADOT Review of Urban Biological Form	14 days
17	Prepare PISA	14 days
18	PISA ADOT Review	14 days
19	Prepare Environmental Clearance Document	30 days
20	ADOT Review of Environmental Clearance	60 days
21		
22	**Project Design**	**265 days**
23	Negotiate Design Fee and Request Design Funds	30 days
24	Release Design Funds	40 days
25	Project Design and City of Tucson Review	240 days
26	Prepare Construction Bid Documents	25 days
27		
28	**Funding Release**	**120 days**
29	Obtain ROW Clearance	60 days
30	Obtain Utility Clearance	60 days
31	Request Funding Authorization	20 days
32	Funding Authorization	40 days
33		
34	**Project Constructruction Start**	**260 days**
35	Bid Award and Notice to Proceed	80 days
36	Construction	180 days



Project: 5 points 29June10
Date: Wed 3/16/11

Task		Milestone		External Tasks	
Split		Summary		External Milestone	
Progress		Project Summary		Deadline	

11.0 Service Involvement Matrix

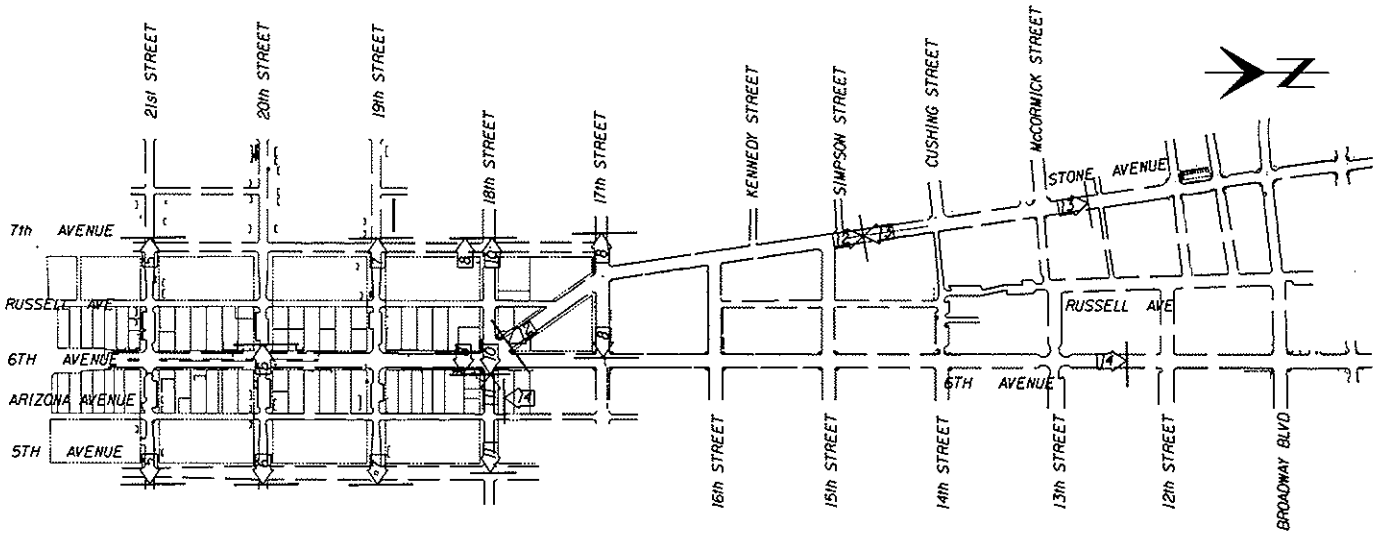
Project Number: STP TUC 0(228)A
TRACS Number: 0000 PM TUC SS776 01C
Project Name: Five Points Pedestrian Improvements
Project Location: City of Tucson, Pima County, Arizona

CONTACTED	FIELD REVIEW	ORGANIZATION	INVOLVEMENT				COMMENTS (ISSUES THAT MAKE INVOLVEMENT SIGNIFICANT OR MINIMAL)
			SIGNIFICANT	MINIMUM	NONE	UNKNOWN	
		ADOT Technology Group (For IT)			X		
X		ADOT Local Government Section		X			
		ADOT Tucson Maintenance District			X		
		ADOT Roadway Design			X		
		ADOT Pavement Design			X		
		ADOT Bridge Design			X		
		ADOT Drainage Design			X		
		ADOT Transportation Planning			X		
		ADOT Traffic Design			X		
		ADOT Photogrammetry & Mapping			X		
		ADOT Engineering Survey			X		
		ADOT Geotechical Services			X		
X		ADOT Environmental Planning Group	X				Reviews and Approvals for Environmental Documents
X		ADOT Roadside Development		X			Project Management
		ADOT Right-of-Way Group			X		
		ADOT Utilities & Railroads			X		
		ADOT Contracts & Specifications		X			Review Contract & Specs
		ADOT Procurement			X		
		FHWA		X			Funding Authorization
X		City of Tucson Transportation	X				Project Management
X		Pima Association of Governments			X		Administration of TIP
	X	Pima County		X			Coordination of Pima County Neighborhood Reinvestment Funds
		City of Tucson Police Department		X			Project Coordination
		City of Tucson Fire Department		X			Project Coordination
		Sun Tran Bus Service Provider		X			Project Coordination
		City of Tucson Parks & Recreation		X			Project Coordination
		SHPO	X				Consultation on Project

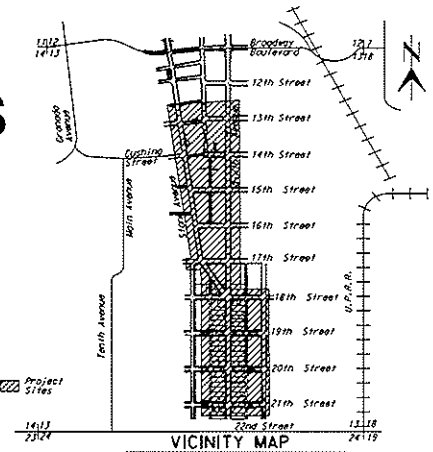
FIVE POINTS
SIDEWALK AND LIGHTING IMPROVEMENTS

JOB NO. S355
PCRWRD PLAN NO. U-2009-100

17th Street – 7th Ave to 6th Ave
18th Street – 7th Ave to 5th Ave
19th Street – 7th Ave to 5th Ave
20th Street – 6th Ave to 5th Ave
21st Street – 7th Ave to 5th Ave



LOCATION MAP
N.T.S.



VICINITY MAP
3" = 1 Mile

Sec 13, T14S, R13E
G&SRM, Pima County, Arizona
Latitude 32°12'43"N, Longitude 110°58'04"W

LEGEND

Exist		New
	Water Valve	
	Fire Hydrant	
	Sign	
	Water Meter	
	Sewer Manhole	
	Street Light	
	Street Light, Armory Park Style	
P.P.	TEP Power Pole	
SM	Survey Monument	
	Tree	
	Fence	
	Guy Anchor	
	BCSM (Existing)	
	Sheet Number	

SHEET INDEX

No.	Description
1	Cover Sheet
2	General Notes
3	Water System Notes
4	Detail Sheets
5-8	Sidewalk Plan Sheets
9-14	Street Light Modifications

FOR ACCEPTANCE CONDITIONS, SEE WATER SYSTEM MODIFICATION NOTES, NOTE 1, SHEET 3 OF 14.

CITY OF TUCSON WATER DEPARTMENT DATE

COVER SHEET

1-800-782-5348

PB PARSONS BRINCKERHOFF 177 N Church Suite 500, Tucson Arizona 85701 (520-882-6424)

DEPARTMENT OF TRANSPORTATION / ENGINEERING DIVISION

CITY OF TUCSON

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

PRELIMINARY
30%
REVIEW
NOT FOR CONSTRUCTION OR RECORDING

Approvals	Signatory	Date
ENGINEERING ADMINISTRATOR		
TRAFFIC PLANNING & DESIGN ADMINISTRATOR		
ENGINEERING LANDSCAPE ARCHITECT		

Approved _____ 20__

TRANSPORTATION DIRECTOR

1 of 14

REF. _____ SCALE: As Noted

DRWN BY CPC 20 10 DSGN BY L. HUBBARD 20 10 CHKD BY L. VASQUEZ 20 10

PLAN NO. F-2008-003

NO.	DATE	REVISION	BY	CHKD.	APPR.

PB Project No: 11509C

3/16/2011 R:\11509C_5-Points\Data\5PTS.gface.dgn

GENERAL NOTES

1. Horizontal Datum:
   25th Street to 10th Street
   The Basis of Bearing for this survey is N 00° 00' 12" W on the Sixth Ave. Monument Line between 22nd Street and 21st Street as shown on the City of Tucson Department of Transportation Plan No. R-94-02.

2. All construction shall conform to the 2003 Editions of the Pima County/City of Tucson Standard Specifications and Details for Public Improvements, except as modified on the plans.

3. The Contractor shall verify existence of all utilities by calling Blue Stake at 1-800-782-5348, 48 hours prior to construction. The plan locations of utilities being shown are approximate. Contact City of Tucson Maps & Records for storm drain blue stake.

4. The Contractor shall maintain access to all driveways and mail boxes during construction and not restrict U.S. Postal deliveries, solid waste collection and/or access to adjacent properties, except as approved by the Engineer.

5. Changes in location or length of depressed curbs may be made by the Engineer.

6. Immediately report any release of sewage, and/or any damage to, or the dropping of debris into, the public sanitary sewage conveyance system to either PCRWRD Field Engineering (740-2651) or PCRWRD Field Operations (443-6500). On weekends, holidays, or between 5:00 PM and 8:00 AM, immediately call Pima County Sheriff's Communication Center at 295-4595 or 741-4900 and request a PCRWRD representative to be dispatched to the site. Take immediate action to prevent or contain the sanitary sewage overflow (SSO) from the sewer system and disinfect the sewage and area with at least 5 gallons of 12.5% liquid sodium hypochloride. The Contractor shall be responsible for all costs to repair the system, for all expense to mitigate the release and to disinfect the release areas, and for regulatory penalties levied on PCRWRD because the SSO entered a natural or constructed storm water drainage system. The Contractor shall repair all damage as directed and approved by PCRWRD.

7. House or Business Connection Sewers (HCS or BCS) are not part of the Public Sanitary Sewer Conveyance System. Private Connection Sewers Constructed Prior to January 2006 are not Required to be Blue Staked. Any HCS/BCS Encountered During Construction Shall be Protected, Repaired, or Rerouted, as the Situation Dictates (PC/COT SDWWM 404), at no Expense to the Property Owner or the Pima County Regional Wastewater Reclamation Department.

8. New sidewalk to meet all existing ADA standards.

9. Unless otherwise noted, new sidewalks are to match existing grades at light pole foundations, pull boxes, water meter boxes and manholes.

10. Sidewalk meandering to be kept to a minimum. If sidewalk cannot be meandered to avoid an obstruction, the the minimum clearance from either edge of the sidewalk to an obstruction shall not be less than 3'.

11. Sidewalk transitions to be 3:1 max.

12. Contractor shall take precautions not to damage water facilities that are disclosed to be in the area of construction. The contractor shall be responsible for any damage.

13. Coordinate removals and reinstallation of signs and posts with Traffic Engineering per PC/COT Signing Manual.

14. It is the contractor's responsibility to maintain reasonable access to the public transit system. Access must comply with the Americans with Disabilities Act. The contractor is responsible for establishing temporary bus stops if permanent bus stop amenities and signage is removed or access prohibited due to construction activity. Contractor shall contact Bee Paulus, Sun Tran, at 206-8826, for any concerns regarding bus stops.

15. Southwest Gas requires a stand-by when the contractor is working within 10 feet of high pressure gas facilities or facilities with a pipe diameter of 6 inches or greater. The contractor must call 794-6021 to schedule the stand-by a minimum of 24 hours in advance.

16. All water systems modifications construction work shall conform to the following standards and special provisions:

    A. The Pima County/City of Tucson Standard Specification for public improvements, 2003 edition.

    B. The water system modifications special provisions for this project.

17. Contact Traffic Engineering, Diahn Swartz, 791-4259 within 48 hours advance notice for assistance's relocating traffic signs.

18. The contractor shall call COT DOT Landscape Architect, Gary Withwer at 837-6618 prior to removal of landscape plants or irrigation materials, and prior to trimming of any tree branches or tree roots

Curb Access Ramp Notes

1. All curb access ramps shall conform to PC/COT Std Dtl 207 unless otherwise specified in the plans.

2. All stationing for the curb access ramps is based upon the point of intersection between the face of the curb and the centerline of the ramp.

3. All new curb access ramps shall include truncated domes.

Curb Access Ramp Descriptions

R-2 # Type 2 Ramps PC/COT Std Dtl 207.

R-3 # Type 3 Ramps PC/COT Std Dtl 207.

Curb Access Ramp Locations

R-T #	Sheet Location	Station & Offset	Ramp Type
1	5	5+46.2, 22.9' Lt	R-2
2	5	7+48.9, 26.5' Lt	R-3
3	5	12+51.8, 31.3' Lt	R-3
4	5	14+57.3, 31.3' Lt	R-3
5	6	12+51.2, 27.9' Rt	R-3
6	6	14+47.6, 27.9' Rt	R-3
7	7	5+42.9, 30.5' Lt	R-3
8	7	7+47.7, 25.0' Lt	R-3
9	7	12+52.1, 29.5' Rt	R-3
10	7	14+47.8, 29.5' Rt	R-3
11	8	58+44.0, 38.6' Rt	R-3
12	8	9+78.6, 35.4' Rt	R-2
13	8	10+17.5, 35.2' Rt	R-3
14	8	11+02.4, 26.0' Rt	R-3
		TOTAL R-2	2
		TOTAL R-3	12
		TOTAL RAMPS	

Driveway Notes

1. All driveways shall conform to Detail A of these plans or to PC/COT Std Dtl 206.

2. All stationing and widths given for the driveways are approximate and are for general location and quantity purposes only.

3. New driveways should be constructed within the existing depressed curb areas except where noted on the plans.

Driveway Locations

DW #	Sheet Number	Approx Station	Location From ℄	Approx Width (Feet)	Exist Driveway Material
1	5	6+96.2	15.2' Lt	11.5'	Dirt
2	5	7+35.0	13.4' Lt	11.5'	Dirt
3	5	13+48.3	18.2' Lt	12'	Dirt
4	6	12+93.9	14.7' Rt	13.5'	Dirt
5	6	13+37.8	17.6' Rt	11'	Dirt
6	7	13+74.5	19.6' Rt	15.6'	Dirt
7	8	59+30.0	30.0' Rt	17'	•
8	8	61+18.3	30.8' Rt	24'	Asphalt
TOTAL WIDTH OF DRIVEWAYS				117'	

• Broken Concrete & Dirt

Truncated Dome Location

TD #	Sheet Number	Approx Station	Location From ℄
1	8	60+49.2	40.1' Rt
2	8	60+77.4	40.9' Rt

CALL FOR THE BLUE STAKES 1-800-782-5348 Blue Stake Center CALL COLLECT

GENERAL NOTES

PB PARSONS BRINCKERHOFF 111 N Church Suite 500, Tucson Arizona 85701 (520-882-6424)

DEPARTMENT OF TRANSPORTATION / ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

PRELIMINARY 30% Plans NOT FOR CONSTRUCTION OR RECORDING

CITY OF TUCSON

DRWN BY CPS	2010	REF. COT Field Book No. ____ SCALE: ____
DSGN BY S. Hubbard	2010	
CHKD BY J Yoskovic	2010	PLAN NO. F-2008-003

NO	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 11589C 10.0

3/16/2011 R:\11589C_5-Points\Data\5PTS_Notes.dgn

WATER SYSTEM MODIFICATION NOTES

1. ACCEPTANCE CONDITIONS:
   A. THIS PROJECT IS ACCEPTED BY THE CITY OF TUCSON WATER DEPARTMENT FOR SUBSTANTIAL CONCURRENCE WITH STANDARD SPECIFICATIONS AND DETAILS.
   B. ACCEPTANCE OF THESE PLANS IS VALID FOR 3 YEARS AFTER THE DATE OF THE SIGNATURE.
   C. THE WARRANTEE AND GUARANTEE DURATION FOR ALL WATER WORK ON THIS PROJECT SHALL BE TWO (2) YEARS COMMENCING ON THE DATE OF FINAL ACCEPTANCE OF THE WATER WORK BY THE CITY OF TUCSON WATER DEPARTMENT.

2. CURRENT STANDARDS:
   ALL WATER SYSTEM MODIFICATION CONSTRUCTION WORK SHALL CONFORM TO THE FOLLOWING STANDARDS AND SPECIAL PROVISIONS:
   A. THE PIMA COUNTY/CITY OF TUCSON STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, 2003 EDITION.
   B. THE WATER SYSTEMS MODIFICATIONS SPECIAL PROVISIONS FOR THIS PROJECT.

3. WATER SYSTEM MODIFICATION PRE CONSTRUCTION PROCEDURE:
   A. THE CONTRACTOR SHALL CONTACT THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION SECTION (791-2665) A MINIMUM OF THREE (3) DAYS PRIOR TO ANY WATER WORK. THE CONTRACTOR SHALL PREFER TO THE CITY OF TUCSON WATER DEPARTMENT PLAN NO. S-023-2008.
   B. THE CITY OF TUCSON WATER DEPARTMENT CONSTRUCTION SECTION WILL SCHEDULE THE TIME AND PLACE FOR THE MEETING.
   C. NO WATER SYSTEM CONSTRUCTION SHALL BEGIN UNTIL A "NOTICE TO PROCEED" HAS BEEN ISSUED BY THE CITY OF TUCSON WATER DEPARTMENT.
   D. ANY WATER WORK INSTALLED PRIOR PRIOR TO THE NOTICE TO PROCEED DATE SHALL BE REMOVED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

4. DIMENSIONS SLOPES AND GRADES:
   ALL DIMENSIONS, SLOPES AND GRADES OF EXISTING WATER LINES ARE TAKEN FROM "AS BUILT" DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXACT INFORMATION BEFORE ORDERING ANY SPECIAL FITTINGS OR EQUIPMENT.

5. DEPTH OF NEW SERVICE LINES:
   A. NEW SERVICE LINES, TWO INCH (2") AND SMALLER, SHALL BE INSTALLED AT A MINIMUM DEPTH OF TWO FEET (2.0') FROM THE BOTTOM OF ANY EXCAVATION OR SCARIFICATION TO THE TOP OF THE NEW SERVICE LINE. THIS DEPTH SHALL BE PERPENDICULAR TO THE PROPOSED STRUCTURE OR EDGE OF THE PROPOSED ROADWAY.
   B. IN NO CASE SHALL NEW SERVICE LINES BE INSTALLED LESS THAN THREE FEET (3.0') DEEP FROM THE FINISHED GRADE TO THE TOP OF THE NEW SERVICE LINE.
   C. THESE MINIMUMS SHALL APPLY TO ALL SERVICE LINES UNLESS OTHERWISE NOTED ON THE PLANS.

6. WATER METERS AND METER BOXES:
   THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER METERS AND METER BOXES IN THE CONSTRUCTION AREA. THIS WILL INCLUDE BUT NOT BE LIMITED TO:
   A. REMOVAL AND INSTALLATION:
   DURNING THIS OPERATION METERS SHALL BE TAGGED WITH THE CORRECT ADDRESS TO ENSURE THEIR REINSTALLATION AT THE SAME LOCATION.
   B. PROTECTIONS OF METERS:
   AT ALL TIMES THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID ANY DAMAGE TO THE METERS. THE CONTRACTOR SHALL PROVIDE FOR THEIR SAFE STORAGE AND THE PROPER EQUIPMENT FOR THE HANDLING.
   C. ACCESS TO THE METERS:
   THE CONTRACTORS SHALL MAINTAIN ACCESS TO ALL IN SERVICE METERS DURING CONSTRUCTION. AT THE CLOSE OF THE PROJECT THE CONTRACTOR SHALL ENSURE THAT ALL METERS ARE LEFT ACCESSIBLE AND THAT ALL METER BOXES ARE ADJUSTED TO FINAL GRADE.

7. MAINTAIN SERVICE TO CUSTOMERS:
   THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAING SERVICE TO ALL WATER CUSTOMERS DURING CONSTRUCTION.

   IT SHALL BE THE CONTRACTOR'S RESPONSIBLITY TO DETERMINE WHICH SERVICES WILL BE EFFECTED BY THIS PROJECT.

   IT MAY BE NECESSARY TO ACCOMPLISH TIE-OVERS, RE-CONNECTIONS, ETC.. WHILE BUSINESS CUSTOMERS ARE CLOSED.

   IF INTERRUPTION OF SERVICE IS UNAVOIDABLE THE CONTRACTOR SHALL NOTIFY THE WATER INSPECTOR A MINIMUM OF A 48 HOURS IN ADVANCE TO COORDINATE SHUT-DOWNS. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION TO THE CUSTOMER.

   IF THE CONTRACTOR CHOOSES TO ABANDON ANY PORTION OF THE EXISTING WATER SUPPLY SYSTEM WITHOUT CONCURRENT NEW CONSTRUCTION AS CALLED FOR ON THE PLANS THE CONTRACTOR SHALL PROVIDE ANY AND ALL MATERIALS AND CONSTRUCTION OF A TEMPORARY OR PERMANENT WATER SYSTEM TO MAINTAIN CONTINUED WATER SERVICE TO CUSOMERS AT NO ADDITIONAL COST.

8. SPECIAL USE WATER PERMITS:
   PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL APPLY FOR TWO (2) SPECIAL WATER USE PERMITS FROM THE CITY OF TUCSON DEPARTMENT COMMERICAL SECTION
   A. CONSTRUCTION WATER SPECIAL PERMIT:
   THERE WILL BE NO CHARGE FOR THIS PERMIT, BUT THE CONTRACTOR MUST PAY THE SUM OF (60.66) PLUS TAX AS THE ESTIMATED COST OF THE WATER TO BE USED. THIS WATER USED FOR TRENCH SETTLING, DISINFECTION AND TESTING.
   B. METERED FIRE HYDRANT ONLY PERMIT:
   THIS NON-TRANSFERABLE PERMIT WILL ENTITLE THE CONTRACTOR TO USE WATER THROUGH A METER FROM EXISTING FIRE HYDRANTS AT APPROVED LOCATIONS. WATER USED UNDER THIS PERMIT IS FOR GENERAL CONSTRUCTION PUPOSES SUCH AS DUST CONTROL, SITE PREPARATION, ETC.

9. NEW MATERIAL:
   ALL MATERIALS, FITTINGS, AND APPURTENANCES CALLED FOR ON THE PLANS, OR REQUIRED FOR A COMPLETE INSTALLATION, SHALL BE NEW. NO REFURBISHED ITEMS OR MATERIALS WILL BE ALLOWED.

10. MARKING TAPE:
    IF ANY EXISTING DETECTABLE MARKING TAPE IS DISTURBED OR DESTROYED DURNING CONSTRUCTION, THE CONTRACTOR SHALL FURNISH AND INSTALL APPROPRIATE NEWTHERE SHALL BE NO ADDITIONAL CHARGE FOR THIS REINSTALLATION.

11. TRACER WIRE:
    THIS PROJECT WILL HAVE TRACER WIRE INSTALLED.

12. EASEMENTS AND THEIR LOCATIONS ARE PRESENTED BASED ON LIMITED RECORD DOCUMENT. CONTRACTOR SHALL COORDINATE WITH UTILITIES REGARDING WORK IN THE VICINITY OF THEIR LINES.

13. THE MINMUM HORIZONTAL SEPARATION IS FIVE (5) FEET (FROM) OUTSIDE WATER LINE TO OUTSIDE ELECTRICAL POLE/CONDUIT. THE MINIMUM VERTICLE SEPERATION IS ONE (1) FOOT (FROM OUTSIDE WATER LINE TO OUTSIDE OF ELECTRICAL CONDUIT).

WATER SYSTEM MODIFICATION LEGEND

EXISTING		NEW
	WATER MAIN	
	VALVE	
	FIRE HYDRANT	
	SERVICE LINE & METER BOX	
	CUT & PLUG	
	BENDS, HORIZ. & VERT.	
	METER RELOCATION SERVICE LINE ADJUSTMENT	
	AIR RELEASE VALVE W/SIZE	
	CORROSION TEST STATION	

CALL FOR THE BLUE STAKES 1-800-782-5348 New Stake Center CALL COLLECT

WATER SYSTEM NOTES

PB PARSONS BRINCKERHOFF 177 N Church Suite 500, Tucson Arizona 85701 (520-882-6424)

DEPARTMENT OF TRANSPORTATION / ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

PRELIMINARY 30% Plans NOT FOR CONSTRUCTION OR RECORDING

CITY OF TUCSON

DRAWN BY	CPG	2010
DESIGN BY	K Hubbard	2010
CHK'D BY	J Yoskovic	2010

REF. CDI Field Book No. ____ SCALE: ____

PLAN NO. F-2008-002

NO.	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 11589C 10.0

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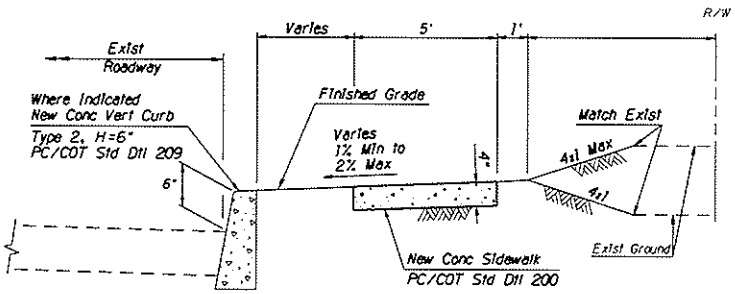
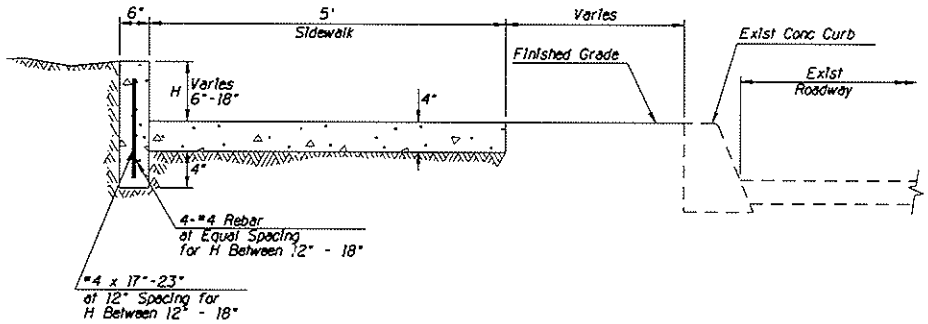


Note:
See PC/COT Std Dtl 200 for additional construction notes & details

DETAIL 1
Concrete Sidewalk
Typical Section



DETAIL 2
Concrete Retaining Curb

DETAIL SHEET

1-800-782-5348

PARSONS BRINCKERHOFF 111 W Church Suite 500, Tucson Arizona 85701 (520-882-6424)

DEPARTMENT OF TRANSPORTATION / ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

4 of 14

PRELIMINARY
30% Plans
NOT FOR CONSTRUCTION OR RECORDING

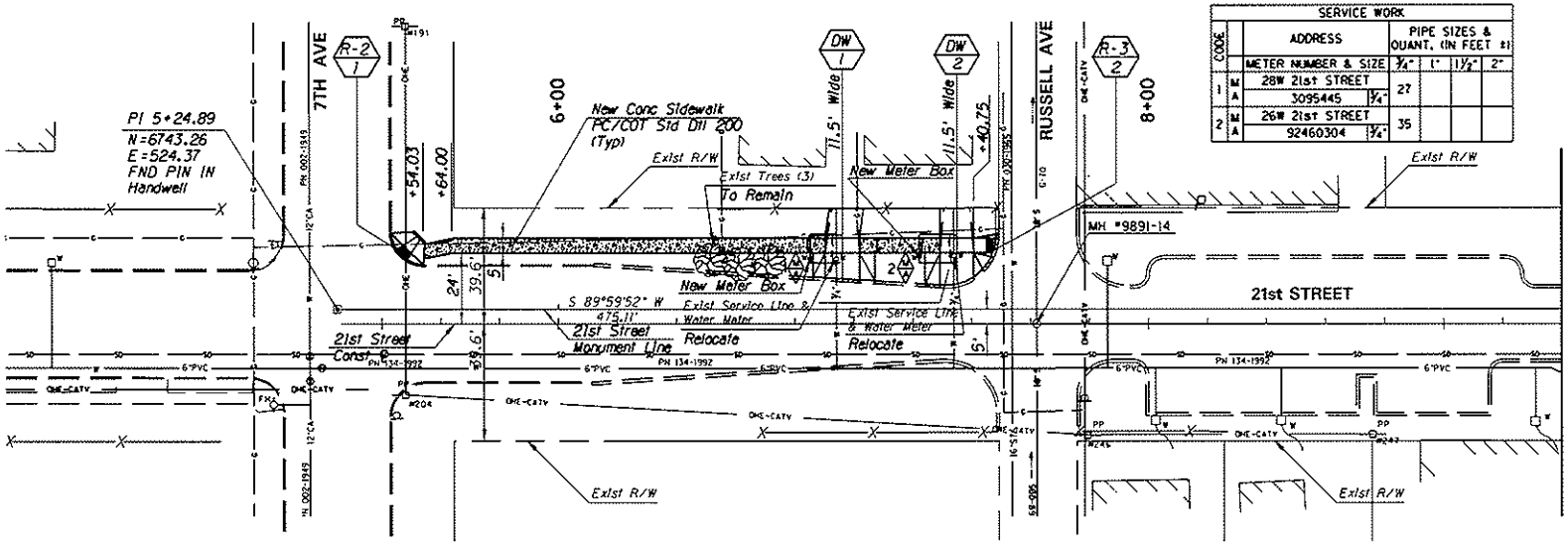
CITY OF TUCSON

DRWN BY	CPC	2010	REF. COT Field Book No. SCALE: No Scale
DSGN BY	K Hubbard	2010	
CHKD BY	J Yoskovic	2010	PLAN NO. F-2008-003

NO	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 11509C 10.0

3/16/2011 R:\11509C_5-Points\Details\5PTS_dtl01.dgn



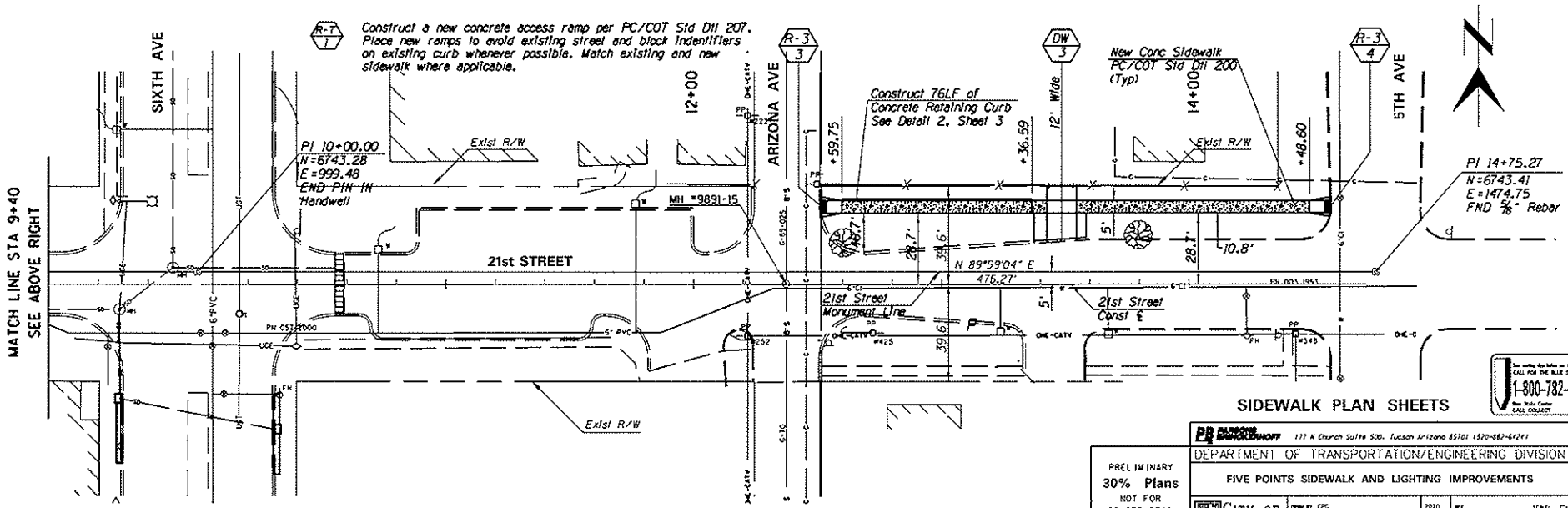
SERVICE WORK						
CODE		ADDRESS	PIPE SIZES & QUANT. (IN FEET ±)			
		METER NUMBER & SIZE	¾"	1"	1½"	2"
1	M	28W 21st STREET	27			
	A	3095445 ¾"				
2	M	26W 21st STREET	35			
	A	92460304 ¾"				

LEGEND

New Concrete Sidewalk

DW 1 — Construct a new concrete driveway per PC/COT Std Dtl 206 within the existing depressed curb. Approximate driveway widths are listed on plans for quantity purposes only.

R-T 1 — Construct a new concrete access ramp per PC/COT Std Dtl 207. Place new ramps to avoid existing street and block indentifiers on existing curb whenever possible. Match existing and new sidewalk where applicable.



SIDEWALK PLAN SHEETS

CALL FOR THE BLUE STAKES 1-800-782-5348 Blue Stake Center CALL COLLECT

PB PARSONS BRINCKERHOFF 177 N Church Suite 500, Tucson Arizona 85701 (520-882-6424)

DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

5 of 14

PRELIMINARY 30% Plans NOT FOR CONSTRUCTION OR RECORDING

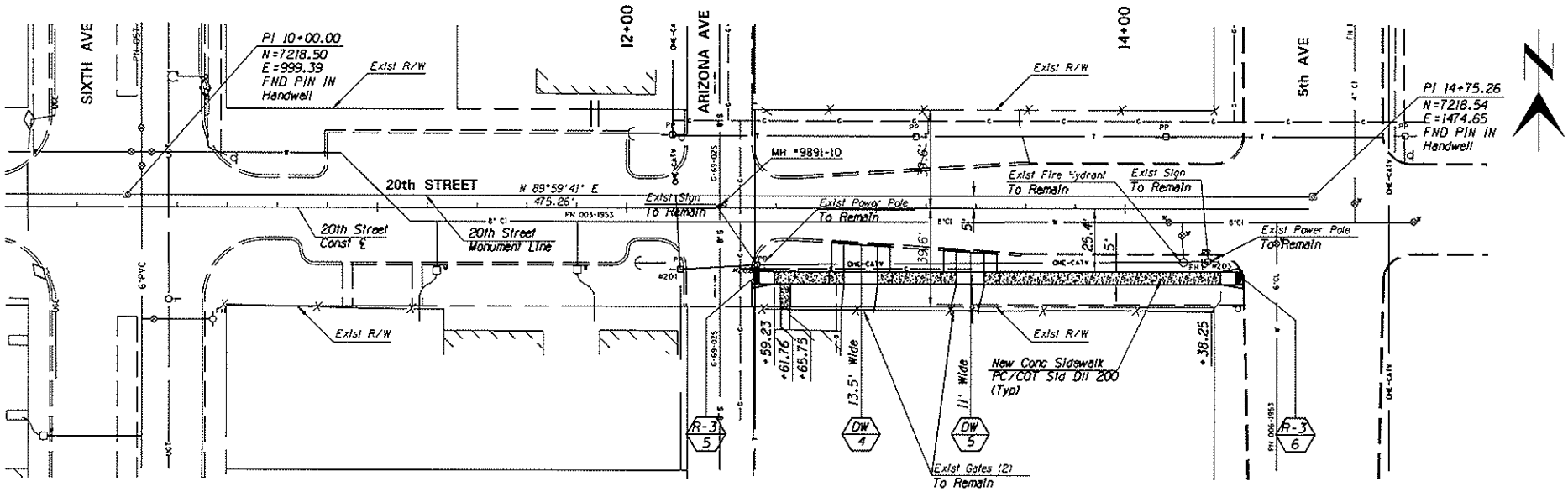
CITY OF TUCSON

DRAWN BY CPG	2010	REV.
DESIGN BY E. HUBBARD	2010	SCALE: 1"=20'
CHECKED BY J. Yoskovic	2010	PLAN NO. F-2008-003

NO.	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 11589C6.00

3/16/2011 R:\11589C_5-Points\Civil\5PTS-CP01.dgn



LEGEND

New Concrete Sidewalk

DW 1 — Construct a new concrete driveway per PC/COT Std Dtl 206 within the existing depressed curb. Approximate driveway widths are listed on plans for quantity purposes only.

R-T 1 — Construct a new concrete access ramp per PC/COT Std Dtl 207. Place new ramps to avoid existing street end block indentifiers on existing curb whenever possible. Match existing and new sidewalk where applicable.

CALL FOR THE BLUE STAKES
1-800-782-5348
Blue Stake Center
CALL COLLECT

SIDEWALK PLAN SHEETS

PB PARSONS BRINCKERHOFF 177 N Church Suite 500, Tucson Arizona 85701 (520-882-6241)

DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

6 OF 14

PRELIMINARY
30% Plans
NOT FOR CONSTRUCTION OR RECORDING

CITY OF TUCSON

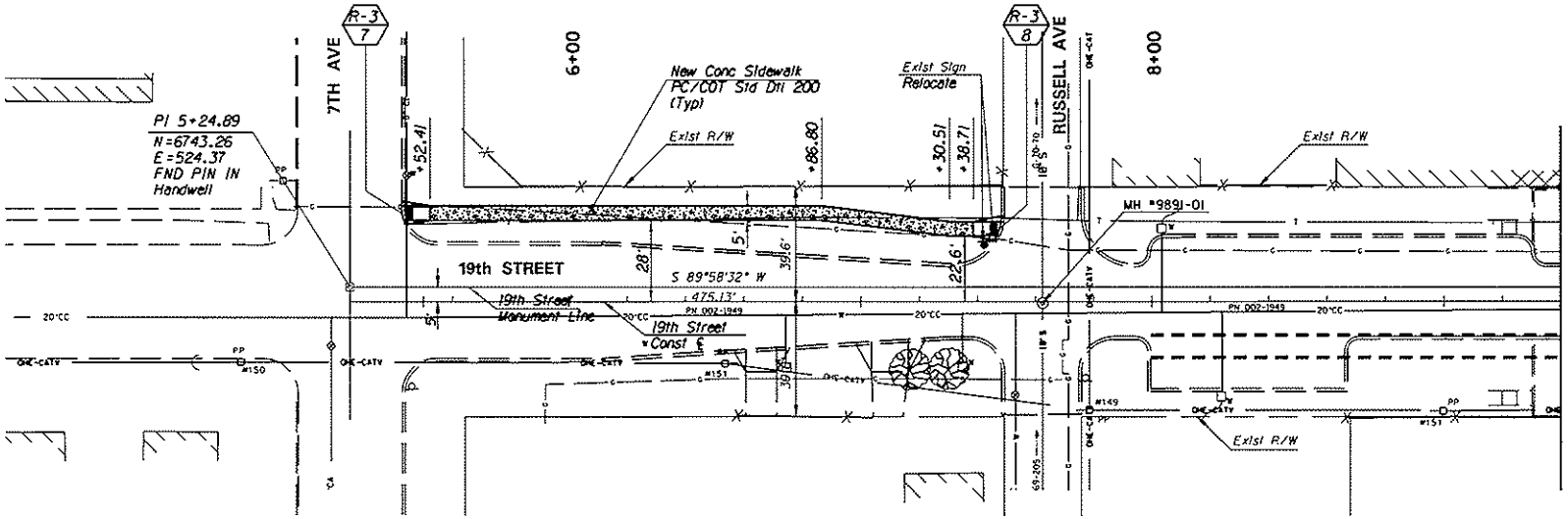
DRAWN BY CPC 2010
DSGN BY S. HUBBARD 2010
CHK BY J. Yackovic 2010

REF. SCALE: 1"=20'
PLAN NO. F-2008-003

NO.	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 115095C6.00

3/16/2011 R:\115095C.5-Points\Civil\5PTS-CP02.dgn

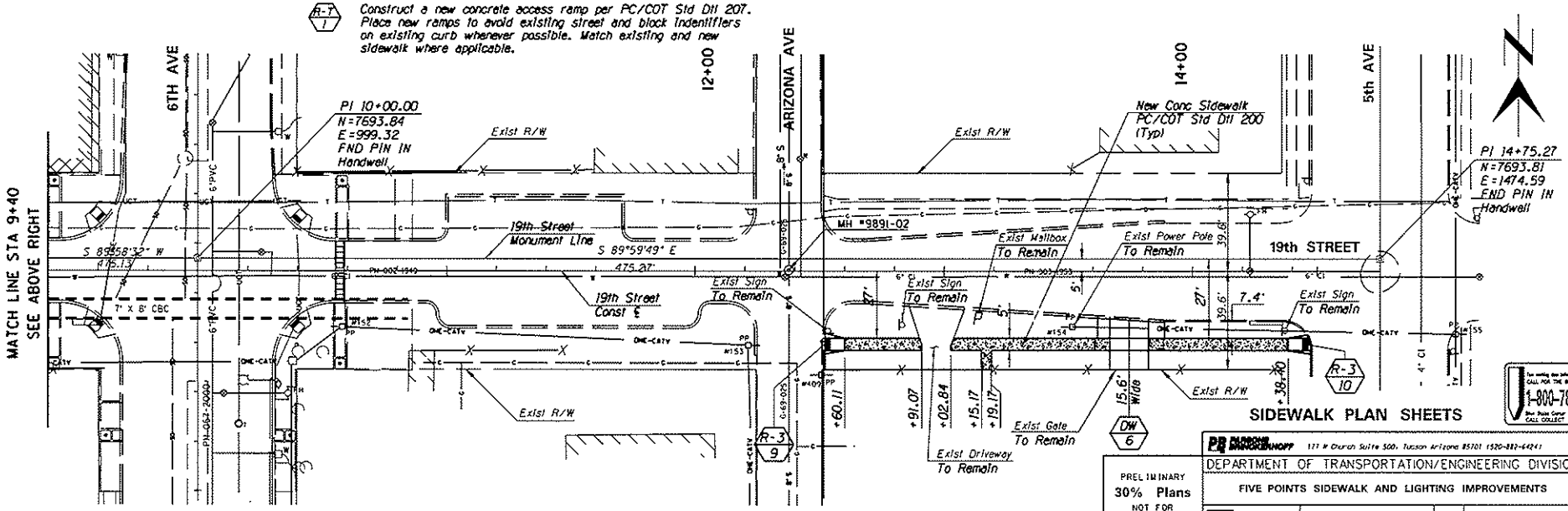


LEGEND

New Concrete Sidewalk

DW 1 — Construct a new concrete driveway per PC/COT Std Dtl 206 within the existing depressed curb. Approximate driveway widths are listed on plans for quantity purposes only.

R-7 1 — Construct a new concrete access ramp per PC/COT Std Dtl 207. Place new ramps to avoid existing street and block indentifiers on existing curb whenever possible. Match existing and new sidewalk where applicable.



PRELIMINARY
30% Plans
NOT FOR CONSTRUCTION OR RECORDING

PB PARSONS BRINCKERHOFF — 177 N Church Suite 500, Tucson Arizona 85701 (520-882-6241)

DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

7 OF 14

CITY OF TUCSON

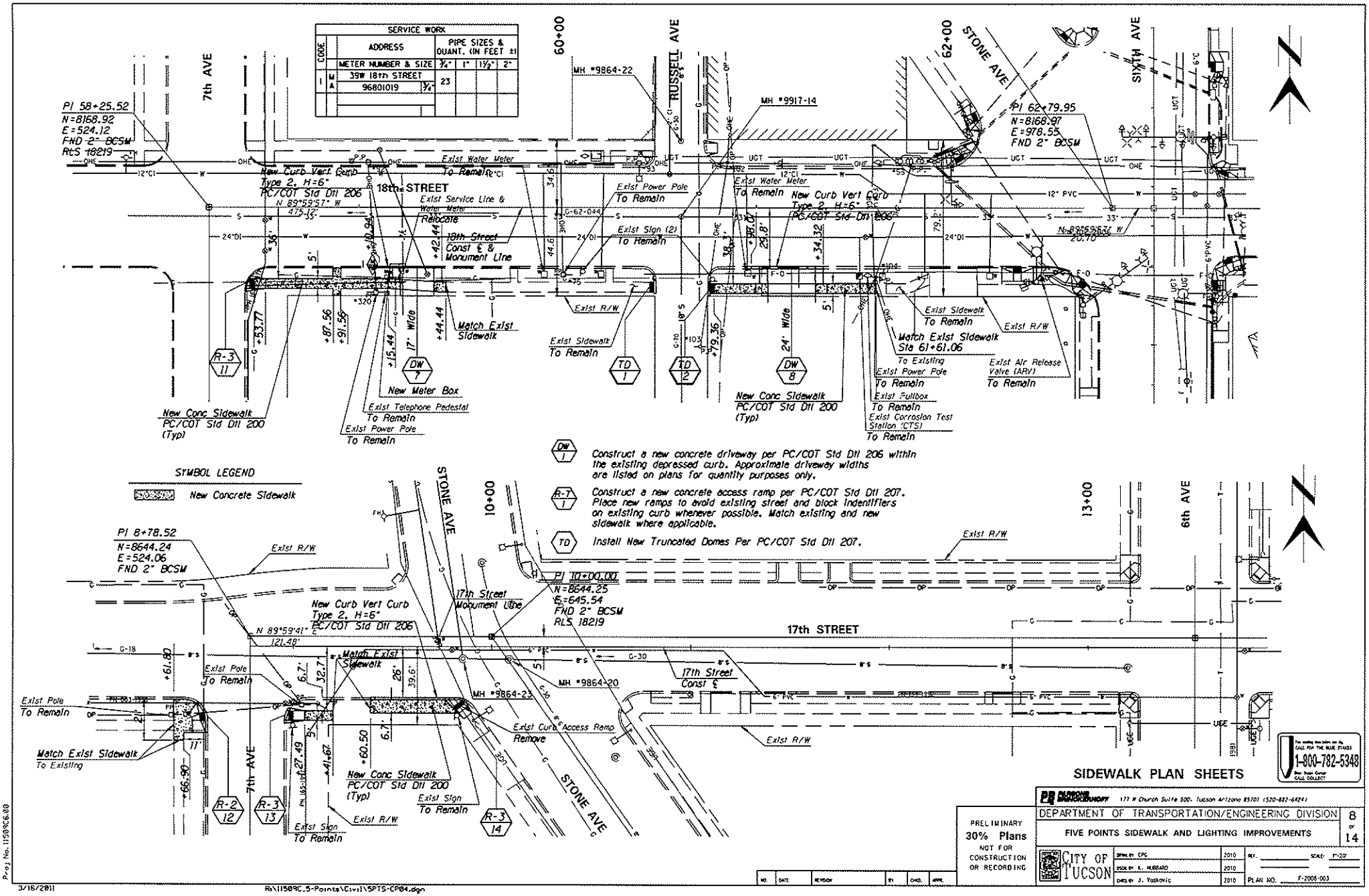
DRAWN BY: CPC 2010 | REV. | SCALE: 1"=20'
DESIGN BY: S. HUBBARD 2010
CHKD BY: J. Yorkovic 2010 | PLAN NO. F-2006-003

NO.	DATE	REVISION	BY	CHKD.	APPR.

CALL FOR THE BLUE STAKES 1-800-782-5348

Proj. No. 11589CE.03

3/16/2011 R:\11589C_5-Points\Civil\5PTS-CP03.dgn



SERVICE WORK
CODE
ADDRESS
METER NUMBER & SIZE
PIPE SIZES & QUANT. (IN FEET ±)
3/4" 1" 1 1/2" 2"
1 M A 39W 18th STREET 96801019 3/4" 23
7th AVE
60+00
RUSSELL AVE
62+00
STONE AVE
SIXTH AVE
18th STREET
17th STREET
10+00
13+00
6th AVE
PI 58+25.52
N=8168.92
E=524.12
FND 2" BCSM
RLS 18219
PI 62+79.95
N=8168.97
E=978.55
FND 2" BCSM
PI 8+78.52
N=8644.24
E=524.06
FND 2" BCSM
PI 10+00.00
N=8644.25
E=645.54
FND 2" BCSM
RLS 18219
MH #9864-22
MH #9917-14
MH #9864-20
MH #9864-23
New Curb Vert Curb Type 2, H=6" PC/COT Std Dtl 206
N 89°59'57" W 475.12'
N 89°59'41" E 121.48'
Exist Water Meter To Remain
Exist Service Line & Water Meter Relocate
18th Street Const ℄ & Monument Line
Exist Power Pole To Remain
Exist Sign (2) To Remain
Exist R/W
Exist Sidewalk To Remain
Match Exist Sidewalk
Match Exist Sidewalk Sta 61+61.06
To Existing
Exist Air Release Valve (ARV) To Remain
Exist Pullbox To Remain
Exist Corrosion Test Station (CTS) To Remain
New Meter Box
Exist Telephone Pedestal To Remain
New Conc Sidewalk PC/COT Std Dtl 200 (Typ)
17' Wide
24' Wide
17th Street Monument Line
17th Street Const ℄
Exist Curb Access Ramp Remove
Exist Sign To Remain
Exist Pole To Remain
Match Exist Sidewalk To Existing
SYMBOL LEGEND
New Concrete Sidewalk
DW 1 Construct a new concrete driveway per PC/COT Std Dtl 206 within the existing depressed curb. Approximate driveway widths are listed on plans for quantity purposes only.
R-7 1 Construct a new concrete access ramp per PC/COT Std Dtl 207. Place new ramps to avoid existing street and block indentifiers on existing curb whenever possible. Match existing and new sidewalk where applicable.
TD Install New Truncated Domes Per PC/COT Std Dtl 207.
SIDEWALK PLAN SHEETS
1-800-782-5348
PRELIMINARY 30% Plans NOT FOR CONSTRUCTION OR RECORDING
DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION
FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS
8 of 14
CITY OF TUCSON
DRAWN BY CPC 2010
DESIGN BY K. HUBBARD 2010
CHECKED BY J. Yoskovic 2010
SCALE: 1"=20'
PLAN NO. F-2008-003
Proj No. 11509C6.00
3/16/2011
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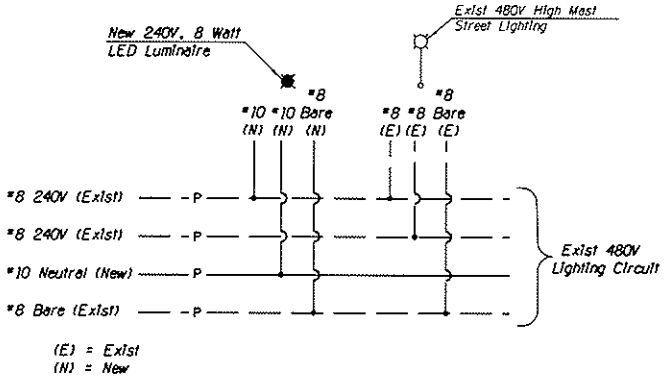
GENERAL NOTES

1. The Contractor shall reference and adhere to the requirements of the Pima County / City of Tucson Standard Specifications for Public Improvements 2003 edition and the 2003 edition of the Standard Details for Public Improvements and any supplements to those editions.
2. New Poles shall be field identified with circuit designation and circuit as indicated on the plans.
3. Plan locations of utilities are approximate based on available records. Contractor shall contact Blue Stake at 1-800-782-5348 48 hours in advance for verification of underground utility locations.
4. Contractor is responsible for locating all utilities whether shown herein or not and shall protect them from damage. Contractor shall bear all expenses for repair or replacement in conjunction with execution of this contract.
5. Any conduit less than 30" deep shall be encased in concrete.
6. Typical for all pull box locations, the symbol for the pull boxes are shown diagrammatically. Final location of pull box is adjacent to pole but clear of underground conflicts. Install flush in sidewalk only at location pre-approved by the City of Tucson Inspector.
7. Avoid placing underground conduit over existing water mains and maintain a 36" minimum horizontal separation. Typical for all conduit installed for this project.
8. Contractor shall comply with and maintain a 12" minimum separation with all Southwest Gas lines.
9. Contractor shall chalk line route of conduit for review by City of Tucson Inspection and City of Tucson Landscape Architect for route alignment. Adjust routing as directed to clear landscape features.
10. Contractor shall complete work on one side of the street before proceeding to the other side so that not all of the existing lighting is disabled at once, or as approved by the engineer.



WIRING DIAGRAM
(STREET LIGHTING ALONG STONE AVE)

LEGEND

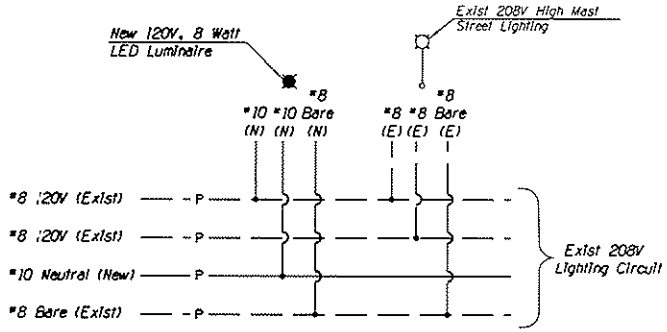
Exist		New
	Street Light, 8 Watt LED	
	Street Light with Mast Arm	
UGE	Conduit & Wire	
	#3-1/2 Pull Box	
	#5 Pull Box	
	#7 Pull Box	
	Street Lighting Cabinet	
P.P.	TEP Power Pole	
	Pole Number	

STREET LIGHT LOCATIONS

	SHEET LOCATION	STATION	OFFSET
1	10	58+78.4	33.4' Rt
2	10	58+78.4	24.9' Lt
3	10	59+47.4	33.3' Rt
4	10	59+46.4	24.9' Lt
5	10	60+14.4	33.2' Rt
6	10	60+14.6	25.0' Lt
7	10	60+98.8	34.8' Rt
8	10	61+03.8	27.3' Lt
9	10	61+68.8	34.7' Rt
10	10	61+73.0	27.5' Lt
11	11	63+62.5	19.8' Lt
12	11	64+12.5	29.1' Rt
13	11	64+27.5	19.9' Lt
14	11	64+92.5	29.0' Rt
15	11	64+93.5	20.0' Lt
16	11	65+89.0	27.7' Rt
17	11	65+89.0	20.2' Lt
18	11	66+49.0	29.6' Rt
19	11	66+49.0	20.3' Lt
20	11	67+09.0	29.5' Rt
21	11	67.09.0	20.4' Lt

CONDUCTOR SCHEDULE

Mark	Description of Contents of Conduit
A	1-2"C, 2#6 & 1#8 Grd.
B	Joint Trench:
	1-2½" Waver-Rib Conduit - Future TEP
	1-4" Smooth Core Conduit - Future TEP
	1-4" Schedule 40 PVC Conduit - Cable TV
	1-4" Schedule 40 PVC Conduit - Tucson INET Fiber
	1-2"C, 2#6 & 1#8 Grd. - COT Street Lighting
C	Joint Trench:
	1-2½" Waver-Rib Conduit - Future TEP
	1-4" Smooth Core Conduit - Future TEP
	1-4" Schedule 40 PVC Conduit - Cable TV
	1-4" Schedule 40 PVC Conduit - Tucson INET Fiber



WIRING DIAGRAM
(STREET LIGHTING ALONG SIXTH AVE)

CALL FOR THE BLUE STAKES
1-800-782-5348
Blue Stake Center
CALL COLLECT

STREET LIGHT MODIFICATIONS

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DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

9 of 14

PRELIMINARY
30% Plans
NOT FOR CONSTRUCTION OR RECORDING

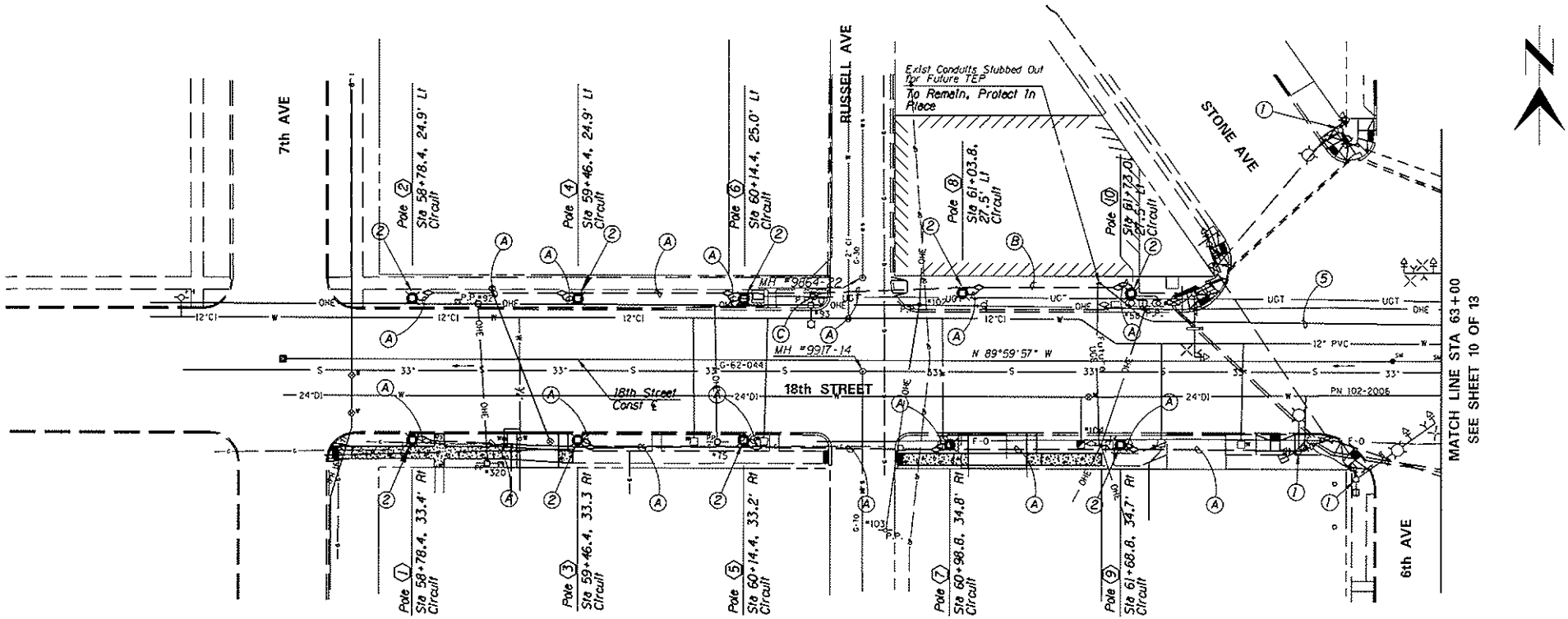
CITY OF TUCSON

DRAWN BY CPC	2010	REV.
DESIGN BY E Hubbard	2010	SCALE: 1"=40'
CHECK BY J Vasilovic	2010	PLAN NO. 5-2008-003

NO.	DATE	REVISION	BY	CHKD.	APPR.

Proj. No. 11589C.6.00

3/16/2011 R:\11589C.5-Points\Lighting\5pts_light-notes.dgn

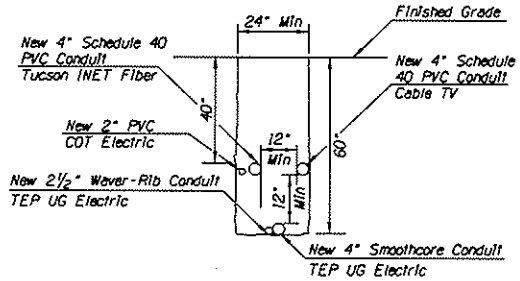


○ CONSTRUCTION NOTES

1. Existing Traffic Signal Pole with Street Light to Remain.
2. New Street Light Pole, Armory Park Style.
3. Existing 5th Avenue Street Light Circuit and Conduit.
4. Existing Armory Park Style Street Light to Remain.
5. Existing Underground Conduits for Future UG Electric (2 Conduits) Cable TV, Tucson INET Fiber, and COT Electric. Use COT Electric Conduit for new 18th Street Armory Park Style Street Lights. Refer to Joint Use Trench Detail this sheet.
6. Existing 2-4" Conduits for COT Electric. Use One of the conduits for New 18th Street Armory Park Style Stree Lights.

LEGEND

- (A) Conduit Run
- (1) Construction Note
- (*) Pole Number



JOINT USE TRENCH DETAIL
NTS

STREET LIGHT MODIFICATIONS

1-800-782-5348

PB PARSONS BRINCKERHOFF 111 N Church Suite 500, Tucson Arizona 85101 (520-882-6424)

DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

10 of 14

PRELIMINARY 30% Plans NOT FOR CONSTRUCTION OR RECORDING

CITY OF TUCSON

DRAWN BY CPC	2010	REF.	SCALE 1"=20'
DSGN BY K Hubbard	2010		
CHKD BY J Yoskovic	2010	PLAN NO.	F-2008-003

NO	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 11509C6.00

3/16/2011

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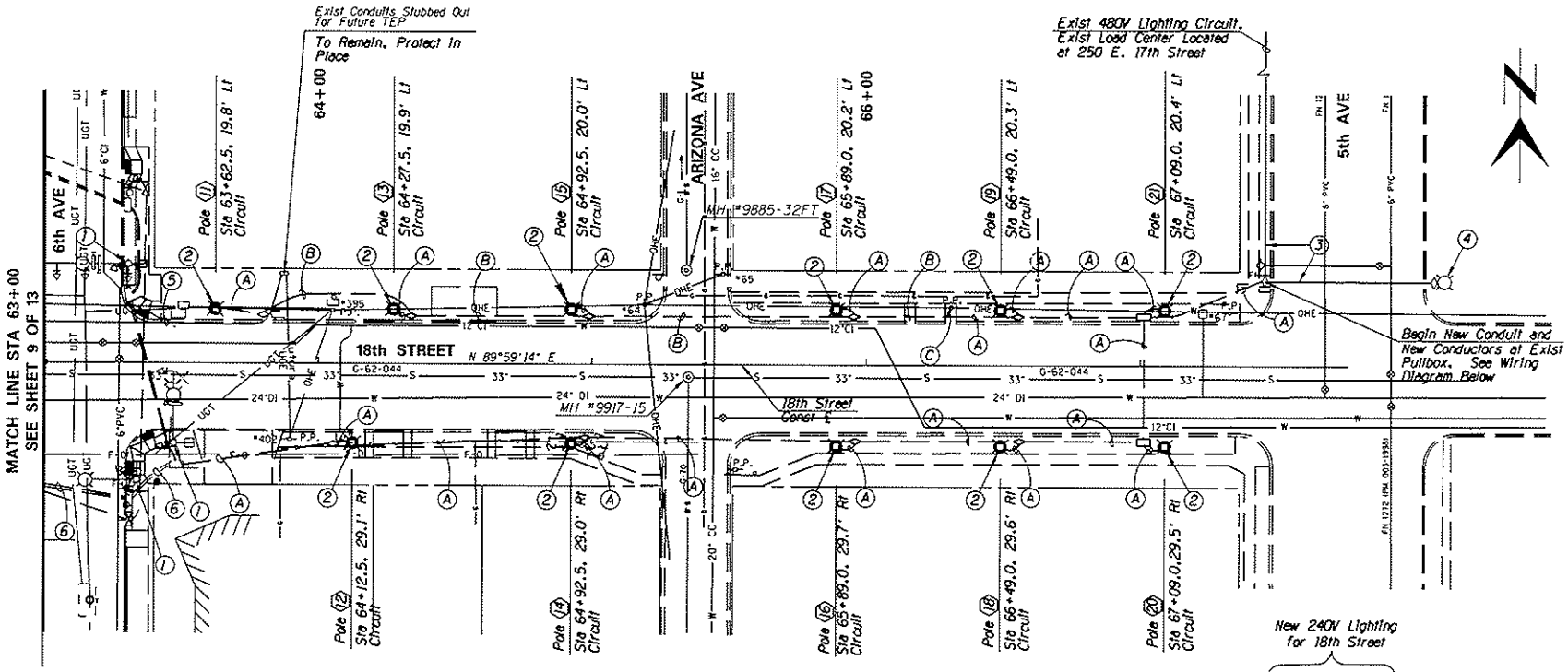
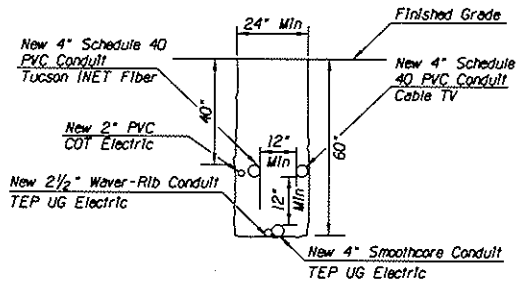


○ CONSTRUCTION NOTES

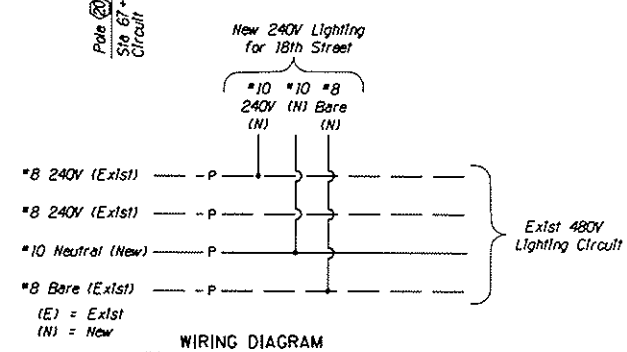
1. Existing Traffic Signal Pole with Street Light to Remain.
2. New Street Light Pole, Armory Park Style.
3. Existing 480V Street Light Circuit and Conduit.
4. Existing Armory Park Style Street Light to Remain.
5. Existing Underground Conduits for Future UG Electric (2 Conduits) Cable TV, Tucson INET Fiber, and COT Electric. Use COT Electric Conduit for new 18th Street Armory Park Style Street Lights. Refer to Joint Use Trench Detail this sheet.
6. Existing 2-4" Conduits for COT Electric. Use One of the conduits for New 18th Street Armory Park Style Stree Lights.

LEGEND

- (A) Conduit Run
- (1) Construction Note
- (*) Pole Number



JOINT USE TRENCH DETAIL
NTS



WIRING DIAGRAM
(STREET LIGHTING ALONG 18th ST)

STREET LIGHT MODIFICATIONS

1-800-782-5348

PB BURGOHAMPSON 111 N Church Suite 500, Tucson Arizona 85701 (520-882-6424)

DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

11 of 14

PRELIMINARY 30% Plans NOT FOR CONSTRUCTION OR RECORDING

CITY OF TUCSON

DRAWN BY CPC	2010	SCALE 1"=20'
DESIGN BY K. Hubbard	2010	
CHKD BY J. Yaskovic	2010	PLAN NO. F-2008-003

NO.	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 11589C6.00

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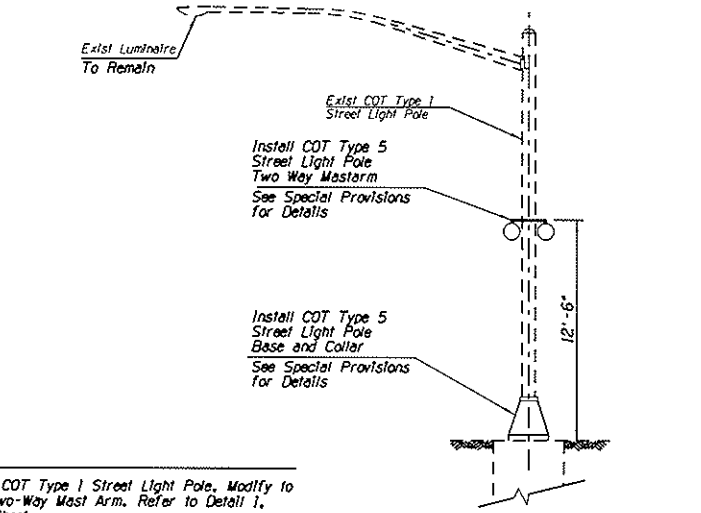
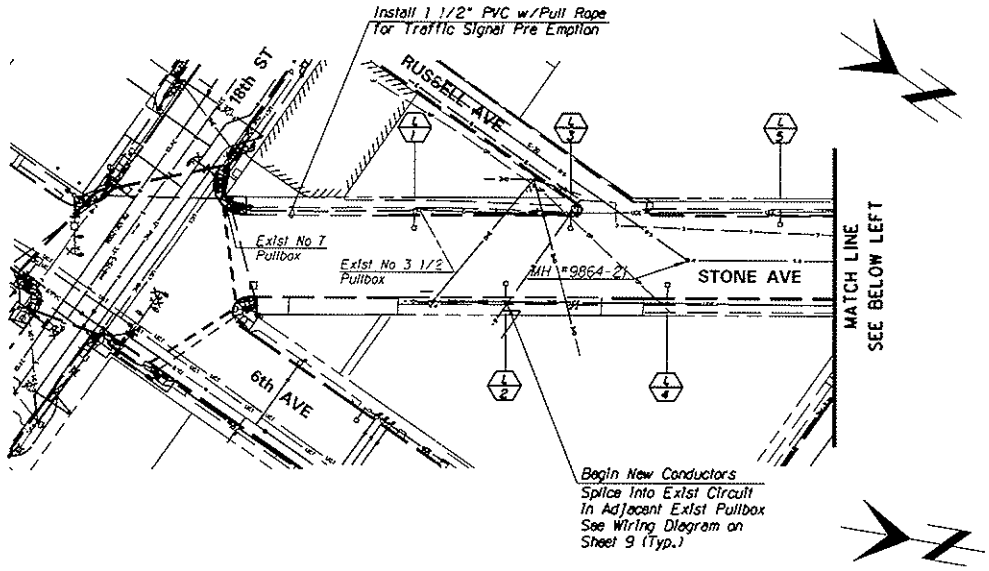
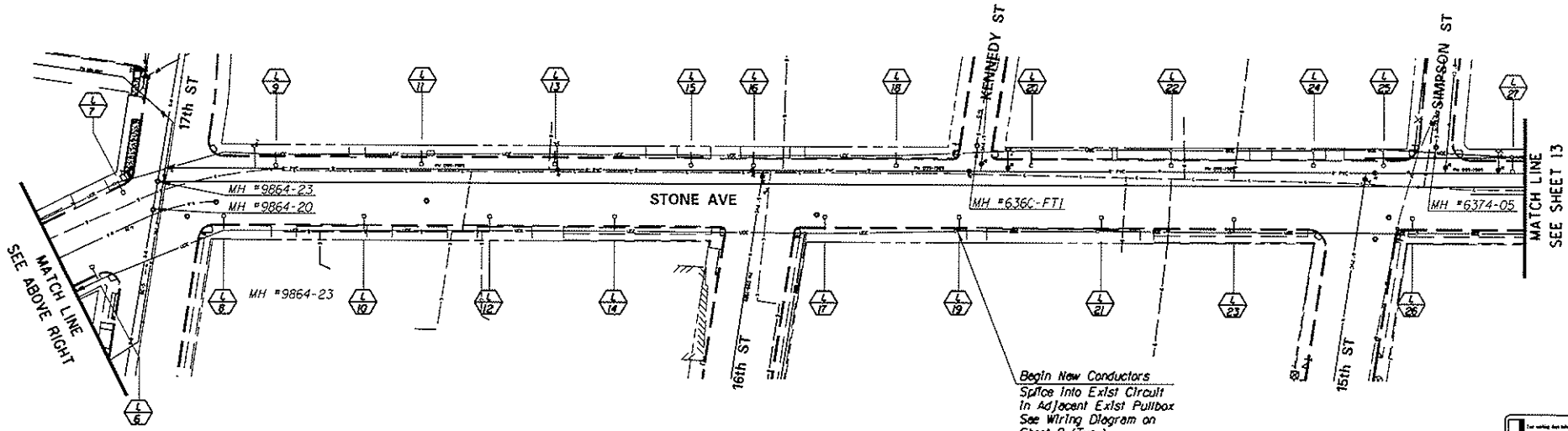


EXISTING POLE MODIFICATION DETAIL (1)
NTS

NOTES:

1. Exist COT Type 1 Street Light Pole. Modify to add Two-Way Mast Arm. Refer to Detail 1, This Sheet.





LEGEND

(L/X) Exist COT Type 1 Street Light Pole

STREET LIGHT MODIFICATIONS

CALL FOR THE BLUE STAKES
1-800-782-5348
Blue Stake Center
CALL COLLECT

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DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

12 of 14

CITY OF TUCSON

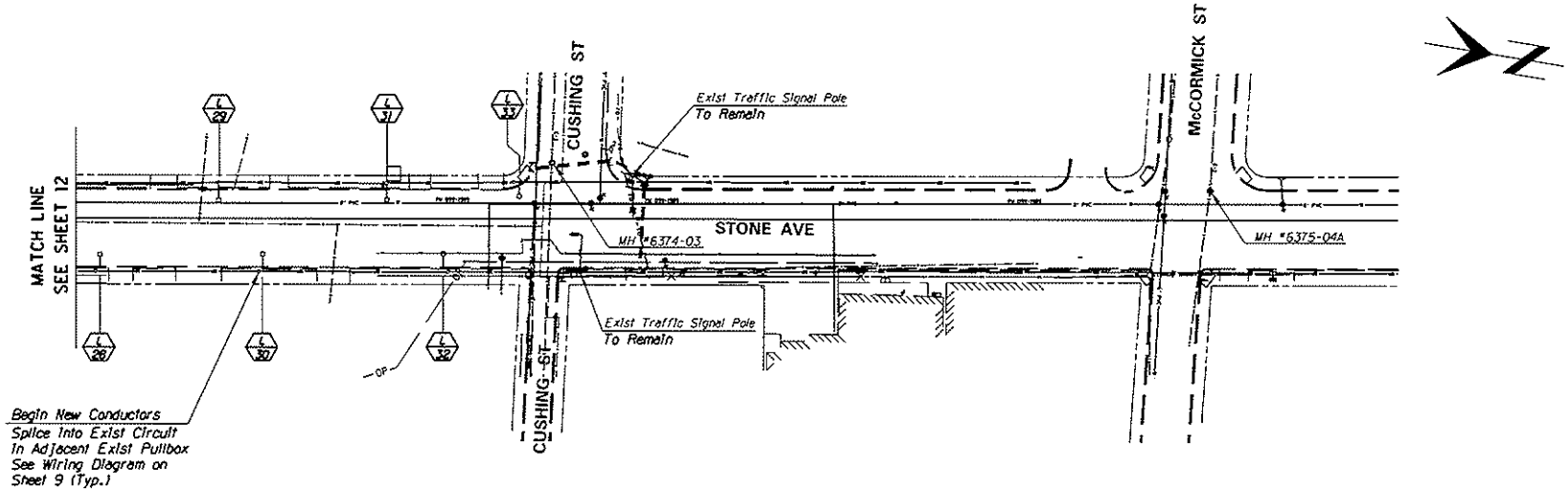
DRAWN BY: CPG	2010	REV.	SCALE: 1"=40'
DESIGN BY: E. Hubbard	2010		
CHKD BY: J. Yoskovitz	2010	PLAN NO.	F-2006-003

PRELIMINARY
30% Plans
NOT FOR CONSTRUCTION OR RECORDING

NO.	DATE	REVISION	BY	CHKD.	APPR.

Proj. No. 115896.00

3/16/2011 R:\115896.5-Points\Lighting\5pts_ltg03.dgn



NOTES:

1. Exist COT Type 1 Street Light Pole. Modify to add Two-Way Mast Arm. Refer to Detail 1, Sheet 12

LEGEND

L/X Exist COT Type 1 Street Light Pole

STREET LIGHT MODIFICATIONS

1-800-782-5348

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DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

13 of 14

PRELIMINARY
30% Plans
NOT FOR CONSTRUCTION OR RECORDING

CITY OF TUCSON

DRAWN BY CPG	2010	REF.	SCALE: 1"=40'
DSGN BY K Hubbard	2010		
CHKD BY J Voskovic	2010	PLAN NO.	F-2008-003

NO.	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 11509C6.00

3/16/2011

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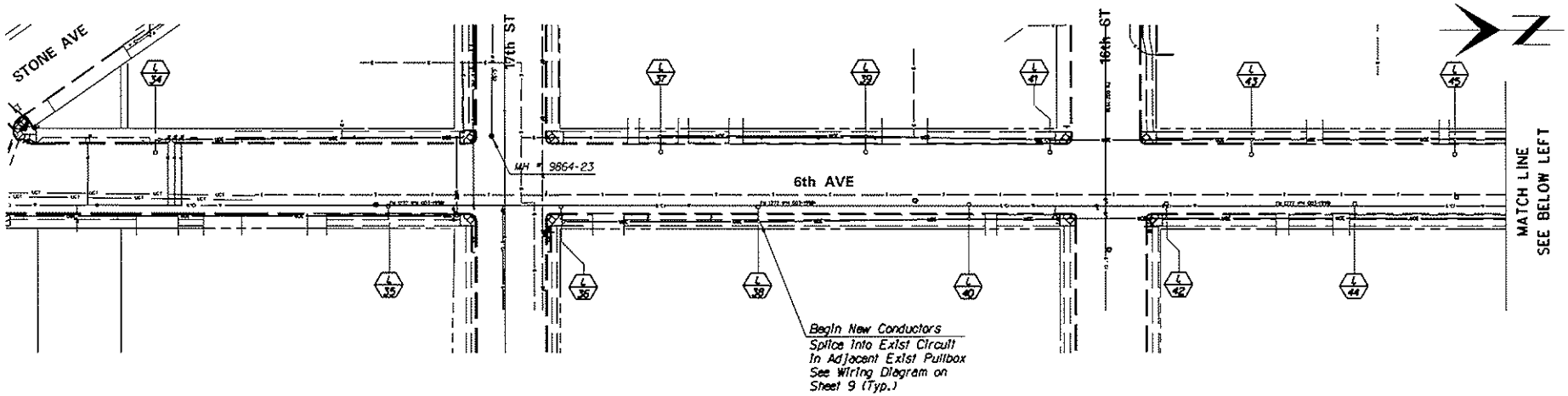
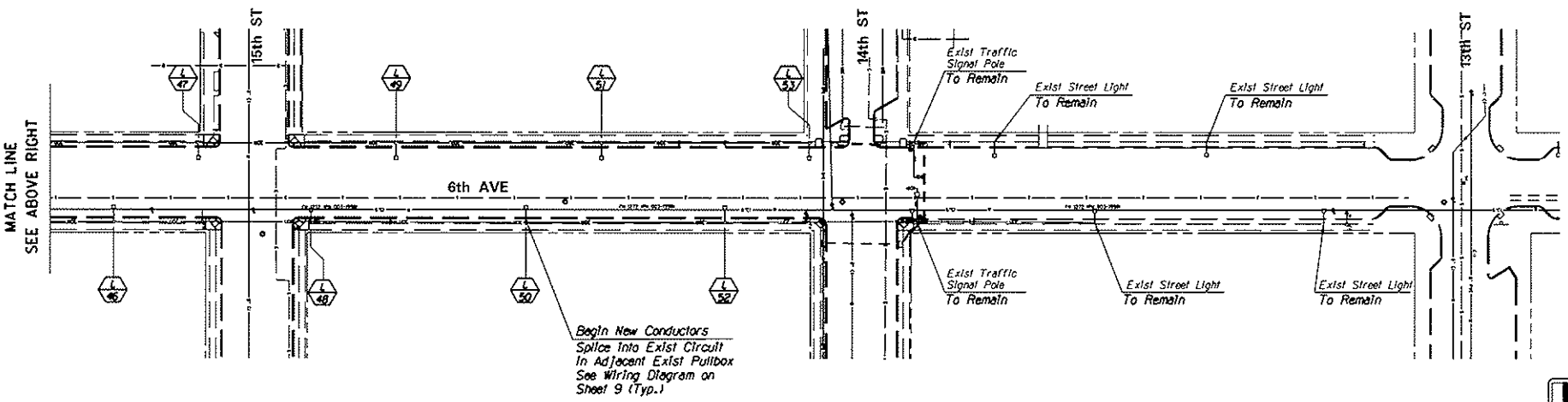


NOTES:

1. Exist COT Type I Street Light Pole. Modify to add Two-Way Mast Arm. Refer to Detail 1, Sheet 12



LEGEND

Exist COT Type I Street Light Pole

STREET LIGHT MODIFICATIONS

CALL FOR THE BLUE STAKES
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DEPARTMENT OF TRANSPORTATION/ENGINEERING DIVISION

FIVE POINTS SIDEWALK AND LIGHTING IMPROVEMENTS

14 of 14

PRELIMINARY
30% Plans
NOT FOR CONSTRUCTION OR RECORDING

CITY OF TUCSON

DRWN BY CPC	2010	REF.	SCALE: 1"=40'
DSGN BY E Hubbard	2010		
CHKD BY J Vaskovic	2010	PLAN NO.	F-2008-003

NO.	DATE	REVISION	BY	CHKD.	APPR.

Proj No. 11509C6.00

3/16/2011 R:\11509E_5-Points\Lighting\5pts_ltg05.dgn

APPENDIX A

Letter from Flood Plain Manager

MEMORANDUM

DATE: December 28, 2009

TO: Catesby Willis
Environmental Coordinator

FROM: Estevan Tineo, P.E.
Floodplain Manager

SUBJECT: **Five-Points Pedestrian Improvements- A Combined Transportation Enhancement Project and Surface Transportation Program Project**
STP TUC 0(228)A
TRACS No. 0000 PM TUC SS776 03D

I have reviewed the aforementioned project for potential impacts to the floodplain. I find that the pedestrian improvements including filling in sidewalk gaps, installing ADA accessible ramps, and pedestrian lighting will not substantially modify the topography or result in any changes in vertical or horizontal grade. I have determined that no floodplain impacts will occur as result of this project, and this project will not require a floodplain use permit. This project is therefore approved and may move forward.