



PROJECT CHARTER (4.27.2012)



Broadway Boulevard: Euclid to Country Club TIP ID 22.05 (RTA-17)

This Project Charter provides a general overview of the Phase 1 planning and design work for the Broadway Boulevard: Euclid to Country Club roadway improvement project, which is expected to last 18-24 months. It is the basis upon which the Project Team, the Citizens Task Force, the Technical Advisory Team, and the sponsor agencies will agree to work towards development of a Design Concept Report and Initial (15%) Plans.

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Section 1. Introduction

On May 16, 2006, a special election was conducted in Pima County. Voters approved a Regional Transportation Plan and a half-cent sales tax for funding it. Project #17 was listed on the ballot as:

"17. Broadway Blvd., Euclid Ave. to Country Club Rd.: Widen roadway to 6-lane arterial plus 2 dedicated bus lanes, bike lanes, and sidewalks"

Broadway Boulevard is a major east-west arterial roadway connecting downtown with central and eastern portions of the greater Tucson area. Except for the project reach (Euclid to Country Club), Broadway has six travel lanes for arterial traffic. Beginning east of Columbus, it also has "diamond" lanes serving transit, bicycles, and right-turning vehicles.

In April, 2012, planning and design work, also referred to as Phase 1 throughout this document, will begin on Project #17 (herein referred to as 'the project'). Phase 1 is expected to take 18-24 months to complete. Phase 1 final deliverables include a Design Concept Report and Initial (15%) Plans.

This Project Charter defines the basics of Phase 1 work that will be completed. This document is not intended to be a detailed Scope of Work for the project or Phase 1, but rather a description of the framework within which planning and design work will be conducted. A detailed and more formal Scope of Work defines what tasks, studies, and decisions will be required during Phase 1 in order to produce the final deliverables.

Project Charter Purpose

The purpose of this document is to provide basic project information and details that will guide work for Phase 1 planning and design. This Project Charter provides essential project information that will inform and shape Phase 1 work, including the overall project scope, timelines, and budget as defined in the RTA Regional Transportation Plan and related documents; an overview of the Phase 1 scope of work, including what will be accomplished and by whom; and, a summary of assumptions, constraints, and risks identified by the project team that relate to Phase 1 and, where identified, all subsequent phases of the project.

Individuals with key roles in Phase 1 work – the project team, the Citizens Task Force, and others as specified in the formal project Scope of Work – will be asked to sign pages at the end of this document (see "Acknowledgement and Acceptance" section). Their signatures represent an acknowledgement of the information contained in this document, and their agreement that this information will be the basis upon which Phase 1 work will be conducted.

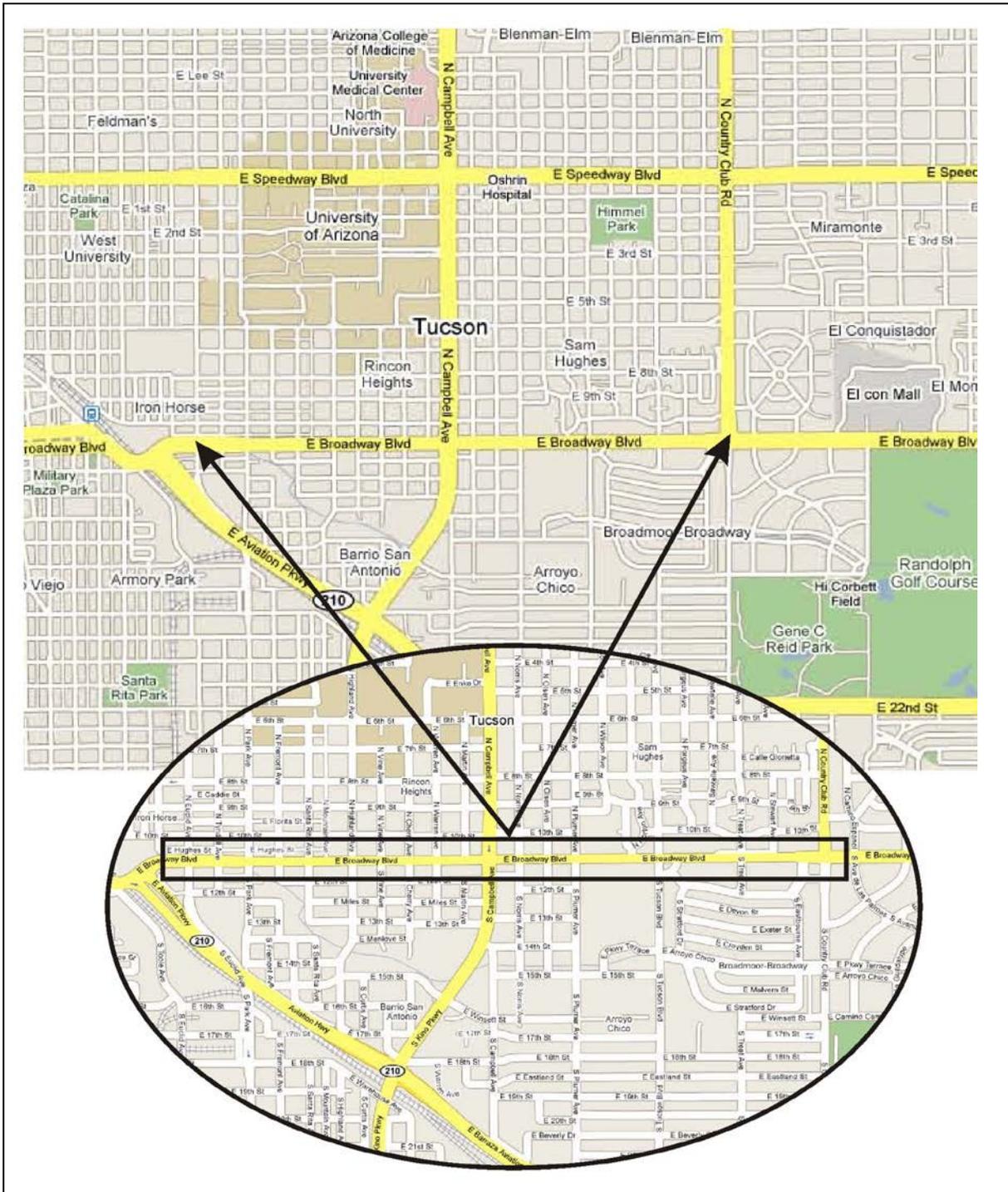
Section 2. General Project Information

Project Background

Broadway has long been recognized as a major regional transportation corridor. The Regional Transportation Plan identifies Broadway as a "regional corridor" as early as 1950. A comprehensive study was begun in 1985 to develop a long-range plan for the roadway. In 1987, the City of Tucson Mayor and Council reviewed and approved the resulting Broadway Corridor Study and its companion Broadway Corridor Concept Plan, which can be understood as an Action Plan to implementing the recommendations of the Broadway Corridor Study. In accordance with this approval, a Right-of-Way plan, R-89-05, was drafted to identify the recommended future 150' Right-of-Way between Euclid and Camino Seco, and the 120' Right-of-Way between Camino Seco and Houghton. This plan was included in the City's Major Streets and Routes Plan in 1989. For the length of Broadway, the widening is identified on the Plan as occurring mostly along the north side.

Project Location Map

The location of this project is shown here:



Project Funding Sources

The funding commitments for the roadway improvement project are as follows:

Funding Summary				
Funding Sources			Amount	Source
A.	RTA	59.0%	\$ 42,125,000	RTA Roadway Element
B.	City of Tucson	4.2%	3,000,000	Development Impact Fees
C.	Pima County	35.0%	25,000,000	1997 Pima County Transportation Bonds
D.	Regional Funds	1.7%	1,222,000	PAG Transportation Improvement Plan
			\$ 71,347,000	

This information is documented in Appendix M of the RTA Implementation Plan, also referred to as the Administrative Code. <www.rtamobility.com>

Project Budget

The initial estimate of project cost is presented in the following table:

	Percent of Construction Cost	Construction Cost
Project Management	1.8%	1,300,000
Planning	3.1%	2,200,000
Design	2.8%	2,000,000
Right-of-Way ⁽¹⁾	49.1%	35,000,000
Environmental Mitigation	0.9%	645,000
Construction ⁽²⁾	28.0%	20,000,000
Art Work	0.3%	200,000
Construction Management	4.2%	3,000,000
Unallocated Contingency ⁽³⁾	9.8%	7,002,000
Estimated Total Project Cost:		71,347,000
Project Budget:		71,347,000
<p>(1) Tierra Right of Way estimate for northward widening</p> <p>(2) URS estimate, including a 15% contingency used by URS, rounded to nearest \$million.</p> <p>(3) Assumes a contingency rate of 22.01% instead of the HDR preferred rate of 25.0%</p>		

Major Project Tasks and Milestones

The following phases will result in the construction and completion of the Broadway Boulevard: Euclid to Country Club roadway improvement project:

Phase 1. Development of Design Concept Report (DCR) and Initial (15%) Plans
Approach: Identify the primary design issues and evaluate plausible options to determine the most suitable roadway configuration. Public will be involved in the DCR development, with the CTF playing a primary role.
Deliverables: The Design Concept Report (DCR) and Initial (15%) Plans plus a number of supplementary reports and plans, as described in the final Scoping Report. Final deliverables are anticipated at the end of 2013.
Phase 2a. Final Design.
Approach: Prepare construction plans and other documents based on the concepts spelled out in the adopted DCR. Apply typical arterial roadway and landscape design procedures commonly practiced by the City of Tucson and other jurisdictions in the region.
Deliverable: Construction plans, special provisions, and formal cost estimate for inclusion in the bid package. Final deliverables expected in early 2015.
Phase 2b. Right-of-way Acquisition.
Approach: Provide the City of Tucson with minimum right-of-way and easement requirements as soon as reliably known (probably upon approval of a 60% to 75% plan submittal).
Deliverables: Right-of-way plans, legal descriptions, S-drawings, and other material required by the City to undertake the right-of-way acquisition. Expect to have complete package in early 2015. Acquisition of some parcels could commence upon acceptance of the DCR, possibly beginning in early 2014.
Phase 3. Utility Clearance.
Approach: Design any relocation of Tucson Water and PCWWMD facilities needed. Coordinate with franchise utilities throughout the planning and particularly the final design phase. Utilities will be invited to progress meetings though it normally is necessary to schedule separate meetings for them.
Deliverables: Approved plans and agreements. Final deliverables expected in 2015.
Phase 4. Bidding Process. (Construction)
Approach: Assemble bid documents. Assist City Engineering and procurement with the advertising process as needed.
Deliverables: Once bid is offered, construction can begin. Final bid documents expected in early 2016, and start of construction mid- to late-2016.

Proposed Financial Schedule

Fiscal year:	Pre-planning	2012	2013	2014	2015	2016	Total
		Year 1	Year 2	Year 3	Year 4	Year 5	
Project Management	100,000	240,000	240,000	240,000	240,000	240,000	\$ 1,300,000
Planning	800,000	700,000	700,000	0	0	0	2,200,000
Design		0	0	1,000,000	1,000,000	0	2,000,000
Right-of-Way		0	0	11,666,000	11,667,000	11,667,000	35,000,000
Environmental Mitigation*		0	0	0	0	645,000	645,000
Construction*		0	0	0	0	20,000,000	20,000,000
Art Work*		0	0	0	0	200,000	200,000
Construction Management*		0	0	0	0	3,000,000	3,000,000
Unallocated Contingency**	0	0	0	880,000	880,000	2,642,000	4,402,000
Total	900,000	940,000	940,000	13,786,000	13,787,000	41,894,000	\$71,347,000

*Construction-related expenditures are shown as a lump sum in Year 5 but are likely to extend into subsequent years.

** Contingency expenditure spread over four year period beginning in 2014 to cover design, right-of-way acquisition and construction. Final two years of contingency lumped in 2016. Years 1 and 2 are highlighted because they are relevant to Phase 1, and this Project Charter.

Peer Review/Value Engineering Process

It is anticipated that RTA's standard week-long review will be applied to the DCR prior to its finalization.

Section 3. Phase 1: Development of the Project Design Concept

Phase 1 Overview

Project #17 is to commence construction in RTA Implementation Period 2 (2012-2016). It is estimated that the project will be handled in three phases, as depicted in this project schedule.



Phase 1 is expected to take 18-24 months to complete. The primary outcomes of the Phase 1 planning and design work will be a Design Concept Report (DCR) and Initial (15%) Plans, which will guide subsequent project phases. Planning and construction documents developed in this phase will be in accordance with the policies of the Region and the City of Tucson. Development of the DCR and Initial (15%) Plans will be the responsibility of the Project Team (see pages 12-13). The Project Team will meet monthly, and will coordinate the public input and involvement processes.

This Project Charter has been written to address Phase 1 planning and design work. Upon conclusion of Phase 1 work, revisions to this Project Charter can be made to accommodate one or all subsequent phases, including Final Design and finalization of the Right-of-Way acquisition, utility relocation and construction.

Context Sensitive Solutions (CSS) Approach

Phase 1 work will be based on a Context Sensitive Solutions (CSS) model. The CSS model is most often used in the development of transportation projects. It is both an approach and a product: using the approach, a well-designed solution is produced that accounts for the unique needs and qualities of the project area, as well as the community at large. A key component to the success of a CSS approach is obtaining public input throughout the process. Project team members have expertise and experience in CSS, and guides can provide examples and case studies for its application (such as the recommended practices and suggestions outlined in the document "*Designing Walkable Urban Thoroughfares: A Context Sensitive Approach: An ITE Recommended Practice*" published by the Institute of Transportation Engineers (ITE) in 2010). A general description of public input and involvement opportunities is included later in this section.

Key Studies and Reports

Prior to beginning Phase 1, basic studies and reports were commissioned:

- A Traffic Engineering Report that considers the effect of 2040 traffic volume forecasts on the proposed cross-section, and integrates forecasted traffic volumes with the Pima Association of Governments (PAG) High Capacity Transit Study. Specifically for the Broadway Corridor, that plan calls for Bus Rapid transit (BRT) in the near term - 0-10 years - and Light Rail Transit (LRT) long term - more than 20 years in the future. For the purposes of the Phase 1 work, the focus will be on BRT. The question of how the current corridor improvements can be adapted to LRT in the future will be addressed. [This report is an update from a prior version completed in 2009 that used 2030 traffic volume counts.]
- An Urban Design and Land Use Plan that ensures future land uses are compatible with the proposed roadway and alternate mode improvements will be developed. This includes an evaluation and assessment of current land uses and structures. An inventory of existing and eligible historic structures potentially affected by this project has been drafted, and impacts to structures that are historically or architecturally significant will be addressed.
- An alternative alignment study that evaluates various cross-section widths within the 1989 Right-of-Way Plan for the Broadway Corridor, as drawn in Plan R-89-05 and included in the City of Tucson's Major Streets and Routes Plan. This study will be the starting point for discussions with the Citizens Task Force.
- A Right-of-Way Acquisition Management Plan is underway, although it is being handled as a general policy document. The Project Team is not preparing this document. It is being developed through the City of Tucson Real Estate Office using an on-call contractor, in coordination with the Regional Transportation Authority (RTA).

Summary of Proposed Phase 1 Scope of Work

The Scope-of-Work leading to the Design Concept Report (DCR) and Initial (15%) Plans will involve technical work conducted by the Project Team; presentations and discussions at various meetings, particularly with the Citizens Task Force (CTF) and the Technical Advisory Team (TAT); and, various public outreach activities and input opportunities. A formal Scope-of-Work document will clarify the specific tasks and necessary research, study, plans, and reports. This section provides an overview of what will be detailed in that document.

Major components of Phase 1 work are presently envisioned as follows:

- o Existing Conditions & Technical Studies* -- A review of the key technical studies and reports, as identified above, will be conducted. These include traffic studies to determine how various proposals would affect the operation of the roadway; inventories of historical and architecturally significant structures; analysis of diamond lanes; how to address difficult right-of-way situations, particularly at major intersections where extra turning lanes are required; and, what measures to accommodate future high capacity transit should be taken. Discussions may elicit additional issues to consider and discuss.
- o Review the Northward Widening Approach* --The *Broadway Corridor Study* adopted by Mayor and Council in 1987 calls for widening Broadway to the north. A subsequent plan adopted in 1989 identified the future right-of-way to be acquired for this section of Broadway along the north side, and the City has acquired 34 of the 139 properties along the north side since then. The concept of a northward widening will be reviewed to determine if significant cost savings or reduced impacts to historic structures can be achieved by instead widening to the south. Analysis criteria will include potential costs, potential savings, positive and negative impacts.
- o Review the Need for Eight Lanes.* As clarified earlier in this Charter, the Regional Transportation Authority (RTA) Plan states that Broadway will have six travel lanes and 2 dedicated transit lanes. The possibility of delaying the construction of the transit lanes to a future date will be investigated. This will include a traffic operations analysis to determine the effects on movement of traffic, and the development of roadway geometrics for the two cases from which right-of-way impacts will be determined and compared.
- o General Corridor Development Approach* -- The study will establish a corridor development approach, rather than just focusing on the roadway. The term "corridor development approach" refers to how the corridor will look and function--that is how it will interface with the surrounding area as well as accommodate arterial traffic. This question centers on how the community wishes to see this corridor develop, and will impact how the remnant parcels from property acquisitions could best be used to that end. Three general approaches will be identified as a starting point for this investigation. As the analysis progresses and public interaction occurs, these will be fleshed out in more detail. One or more variations on a general approach may emerge, or new approaches may be suggested.

Public input, particularly through the CTF, will play an important role in establishing the detailed alternatives, developing evaluation criteria, reviewing the various technical analyses, selecting a preferred alternative, and developing the recommended approach. Layouts for each alternative will be developed to illustrate the concept.

- o Recommended Corridor Development Approach*-- Based on the results of the various studies including input from the CTF and the general public, a recommended corridor development approach will be determined. This will include the roadway alignment, typical section, and the corresponding "behind-the-curb" improvements that will set the character of the corridor.

- o *Follow-Up Studies and Plans*-- Once the overall approach to the corridor development is established, various reports, plans, and profiles will be developed, including roadway profiles, more detailed plan-profiles, and preliminary drainage plans. Major utility conflicts will be identified and plausible approaches for resolving them proposed.
- o *Initial (15%) Plans* -- An initial (15%) plan set will be prepared to unambiguously reflect the recommended corridor development approach. This will include the plan-profile sheets and the initial drainage and utility relocation plans identified earlier. Initial striping plans will be prepared to better define the channelization of traffic. Broad-stroke concepts for landscape and streetscape, such as landscape palettes or drawings, reflecting adopted concept of corridor development will be included. A preliminary Right-of-Way plan will also be included to aid in planning the acquisition process and to identify parcels needed for possible early acquisition.
- o *Initial Cost Estimate* -- The initial plans will allow the major elements to be identified and their approximate costs determined. An initial cost estimate corresponding to the initial plans will be prepared for budgeting and programming purposes.

Detailed engineering and land use plans will be prepared as part of the subsequent (and separate) Final Design Phase of the project.

Public Participation

The most flexible point in influencing the design and appearance of a roadway project is in Phase 1. For this reason, public involvement is a key element that is integral to the development of the DCR and Initial (15%) Plans. A Context Sensitive Solutions (CSS) approach is a collaborative approach, incorporating flexibility and the use of multidisciplinary teams. From a variety of perspectives, a balance between safety, mobility, community, and environmental goals is sought within a broader context of transportation goals and community needs. The following are key components that will support this multi-disciplinary approach:

- o *Citizens Task Force (CTF)*-- The primary means of public interaction will be through the Citizens Task Force (CTF) appointed by the Director of Transportation. The CTF will represent a variety of interests, as indicated in the table below. Meetings will be held approximately monthly to address specific questions and issues as they are encountered.

# SEATS	STAKEHOLDER GROUP REPRESENTATION	NOMINATING/APPOINTING AUTHORITY
4	Neighbor interests along the Project Corridor	TDOT Director, with input from Wards 5 and 6
4	Business interests along the Project Corridor	TDOT Director, with input from Wards 5 and 6
1	Citizens Transportation Advisory Committee (CTAC) representative	CTAC Chair
1	Alternative modes of transportation representative	Tucson Pima Bicycle Advisory Committee
1	Special needs	TDOT Director, with input from Commission on Disability Issues (CODI)
1	Regional interests	Regional Transportation Authority (RTA)
1	Planning Commission representative	TDOT Director
13	Total Members	

Task Force meetings will be facilitated by a member of the consultant team. The primary responsibilities of the CTF is to advise the Project Team, the Department of Transportation, and Mayor and Council on (1) cross section widths and features, and (2) land use and urban design plans for properties within and near the project boundaries.

- o *Technical Advisory Team (TAT)* -- A team of special stakeholders will be assembled to participate in the planning and design process. This team is typically comprised of representatives from various City departments that have a role in the future roadway construction. Other public agencies or community partners may be invited to sit on the TAT.
- o *Public Meetings* -- Public meetings will be held at various points throughout Phase 1, and may include presentations, workshops, and opportunities for direct discussion with team members.. Approximately five Open House style meetings are currently envisioned at major decision points, but the actual number and format will be determined as the needs of the project evolve. The format (Open House, workshop, presentation) used in each case will depend on the nature of the information to be presented and the input being sought.
- o *Special Concerns/Issues* -- Meetings, correspondence, and conversations will be held as necessary with individual and groups with specific concerns and needs such as neighborhood associations, property and business owners, and elected officials.
- o *Public Information* -- Information regarding the progress of the project will be made through the City's web site, email notifications, and the project's Info Line (520.622.0815). Mailings will typically be used to announce public meetings and will include information to be presented and input to be solicited.
- o *Input Options* -- Various mechanisms will be used to obtain information and input on issues, including surveys, comment cards, email (broadway@tucsonaz.gov), and online input forms accessed through the project's web site.

Project Team

The Project Manager for the Lead Agency, City of Tucson, is authorized to negotiate for resources, delegate responsibilities within the framework of the project, and to communicate with all consultants, outside agencies, permitting authorities, utilities, contractors and management, as required, to ensure successful and timely completion of the project. The Project Manager is responsible for monitoring the schedule, cost and scope of the project during planning, design, implementation and maintaining control over the project by measuring/reporting performance and taking corrective action.

Pima County is a Cooperating Agency on this project, and has responsibility for ensuring that county bond funds are utilized appropriately. The Agency will be represented by Rick Ellis on this project.

The Project Consultant Team is led by Michael Johnson of HDR Engineering, and is responsible for directing and coordinating the efforts of the Consultant Team. The Consultant Team commits to adherence to the minimum requirements of the regionally approved Scope of Work and delivery of the most cost effective project it can develop. The Consultant Team further commits to awareness of and adherence to the project schedule and budget.

The Consultant Team consists of:

Member's Name: Phil Erickson	Community Design + Architecture
Role: Context Sensitive Boulevard Planning	
Responsibility: Evaluate alternative corridor development approaches including both the configuration of the roadway and the use of adjacent property.	

Member's Name: Joan Beckim	Kaneen Advertizing and Public Relations
Role: Public Involvement	
Responsibility: Assist with creating the Citizen Task Force (CTF) as well as the various meetings with the CTF and various concerned groups and individuals.	

Member's Name: Jim Schoen	Kittelsohn & Associates, Inc
Role: Traffic Engineer	
Responsibility: Lead traffic studies including microscopic modeling of alternative lane configurations.	

Member's Name: Phil Swaim	Swain Associates, LTD
Role: Architecture and historical assessment.	
Responsibility: Direct the architectural and historic assessment evaluation. Provide architectural and land use input regarding roadside development.	

Member's Name: Mack Dickerson	Tierra Right of Way Services
Role: Estimating cost associations with right-of-way acquisition.	
Responsibility: Provide right-of-way information for various cross-sections and alignment alternatives.	

Quality Control/Interdisciplinary Review

HDR's formal Quality Assurance/Quality Control (QA/QC) process is applied to each deliverable prior to submittal. It operates at two levels—(1) technical overview of overall strategies and design approach by firm principals and other experienced personnel, and (2) a system of checking, correcting, and back-checking that is applied to all plan sheets and design calculations. This plan has been successfully used on past Department of Transportation projects for City of Tucson, Pima County, and State of Arizona.

Section 4. Assumptions, Constraints, and Assessment of Risks

Project Assumptions

The assumptions listed here generally apply to the planning process and the preparation of the DCR. That process is expected to identify further assumptions and implications that apply directly to the final design, and will be appended to this document as appropriate.

Assumption:	Broadway and its cross streets will be designed to function at Level of Service (LOS) D or better under projected 2040 traffic volumes.
Implication:	Regardless of the general corridor development scheme, the arterial traffic function will be addressed.

Assumption:	Widening will be to the north, per the plan adopted by Mayor and Council.
Implication:	Analysis will be performed to determine the best alignment. Criteria for the analysis, such as acquisition costs and impacts on existing historic and significant structures, should be identified early in Phase 1.

Project Constraints

As with Project Assumptions, constraints affecting this project are not at this point well understood but are expected to emerge during the planning process and the preparation of the DCR. This section should also be modified at the start of final design. Several constraints that are apparent or likely to arise are noted here, however.

Constraint:	Significant structures
Impact:	<p>A number of structures are located along the project reach that are significant either historically or architecturally. While not all of these can be avoided, minimizing impacts to them will be important.</p> <p>A case in point is the Country Club Road intersection where operational considerations call for double left and exclusive right turn lanes, but acquiring the necessary right-of-way would jeopardize the function of adjacent buildings if not the structures themselves.</p>

Constraint:	Funding
Impact:	As noted above, the funding identified for this project covers the estimated cost. It is not clear though when all of the identified funding will be forthcoming. It may be necessary to phase the construction in accordance with the availability of funding.

Assessment of Risks

1. Local Funds Availability							
Probability:	High <input checked="" type="checkbox"/>	Med <input type="checkbox"/>	Low <input type="checkbox"/>	Impact:	High <input checked="" type="checkbox"/>	Med <input type="checkbox"/>	Low <input type="checkbox"/>
Action:	Control <input checked="" type="checkbox"/>	Absorb <input type="checkbox"/>	Avoid <input type="checkbox"/>				
Mitigation Strategy: Develop a construction phasing program if certainty about funding availability can be achieved. Maintain project cost estimate during the evaluation of alternatives.							

2. Environmental Permitting							
Probability:	High <input type="checkbox"/>	Med <input checked="" type="checkbox"/>	Low <input type="checkbox"/>	Impact:	High <input type="checkbox"/>	Med <input type="checkbox"/>	Low <input checked="" type="checkbox"/>
Action:	Control <input checked="" type="checkbox"/>	Absorb <input type="checkbox"/>	Avoid <input type="checkbox"/>				
Mitigation Strategy: No jurisdictional washes affect this project. State and City historic preservation ordinances will need to be observed, which will require a cultural resources survey. Though not an environmental permitting issue, hazardous materials surveys will need to be performed for any Right-of-Way acquisitions as part of the normal acquisition process.							

3. Unforeseen Environmental Restrictions							
Probability:	High <input type="checkbox"/>	Med <input type="checkbox"/>	Low <input checked="" type="checkbox"/>	Impact:	High <input type="checkbox"/>	Med <input type="checkbox"/>	Low <input checked="" type="checkbox"/>
Action:	Control <input type="checkbox"/>		Absorb <input type="checkbox"/>		Avoid <input type="checkbox"/>		
Mitigation Strategy: None anticipated to be needed.							

4. Utility Conflicts							
Probability:	High <input type="checkbox"/>	Med <input checked="" type="checkbox"/>	Low <input type="checkbox"/>	Impact:	High <input type="checkbox"/>	Med <input checked="" type="checkbox"/>	Low <input type="checkbox"/>
Action:	Control <input checked="" type="checkbox"/>		Absorb <input type="checkbox"/>		Avoid <input type="checkbox"/>		
Mitigation Strategy: Extent of conflicts will be determined during the DCR process.							

5. Other Permits							
Probability:	High <input type="checkbox"/>	Med <input type="checkbox"/>	Low <input checked="" type="checkbox"/>	Impact:	High <input type="checkbox"/>	Med <input type="checkbox"/>	Low <input checked="" type="checkbox"/>
Action:	Control <input checked="" type="checkbox"/>		Absorb <input type="checkbox"/>		Avoid <input type="checkbox"/>		
Mitigation Strategy: To be identified during DCR process. Few if any anticipated.							

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