



MEMORANDUM

Date: September 15, 2005

To: Chair, Vice Chair and Members
Pima County Bond Advisory Committee

From: C.H. Huckelberry
County Administrator *CHH*

Re: **Additional Amendment to Ordinance No. 1999-80, the Transportation Bond Improvement Plan for the November 4, 1997 Special Bond Election (Highway User Revenue Fund (HURF) Bond Program**

A memorandum was sent to the Pima County Bond Advisory Committee dated September 13, 2005, detailing proposed amendments to 1997 and 2004 Bond Ordinances. In that memorandum, amendments were proposed to DOT-36 Camino de Sol/West Parkway, Continental Road to Duval Mine Road, and DOT-37 Interstate-19 Northbound Frontage Road, Canoa TI to Continental TI. The amendment would terminate DOT-36 and move the \$450,000 in bond funding to DOT-37, at the request of the Green Valley Community Coordinating Council.

An additional amendment to the 1997 Highway User Revenue Fund (HURF) Bond Program has since come to my attention. Again, at the request of the Green Valley Community Coordinating Council, DOT-34 Camino del Sol, Continental Road to Ocotillo Wash is also proposed to be terminated, with the remaining bond funds of \$2,303,806 funds to also be reallocated to DOT-37. This proposed amendment, along with the proposed amendment to terminate DOT-36, would modify DOT-37 by increasing bond funding to \$3,653,800. If DOT-37 is included in a successful Regional Transportation Authority (RTA) election, a portion of the bond funds for DOT-37 may be reallocated to another project.

A revised version of the amended HURF bond ordinance is attached. Department of Transportation Staff will be attending the Committee's September 23, 2005 meeting to answer any questions.

CHH/dr

Attachment

c: The Honorable Chair and Members, Pima County Board of Supervisors
The Honorable Herminia Frias, Chairwoman, Pascua Yaqui Tribe
The Honorable Vivian Juan-Saunders, Chairwoman, Tohono O'odham
Mike Reuwsaat, Manager, Town of Marana
Chuck Sweet, Manager, Town of Oro Valley
Jim Stahle, Manager, Town of Sahuarita
Fernando Castro, Manager, City of South Tucson
Mike Hein, Manager, City of Tucson
John Bernal, Deputy County Administrator – Public Works
Nicole Fyffe, Executive Assistant to the County Administrator

ORDINANCE AMENDMENT NUMBER 2005 - _____

AN ORDINANCE OF THE BOARD OF SUPERVISORS OF PIMA COUNTY ARIZONA RELATING TO HIGHWAY USER REVENUE FUND REVENUE BOND PROJECTS AMENDING ORDINANCE NUMBER 1997-80 (AS AMENDED SEPTEMBER 22, 1998 BY ORDINANCE NO. 1998-59 AND AUGUST 20, 2001 BY ORDINANCE NO. 2001-112 AND DECEMBER 14, 2004 BY ORDINANCE NO. 2004-118) BOND IMPLEMENTATION PLAN, NOVEMBER 4, 1997 SPECIAL ELECTION, TO AMEND PROJECT SCOPES AND IMPLEMENTATION PERIOD SCHEDULES FOR SELECTED PROJECTS; AMENDING BOND SALES SCHEDULES

WHEREAS, the Board of Supervisors adopted Chapter 3.06 of the Pima County Code titled "Bonding Disclosure, Accountability and Implementation"; and,

WHEREAS, in compliance with Chapter 3.06, the Board of Supervisors adopted Ordinance Number 1997-80, the "Transportation Bond Improvement Plan, November 4, 1997 Special Election"; and,

WHEREAS, the Board of Supervisors, on September 22, 1998 enacted Ordinance Number 1998-59 and on August 20, 2001 enacted Ordinance Number 2001-112 and on December 14, 2004 enacted Ordinance Number 2004-118 amending Ordinance Number 1997-80 in compliance with provisions of Chapter 3.06; and,

WHEREAS, the Board of Supervisors desires to amend Ordinance Number 1997-80 (as amended by Ordinance Number 1998-59, Ordinance Number 2001-112 and Ordinance Number 2004-118) in compliance with provisions of Chapter 3.06:

IT IS HEREBY ORDAINED by the Board of Supervisors of Pima County, Arizona:

I. Schedule of Bond Sales, Debt Retirement Schedule, and Tax Impact of Issuing \$350 Million in New HURF Transportation Revenue Bonds

A. Schedule of Bond Sales

The total value of HURF revenue bonds being submitted to the voters for approval is \$350 million. If approved by the voters, sales of revenue bonds will be scheduled, beginning in early 1998. All projects should be completed within ~~twelve~~ sixteen years from the date of voter authorization. Shown below is an original schedule of sales.

The first sale of HURF Revenue Bonds occurred in June 1998, for \$40,000,000, which was less than the \$60,000,000 originally projected in the Bond Improvement Plan (this ordinance was amended on September 22, 1998 to reflect this change). Expenditure of these bonds has not taken place at the rate originally anticipated and projections are that they will not be completely expended until sometime in calendar year 2001. This rate of expenditure caused the County to fall out of compliance with federal arbitrage rules and the County will pay back interest earning to the Internal

Revenue Service. This experience strongly recommends that the County provides itself with flexibility to sell bonds more frequently or in years other than stated in Table 1 above and to sell bonds in smaller, more targeted amounts than projected in Table 1. If exercised, the intent of this flexibility would be to provide for more focused cash flow management and the avoidance of arbitrage entanglements. It is not anticipated at this time that the overall time period of this bond package will be increased by four years.

II. Specific Project Description, Scope of Work, and Location by Major Category and Project

Below is a list of 57~~4~~8 projects to be completed with \$350 million in County HURF Revenue Bonds. At the end of this ordinance, Figure 1 is a map indicating the location of each project.

DOT-1 - River Road, First Avenue to Campbell Avenue

Location:	Tucson, Unincorporated County
Bond Funding:	\$15,500,000
Scope:	This project consists of widening and realignment of existing River Road between First Avenue and Campbell Avenue. The proposed project will be a four-lane divided roadway with landscape median, multi-use lanes, outside curbs, storm drains, pedestrian facilities and additional landscaping. The right-of-way will support future expansion to six lanes, if warranted. This cross section will match the segment of River Road from Oracle Road to First Avenue improved previously. The intersection of First Avenue and River Road will have only minor revisions to accommodate the cross section. The project will extend to just east of Campbell Avenue. Traffic signals at Via Entrada and Campbell Avenue will be reconstructed with this project. New culverts will be installed and existing culverts under River Road will be extended to carry drainage from the Foothills towards the Rillito River.
Benefit:	The project will reduce congestion and enhance safety along River Road. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$83.93 million. The benefit/cost ratio is 5.4:1.
Other Funding:	\$6,464,000 (\$2,000,000 6,172,000 County HURF) (292,000 Other)
Implementation Period:	1/2/3
Future Annual Operating & Maintenance Costs:	\$18,000

DOT-2 - Sunrise Drive, Swan Road to Craycroft Road

Location: Unincorporated County

Bond Funding: \$5,000,000

Scope: The project will widen Sunrise Drive along its existing alignment from east west of Swan Road to east west of Craycroft Road. Proposed improvements will include two travel lanes in each direction, multi-use lanes, outside curbs and storm drains, landscaping and provision of pedestrian facilities and noise barriers where warranted. The median treatment will be either a raised landscape median or a median two-way left-turn lane, pending further evaluation of local area access and circulation requirements.

Benefit: The project will reduce congestion and enhance safety along Sunrise Drive. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$71.73 million. The benefit/cost ratio is 14.3:1.

Other Funding: \$10,305,000 (~~\$1,500,000~~ 10,164,000 County HURF)
(141,000 Other)

Implementation Period: 1/2/3

Future Annual Operating & Maintenance Costs: \$15,000

DOT-3 - River Road, La Cholla Boulevard to La Canada Drive

Location: Unincorporated County

Bond Funding: \$3,500,000

Scope: The existing two-lane road will be replaced with a four-lane divided roadway similar to the recently completed improvements on River Road between La Cañada and 15th Avenue. Improvements will consist of a raised landscape median, two travel lanes in each direction, multi-use lanes, outside curbs, storm drains and landscaping. The right-of-way and alignment will support future expansion to six lanes, if warranted. Project will include pedestrian facilities. The existing box culverts will be lengthened to accommodate the widened cross section and at least one additional drainage structure will be built east of La Cholla Boulevard to accommodate the Citrus Wash drainage.

Benefit: The project will reduce congestion and enhance safety along River Road. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$26.28 million. The benefit/cost ratio is 2.7: 1.

Other Funding: ~~\$6,200,000~~ \$1,395,000 (5,300,000 1,373,000 Urban Area HURF)
(900,000 Developer Funded) (22,000 County HURF)

Implementation Period: 1

Future Annual Operating &
Maintenance Costs: \$24,000

DOT-4 - River Road, Campbell Avenue to Alvernon Way

Location: Unincorporated County, Tucson

Bond Funding: ~~\$13,500,000~~ \$15,613,000 (additional funding from DOT-05)

Scope: The proposed project will consist of widening and realignment of River Road from east of Campbell Avenue to the extension of Alvernon Way, east of Dodge Boulevard (see DOT -5). The road cross section will consist of two through lanes in each direction with a raised landscape median, multi-use lanes, outside curbs, storm drains and landscaping. The project will include improvements for transverse drainage for the Camino Real and Finger Rock Washes, as well as other smaller drainages that currently cross River Road. Improvements to Camino Real Wash will include increasing the channel capacity of the east braid of the wash north of River road, construction of a box culvert under River Road, and construction of a new outfall channel to the Rillito River. Improvements for Finger Rock Wash are presently undefined but will, at a minimum, provide for drainage to flow under River Road. The proposed project includes acquisition of an open space and mitigation area between the improved River Road and the Rillito River, through the River Bend area. The mitigation area will be incorporated with the Rillito River Linear Park.

Benefit: The project will reduce congestion and enhance safety along River Road. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$192.00 million. The benefit/cost ratio is 11.6:1.

Other Funding: ~~\$3,000,000 Urban Area HURF~~
\$8,148,000 (4,230,000 G.O. Bonds)
(2,318,000 Impact Fees)
(1,600,000 Other)

Implementation Period: 1/2/3/4/5

Future Annual Operating &
Maintenance Costs: \$37,500

DOT-5 - Alvernon Way, Ft. Lowell Road to River Road

Location: Unincorporated County, Tucson

Bond Funding: ~~\$6,000,000~~ \$3,887,000 (funding used with DOT-04)

Scope: The proposed project is extension of Alvernon Way from its existing intersection of Ft. Lowell Road north and west across the Rillito River to connect to River Road in the vicinity of Dodge Boulevard. The proposed roadway will be a four-lane cross section with a median from River Road to south of the Rillito River. North of Ft. Lowell the cross section will change to a median two-way left-turn lane similar to Alvernon Way south of Ft. Lowell Road. The new road will include multi-use lanes, outside curbs, storm drains, landscaping and pedestrian facilities. The project includes a new bridge across the Rillito River. Right-of-way for the proposed project was acquired with proceeds from the 1986 Transportation Bond issue.

Benefit: The new Alvernon connection to River Road will provide a wider bridge structure across the Rillito River to replace the functionally obsolete and structurally deficient Dodge Boulevard bridge. Existing traffic volumes on Dodge Boulevard will be significantly reduced. Further evaluation will be made of the existing Dodge Boulevard to determine if the existing bridge will remain in use as a vehicular bridge, with additional weight limits, or will be restricted to pedestrian and bicycle access only to connect the south side of the Rillito River with the Linear Park on the north side. The project will reduce congestion and enhance safety along Dodge Boulevard. The estimated economic value of the improvements to traffic flow and reductions in accidents is \$8.69 million. The benefit/cost ratio is 1.4:1.

Other Funding: ~~None proposed~~ \$4,836,000 Urban Area HURF

Implementation Period: 1/2/3/4/5

Future Annual Operating & Maintenance Costs: \$18,000

DOT-8 - Skyline Drive, Chula Vista to Orange Grove Road

Location: Unincorporated County

Bond Funding: ~~\$1,800,000~~ \$388,000 (funding used with DOT-09)

Scope: The proposed project is the reconstruction of Skyline Drive to a more contemporary four-lane divided roadway cross section with landscape median, multi-use lanes, outside curbs and storm drains, edge landscaping, pedestrian facilities and roadway noise mitigation where warranted. The improvements will enhance the safety, level of service and visual quality of Skyline Drive.

Benefit: Primary benefits for this project will be in urban design, neighborhood mitigation, improved drainage and alternate mode facilities. Safety benefits from the improvements to the alignment and sight distance are also expected. The capacity of the roadway will be relatively unaffected by this improvement.

Other Funding: None proposed

Implementation Period: 1/2/3/4

Future Annual Operating & Maintenance Costs: No Increase

DOT-9 - Skyline Drive, Orange Grove Road Chula Vista to Campbell Avenue

Location: Unincorporated County

Bond Funding: ~~\$1,800,000~~ \$8,816,000 (additional funding from DOT-08, DOT-16 and DOT-20)

Scope: The proposed project is the reconstruction of Skyline Drive to a more contemporary four-lane divided roadway cross section from Chula Vista to Orange Grove Road with landscape median, multi-use lanes, outside curbs and storm drains, edge landscaping, pedestrian facilities and roadway noise mitigation where warranted. ~~Additional Six lanes may~~ will be constructed from Orange Grove Road to Campbell Avenue to accommodate additional traffic from commercial development in the area. The improvements will enhance the safety, level of service and visual quality of Skyline Drive. The intersection at Orange Grove Road will be modified to provide multi-use and turning lanes. Significant intersection improvements at the intersection of Skyline and Campbell will be constructed.

Benefit: Primary benefits for this project will be in urban design, neighborhood mitigation, improved drainage and alternate mode facilities. Safety benefits from the improvements to the alignment and sight distance are also expected. ~~The capacity of the roadway will be relatively unaffected by this improvement.~~

Other Funding: ~~\$7,000,000~~ \$13,593,000 (~~5,000,000~~ 11,962,000 County HURF)
(~~2,000,000~~ Developer Funded)
(1,631,000 Other)

Implementation Period: 1/2/3/4

Future Annual Operating & Maintenance Costs: No Increase

DOT-13 - Ajo Way, Country Club Road to Alvernon Way

Location: Unincorporated County

Bond Funding: ~~\$6,000,000~~ \$3,342,000 (remaining bond funding not used)

Scope: Proposed improvements include reconstruction and widening of existing Ajo Way to a six-lane divided roadway from Country Club Road to Alvernon Way. The roadway cross section will be similar to the recently completed improvements on Ajo Way west of Country Club. The project will provide additional roadway capacity, multi-use lanes for alternate modes, storm drains, roadside landscaping and pedestrian facilities which are currently not included with the existing roadway. Medians will be landscaped.

Benefit: The proposed project will improve drainage and access control along Ajo Way as well as increase capacity and improve safety. The project will reduce congestion and enhance safety along Ajo Way and increase access to the Kino public service center. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$7.33 million. The benefit/cost ratio is 1.2:1.

Other Funding: ~~None~~ Proposed \$3,537,000 (Other)

Implementation Period: 1/2/3

Future Annual Operating & Maintenance Costs: \$15,000

DOT-14 - Wetmore Road and Ruthrauff Roads, La Cholla Boulevard to Fairview Avenue

Location: Unincorporated County, Tucson

Bond Funding: \$7,800,000

Scope: This project includes construction of four through traffic lanes, multi-use lanes, outside curbs, storm drains, landscaping and noise mitigation where warranted. The median will be a two-way left-turn lane. The proposed cross section is similar to Ruthrauff Road, west of La Cholla Boulevard. This project will also include area drainage improvements and construction of one or more conveyance channels from Wetmore Road, north to the Rillito River.

Benefit: The proposed improvement will provide congestion relief, accident reduction and drainage benefits over a wide area. The project will reduce congestion and enhance safety along Wetmore Road. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$107.70 million. The benefit/cost ratio is 5.7:1.

Other Funding: ~~\$41,200,000~~ \$16,072,000(3,000,000 Urban Area HURF)

(147,000 ~~1,400,000~~ County HURF)
 (10,084,000 ~~7,400,000~~ FED STP)
 (2,226,000 ~~400,000~~ Impact Fee Funds)
 (615,000 Other)

Implementation Period: 1/2/3/4
 Future Annual Operating & Maintenance Costs: \$34,500

DOT-16 - River Road, Shannon Road to La Cholla Boulevard

Location: Unincorporated County

Bond Funding: ~~\$2,000,000~~ \$863,000 (remaining unused bond funding combined with DOT-9)

Scope: This project is an extension of River Road from its current terminus at La Cholla Boulevard to approximately Shannon Road, where it will link up with the River Road, Thornydale to Shannon Road extension. The proposed project is a four-lane divided roadway with landscape median, multi-use lane, outside curbs, storm drains, landscaping and neighborhood noise mitigation. The right-of-way will support widening to six lanes in the future, when warranted. The project will include box culverts to carry the Nanini Wash drainage under River Road into the Rillito River.

Benefit: This project provides regional transportation benefits when connected to the project to the west, completing connections in the regional road system, which provide alternate routes to Orange Grove Road and Ina Road for east-west travel north of the Rillito River. The project will reduce congestion and enhance safety along Orange Grove and Ina Roads. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$35.98 million. The benefit/cost ratio is 5.7:1.

Other Funding: \$4,300,000 (4,052,000 FED STP)
 (248,000 County HURF)

Implementation Period: 1/2

Future Annual Operating & Maintenance Costs: \$42,000

DOT-19 - Hartmann Lane North of Cortaro Farms Road

Location: Marana

Bond Funding: ~~\$600,000~~ \$127,000 (funding used with DOT-18)

Scope: The proposed project will reconstruct Hartman Lane at the Hardy Wash to provide an all-weather crossing. The existing ford crossing will be replaced with a box culvert. A portion of Hartman Lane on either approach to the box culvert will be reconstructed to provide adequate vertical transitions. The roadway will remain two lanes. At the request of the Town of Marana, the project was terminated after completion of the design work.

Benefit: The proposed project will improve circulation for the northwest area.

Other Funding: ~~As identified in project intergovernmental agreement. (Town of Marana)~~
None

Implementation Period: 1/2/3
Future Annual Operating & Maintenance Costs: \$15,000 Town of Marana

DOT-21 - Thornydale Road, Orange Grove Road to Ina Road

Location: Unincorporated County, Marana

Bond Funding: \$1,000,000

Scope: This project is the reconstruction and widening of this roadway to a six-lane divided road with raised median, multi-use lanes, outside curbs, landscaping and pedestrian facilities. This project will connect with the recently completed six-lane bridge over the Cañada del Oro Wash and will provide for widening of the existing box culvert carrying the Carmack Wash under Thornydale Road. Project includes noise and screening walls adjacent to the residential areas east of the road. At the request of the Town of Marana, construction was terminated south of the bridge and design drawings for the remainder were forwarded to the Town.

Benefit: The project will reduce traffic congestion and enhance safety along Thornydale Road. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$280.20 million. The benefit/cost ratio is 10/0:1.

Other Funding: ~~\$7,000,000~~ \$2,053,000 (2,051,000 Urban Area HURF)
(2,000 County HURF)

Implementation Period: 2

Future Annual Operating & Maintenance Costs: \$30,000 Town of Marana

DOT-22 - Thornydale Road, Ina Road to Cortaro Farms Road

Location: Unincorporated County, Marana

Bond Funding: \$1,000,000

Scope: The proposed project is the reconstruction and widening of Thornydale Road to a four-lane divided roadway with landscape median, multi-use lanes, outside curbs and storm drains. The roadway grading, storm drains, screen walls and pedestrian facilities will be located to allow for the expansion of this roadway to six-lanes when warranted in the future. This project includes the construction of a major trunk sewer. The project will include culvert structures to carry drainage under Thornydale Road.

Benefit: The project will reduce congestion and enhance safety along Thornydale Road. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$94.05 million. The benefit/cost ratio is 8.5:1.

Other Funding: ~~\$40,000,000~~ \$15,773,000 (~~6,000,000~~ 8,507,000 Urban Area HURF)
(~~4,000,000~~ 2,769,000 County HURF)
(3,927,000 Impact Fees)
(570,000 Other)

Implementation Period: 1/2/3

Future Annual Operating & Maintenance Costs: \$22,500

DOT-25 - Interstate 19 Southbound Frontage Road at Continental Road

Location: Unincorporated County (Green Valley) (ADOT right-of-way)

Bond Funding: \$1,000,000

Scope: The project will realign the southbound Frontage Road to connect with the recently improved intersection of Continental Road at Continental Plaza. The project will separate the southbound on and off ramps at I-19 from the Frontage Road intersection to improve safety and allow for future signalization of the ramp intersections. The project will consist of construction of a new two-lane road south of Continental Road on new alignment to connect with the existing Frontage Road. Provision for the connection was included in the design and construction of the traffic signal at Continental Plaza.

Benefit: This project will reduce congestion and improve safety by providing the signalized access between the Frontage Road and Continental Road. The increased separation will provide for better operation of

the interchange intersections with Continental Road and will reduce the number of traffic signals that would have to be installed along Continental Road in the future as traffic volumes in this area of Green Valley increase.

Other Funding: \$500,000

Implementation Period: 1/2/3/4/5

Future Annual Operating & Maintenance Costs: \$4,500

DOT-27 - River Road at Ventana Wash

Location: Unincorporated County

Bond Funding: \$1,900,000

Scope: The proposed project is the replacement of the existing bridge carrying River Road over Ventana Wash. The existing bridge is structurally deficient and functionally obsolete and meets federal requirements for replacement. The new bridge will provide for two traffic lanes, shoulders and a pedestrian facility. The bridge will be located to allow for widening of River Road in the future when warranted.

Benefit: The existing inadequate bridge will be replaced by a new structure with greater load carrying capacity, width clearance and safety. Provision for bicycles and pedestrians will be included with the new bridge structure.

Other Funding: \$3,000,000 (600,000 Federal Bridge Funds)
(2,400,000 County HURF)

Implementation Period: 1/2/3/4/5/7/8

Future Annual Operating & Maintenance Costs: No Increase

DOT-30 - Catalina Highway, Tanque Verde Road to Houghton Road

Location: Unincorporated County, Tucson

Bond Funding: \$6,200,000

Scope: The project is the construction of Catalina Highway to a ~~four~~ **three**-lane roadway ~~from Tanque Verde Road to Harrison Road and a two-lane roadway from Harrison Road to Houghton Road~~ with multi-use lanes and improved roadside drainage. The median treatment will be ~~either a raised landscape~~

DOT-34 - Camino del Sol, Continental Road to Ocotillo Wash

Location: Unincorporated County (Green Valley)
Bond Funding: ~~\$2,500,000~~ \$196,194 (remainder reallocated to DOT-37)
Scope: This project is the construction of a new Camino del Sol/West Parkway, west of the Canoa Land Grant, from existing Camino del Sol in the vicinity of Ocotillo Wash, north to Continental Road. In addition, improvements to Continental Road from the new Camino del Sol intersection east to existing Camino del Sol will be constructed. The project will be constructed initially as a two-lane roadway with capability for future expansion when warranted. The project corridor will be substantially wider than that typically required for the roadway to allow for increased buffering from residential areas east of the roadway and to provide for pedestrian and bicycle facilities off the road. The project will allow for future development of a parkway from Ocotillo Wash north to Duval Mine Road. At the request of the Green Valley Community Coordinating Council, this project is terminated and funds reallocated to DOT-37.

Benefit: Proposed project will obviate the need to widen existing Camino del Sol south of Continental Road. This section of Camino del Sol has constrained right-of-way and is developed with residential structures having direct access to the roadway. The project will reduce congestion and enhance safety along Camino del Sol.

Other Funding: \$2,400,000 (Impact Fee Funds)

Implementation Period: 1/2/3/4

Future Annual Operating & Maintenance Costs: \$25,500

DOT-35 - Abrego Drive at Drainageway No. 1/Box Culvert

Location: Town of Sahuarita

Bond Funding: ~~\$600,000~~ \$150,000 (remaining bond funding not used)

Scope: This project will provide additional funding for the construction of a box culvert to carry Abrego Drive over Drainageway No. 1 north of existing Duval Road. The box culvert will allow the connection of Abrego Drive all the way north to Nogales Highway (B-19). The connections of Abrego Drive north and south of the Drainage way will allow for the existing northbound I-19 Frontage Road north of Duval Road to be relocated or abandoned as this new connection will provide access to all existing development south of Duval Road that currently has access via the Frontage Road. This project will also provide additional funding for the Duval Mine Road interchange and approaches with I-19 and the La Canada drainage project.

Benefit: Proposed project will enhance area circulation by allowing Abrego Drive to

extend north to Nogales Highway, reduce the number of intersections along Nogales Highway between I-19 and Abrego Drive, to allow for access to the highway at intersections appropriately spaced for traffic signals and to improve the geometry of the intersections and approaches to Nogales Highway from the south.

Other Funding: None Proposed

Implementation Period: 1/2/3/4/5

Future Annual Operating & Maintenance Costs: Minimal Cost Increase Town of Sahuarita

DOT-36 - Camino del Sol/West Parkway, Continental Road to Duval Mine Road

Location: Unincorporated County (Green Valley)

Bond Funding: \$450,000 \$0 (reallocated to DOT-37)

Scope: Proposed project is the acquisition of right-of-way only for the future construction of a Camino del Sol extension/West Parkway on existing state lands west of developed Green Valley. The right-of-way acquisition will be sufficiently wide to accommodate the planned future road, separate pedestrian and bicycle facilities, linear park features and separation from existing and planned neighborhoods. Exact width will be determined through future study. At the request of the Green Valley Community Coordinating Council, this project is terminated and funds reallocated to DOT-37.

Benefit: The benefit of the right-of-way acquisition at this time is to assure that there is a complete right-of-way for future construction of the road, to assist area developers to appropriately plan and site their projects to account for this future roadway and to provide an opportunity for construction of the road and parkway elements with future funding.

Other Funding: None Proposed

Implementation Period: 3/4

Future Annual Operating & Maintenance Costs: None

DOT-37 - Interstate-19 Northbound Frontage Road, Canoa TI to Continental TI

Location: Unincorporated County (Green Valley)

Bond Funding: ~~\$900,000~~ \$3,653,000 (additional funding from DOT-34 and DOT-36)

Scope: The proposed project is the construction of 1.2 miles of frontage road that

DOT-39 - Valencia Road, Interstate-19 to South 12th Avenue

Location: Tucson

Bond Funding: ~~\$900,000~~ \$662,000 (remaining bond funding not used)

Scope: ~~Project includes the widening of Valencia Road to six lanes from I-19 to South 12th Avenue, provision of multi-use lanes, drainage improvements, sidewalks, arterial street lighting and safety improvements for intersecting streets.~~ The project will also include improvements to the intersection of South 12th Avenue and Valencia Road to connect to a City of Tucson project to the north and proposed improvements by Arizona Department of Transportation to the west.

Benefit: The project will reduce traffic congestion and enhance roadway safety for vehicles, pedestrians and bicyclists. Transit operations will also be improved in this presently constrained corridor. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$10.94 million. The benefit/cost ratio is 12.2:1.

Other Funding: ~~As identified in project intergovernmental agreement.~~ \$600,000 (City of Tucson)

Implementation Period: 1/2

Future Annual Operating & Maintenance Costs: ~~\$6,000~~ City of Tucson

DOT-41 – Neighborhood Transportation Improvements

Location: Supervisor District 2

Bond Funding: \$10,000,000

Scope: The project will construct improvements to neighborhood streets, including but not limited to sidewalks, street lighting, neighborhood traffic mitigation measures, street paving, and ADA pedestrian improvements.

Benefit: The project will enhance the usability and safety of neighborhood streets, improve the quality of life in neighborhoods, and add to the stability of and reinvestment in neighborhoods.

Other Funding: Matching funds from other jurisdictions as available

Implementation Period: 2/3/4/5/6/7/8

Future Annual Operating & Maintenance Costs: Minimal

DOT-43 – 12th Avenue, 38th Street to Los Reales Road

Location: Tucson

Bond Funding: \$9,000,000

Scope: ~~The proposed improvements~~ Phase I, Los Reales to Lerdo will improve the function of South 12th Avenue for alternate modes and provide for improved area and roadway drainage and provide streetscape improvements for the adjacent community. Phase 2, South 12th Gateway at 10th Avenue, will improve ~~the~~ The geometry of the intersecting streets ~~will be improved~~ for efficiency, safety and drainage.

Benefit: The project will improve local area circulation and access through improved drainage and will reduce maintenance costs with enhanced roadway pavements. The improvements will increase the value of adjacent properties by enhancing the streetscape elements in this corridor.

Other Funding: None Proposed

Implementation Period: 1/2/3/4/5

Future Annual Operating & Maintenance Costs: \$60,000 City of Tucson

DOT-44 - Orange Grove Road, Thornydale Road to Oracle Road

Location: Unincorporated County, Marana

Bond Funding: \$20,000,000

Scope: The project consists of constructing a four and six-lane roadway from Thornydale Road to Oracle Road. The Advance Planning Report for Orange Grove Road approved by the Board of Supervisors in 1992 called for six lanes from La Cholla Boulevard to Oracle Road and four lanes from Thornydale Road to La Cholla. The cross section requirements will be reviewed during the project initiation stages to determine if the full six lanes from Thornydale to La Cholla should be built with the initial project. The project will include a raised landscape median, multi-use lanes, outside curbs and storm drains, provision for pedestrians and screening and noise mitigation for adjacent residential areas where required. Reinforced box culverts or short span bridges will be constructed where the Pegler Wash, Casas Adobes Wash and the Roller Coaster Wash cross Orange Grove Road, along with other transverse drainage as needed.

Benefit: The project will reduce congestion and enhance safety along Orange Grove Road and at the intersecting street intersections. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$295.48 million. The benefit/cost ratio is

12.7:1.

Other Funding: \$3,180,000 (Urban Area HURF)

Implementation Period: 3/4/5/6/7/8

Future Annual Operating &
Maintenance Costs: \$126,000

DOT-45 - La Cholla Boulevard, River Road to Magee Road

Location: Unincorporated County

Bond Funding: \$18,000,000

Scope: The project consists of construction of a six-lane La Cholla Boulevard from River Road to Magee Road. Project will include a raised landscape median, multi-use lanes, outside curbs, storm drains and pedestrian facilities and neighborhood screening and noise mitigation where required. This project also includes reinforced concrete box culverts or short span bridges at the Nanini Wash and Pegler Wash crossings. Additional provisions will be made for transverse drainage as required.

Benefit: The project will reduce congestion and enhance safety along existing La Cholla Boulevard. This project when linked with the project to the south (I-10 to River Road) will provide enhanced facility of regional significance for access into the northwest area. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$202.7 million. The benefit/cost ratio is 13.5:1.

Other Funding: ~~\$13,000,000~~ \$7,132,000 (10,000,000 3,685,000 Urban Area HURF)
(3,000,000 943,000 Developer Funded)
(2,139,000 Improvement District)
(100,000 County HURF)
(265,000 Other)

Implementation Period: 1/2/3/4/5/6

Future Annual Operating &
Maintenance Costs: \$90,000

DOT-53 - Old Tucson-Nogales Highway-Summit Neighborhood

Location: Unincorporated County

Bond Funding: \$1,100,000

Scope: Proposed project is to reconstruct the intersection of Nogales Highway-Old Tucson/Nogales Highway to eliminate adverse intersection angles. The project will also improve the vertical

alignment of the Old Tucson/Nogales Highway over the Southern Pacific Railroad crossing and provide upgraded traffic control at the intersection and railroad.

The local area is subject to significant drainage problems associated with the roads. The project will construct or improve roadside drainage ditches parallel to Summit Street, McKain Road and Old Tucson/Nogales Highway within the existing right-of-way to increase conveyance towards the existing culverts under the railroad. Small detention facilities will also be constructed east of the Summit-Old Tucson/Nogales neighborhood and McKain Road/Terry Lane intersection to control the magnitude of roadside drainage and to eliminate ponding within these intersections.

Benefit: Project benefits will accrue to local neighborhoods with a safer access, particularly during wet weather conditions. The roadway construction will reduce the expense of operation and maintenance as the intersections collect substantial sediments and debris during wet weather conditions. The improved intersection alignment will allow for safer access onto Nogales Highway (B-19).

Other Funding: None Proposed

Implementation Period: 1/2/3/4/5/6/7/8

Future Annual Operating & Maintenance Costs: No Increase

DOT-54 - Mt. Lemmon Shuttle

Location: Unincorporated Pima County, Tucson

Bond Funding: \$1,500,000

Scope: ~~The Mt. Lemmon Shuttle is conceived to provide public transit access from the vicinity of the Bear Canyon Library to Mt. Lemmon and Summerhaven and to Sabino Canyon Recreation Area. The Shuttle will link with Sun Tran Route 9 at Bear Canyon. This service will operate four trips, six days a week from Bear Canyon to Summerhaven and from Bear Canyon to Sabino Canyon Recreation Area. The Bond funding will provide for turnouts and other facilities adjacent to the roadways to allow the transit to operate safely along these two-lane roads. Additional funding in the form of operating subsidies, equipment and vehicle acquisition grants and similar non-highway related expenses will be sought from other sources.~~

To support future public transportation facilities at Summerhaven, including a proposed tram system and local shuttle service, and to accommodate the anticipated traffic at the new Village Center, Sabino Canyon Parkway improvements are needed. Improvements include roadway re-alignment, drainage facilities, environmental mitigation, improved pedestrian access and parking.

Benefit: ~~Project benefits include providing general public transportation access to public recreation areas and reducing the number of vehicles on Mt. Lemmon Highway, which will reduce demand for restricted parking areas~~ Improved public access and safety at Summerhaven.

Other Funding: Federal and state transit funding, \$1,000,000 Flood Control Levy

Implementation Period: 1/2/3/4/5

Future Annual Operating & Maintenance Costs: To be determined

DOT-55 - Golf Links Road, Bonanza Avenue to Houghton Road

Location: Tucson

Bond Funding: ~~\$2,500,000~~ \$1,801,000 (remaining bond funding not used)

Scope: The proposed project consists of widening 0.5 miles of Golf Links Road to four lanes with a raised landscape median, multi-use lanes, curbs, storm drains, outside landscaping and other urban street features. This project will link with another project to be built entirely by the City of Tucson. The improvements will increase capacity and safety of the roadway and will define and better control access to abutting properties.

Benefits: The project will reduce congestion and enhance safety along Golf Links Road. The estimated economic value of the improvements to traffic flow and reductions in accidents are \$2.23 million. The benefit/cost ratio is 0.9:1.

Other Funding: ~~As identified in project intergovernmental agreement. (City of Tucson)~~ \$901,000 (800,000 City of Tucson)
(56,000 County HURF)
(45,000 Other)

Implementation Period: 1/2

Future Annual Operating & Maintenance Costs: \$45,000 City of Tucson

DOT-57 - Safety Improvements

Location: Various

Bond Funding: \$19,000,000

Scope: The HURF Revenue Bond includes \$19 million for presently undesignated safety improvements that would be implemented over the course of the bond program. Projects to be funded under this category are traffic safety improvements. The Department of Transportation publishes annual reports on the traffic accident and

safety condition of the unincorporated roadway system. Improvements to be funded with bonds could include traffic signal installations, corrections of offset intersection, installation of left turn lanes, minor improvements to horizontal and vertical alignments to improve sight distance and maintain vehicle control, and similar types of specifically targeted safety projects. Safety projects will be proposed to the Board of Supervisors bi-annually to be funded from the sale of bonds. Specific projects will be selected by the Board for incorporation into the annual Capital Improvement Program.

Benefits: Previous Pima County General Obligation Bonds have included specific amounts targeted to safety improvements. These previous allocations have demonstrated substantial safety benefits. Fifty locations were improved with traffic safety bond funds authorized in the 1979 and 1980 bond elections. The overall accident reduction from both highway segment and intersection improvements was 26.3 percent (source "Evaluation of the Traffic Accident Experience of Completed Traffic Safety Projects Financed with 1979 and 1980 Bond Issue Funds" Traffic Engineering Division, Pima County Department of Transportation, February 1990).

Other Funding: ~~None proposed~~ \$1,690,000 (296,000 Fed STP)
(360,000 Impact Fees)
(438,000 Other)
(296,000 State Funds)
(300,000 Flood Control District)

Implementation Period: 1/2/3/4/5/6/7/8

Future Annual Operating &
Maintenance Costs: To be determined