Kimley»Horn

December 29, 2014

Mr. Christopher DePerro, AICP
Principal Planner, Infrastructure and Research
City of Phoenix Planning and Development Department,
200 West Washington Street, 5th Floor
Phoenix, AZ 85003

RE: Engineering/Consulting On-Call Services 2012-2014 Contract No. AS00133274
City of Phoenix Project No. ST893600185140449
Impact Fee Transportation Study
Final Deliverable

Dear Mr. Deperro:

Kimley-Horn is pleased to present the attached final versions of Figures A, B and C, and of Tables 1 through 28, that, together with this letter, serve as the agreed upon final deliverable associated with the Impact Fee Transportation Study completed by Kimley-Horn to support the City's inclusion of a major arterial street infrastructure improvement plan (IIP) and a major arterial street impact fee in the 2015 update of the City of Phoenix Infrastructure Financing Plan (IFP). Recognizing that the City-authored 2015 IFP discusses the purpose, need, legal considerations, and outcomes associated with re-allowing major arterial capacity improvements into the IFP, this letter does not repeat discussion of those topics; rather, this letter has been prepared, as specifically requested, to provide a brief overview of the purpose and content of the attached figures and tables.

The scope of this project has primarily revolved around a traffic impact analysis of 2015-2024 land use projections, for each of three separate and distinct "service" areas of the City. These three service areas are likely to see a significant amount of new development over the next ten years which, in turn, is likely to result in the need for capacity-increasing improvements to the major arterial streets that serve them.

Kimley-Horn has been retained to complete this analysis, among other reasons, to comply with the Arizona Revised Statute (ARS) §9-463.05 (the Development Fee statute), Sections E.1 through E.3, which require that "for each necessary public service that is the subject of a development fee", an existing service inventory, an existing level of service (LOS) analysis, and a description of additional service infrastructure necessary and attributable to new development in the service area, be prepared by qualified professionals licensed in this state, as applicable. Kimley-Horn has licensed professional engineers with significant expertise and recent experience in preparing transportation studies to support impact fee

programs across the U.S., as well as decades of experience working with the City of Phoenix and the local development community in evaluating and defining appropriate mitigation for the impacts of new development. Much of this work has been in conjunction with some of the most significant development that has occurred over the same time period, in the very areas Kimley-Horn has been asked to evaluate as part of the impact fee transportation study.

Service Area Figures

The areas Kimley-Horn has been asked to analyze are identified by the City, respectively, as the *Northwest/Deer Valley* service area; the *Northeast* service area; and the *Southwest* service area. The boundaries and major arterial streets (both existing and planned future segments) that characterize each of these service areas are conceptually depicted in **Figure A** (for the Northwest/Deer Valley service area); **Figure B** (for the Northeast service area); and **Figure C** (for the Southwest service area). Figures A, B and C also serve to distinguish between those major arterial segments that exist today in their ultimate condition; those segments that (either as incomplete or non-existent segments today) have been recommended for inclusion in the 2015-2024 IIP based on the results of this traffic impact analysis; and those segments that are not anticipated to be needed for capacity reasons based on current land use projections until sometime after 2024. These figures were provided to the City of Phoenix in November 2014 for inclusion in the 2015-2024 IFP.

Transportation Study Tables

Collectively, **Tables 1 through 28** provide the values, factors, relationships, and formulas developed by Kimley-Horn that the City of Phoenix utilized to reach the major arterial street Gross Impact Fee per Equivalent Demand Unit (EDU) for each service area, as indicated in Table 155 of the City's 2015 IFP. It should be noted that the outstanding developer credits and existing impact fee balances in Table 155 (values in third column and fourth column, respectively, of Table 155) were calculated independently by the City of Phoenix and are not addressed in this letter. The fee offsets and corresponding adjustments to impact fees in the City's 2015 IFP are also not addressed in this letter as they were calculated independently by the City of Phoenix. These tables were provided to the City of Phoenix in November 2014 for inclusion in the 2015-2024 IFP.

Table 1 presents the major arterial street standard of service evaluation criteria developed by Kimley-Horn in conjunction with City staff for use in the IIP. These criteria identify the capacity thresholds in terms of vehicles per day for various roadway cross-sections for the adopted standard of service, or level of service (LOS), which is LOS D. LOS D is defined as having a daily traffic volume-to-capacity (V/C) ratio in the range of 0.81-0.90. These criteria

are more highly refined than the general standards typically used by the City to account for the capacity impacts of different types of medians and lane configurations.

Table 2 presents the trip generation and traffic impact calculations for the various types of land uses projected for development within the 2015-2024 planning period. The assumed daily trip generation rates, new trip factors, and average trip lengths are used to calculate travel demand, which is expressed in vehicle-miles of travel. An EDU adjustment factor for travel demand of each land use has been developed by comparing the travel demand of single-family residential land use to the travel demand of the other land uses.

Table 3 provides a comparison of the EDU adjustment factors developed in Table 2 to the EDU adjustment factors developed in the prior version of the IFP. The values between the two sets of factors are relatively similar with the exception of the Office and Industrial land uses, which are lower in the 2015 IFP due to changes in the assumptions of what types of development are considered Office and Industrial land uses.

Tables 4 through 12 calculate the current total travel demand, 2015-2024 growth-generated travel demand, and overall 2024 travel demand on all streets in each of the three service areas that is generated by development internal to each service area, based on the values and factors developed in Table 2. It is important to note that this travel demand is for all streets – not just major arterial streets.

Tables 13 through 15 indicate the existing LOS and travel demand of each major arterial street segment in each of the three service areas. The existing LOS is based on the V/C ratio, which is calculated using existing traffic volumes (per available traffic count data) and street cross-section capacity per Table 1. The existing travel demand is calculated using existing traffic volumes and street segment length.

Table 16 presents the assumed roadway construction and right-of-way acquisition costs for various street segment cross-sections. This cost information was developed and provided by the City of Phoenix based on cost information from recent major arterial street improvement projects.

Tables 17 through 19 show the needed improvements for each of the three service areas to bring each existing major arterial street segment cross-section up to the ultimate planned cross-section for that segment per the City's current Street Classification Map. These tables also indicate which improvements are included in the 2015-2024 IIP and provide resultant construction and right-of-way costs, along with the resultant capacity increase, for those improvements.

Tables 20 through 22 apply only to the Northwest/Deer Valley service area. Table 20 compares the capacity increase to be achieved by the 2015-2014 IIP with the minimum and maximum capacity increase that will allow the Northwest/Deer Valley service area to maintain the adopted LOS D standard of service and not exceed the existing overall LOS. Table 21 calculates the proportionate share split of 2015-2024 growth in travel demand in the Northwest/Deer Valley service area that is attributable to existing service area development, pass-through traffic, and new service area development, respectively. Table 22 applies the new development proportionate share percentage calculated in Table 21 to the cost of the 2015-2024 IIP to calculate the improvement costs (as a total cost and on a per EDU cost basis) that apply to new development in the Northwest/Deer Valley service area.

Tables 23 through 28 present the same type of information as Tables 20 through 22, except that Tables 23 through 25 are for the Northeast service area and Tables 26 through 28 are for the Southwest service area.

Please contact Tové White at (602) 568-2721 or Michael Grandy at (480) 207-2662 should you have any questions regarding the content of this letter.

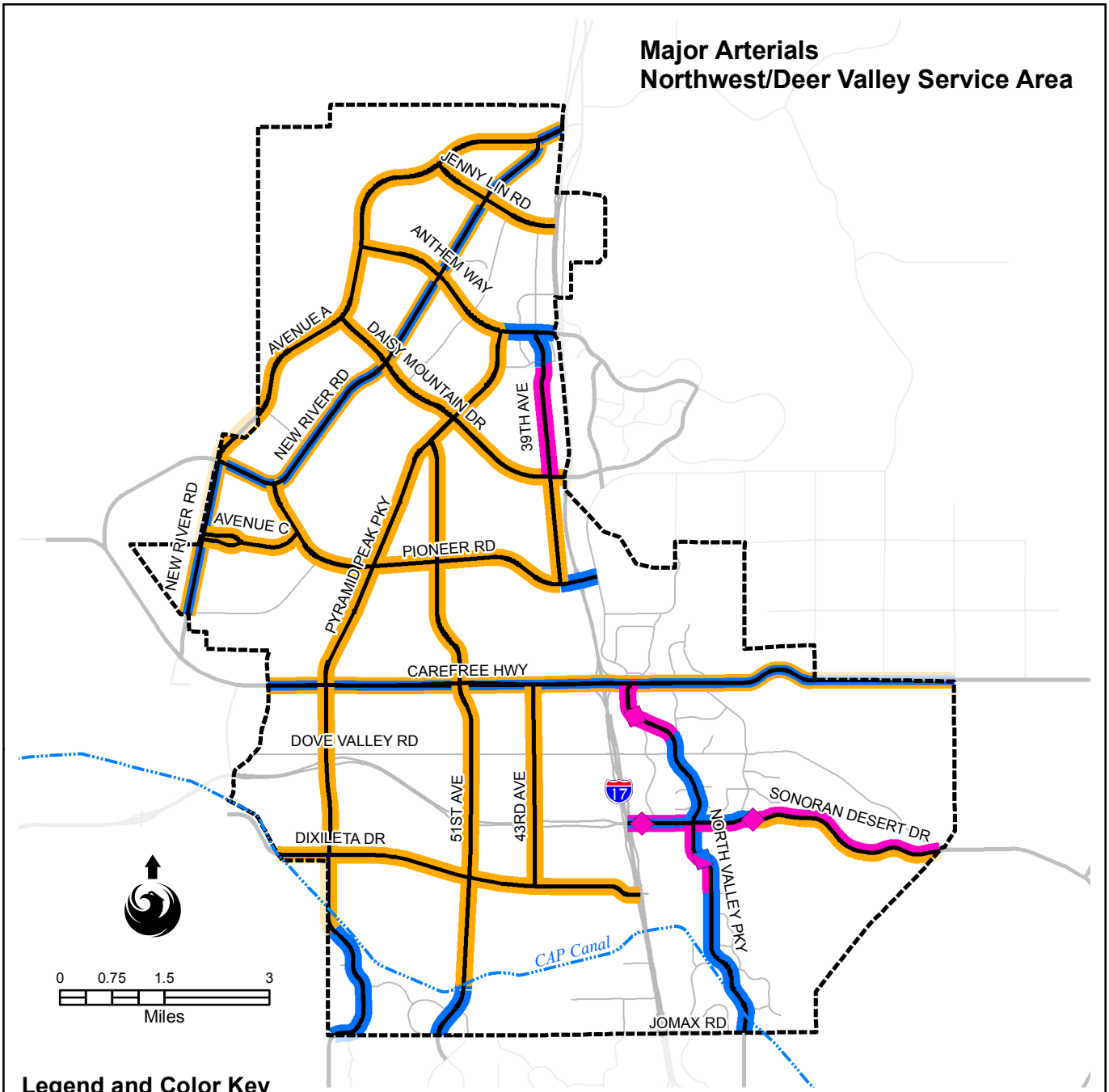
Sincerely,

Tové White, P.E.

Michael Grandy, P.E.

Attachments: Figures A, B, and C
Tables 1 through 28

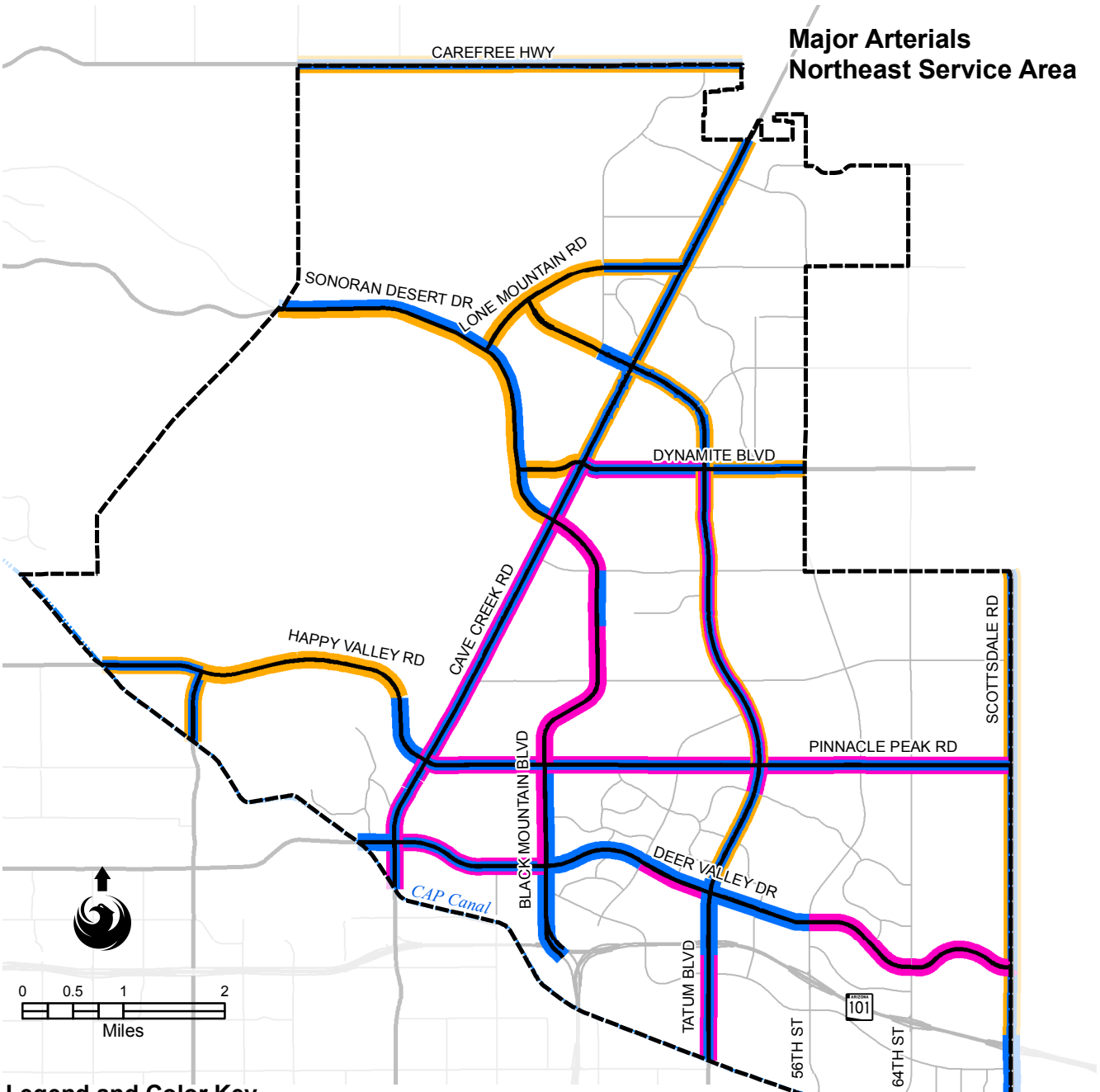
Figure A - Northwest/Deer Valley Service Area Major Arterials



Legend and Color Key

- Northwest/Deer Valley Service Area Boundary
- Designated as a Planned Major Arterial (MA) on current (City-adopted) Street Classification Map
- MA Segment is already fully improved; no further capacity improvements necessary
- MA Segment exists as a "1/2 Street"; **FINAL "1/2 STREET" IMPROVEMENTS IN 2015-2024 IIP**
- MA Segment is paved but not complete; **REMAINING FULL STREET IMPROVEMENTS IN 2015-2024 IIP**
- MA Segment does not yet exist; **FULL STREET IMPROVEMENTS IN 2015-2024 IIP**
- MA Segment is paved but not complete; **PARTIAL IMPROVEMENTS IN 2015-2024 IIP;** remaining improvements after 2024
- MA Segment does not yet exist; **INITIAL "1/2 STREET" IMPROVEMENTS IN 2015-2024 IIP;** remaining 1/2 beyond 2024
- MA Segment exists as a "1/2 Street"; 10 year growth projections don't support improvements until after 2024
- MA Segment is paved but not complete; 10 year growth projections don't support improvements until after 2024
- Future MA Segment; 10 year growth projections don't support improvements until after 2024
- **FULL OR 1/2" BRIDGE IMPROVEMENTS** (as colors indicate) **IN 2015-2024 IIP;** coloring scheme consistent with street segments

Figure B - Northeast Service Area Major Arterials



Legend and Color Key

- Northeast Service Area Boundary
- Designated as a Planned Major Arterial (MA) on current (City-adopted) Street Classification Map
- MA Segment is already fully improved; no further capacity improvements necessary
- MA Segment exists as a "1/2 Street"; **FINAL "1/2 STREET" IMPROVEMENTS IN 2015-2024 IIP**
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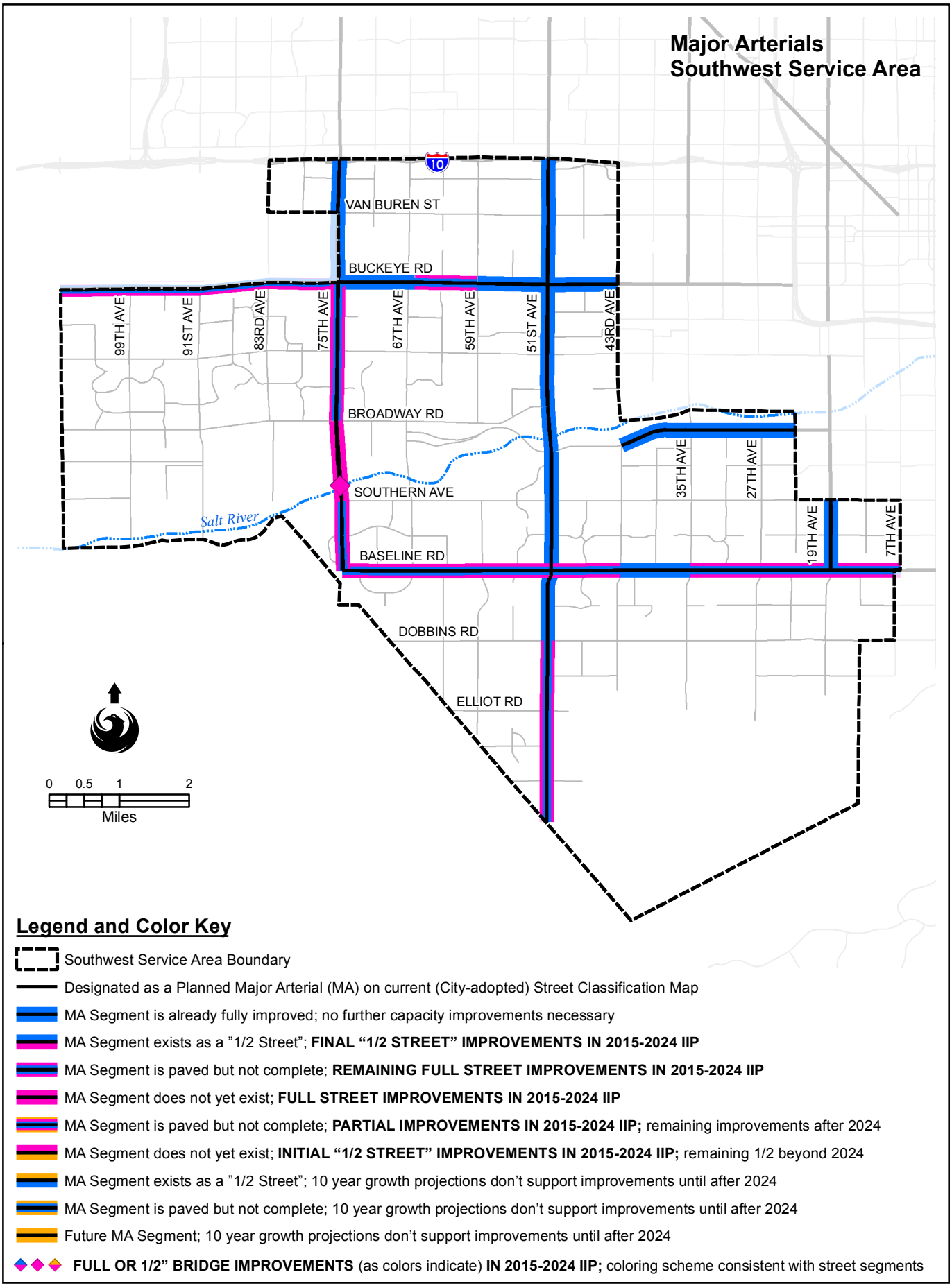
Figure C - Southwest Service Area Major Arterials



Legend and Color Key

- Southwest Service Area Boundary
- Designated as a Planned Major Arterial (MA) on current (City-adopted) Street Classification Map
- MA Segment is already fully improved; no further capacity improvements necessary
- MA Segment exists as a "1/2 Street"; **FINAL "1/2 STREET" IMPROVEMENTS IN 2015-2024 IIP**
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- **FULL OR 1/2" BRIDGE IMPROVEMENTS** (as colors indicate) **IN 2015-2024 IIP;** coloring scheme consistent with street segments

Table 1 - Expanded Definition of Major Arterial Street Adopted Standard of Service

Roadway Cross Section [1]		Standard City of Phoenix Street Cross Section Equivalent [3]	Roadway Capacity [4,5]					
			Total Capacity [6] (LOS E, V/C = 1.00)		Adopted Standard of Service Capacity Range - Low End (LOS D, V/C = 0.81)		Adopted Standard of Service Capacity [7] (LOS D, V/C = 0.90)	
MASIF Study Abbr. [2]	Distinguishing Features [1]		Maximum vehicles per day (veh/day)	Maximum vehicles per day per lane (veh/day/ln)	Minimum vehicles per day (veh/day)	Minimum vehicles per day per lane (veh/day/ln)	Maximum vehicles per day (veh/day)	Maximum vehicles per day per lane (veh/day/ln)
6 LD	3 thru lanes + left turn lane(s), in each direction (3 & 3). Opposing traffic flows separated by raised median.	A, B	55,000	9,167	44,550	7,425	49,500	8,250
5 LD	Same as 6LD, except only 2 thru lanes in one direction (3 & 2, rather than 3 & 3).	Non-Standard (N-S)	45,833	9,167	37,125	7,425	41,250	8,250
4 LD	2 thru lanes + left turn lane, in each direction (2 & 2). Opposing traffic flows separated by raised median.	CM	36,667	9,167	29,700	7,425	33,000	8,250
5 LU+	3 thru lanes in one direction; 2 in the other (3 & 2). Opposing traffic flows separated by a 2-way left turn lane.	N-S	43,542	8,708	35,269	7,054	39,188	7,838
4 LU+	2 thru lanes each direction (2 & 2). Opposing traffic flows separated by a 2-way left turn lane.	C, D	34,833	8,708	28,215	7,054	31,350	7,838
3 LU+	Same as 4LU+, except only 1 thru lane in one direction (2 & 1, rather than 2 & 2).	N-S	26,125	8,708	21,161	7,054	23,513	7,838
2 LU+	1 thru lane each direction. Opposing traffic flows separated by a 2-way left turn lane.	N-S	17,417	8,708	14,108	7,054	15,675	7,838
4 LU-	2 thru lanes each direction. Minimal to no separation between opposing traffic flows; left turns made from thru lanes.	N-S	27,500	6,875	22,275	5,569	24,750	6,188
2 LU-	1 thru lane each direction. Minimal to no separation between opposing traffic flows; left turns made from thru lanes.	N-S	13,750	6,875	11,138	5,569	12,375	6,188

1. *At full build-out, most of the City's major arterial streets will provide 3 thru lanes in each direction - 6 thru lanes in total; and a raised landscaped median ; the median providing both a physical barrier (or, "divider") between opposing traffic flows, and built-in separate left turn lanes. Major arterial street segments characterized by these features are designated as 6-lane divided, or "6LD" segments. City adopted/standard cross sections "A" (140' ROW, 24' median width), and "B" (130' ROW, 14' median width) are 6LD examples. While 6LDs are considered "standard" for major arterials, there are a significant number of partially-to-fully built out major arterials that provide fewer than 6 thru lanes, and that may or may not provide raised medians and/or separate left turn lanes. Because the three most significant factors in the calculation of roadway segment capacity are (1) the number of through lanes; (2) the existence or absence of a raised center median; and the existence or absence of separate left turn lanes, a separate and distinct set of capacity values has been established for each major arterial cross section variation observed to exist within the service areas under*
2. *MASIF stands for Major Arterial Streets Impact Fee.*
3. *Standard City of Phoenix Street cross sections referenced in the MASIF tables are shown on the City's Street Classification Map, 2010 revision; and in the City's Street Planning and Design Guidelines* , adopted in 2009. *The City's Street Planning and Design Guidelines define a "Street" as "a public way for vehicular, pedestrian and bicycle travel, including the entire right of way." The City defines a "Roadway" as "The portion of the highway, arterial, collector, or local street, including shoulders, intended for vehicle and/or bicycle use." This study focuses on roadway capacity specifically, as Major Arterial impact fees will not cover outside curb and gutter and will not cover any surface features behind/outside of the outside curb.*
4. *Roadway Capacity, in the context of this study, provides the necessary services of vehicular mobility and land use connectivity. The City's adopted standard of service for major arterial streets is Level of Service D during the weekday peak hour. In order to make use of traffic count data readily available from the City at the time this study was initiated (rather than invest time and money in collecting an equally complete set of peak hour count data), the City and Kimley-Horn agreed on a peak hour-to-daily traffic volume conversion approach to establishing the capacity values indicated in this table.*
5. *Sources used to establish the daily traffic volume capacity values in Table 1 include the following:* (1) City of Phoenix *Street Planning and Design Guidelines, 2009* ; (2) Florida Department of Transportation *Quality/Level of Service Handbook, 2013* ; (3) City of Phoenix *General Plan - Circulation Element, 2002; (4)* Maricopa County Department of Transportation (MCDOT) *Roadway Design Manual, 2013, Table 2.1 - Urban Rural Roadway Planning Level Traffic Volumes; and (5) a table (precise numeric reference unavailable at the time of this study) located within the Transportation Research Board, Highway Capacity Manual, 1994, entitled "LOS Criteria for Arterials Based on V/C Ratios".*
6. *Total capacity is defined for the purposes of this study, as the maximum amount of traffic that a major arterial designated street can carry under prevailing conditions of geometry, traffic mix and location. At this level of traffic demand, LOS D is not being provided, as the V/C ratio associated with an "at capacity" condition exceeds the LOS D maximum of 0.90.*
7. *Adopted standard of service capacity (interchangeably referenced in this document as "effective capacity") is defined as the maximum amount of traffic for which a major arterial of given cross section and lane configuration can provide LOS D, under the same prevailing conditions as cited in Note 6.*

Table 2 - Trip Generation, Traffic Impact, and Equivalent Demand Unit (EDU) Calculations

Land Use	Development Units	Trip Generation Calculations								Traffic Impact Calculations			
		Total Trip Rates		% Primary Trips	PM Pk Hr Trip End Split			Adjusted Trip Rates		Avg Trip Length (mi)	Travel Demand (VMT)		EDU Factor
		Daily (veh/day)	PM Pk Hr (veh/hr)		In (Include)	Out to External (Include)	Out to Internal (Exclude)	PM Pk Hr (veh/hr)	Daily (veh/day)		PM Pk Hr (veh-mi)	Daily (veh-mi)	
Single-Family Res (ITE LUC 210)	DWU	9.52	1.00	86%	63%	2%	35%	0.56	5.31	11.64	6.49	61.80	**1.00**
Multi-Family Res (ITE LUC 220)	DWU	6.65	0.62	86%	65%	0%	35%	0.35	3.72	11.64	4.03	43.27	**0.70**
Comm/Retail (ITE LUC 820)	KSF	42.70	5.50	56%	48%	8%	44%	1.72	13.34	6.35	10.91	84.72	**1.37**
Office (ITE LUC 710)	KSF	11.03	1.49	100%	17%	33%	50%	0.75	5.54	7.02	5.25	38.88	**0.63**
Industrial (ITE LUC 110)	KSF	6.97	0.97	100%	12%	44%	44%	0.54	3.90	7.02	3.81	27.41	**0.44**
Public/Inst (ITE LUC 610)	KSF	13.22	0.93	80%	38%	12%	50%	0.37	5.33	7.02	2.63	37.43	**0.61**

1. ITE LUC = Institute of Transportation Engineers (ITE) *Trip Generation, 9th Ed.* Land Use Code (LUC). ITE is the source of all unadjusted trip generation rates used in this study.
2. Units of measure used specifically for the purposes of trip generation and impact fee calculations presented in this transportation study, include "DWU" (Residential Dwelling Unit), and "KSF" (1,000 square feet)
3. Pk Hr = Peak Hour
4. VMT = Vehicle miles traveled; a common unit of measure used to express development-generated demand for major arterial-provided capacity. One vehicle using one mile of service area major arterial to complete a trip (the rest of the trip being made using roadway facilities other than major arterials and/or facilities located external to the service area) is equal to one vehicle-mile of service area major arterial demand. Note also that the travel demand values indicated in this table include all travel demand generated during the given time period, including but not exclusive, to that portion of the demand that occurs on major arterial streets internal to the network. Net travel demand values are needed to calculate reasonable impact fees. The information and methodology necessary to calculate net demand values is provided in subsequent transportation study tables.
5. EDU = Equivalent Demand Unit; the number of single family residential DWU trips it would take to cause the same travel demand impact of a single development unit of any other type.
6. Units of measure used specifically for the purposes of trip generation and impact fee calculations presented in this transportation study include "veh" (vehicles) and "mi" (miles).
7. Average trip distance values were derived from *Table 30 - Daily Travel Statistics by Weekday vs. Weekend* , of the National Household Travel Survey (NHTS), 2009 Update.
8. Trip End = A term used to recognize that a single trip made from one land use to another, is considered both an inbound trip generated by (i.e. attracted to) the land use defining the trip's termination point; and an outbound trip generated (i.e. produced) by the trips origination point. These two trip ends only impact the travel route between them, one time. To account for this (commonly referred to as "avoiding double counting"), it is necessary to discount those outbound/production trips that terminate internal to the service area. Production trips that terminate outside the service area should not be discounted, as they will not have been also recognized as an inbound trip for other development internal to the service area.

Table 3 - EDU Adjustment Factor Comparison

Land Use	EDU Adjustment Factor	
	Current (Prior IFP)	Proposed (2015-2024)
Single-Family Res	1.00	1.00
Multi-Family Res	0.69	0.70
Comm/Retail	1.53	1.37
Office	1.05	0.63
Industrial	1.49	0.44
Public/Inst	0.53	0.61

Table 4 - Existing/2014 NW/DV Svc Area Development-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	12,191	12,191	64,727	11.64	753,434
Multi-Family Res	2,601	1,821	9,669	11.64	112,547
Comm/Retail	1,450	1,987	19,347	6.35	122,839
Office	256	161	1,417	7.02	9,954
Industrial	643	283	2,510	7.02	17,625
Public/Inst	417	254	2,223	7.02	15,609
Service Area Totals		**16,697**	**99,893**	**10.33**	**1,032,009**

Table 5 - 2015-2024 NW/DV Svc Area Growth-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	10,559	10,559	56,062	11.64	652,572
Multi-Family Res	3,540	2,478	13,159	11.64	153,178
Comm/Retail	681	933	9,087	6.35	57,692
Office	682	430	3,776	7.02	26,519
Industrial	754	332	2,943	7.02	20,668
Public/Inst	0	0	0	7.02	0
Service Area Totals		**14,731**	**85,027**	**10.71**	**910,629**

Table 6 - 2024 NW/DV Svc Area Development-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	22,750	22,750	120,789	11.64	1,406,006
Multi-Family Res	6,141	4,299	22,828	11.64	265,725
Comm/Retail	2,131	2,919	28,434	6.35	180,531
Office	938	591	5,194	7.02	36,474
Industrial	1,397	615	5,453	7.02	38,293
Public/Inst	417	254	2,223	7.02	15,609
Service Area Totals		**31,428**	**184,920**	**10.51**	**1,942,639**

Table 7 - Existing/2014 NE Svc Area Development-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	14,672	14,672	77,900	11.64	906,766
Multi-Family Res	4,127	2,889	15,342	11.64	178,578
Comm/Retail	5,210	7,138	69,516	6.35	441,374
Office	2,708	1,706	14,994	7.02	105,299
Industrial	1,319	580	5,148	7.02	36,155
Public/Inst	1,643	1,002	8,758	7.02	61,502
Service Area Totals		**27,987**	**191,658**	**9.02**	**1,729,674**

Table 8 - 2015-2024 NE Svc Area Growth-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	15,821	15,821	84,000	11.64	977,777
Multi-Family Res	4,755	3,329	17,676	11.64	205,752
Comm/Retail	2,384	3,266	31,809	6.35	201,965
Office	1,136	716	6,290	7.02	44,173
Industrial	754	332	2,943	7.02	20,668
Public/Inst	996	608	5,309	7.02	37,283
Service Area Totals		**24,071**	**148,028**	**10.05**	**1,487,617**

Table 9 - 2024 NE Svc Area Development-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	30,493	30,493	161,900	11.64	1,884,543
Multi-Family Res	8,882	6,217	33,018	11.64	384,330
Comm/Retail	7,594	10,404	101,326	6.35	643,339
Office	3,844	2,422	21,284	7.02	149,472
Industrial	2,073	912	8,091	7.02	56,822
Public/Inst	2,639	1,610	14,067	7.02	98,785
Service Area Totals		**52,058**	**339,685**	**9.47**	**3,217,291**

Table 10 - Existing/2014 SW Svc Area Development-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	34,335	34,335	182,298	11.64	2,121,988
Multi-Family Res	2,374	1,662	8,825	11.64	102,725
Comm/Retail	3,776	5,173	50,383	6.35	319,890
Office	1,355	854	7,503	7.02	52,689
Industrial	39,616	17,431	154,629	7.02	1,085,899
Public/Inst	6,237	3,805	33,245	7.02	233,467
Service Area Totals		**63,259**	**436,883**	**8.97**	**3,916,657**

Table 11 - 2015-2024 SW Svc Area Growth-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	26,380	26,380	140,062	11.64	1,630,349
Multi-Family Res	1,624	1,137	6,037	11.64	70,272
Comm/Retail	1,362	1,866	18,178	6.35	115,418
Office	227	143	1,259	7.02	8,838
Industrial	9,052	3,983	35,333	7.02	248,126
Public/Inst	1,657	1,011	8,832	7.02	62,026
Service Area Totals		**34,520**	**209,701**	**10.18**	**2,135,029**

Table 12 - 2024 SW Svc Area Development-Generated Travel Demand

Land Use	Development Units	Equivalent Demand Units, "EDU"	Total Daily Trips (veh/day)	Average Total Distance per Trip (mi)	Total "All Streets" Travel Demand (veh-mi/day)
Single-Family Res	60,715	60,715	322,360	11.64	3,752,337
Multi-Family Res	3,998	2,799	14,862	11.64	172,996
Comm/Retail	5,138	7,040	68,561	6.35	435,308
Office	1,582	997	8,761	7.02	61,527
Industrial	48,668	21,414	189,962	7.02	1,334,025
Public/Inst	7,894	4,815	42,077	7.02	295,493
Service Area Totals		**97,779**	**646,584**	**9.36**	**6,051,687**

Table 13 - 2014 Major Arterial Street Inventory & Level of Service Analysis - NW/DV Service Area

	Planned Major Arterial Street Segment	Ultimate Length, "L_{Ult}" (miles)	Existing Length, "L_{2014}" (miles)	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{Ult}$"	Existing Lane Config, "$LCON_{2014}$"	Ultimate Capacity, "VMC_{Ult}" (veh-miles)	Existing Capacity, "VMC_{2014}" (veh-miles)	Existing Segments with Traffic Counts (Only)				Existing Level of Service, "LOS_{2014}"
									Counted Segment Capacity, "$VMC_{2014\text{-}C}$" (veh-miles)	Counted Segment Volume, "$V_{2014\text{-}C}$" (veh)	Counted Segment Demand, "$VMT_{2014\text{-}C}$" (veh-miles)	Demand-to-Capacity Ratio, "$\frac{VMT_{2014}}{VMC_{2014}}$"	
39th Ave/Vision Way (39A), Pioneer Rd to Anthem Way													
39A	Pioneer Road to Daisy Mtn Rd	1.35	0.00	C	4LU+	DNE	47,025	0	0	0	DNE	DNE	0
39A	Daisy Mtn Rd to 2640' S/O Anthem Way	2.46	0.00	C	4LU+	DNE	85,690	0	0	0	DNE	DNE	0
39A	2640' south to Anthem Way	0.50	0.50	C	4LU+	4LU+	17,417	17,417	0	NA	NA	NA	NA
43rd Ave (43A), Dixileta Dr to Carefree Hwy													
43A	Dixileta Dr to Dove Valley Rd	1.89	0.00	A	6LD	DNE	103,950	0	0	0	DNE	DNE	0
43A	Dove Valley Rd to Carefree Hwy	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
51st Ave (51A), Inspiration Pkwy (Jomax Rd align.) to Pioneer Pkwy													
51A	Jomax Rd to CAP	0.83	0.83	A	6LD	4LD	45,650	30,433	30,433	2,962	2,458	0.08	A/B
51A	CAP to Dixileta Dr	1.57	0.00	A	6LD	DNE	86,350	0	0	0	DNE	DNE	0
51A	Dixileta Dr to Dove Valley Rd	1.76	0.00	A	6LD	DNE	96,800	0	0	0	DNE	DNE	0
51A	Dove Valley Rd to Carefree Hwy	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
51A	Carefree Hwy to Pioneer Rd	2.00	0.00	A	6LD	DNE	110,000	0	0	0	DNE	DNE	0
51A	Pioneer Rd to Pyramid Peak Pkwy	1.83	0.00	A	6LD	DNE	100,650	0	0	0	DNE	DNE	0
Anthem Way (ANT), Avenue A to I-17													
ANT	Avenue A to New River Rd	1.16	0.00	B	6LD	DNE	63,800	0	0	0	DNE	DNE	0
ANT	New River Rd to Avenue B	0.67	0.00	B	6LD	DNE	36,850	0	0	0	DNE	DNE	0
ANT	Avenue B to Pyramid Peak Pkwy	0.67	0.00	B	6LD	DNE	36,850	0	0	0	DNE	DNE	0
ANT	Pyramid Peak Pkwy to 43rd Ave	0.50	0.39	B	6LD	4LD	27,500	14,300	14,300	17,292	6,744	0.47	A/B
ANT	43rd Ave to I-17	0.31	0.31	B	6LD	4LD	17,050	11,367	11,367	17,292	5,361	0.47	A/B
Avenue A (AVA), Desert Hills Dr (@ west limit of fee area) to New River Rd (at north limit of fee area)													
AVA	New River Rd to Desert Hills Dr	0.00	0.00	B	DNE	DNE	0	0	0	0	DNE	DNE	0
AVA	Desert Hills Dr to Anthem Wy	2.99	0.00	B	6LD	DNE	164,450	0	0	0	DNE	DNE	0
AVA	Anthem Wy to Jenny Lin Rd	2.00	0.00	B	6LD	DNE	110,000	0	0	0	DNE	DNE	0
AVA	Jenny Lin Rd to New River Rd	1.33	0.00	B	6LD	DNE	73,150	0	0	0	DNE	DNE	0
Avenue C (AVC), New River Rd to Pioneer Rd													
AVC	New River Rd to Pioneer Rd	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
Carefree Hwy (CFH), west limit of fee area (@ +/- 73rd Ave align.) to "B" Avenue													
CFH	West limit of fee area to 67th Ave	0.83	0.83	A	6LD	2LU-	45,650	11,413	0	NA	NA	NA	NA
CFH	67th Ave to 51st Ave	2.08	2.08	A	6LD	2LU-	114,400	28,600	28,600	12,354	25,696	0.90	D
CFH	51st Ave to 43rd Ave	0.87	0.87	A	6LD	2LU-	47,850	11,963	11,963	10,046	8,740	0.73	C
CFH	43rd Ave to I-17	1.00	1.00	A	6LD	2LU-	55,000	13,750	13,750	5,998	5,998	0.44	A/B
CFH	I-17 to North Valley Pkwy	0.36	0.36	A	6LD	5LD	19,800	16,500	16,500	33,195	11,950	0.72	C
CFH	North Valley Pkwy to "B" Ave	1.11	1.11	A	6LD	5LD	61,050	50,875	50,875	24,377	27,058	0.53	A/B
Carefree Hwy (CFH), south half only, 7th Ave to east limit of fee area													
CFH	7th Ave to 645' W/O 7th St	1.16	1.16	A	6LD-½	4LD-½	31,900	21,267	21,267	10,862	12,600	0.59	A/B
CFH	645' W/O 7th St to 7th St	0.11	0.11	A	6LD-½	4LD-½	3,025	2,017	2,017	10,862	1,195	0.59	A/B
CFH	7th St to east limit of fee area (@ +/- 16th St align.)	0.60	0.60	A	6LD-½	4LD-½	16,500	11,000	11,000	8,956	5,374	0.49	A/B
Daisy Mountain Dr (DSY), west limit of fee area (@ Avenue A) to I-17													
DSY	Avenue A to New River Rd	1.17	0.00	A	6LD	DNE	64,350	0	0	0	DNE	DNE	0
DSY	New River Rd to Avenue B	0.50	0.00	A	6LD	DNE	27,500	0	0	0	DNE	DNE	0
DSY	Avenue B to Pyramid Peak Pkwy	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
DSY	Pyramid Peak Pkwy to 39th Ave	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
DSY	39th Ave to I-17	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
Dixileta Dr (DXD), CAP (@ +/- 73rd Ave align.) to I-17													
DXD	CAP to 67th Ave	0.72	0.00	A	6LD	DNE	39,600	0	0	0	DNE	DNE	0
DXD	67th Ave to 51st Ave	2.05	0.00	A	6LD	DNE	112,750	0	0	0	DNE	DNE	0
DXD	51st Ave to I-17	2.50	0.00	A	6LD	DNE	137,500	0	0	0	DNE	DNE	0
Jenny Lin Rd (JLN), Avenue A to I-17													
JLN	Avenue A to New River Rd	0.83	0.00	A	6LD	DNE	45,650	0	0	0	DNE	DNE	0
JLN	New River Rd to I-17	1.12	0.00	A	6LD	DNE	61,600	0	0	0	DNE	DNE	0
New River Rd (NRV), Cloud Rd to I-17 (north of Jenny Lin Rd)													
NRV	Cloud Rd to Avenue C	1.00	0.00	B	6LD	DNE	55,000	0	0	0	DNE	DNE	0
NRV	Avenue C to Avenue A	1.00	0.00	B	6LD	DNE	55,000	0	0	0	DNE	DNE	0
NRV	Avenue A to Pioneer Rd	0.83	0.83	A	6LD	2LU-	45,650	11,413	0	NA	NA	NA	NA
NRV	Pioneer Rd to Desert Hills Dr	0.67	0.67	A	6LD	2LU-	36,850	9,213	0	NA	NA	NA	NA
NRV	Desert Hills Dr to Daisy Mtn Dr	1.67	1.67	A	6LD	2LU-	91,850	22,963	0	NA	NA	NA	NA
NRV	Daisy Mtn Dr to Anthem Wy	1.50	1.50	A	6LD	2LU-	82,500	20,625	0	NA	NA	NA	NA
NRV	Anthem Wy to Jenny Lin Rd	0.83	0.83	A	6LD	2LU-	45,650	11,413	0	NA	NA	NA	NA
NRV	Jenny Lin Rd to I-17	1.50	1.06	A	6LD	2LU-	82,500	14,575	0	NA	NA	NA	NA
North Valley Pkwy (NVP), CAP to Carefree Hwy													
NVP	Jomax Rd to 500' s/o CAP	0.15	0.15	A	6LD	4LU+	8,250	5,225	5,225	14,377	2,157	0.41	A/B
NVP	500' S/O CAP to CAP	0.10	0.10	A	6LD	5LD	5,500	4,583	4,583	14,377	1,438	0.31	A/B
NVP	CAP to Quail Track Dr	0.12	0.12	A	6LD	5LD	6,600	5,500	5,500	14,377	1,725	0.31	A/B
NVP	Quail Track Dr to Copperhead Tr	0.58	0.58	A	6LD	2LU-	31,875	7,969	7,969	14,377	8,332	1.05	F
NVP	Copperhead Tr to 660' n/o Casino Ave	0.61	0.61	A	6LD	5LD	33,802	28,168	28,168	14,377	8,836	0.31	A/B
NVP	660' n/o Casino Ave to Dixileta Dr	0.64	0.64	A	6LD	4LD	35,000	23,333	23,333	11,980	7,624	0.33	A/B
NVP	Dixileta Dr to Sonoran Desert Dr	1.11	1.11	A	6LD	2LU+	61,050	19,333	19,333	12,422	13,788	0.71	C
NVP	Sonoran Desert Dr to Dove Valley Rd	1.12	1.12	A	6LD	4LD	61,600	41,067	41,067	10,600	11,872	0.29	A/B
NVP	Dove Valley Rd to 27th Dr	0.26	0.26	A	6LD	4LD	14,300	9,533	9,533	10,600	2,756	0.29	A/B
NVP	27th Dr to exist. north end of road	0.41	0.41	A	6LD	4LD	22,781	15,188	15,188	10,600	4,391	0.29	A/B
NVP	Exist. North end of road to Carefree Hwy	0.59	0.00	A	6LD	DNE	32,188	0	0	0	DNE	DNE	0
Pioneer Rd (PIO), New River Rd to I-17													
PIO	New River Rd to Avenue C	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
PIO	Avenue C to Cloud Rd	0.50	0.00	A	6LD	DNE	27,500	0	0	0	DNE	DNE	0
PIO	Cloud Rd to Pyramid Peak Pkwy	0.76	0.00	A	6LD	DNE	41,800	0	0	0	DNE	DNE	0
PIO	Pyramid Peak Pkwy to 51st Ave	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
PIO	51st Ave to 39th Ave	2.00	0.00	A	6LD	DNE	110,000	0	0	0	DNE	DNE	0
PIO	39th Ave to I-17	0.33	0.33	A	6LD	2LU-	18,150	4,538	0	NA	NA	NA	NA
Pyramid Peak Pkwy (PYR), southwest corner of fee area (@ +/-67th Ave & Jomax Rd) to Anthem Wy													
PYR	SW Limit of fee area to 64th Ave	0.18	0.18	B	6LD	4LD	9,900	6,600	6,600	14,332	2,580	0.39	A/B
PYR	64th Ave to Cavedale Dr	0.13	0.13	B	6LD	4LD	7,150	4,767	4,767	9,636	1,253	0.26	A/B
PYR	Cavedale Dr to 400' n/o Maya Wy	0.20	0.20	B	6LD	4LD	11,000	7,333	7,333	9,636	1,927	0.26	A/B
PYR	410' North of Maya Wy to 190' s/o of Bent Tree Dr	0.29	0.29	B	6LD	4LD	15,950	10,633	10,633	9,636	2,794	0.26	A/B
PYR	190' s/o Bent Tree Dr to Dynamite Blvd	0.50	0.50	B	6LD	4LD	27,500	18,333	18,333	9,636	4,818	0.26	A/B
PYR	Dynamite Blvd to Brookhart Wy	0.23	0.23	B	6LD	4LD	12,650	8,433	8,433	14,332	3,296	0.39	A/B
PYR	CAP to Dixileta	0.77	0.00	B	6LD	DNE	42,350	0	0	0	DNE	DNE	0
PYR	Dixileta Dr to Dove Valley Rd	1.44	0.00	B	6LD	DNE	79,200	0	0	0	DNE	DNE	0

Table 13 - 2014 Major Arterial Street Inventory & Level of Service Analysis - NW/DV Service Area

Planned Major Arterial Street Segment		Ultimate Length, "L_{Ult}" (miles)	Existing Length, "L_{2014}" (miles)	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{Ult}$"	Existing Lane Config, "$LCON_{2014}$"	Ultimate Capacity, "VMC_{Ult}" (veh-miles)	Existing Capacity, "VMC_{2014}" (veh-miles)	Existing Segments with Traffic Counts (Only)				Existing Level of Service, "LOS_{2014}"
									Counted Segment Capacity, "$VMC_{2014\text{-}C}$" (veh-miles)	Counted Segment Volume, "$V_{2014\text{-}C}$" (veh)	Counted Segment Demand, "$VMT_{2014\text{-}C}$" (veh-miles)	Demand-to-Capacity Ratio, "$\frac{VMT_{2014}}{VMC_{2014}}$"	
PYR	Dove Valley Rd to Carefree Hwy	0.98	0.00	B	6LD	DNE	53,900	0	0	0	DNE	DNE	0
PYR	Carefree Hwy to Pioneer Rd	3.24	0.00	B	6LD	DNE	178,200	0	0	0	DNE	DNE	0
PYR	Pioneer Rd to 51st Ave	2.33	0.00	B	6LD	DNE	128,150	0	0	0	DNE	DNE	0
PYR	51st Ave to Daisy Mtn Dr	0.50	0.00	B	6LD	DNE	27,500	0	0	0	DNE	DNE	0
PYR	Daisy Mtn Dr to Anthem Wy	1.50	0.00	B	6LD	DNE	82,500	0	0	0	DNE	DNE	0
Sonoran Desert Dr (SDD), I-17 to east limit of fee area (@ +/- 16th St align.)													
SDD	I-17 to North Valley Pkwy	1.02	1.02	A	6LD	4LD-1/2	56,100	18,700	0	NA	NA	NA	NA
SDD	North Valley Pkwy to 2530' e/o North Valley Pkwy	0.48	0.48	A	6LD	2LU+	26,354	8,345	8,345	1,837	880	0.11	A/B
SDD	2,530' to 2,950' e/o North Valley Pkwy	0.08	0.08	A	6LD	2LU+	4,375	1,385	1,385	1,837	146	0.11	A/B
SDD	2,950' e/o North Valley Pkwy to Paloma Pkwy	0.11	0.11	A	6LD	2LU+	6,250	1,979	1,979	1,837	209	0.11	A/B
SDD	Paloma Pkwy to 3600' e/o Paloma Pkwy	0.68	0.00	A	6LD	DNE	37,400	0	0	0	DNE	DNE	0
SDD	3600' e/o Paloma Pkwy to east limit of fee area	2.25	0.00	A	6LD	DNE	123,750	0	0	0	DNE	DNE	0
Total, Northwest/Deer Valley Service Area		**85.88**	**26.07**				**4,585,182**	**594,238**	**451,971**	**369,334**	**204,028**	**0.45**	**A/B**

Existing Service Rate (VMC/VMT_{2014})	2.22

Table 14 - 2014 Major Arterial Street Inventory & Level of Service Analysis - NE Service Area

	Planned Major Arterial Street Segment	Ultimate Length, "L_{Ult}" (miles)	Existing Length, "L_{2014}" (miles)	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{Ult}$"	Existing Lane Config, "$LCON_{2014}$"	Ultimate Capacity, "VMC_{Ult}" (veh-miles)	Existing Capacity, "VMC_{2014}" (veh-miles)	Existing Segments with Traffic Counts (Only)				Existing Level of Service, "LOS_{2014}"
									Counted Segment Capacity, "$VMC_{2014\text{-}C}$" (veh-miles)	Counted Segment Volume, "$V_{2014\text{-}C}$" (veh)	Counted Segment Demand, "$VMT_{2014\text{-}C}$" (veh-miles)	Demand-to-Capacity Ratio, "$\frac{VMT_{2014}}{VMC_{2014}}$"	
7th St (7S), CAP to Happy Valley Rd													
7S	CAP to Happy Valley Rd	0.71	0.71	A	6LD	2LU-	39,050	9,763	9,763	9,451	6,710	0.69	A/B
Black Mountain Blvd (BMB), SR 101 to Cave Creek Rd													
BMB	SR 101 to Mayo Blvd	0.23	0.23	A	6LD	6LD	12,650	12,650	0	NA	NA	NA	NA
BMB	Mayo Blvd to Deer Valley Rd	0.24	0.24	A	6LD	6LD	13,200	13,200	0	NA	NA	NA	NA
BMB	Deer Valley Rd to Rough Rider Rd	0.50	0.50	A	6LD	2LU-	27,500	6,875	0	NA	NA	NA	NA
BMB	Rough Rider Rd to Pinnacle Peak Rd	0.50	0.50	A	6LD	2LU-	27,500	6,875	0	NA	NA	NA	NA
BMB	Pinnacle Peak Rd to Happy Valley Rd	1.08	0.00	A	6LD	DNE	59,400	0	0	0	DNE	DNE	0
BMB	Happy Valley Rd to 885' S/O Briles Rd	0.67	0.00	A	6LD	DNE	36,850	0	0	0	DNE	DNE	0
BMB	885' S/O Briles Rd to Jomax Rd	0.42	0.42	A	6LD	2LU-	23,100	5,775	0	NA	NA	NA	NA
BMB	Jomax Rd to Cave Creek Rd	0.68	0.00	A	6LD	DNE	37,400	0	0	0	DNE	DNE	0
Cave Creek Rd (CAV), CAP to North City limits						DNE							
CAV	CAP to Deer Valley Rd	0.48	0.48	B	6LD	5LD	26,400	22,000	22,000	43,235	20,753	0.94	E
CAV	Deer Valley Rd to Cielo Grande Ave	0.89	0.89	B	6LD	5LD	48,950	40,792	40,792	38,577	34,334	0.84	D
CAV	Cielo Grande Ave to 835' N/O Cielo Grande Ave	0.16	0.16	B	6LD	5LD	8,800	7,333	7,333	38,577	6,172	0.84	D
CAV	835' N/O Cielo Grande to 405' S/O Pinnacle	0.14	0.14	B	6LD	5LD	7,700	6,417	6,417	38,577	5,401	0.84	D
CAV	405' S/O Pinnacle Peak to Pinnacle Peak Rd	0.08	0.08	B	6LD	5LD	4,400	3,667	3,667	38,577	3,086	0.84	D
CAV	Pinnacle Peak Rd to HVR alignment	1.10	1.10	B	6LD	5LD	60,500	50,417	50,417	29,682	32,650	0.65	A/B
CAV	HVR alignment to 2400' so of Jomax Rd	0.57	0.57	B	6LD	4LD	31,350	20,900	20,900	29,682	16,919	0.81	D
CAV	2400' so of Jomax Rd to Jomax Rd	0.45	0.45	B	6LD	4LD	24,750	16,500	16,500	29,682	13,357	0.81	D
CAV	Jomax Rd to Black Mtn Pky	0.40	0.40	B	6LD	4LD	22,000	14,667	14,667	30,064	12,026	0.82	D
CAV	Black Mtn Pky to Dynamite Blvd	0.75	0.75	B	6LD	4LD	41,250	27,500	27,500	30,064	22,548	0.82	D
CAV	Dynamite Blvd to 290' N/O Peak View Rd	0.43	0.43	B	6LD	4LD	23,650	15,767	15,767	33,647	14,468	0.92	E
CAV	290' N/O Peak View Rd to Tatum Blvd	0.53	0.53	B	6LD	4LD	29,150	19,433	19,433	33,647	17,833	0.92	E
CAV	Tatum Blvd to Desert Willow Pky	0.85	0.85	B	6LD	4LD	46,750	31,167	31,167	40,213	34,181	1.10	F
CAV	Desert Willow Pky to Lone Mtn Rd	0.25	0.25	B	6LD	4LD	13,750	9,167	9,167	40,213	10,053	1.10	F
CAV	Lone Mtn Rd to 925' N/O Lone Mtn Rd	0.18	0.18	B	6LD	4LD	9,900	6,600	6,600	40,213	7,238	1.10	F
CAV	925' N/O Lone Mtn Rd to Ashler Hills Dr	0.39	0.39	B	6LD	4LD	21,450	14,300	14,300	25,905	10,103	0.71	C
CAV	Ashler Hills Dr to Ocupado Dr	0.26	0.26	B	6LD	4LD	14,300	9,533	9,533	25,905	6,735	0.71	C
CAV	Ocupado Dr to Rancho Paloma	0.18	0.18	B	6LD	4LD	9,900	6,600	6,600	25,905	4,663	0.71	C
CAV	Rancho Paloma to 300' S/O Smokehouse Trl	0.40	0.40	B	6LD	4LD	22,000	14,667	14,667	25,905	10,362	0.71	C
CAV	300' S/O Smokehouse Trl to City Limits	0.21	0.21	B	6LD	4LD	11,550	7,700	7,700	25,905	5,440	0.71	C
Carefree Hwy (CFH), south half (eastbound lanes) only													
CFH	16th St to 42nd St	3.25	3.25	A	6LD-1/2	4LD-1/2	89,375	59,583	59,583	*10,230*	33,248	0.56	A/B
CFH	42nd St to 1,600' West of Black Mountain Blvd	0.76	0.76	A	6LD-1/2	4LD-1/2	20,900	13,933	13,933	*11,495*	8,736	0.63	A/B
CFH	1600' West of Black Mtn Blvd to E limit of Fee	0.25	0.25	A	6LD-1/2	6LD-1/2	6,875	6,875	6,875	*11,495*	2,874	0.42	A/B
Deer Valley RD (DEE), Cave Creek Rd to Scottsdale Rd													
DEE	CAP to Cave Creek Rd	0.37	0.37	B	6LD	6LD	20,350	20,350	20,350	23,147	8,564	0.42	A/B
DEE	Cave Creek Rd to 28th St	0.58	0.58	B	6LD	2LU+	31,900	10,102	10,102	12,954	7,513	0.74	C
DEE	28th St to Black Mtn Pky	1.00	1.00	B	6LD	2LU+	55,000	17,417	17,417	12,954	12,954	0.74	C
DEE	Black Mtn Pky to 40th St	1.00	1.00	A	6LD	6LD	55,000	55,000	55,000	23,997	23,997	0.44	A/B
DEE	40th St to Tatum Blvd	0.74	0.74	A	6LD	4LU+	40,700	25,777	25,777	23,997	17,758	0.69	A/B
DEE	Tatum Blvd to Marriott Dr	0.49	0.49	A	6LD	6LD	26,950	26,950	26,950	16,494	8,082	0.30	A/B
DEE	Marriott Dr to 56th St	0.54	0.54	A	6LD	6LD	29,700	29,700	29,700	18,833	10,170	0.34	A/B
DEE	56th St to 64th St	1.17	0.00	A	6LD	DNE	64,350	0	0	0	DNE	DNE	0
DEE	64th St to Scottsdale Rd	1.09	0.00	A	6LD	DNE	59,950	0	0	0	DNE	DNE	0
Desert Peak Pkwy (DPK), Happy Valley Rd to Cave Creek Rd													
DPK	Happy Valley Rd to Cave Creek Rd	0.68	0.68	A	6LD	6LD	37,400	37,400	0	NA	NA	NA	NA
Dynamite Blvd (DYN), Cave Creek Rd to 56th St													
DYN	Black Mtn Pky to Cave Creek Rd	0.62	0.00	A	6LD	DNE	34,100	0	0	0	DNE	DNE	0
DYN	Cave Creek to 855' W/O Tatum Blvd	1.06	1.06	A	6LD	2LU-	58,300	14,575	14,575	8,155	8,644	0.59	A/B
DYN	855' W/O Tatum Blvd to Tatum Blvd	0.16	0.16	A	6LD	2LU-	8,800	2,200	2,200	8,155	1,305	0.59	A/B
DYN	Tatum Blvd to 665' E/O Tatum Blvd	0.13	0.13	A	6LD	2LU-	7,150	1,788	1,788	11,451	1,489	0.83	D
DYN	665' E/O Tatum Blvd to 52nd St	0.88	0.88	A	6LD	2LU-	48,400	12,100	12,100	11,451	10,077	0.83	D
DYN	52nd St to 56th St	0.50	0.50	A	6LD	2LU-	27,500	6,875	6,875	10,915	5,458	0.79	C
Happy Valley Rd (HVR), CAP (@ +/- 7th Ave align.) to Desert Peak Pkwy													
HVR	CAP to 7th St	1.00	1.00	A	6LD	2LU-	55,000	13,750	13,750	12,450	12,450	0.91	E
HVR	7th St to 16th St align.	1.00	0.00	A	6LD	DNE	55,000	0	0	0	DNE	DNE	0
HVR	16th St align. to Desert Peak Pkwy	1.29	0.00	A	4LD	DNE	47,300	0	0	0	DNE	DNE	0
Lone Mountain Rd (LNM), Sonoran Desert Dr to Cave Creek Rd													
LNM	Sonoran Desert Dr to Black Mountain Blvd	1.47	0.00	A	6LD	DNE	80,850	0	0	0	DNE	DNE	0
LNM	Black Mountain Blvd to 705' W/O Cave Creek	0.66	0.66	A	6LD	2LU-	36,300	9,075	0	NA	NA	NA	NA
LNM	705' W/O Cave Creek Rd to Cave Creek Rd	0.13	0.13	A	6LD	4LU+	7,150	4,528	0	NA	NA	NA	NA
Pinnacle Peak Rd, Cave Creek Rd to Scottsdale Rd													
PIN	Cave Creek Rd to Black Mtn Blvd	1.18	1.18	A	6LD	2LU-	64,900	16,225	16,225	5,395	6,366	0.39	A/B
PIN	Black Mtn Blvd to 1140' W/O Cashman Dr	0.52	0.52	A	6LD	2LU-	28,600	7,150	7,150	5,984	3,112	0.44	A/B
PIN	1140' W/O Cashman Dr to 40th St	0.80	0.80	A	6LD	2LU-	44,000	11,000	11,000	5,680	4,544	0.41	A/B
PIN	40th St to Tatum Blvd	0.81	0.81	A	6LD	2LU-	44,550	11,138	11,138	7,530	6,099	0.55	A/B
PIN	Tatum Blvd to 56th St	1.00	1.00	A	6LD	2LU-	55,000	13,750	13,750	14,281	14,281	1.04	F
PIN	56th St to 64th St	0.50	0.50	A	6LD	2LU-	27,500	6,875	6,875	14,281	7,141	1.04	F
PIN	64th St to Scottsdale Rd	1.00	1.00	A	6LD	2LU-	55,000	13,750	13,750	14,281	14,281	1.04	F
Scottsdale Rd (SCO), Bell Rd to Jomax Rd, west half (southbound lanes) only													
SCO	Bell Rd to 450' N/O Princess Dr	1.17	1.17	A	6LD-1/2	6LD-1/2	32,175	32,175	32,175	20,096	23,512	0.73	C
SCO	450' N/O Princess Dr to Chauncy Ln	0.25	0.25	A	6LD-1/2	6LD-1/2	6,875	6,875	6,875	20,096	5,024	0.73	C
SCO	Chauncy Ln to Mayo Blvd	0.25	0.25	A	6LD-1/2	6LD-1/2	6,875	6,875	6,875	20,096	5,024	0.73	C
SCO	Mayo Blvd to 450' S/O SR101	0.12	0.12	A	6LD-1/2	6LD-1/2	3,300	3,300	3,300	20,096	2,412	0.73	C
SCO	450' S/O SR101 to 410' N/O SR101	0.16	0.16	A	6LD-1/2	6LD-1/2	4,400	4,400	4,400	23,411	3,746	0.85	D
SCO	410' N/O SR101 to Thompson Peak Pky	0.71	0.71	A	6LD-1/2	4LU+-1/2	19,525	12,366	12,366	23,411	16,622	1.34	F
SCO	Thompson Peak Pky to Grayhawk Dr	0.50	0.50	A	6LD-1/2	4LU+-1/2	13,750	8,708	8,708	19,280	9,640	1.11	F

Table 14 - 2014 Major Arterial Street Inventory & Level of Service Analysis - NE Service Area

Planned Major Arterial Street Segment		Ultimate Length, "L_{Ult}" (miles)	Existing Length, "L_{2014}" (miles)	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{Ult}$"	Existing Lane Config, "$LCON_{2014}$"	Ultimate Capacity, "VMC_{Ult}" (veh-miles)	Existing Capacity, "VMC_{2014}" (veh-miles)	Existing Segments with Traffic Counts (Only)				Existing Level of Service, "LOS_{2014}"
									Counted Segment Capacity, "$VMC_{2014\text{-}C}$" (veh-miles)	Counted Segment Volume, "$V_{2014\text{-}C}$" (veh)	Counted Segment Demand, "$VMT_{2014\text{-}C}$" (veh-miles)	Demand-to-Capacity Ratio, "$\frac{VMT_{2014}}{VMC_{2014}}$"	
SCO	Grayhawk Dr to Deer Valley Rd	0.50	0.50	A	6LD-$^1/_2$	4LU+-1/2	13,750	8,708	8,708	19,280	9,640	1.11	F
SCO	Deer Valley Rd to Pinnacle Peak Rd	1.00	1.00	A	6LD-$^1/_2$	4LU+-1/2	27,500	17,417	17,417	19,280	19,280	1.11	F
SCO	Pinnacle Peak Rd to Happy Valley Rd	1.04	1.04	A	6LD-$^1/_2$	4LU+-1/2	28,600	18,113	18,113	17,495	18,195	1.00	F
SCO	Happy Valley Rd to Jomax Rd	0.89	0.89	A	6LD-$^1/_2$	4LU+-1/2	24,475	15,501	15,501	17,495	15,570	1.00	F
Sonoran Desert Dr (SDD), West limit of fee area (16th St align,?) to Cave Creek Rd.													
SDD	West Limit of Fee Area to Lone Mountain Rd	1.80	1.80	A	6LD	2LD	99,000	29,700	0	NA	NA	NA	NA
SDD	Lone Mountain Rd to Cave Creek Rd	2.06	2.06	A	6LD	2LD	113,300	40,363	0	NA	NA	NA	NA
Tatum Blvd (TAT), CAP to Lone Mtn Rd.													
TAT	CAP to 880' n/o CAP	0.63	0.63	A	6LD	4LU+	34,650	21,945	21,945	30,758	19,378	0.88	D
TAT	880' n/o CAP to Mayo Blvd	0.21	0.21	A	6LD	4LD	11,550	7,700	7,700	30,758	6,459	0.84	D
TAT	Mayo Blvd to 420' S/O SR101	0.22	0.22	A	6LD	4LU+	12,100	7,663	7,663	31,998	7,040	0.92	E
TAT	420' S/O SR101 to 360' N/O SR101	0.15	0.15	A	6LD	6LD	8,250	8,250	8,250	67,644	10,147	1.23	F
TAT	360' N/O SR101 to Deer Valley Rd	0.45	0.45	A	6LD	6LD	24,750	24,750	24,750	40,541	18,243	0.74	C
TAT	Deer Valley Rd to Abraham Dr	0.16	0.16	A	6LD	5LD	8,800	7,333	7,333	40,541	6,487	0.88	D
TAT	Abraham Dr to 510' N/O Ranger Dr	1.02	1.02	A	6LD	4LD	56,100	37,400	37,400	40,541	41,352	1.11	F
TAT	510' N/O Ranger Dr to Pinnacle Peak Rd	0.18	0.18	A	6LD	4LU+	9,900	6,270	6,270	34,221	6,160	0.98	E
TAT	Pinnacle Peak Rd to 40th St	0.55	0.55	A	6LD	4LU-	30,250	15,125	15,125	34,221	18,822	1.24	F
TAT	40th St to Happy Valley Rd	0.35	0.35	A	6LD	4LU-	19,250	9,625	9,625	26,261	9,191	0.95	E
TAT	Happy Valley Rd to 280' S/O Prickly Pear Trl	0.71	0.71	A	6LD	4LU-	39,050	19,525	19,525	26,261	18,645	0.95	E
TAT	280' S/O Prickly Pear Trl to Jomax Rd	0.42	0.42	A	6LD	5LD	23,100	19,250	19,250	26,261	11,030	0.57	A/B
TAT	Jomax Rd to Dynamite Blvd	1.00	1.00	A	6LD	4LU-	55,000	27,500	27,500	24,750	24,750	0.90	D
TAT	Ocupado Dr to Rancho Paloma	0.63	0.63	A	6LD	4LD	34,650	23,100	23,100	23,187	14,608	0.63	A/B
TAT	Dixileta Dr to Cave Creek Rd	0.76	0.76	A	6LD	4LD	41,800	27,867	27,867	21,560	16,386	0.59	A/B
TAT	Cave Creek Rd to Black Mtn Pky	0.32	0.32	B	6LD	4LD	17,600	11,733	0	NA	NA	NA	NA
TAT	Black Mtn Pky to Lone Mtn Rd	0.92	0.00	A	6LD	4LD	50,600	0	0	0	DNE	DNE	0
Total, Northeast Service Area		**59.5**	**49.5**	-	-	-	**2,949,925**	**1,327,666**	**1,149,491**	**1,688,771**	**881,535**	**0.77**	**C**
											Existing Capacity-to-Demand Ratio (VMC_{2014}/VMT_{2014})		**1.30**

Table 15 - 2014 Major Arterial Street Inventory & Level of Service Analysis - SW Service Area

	Planned Major Arterial Street Segment	Ultimate Length, "L_{ult}" (miles)	Existing Length, "L_{2014}" (miles)	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{ult}$"	Existing Lane Config, "$LCON_{2014}$"	Ultimate Capacity, "VMC_{ult}" (veh-miles)	Existing Capacity, "VMC_{2014}" (veh-miles)	Existing Segments with Traffic Counts (Only)				Existing Level of Service, "LOS_{2014}"
									Counted Segment Capacity, "$VMC_{2014\text{-}C}$" (veh-miles)	Counted Segment Volume, "$V_{2014\text{-}C}$" (veh)	Counted Segment Demand, "$VMT_{2014\text{-}C}$" (veh-miles)	Demand-to-Capacity Ratio, "$\frac{VMT_{2014}}{VMC_{2014}}$"	
	19th Ave (19A), Baseline Rd to Southern Ave												
19A	Baseline Rd to Fremont Rd	0.25	0.25	4LU+	C	4LU+	8,708	8,708	8,708	16,858	4,215	0.48	A/B
19A	Fremont Rd to Vineyard Rd	0.25	0.25	4LU+	C	4LU+	8,708	8,708	8,708	20,667	5,167	0.59	A/B
19A	Vineyard Rd to Alta Vista Rd	0.25	0.25	4LU+	C	4LU+	8,708	8,708	8,708	15,434	3,859	0.44	A/B
19A	Alta Vista Rd to 170' S/O Lynne	0.14	0.14	4LU+	C	4LU+	4,877	4,877	0	NA	NA	NA	NA
19A	170' S/O Lynne Ln to Lynne Ln	0.03	0.03	4LU+	C	4LU+	1,045	1,045	0	NA	NA	NA	NA
19A	Lynne Ln to Southern Ave	0.08	0.08	4LU+	C	4LU+	2,787	2,787	0	NA	NA	NA	NA
	51st Ave (51A), City Limits to I-10												
51A	City Limits to Estrella Dr	0.60	0.60	4LD	CM	2LU-	22,000	8,250	0	NA	NA	NA	NA
51A	Estrella Dr to Elliot Rd	1.00	1.00	4LD	CM	2LU-	36,667	13,750	13,750	13,809	13,809	1.00	F
51A	Elliot Rd to Dobbins Rd	1.00	1.00	4LD	CM	2LU-	36,667	13,750	13,750	12,170	12,170	0.89	D
51A	Dobbins Rd to South Mountain Ave	0.50	0.50	4LD	CM	4LD	18,333	18,333	18,333	29,317	14,659	0.80	C
51A	South Mountain Ave to 130' S/O Beverly Rd	0.24	0.24	4LD	CM	4LD	8,800	8,800	8,800	20,168	4,840	0.55	A/B
51A	130' S/O Beverly Rd to Beverly Rd	0.03	0.03	4LD	CM	4LD	1,100	1,100	0	NA	NA	NA	NA
51A	Beverly Rd to Baseline Rd	0.24	0.24	6LD	6LD	6LD	13,200	13,200	0	NA	NA	NA	NA
51A	Baseline Rd to 905' N/O Baseline Rd	0.17	0.17	6LD	6LD	6LD	9,350	9,350	0	NA	NA	NA	NA
51A	905' N/O Baseline Rd to Burgess Ln	0.81	0.81	4LD	4LD	4LD	29,700	29,700	29,700	*29,317*	23,747	0.80	C
51A	Burgess Ln to Southern Ave	0.19	0.19	6LD	6LD	6LD	10,450	10,450	0	NA	NA	NA	NA
51A	Southern Ave to Broadway Rd	0.68	0.68	4LD	4LD	4LD	24,933	24,933	24,933	31,284	21,273	0.85	D
51A	Broadway Rd to Salt River Bridge	0.17	0.17	4LU+	4LD	4LU+	5,922	5,922	5,922	31,284	5,318	0.90	D
51A	Salt River Bridge to Broadway Rd	0.28	0.28	4LU+	4LD	4LU+	9,753	9,753	9,753	31,284	8,760	0.90	D
51A	Broadway Rd to Lower Buckeye Rd	0.74	0.74	4LU+	C	4LU+	25,777	25,777	25,777	*30,683*	22,705	0.88	D
51A	Lower Buckeye Rd to N. Limit of Fee Area	0.50	0.50	4LU+	C	4LU+	17,417	17,417	17,417	29,283	14,642	0.84	D
51A	S. Limit of Fee Area to Buckeye Rd	0.44	0.44	4LU+	C	4LU+	15,327	15,327	15,327	36,953	16,259	1.06	F
51A	Buckeye Rd to Van Buren St	1.00	1.00	4LU+	C	4LU+	34,833	34,833	34,833	38,646	38,646	1.11	F
51A	Van Buren St to I-10	0.79	0.79	5LU+	SPECIAL	5LU+	34,398	34,398	34,398	53,384	42,173	1.23	F
	75th Ave (75A), Baseline Rd to Buckeye Rd												
75A	Baseline Rd to 1300' N/O Baseline Rd	0.25	0.25	4LU+	6LD	2LU-	8,708	3,438	3,438	1,907	477	0.14	A/B
75A	1300' N/O Baseline Rd to 350' N/O Vineyard	0.33	0.33	4LU+	6LD	2LU+	11,413	5,707	5,707	1,350	442	0.08	A/B
75A	350' N/O Vineyard to Salt River	0.42	0.42	4LU+	6LD	2LU-	14,514	5,729	5,729	1,350	563	0.10	A/B
75A	Salt River to Broadway Rd	0.93	0.00	4LU+	6LD	DNE	32,395	0	0	0	DNE	DNE	0
75A	Broadway Rd to 1325' N/O Broadway Rd	0.25	0.25	4LD	6LD	4LU+	9,201	8,708	8,708	6,590	1,648	0.19	A/B
75A	1325' N/O Broadway Rd to 1300' S/O Lower	0.50	0.50	4LD	6LD	4LU+	18,333	17,417	17,417	7,136	3,568	0.20	A/B
75A	1300' S/O Lower Buckeye Rd to 1060' S/O Lower	0.05	0.05	4LD	6LD	4LU+	1,833	1,742	1,742	7,136	357	0.20	A/B
75A	1060' S/O Lower Buckeye Rd to Lower Buckeye Rd	0.20	0.20	4LD	6LD	4LU+	7,333	6,967	6,967	7,136	1,427	0.20	A/B
75A	Lower Buckeye Rd to 900' N/O Lower Buckeye Rd	0.17	0.17	4LD	6LD	3LU+	6,233	4,441	4,441	14,366	2,442	0.55	A/B
75A	900' N/O Lower Buckeye Rd to 2370' N/O Lower	0.28	0.28	4LD	6LD	3LU+	10,267	7,315	7,315	14,366	4,022	0.55	A/B
75A	2370' N/O Lower Buckeye Rd to Durango St	0.05	0.05	4LD	CM	4LU+	1,833	1,742	1,742	14,366	718	0.41	A/B
75A	Durango St to Buckeye Rd	0.48	0.48	4LD		3LU+	17,600	12,540	12,540	18,152	8,713	0.69	A/B
	75th Ave (75A), Buckeye Rd to I-10, east half (northbound lanes) only												
75A	Buckeye Rd to Van Buren St	1.01	1.01	4LD-$^1/_2$	CM-$^1/_2$	4LD-$^1/_2$	18,517	18,517	18,517	8,654	8,741	0.47	A/B
75A	Van Buren St to Roosevelt St	0.48	0.48	4LU+	C-1/2	4LU+	16,720	16,720	16,720	25,196	12,094	0.72	C
75A	Roosevelt St to I-10	0.21	0.21	4LU+	C-1/2	4LU+	7,315	7,315	7,315	35,845	7,527	1.03	F
	Baseline Rd (BLR), 75th Ave to 7th Ave												
BLR	75th Ave to 71st Ave	0.50	0.50	6LD	6LD	4LD	27,500	18,333	18,333	4,497	2,249	0.12	A/B
BLR	71st Ave to 67th Ave	0.50	0.50	6LD	6LD	3LU+	27,500	13,063	13,063	9,762	4,881	0.37	A/B
BLR	67th Ave to 63rd Ave	0.44	0.44	6LD	6LD	3LU+	24,200	11,495	11,495	16,715	7,355	0.64	A/B
BLR	63rd Ave to 59th Ave	0.56	0.56	6LD	6LD	2LU-	30,800	7,700	7,700	17,294	9,685	1.26	F
BLR	59th Ave to 55th Ave	0.49	0.49	6LD	6LD	2LU-	26,950	6,738	6,738	17,567	8,608	1.28	F
BLR	55th Ave to 890' W/O 51st Ave	0.33	0.33	6LD	6LD	4LD	18,150	12,100	12,100	21,878	7,220	0.60	A/B
BLR	890' W/O 51st Ave to 51st Ave	0.17	0.17	6LD	6LD	4LD	9,350	6,233	6,233	21,878	3,719	0.60	A/B
BLR	51st Ave to 47th Ave	0.49	0.49	6LD	6LD	4LU+	26,950	17,068	17,068	31,222	15,299	0.90	D
BLR	47th Ave to 43rd Ave	0.49	0.49	6LD	6LD	4LU+	26,950	17,068	17,068	29,809	14,606	0.86	D
BLR	43rd Ave to 1330' W/O 35th Ave	0.75	0.75	4LD	CM	4LD	27,500	27,500	27,500	29,809	22,357	0.81	D
BLR	1330' W/O 35th Ave to 35th Ave	0.25	0.25	4LD	CM	4LD	9,167	9,167	9,167	30,464	7,616	0.83	D
BLR	35th Ave to 660' W/O 31st Ave	0.38	0.38	4LD	CM	4LU+	13,933	13,237	13,237	28,897	10,981	0.83	D
BLR	660' W/O 31st Ave to 125' E/O 29th Dr	0.38	0.38	4LD	CM	4LU+	13,933	13,237	13,237	28,897	10,981	0.83	D
BLR	125' E/O 29th Dr to 27th Ave	0.25	0.25	4LD	CM	4LU+	9,167	8,708	8,708	28,897	7,224	0.83	D
BLR	27th Ave to 19th Ave	1.00	1.00	4LD	CM	4LU+	36,667	34,833	34,833	34,357	34,357	0.99	E
BLR	19th Ave to 7th Ave	1.00	1.00	4LD	CM	4LU+	36,667	34,833	34,833	34,231	34,231	0.98	E
	Broadway Rd (BWR), 43rd Ave to 23rd Ave												
BWR	43rd Ave to 310' W/O 35th Ave	1.04	1.04	6LD	6LD	6LD	57,200	57,200	0	NA	NA	NA	NA
BWR	310' W/O 35th Ave to 35th Ave	0.06	0.06	6LD	6LD	6LD	3,300	3,300	0	NA	NA	NA	NA
BWR	35th Ave to 27th Ave	1.00	1.00	6LD	6LD	6LD	55,000	55,000	55,000	18,050	18,050	0.33	A/B
BWR	27th Ave to 23rd Ave	0.49	0.49	6LD	6LD	6LD	26,950	26,950	26,950	13,196	6,466	0.24	A/B
	Buckeye Rd (BR), 107th Ave to 75th Ave -south half (eastbound lanes) only												
BR	107th Ave to 1980' E/O 107th Ave	0.37	0.37	6LD-1/2	6LD-1/2	4LU+-$^1/_2$	10,175	6,444	6,444	*10,085*	3,731	0.58	A/B
BR	1980' E/O 107th Ave to 99th Ave	0.63	0.63	6LD-1/2	6LD-1/2	4LU--$^1/_2$	17,325	8,663	8,663	*10,085*	6,354	0.73	C
BR	99th Ave to 91st Ave	1.00	1.00	6LD-1/2	6LD-1/2	4LU+-$^1/_2$	27,500	17,417	17,417	*10,236*	10,236	0.59	A/B
BR	91st Ave to 83rd Ave	0.98	0.98	6LD-1/2	6LD-1/2	4LU--$^1/_2$	26,950	13,475	13,475	*10,003*	9,802	0.73	C
BR	83rd Ave to 1300' E/O 83rd Ave	0.25	0.25	6LD-1/2	6LD-1/2	4LU+-$^1/_2$	6,875	4,354	0	NA	NA	NA	NA
BR	1300' E/O 83rd Ave to 79th Ave	0.25	0.25	6LD-1/2	6LD-1/2	4LU--$^1/_2$	6,875	3,438	0	NA	NA	NA	NA
BR	79th Ave to 75th Ave	0.50	0.50	6LD-1/2	6LD-1/2	4LU+-$^1/_2$	13,750	8,708	8,708	*11,871*	5,935	0.68	A/B
	Buckeye Rd (BR), 75th Ave to 43rd Ave - Full Street												
BR	75th Ave to 69th Ave	0.75	0.75	4LU+	C	4LU+	26,125	26,125	26,125	22,894	17,171	0.66	A/B
BR	69th Ave to 300' W/O 67th Ave	0.19	0.19	4LU+	C	4LU+	6,618	6,618	0	NA	NA	NA	NA
BR	300' W/O 67th Ave to 67th Ave	0.06	0.06	4LU+	C	4LU+	2,090	2,090	0	NA	NA	NA	NA
BR	67th Ave to 530' E/O 67th Ave	0.10	0.10	4LU+	C	4LU+	3,483	3,483	0	NA	NA	NA	NA
BR	530' E/O 67th Ave to 340' W/O 65th Ave	0.15	0.15	4LU+	C	4LU-	5,225	4,125	4,125	24,567	3,685	0.89	D

Table 15 - 2014 Major Arterial Street Inventory & Level of Service Analysis - SW Service Area

Planned Major Arterial Street Segment		Ultimate Length, "L_{Ult}" (miles)	Existing Length, "L_{2014}" (miles)	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{Ult}$"	Existing Lane Config, "$LCON_{2014}$"	Ultimate Capacity, "VMC_{Ult}" (veh-miles)	Existing Capacity, "VMC_{2014}" (veh-miles)	Existing Segments with Traffic Counts (Only)				Existing Level of Service, "LOS_{2014}"
									Counted Segment Capacity, "$VMC_{2014\text{-}C}$" (veh-miles)	Counted Segment Volume, "$V_{2014\text{-}C}$" (veh)	Counted Segment Demand, "$VMT_{2014\text{-}C}$" (veh-miles)	Demand-to-Capacity Ratio, "$\frac{VMT_{2014}}{VMC_{2014}}$"	
BR	340' W/O 65th Ave to 63rd Ave	0.24	0.24	4LU+	C	4LU-	8,360	6,600	6,600	24,567	5,896	0.89	D
BR	63rd Ave to 1325' W/O 59th Ave	0.25	0.25	4LU+	C	4LU-	8,708	6,875	6,875	26,693	6,673	0.97	E
BR	1325' W/O 59th Ave to 59th Ave	0.25	0.25	4LU+	C	4LU-	8,708	6,875	6,875	26,693	6,673	0.97	E
BR	59th Ave to 55th Ave	0.50	0.50	4LU+	C	4LU+	17,417	17,417	17,417	26,628	13,314	0.76	C
BR	55th Ave to 51st Ave	0.50	0.50	4LU+	C	4LU+	17,417	17,417	17,417	27,204	13,602	0.78	C
BR	51st Ave to 43rd Ave	1.00	1.00	4LU+	C	4LU+	34,833	34,833	34,833	24,793	24,793	0.71	C
Total, Southwest Service Area		**34.5**	**33.6**	-	-	-	**1,327,945**	**1,036,892**	**905,351**	**1,277,829**	**658,729**	**0.73**	**C**

Existing Capacity-to-Demand Ratio (VMC_{2014}/VMT_{2014})	1.37

Table 16 - 2015-2024 Major Arterial Construction and ROW Unit Costs provided by City of Phoenix

Cross Section (XSEC) Type		Capacity (Veh/Day)	Roadway Construction Cost (per mile)	ROW Cost Calculations					Resultant ROW Costs		
Lane Configuration	Standard City Cross Section			ROW Width (feet)	Acres per Street-Mile	Cost per Acre (NE Fee Area)	Cost per Acre (NW Fee Area)	Cost per Acre (SW Fee Area)	Per Fully Improved Major Arterial Street-Mile		
									(NE Fee Area)	(NW Fee Area)	(SW Fee Area)
6LD	A	55,000	$ 2,381,344	140	16.97	$ 250,000	$ 250,000	$ 175,000	$ 4,242,424	$ 4,242,424	$ 2,969,697
6LD	B	55,000	$ 2,097,682	130	15.76	$ 250,000	$ 250,000	$ 175,000	$ 3,939,394	$ 3,939,394	$ 2,757,576
4LU+	C	34,667	$ 1,613,485	110	13.33	$ 250,000	$ 250,000	$ 175,000	$ 3,333,333	$ 3,333,333	$ 2,333,333
4LD	CM	36,668	$ 1,807,453	110	13.33	$ 250,000	$ 250,000	$ 175,000	$ 3,333,333	$ 3,333,333	$ 2,333,333
4LU+	D	34,667	$ 1,516,461	100	12.12	$ 250,000	$ 250,000	$ 175,000	$ 3,030,303	$ 3,030,303	$ 2,121,212

Table 17 - 2015-2024 Major Arterials Infrastructure Improvements Plan (IIP) - Northwest/Deer Valley Service Area

Street	Segment	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{ULT}$"	Ultimate Length, "L_{ULt}" (miles)	Percent Physically Complete	Percent Functionally Complete	ROW Needed (Mi-Acre)	Prelim Estimate of Rdwy (Only) Constr. Cost	Prelim Estimate of ROW (Only) Cost	Improvement Included in 2015-2024 IIP?	Rdwy Constr Cost accounted for in 2015-2024 Impact Fee	ROW Cost accounted for in 2015-2024 Impact Fee	Resultant Capacity Increase	
													In Vehicle Miles (VMC)	In Lane Miles
39th Ave/Vision Way (39A), Pioneer Rd to Anthem Way														
39A	Pioneer Road to Daisy Mountain Rd	C	4LU+	1.35	0.0%	0.0%	1.35	$ 2,178,205	$ 4,500,000	No	$ -	$ -	0	0.00
39A	Daisy Mountain Rd to 2640' south of Anthem Way	C	4LU+	2.46	0.0%	0.0%	2.46	$ 3,969,174	$ 8,200,000	Yes	$ 3,969,174	$ 8,200,000	85,283	9.30
39A	2640' south of Anthem Way, to Anthem Way	C	4LU+	0.50	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
43rd Ave (43A), Dixileta Dr to Carefree Hwy														
43A	Dixileta Dr to Dove Valley Rd	A	6LD	1.89	0.0%	0.0%	1.89	$ 4,500,741	$ 8,018,182	No	$ -	$ -	0	0.00
43A	Dove Valley Rd to Carefree Hwy	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
51st Ave (51A), Jomax Rd to Carefree Hwy														
51A	Inspiration Mtn Pkwy (Jomax Rd align) to CAP	A	6LD	0.83	77.8%	66.7%	0.18	$ 428,642	$ 774,667	No	$ -	$ -	0	0.00
51A	CAP to Dixileta Dr	A	6LD	1.57	0.0%	0.0%	1.57	$ 3,738,711	$ 6,660,606	No	$ -	$ -	0	0.00
51A	Dixileta Dr to Dove Valley Rd	A	6LD	1.76	0.0%	0.0%	1.76	$ 4,191,166	$ 7,466,667	No	$ -	$ -	0	0.00
51A	Dove Valley Rd to Carefree hwy	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
51A	Carefree Hwy to Pioneer Rd	A	6LD	2.00	0.0%	0.0%	2.00	$ 4,762,689	$ 8,484,848	No	$ -	$ -	0	0.00
51st Ave	Pioneer Rd to Pyramid Peak Pkwy	A	6LD	1.83	0.0%	0.0%	1.83	$ 4,357,860	$ 7,763,636	No	$ -	$ -	0	0.00
Anthem Way (ANT), Avenue A to I-17														
ANT	Avenue A to New River Rd	B	6LD	1.16	0.0%	0.0%	1.16	$ 2,433,311	$ 4,569,697	No	$ -	$ -	0	0.00
ANT	New River Rd to Avenue B	B	6LD	0.67	0.0%	0.0%	0.67	$ 1,405,447	$ 2,639,394	No	$ -	$ -	0	0.00
ANT	Avenue B to Pyramid Peak Pkwy	B	6LD	0.67	0.0%	0.0%	0.67	$ 1,405,447	$ 2,639,394	No	$ -	$ -	0	0.00
ANT	Pyramid Peak Pkwy to 43rd Ave	B	6LD	0.50	100.0%	52.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
ANT	43rd Ave to I-17	B	6LD	0.31	100.0%	66.7%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Avenue A (AVA), Desert Hills Dr (@ west limit of fee area) to New River Rd (at north limit of fee area)														
AVA	New River Rd to Desert Hills Dr	B	6LD	0.00	0.0%	0.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
AVA	Desert Hills Dr to Daisy Mtn Dr	B	6LD	1.83	0.0%	0.0%	1.83	$ 3,838,758	$ 7,209,091	No	$ -	$ -	0	0.00
AVA	Daisy Mtn Dr to Anthem Wy	B	6LD	1.16	0.0%	0.0%	1.16	$ 2,433,311	$ 4,569,697	No	$ -	$ -	0	0.00
AVA	Anthem Wy to Jenny Lin Rd	B	6LD	2.00	0.0%	0.0%	2.00	$ 4,195,363	$ 7,878,788	No	$ -	$ -	0	0.00
AVA	Jenny Lin Rd to New River Rd	B	6LD	1.33	0.0%	0.0%	1.33	$ 2,789,917	$ 5,239,394	No	$ -	$ -	0	0.00
Avenue C (AVC), New River Rd to Pioneer Rd														
AVC	New River Rd to Pioneer Rd	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
Carefree Hwy (CFH), west limit of fee area (@ +/- 73rd Ave align.) to "B Ave"														
CFH	West limit of fee area to 67th Ave	A	6LD	0.83	22.2%	25.0%	0.65	$ 1,547,874	$ 2,746,545	No	$ -	$ -	0	0.00
CFH	67th Ave to 51st Ave	A	6LD	2.08	22.2%	25.0%	1.62	$ 3,857,778	$ 6,882,909	No	$ -	$ -	0	0.00
CFH	51st Ave to 43rd Ave	A	6LD	0.87	22.2%	25.0%	0.68	$ 1,619,314	$ 2,878,909	No	$ -	$ -	0	0.00
CFH	43rd Ave to I-17	A	6LD	1.00	22.2%	25.0%	0.78	$ 1,857,449	$ 3,309,091	No	$ -	$ -	0	0.00
CFH	I-17 to North Valley Pkwy	A	6LD	0.36	100.0%	83.3%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
CFH	North Valley Pkwy to "B" Ave.	A	6LD	1.11	77.8%	83.3%	0.24	$ 595,336	$ 1,036,000	No	$ -	$ -	0	0.00
Carefree Hwy (CFHS), south half only, 7th Ave to east limit of fee area (+/- 16th St align.)														
CFHS	7th Ave to 645' W/O 7th St	A	6LD-1/2	1.60	55.6%	66.7%	0.70	$ 1,690,755	$ 2,986,667	No	$ -	$ -	0	0.00
CFHS	645' w/o 7th St to 7th St	A	6LD-1/2	0.12	55.6%	66.7%	0.05	$ 119,067	$ 224,000	No	$ -	$ -	0	0.00
CFHS	7th St to east limit of fee area (@ +/- 16th St align.)	A	6LD-1/2	1.01	55.6%	66.7%	0.44	$ 1,071,605	$ 1,885,333	No	$ -	$ -	0	0.00
Daisy Mountain Dr (DSY), west limit of fee area (@ Avenue A) to I-17														
DSY	Avenue A to New River Rd	A	6LD	1.17	0.0%	0.0%	1.17	$ 2,786,173	$ 4,963,636	No	$ -	$ -	0	0.00
DSY	New River Rd to Avenue B	A	6LD	0.50	0.0%	0.0%	0.50	$ 1,190,672	$ 2,121,212	No	$ -	$ -	0	0.00
DSY	Avenue B to Pyramid Peak Pkwy	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
DSY	Pyramid Peak Pkwy to 39th Ave	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
DSY	39th Ave to I-17	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
Dixileta Dr (DXD), CAP (@ +/- 73rd Ave align.) to I-17														
DXD	CAP to 67th Ave	A	6LD	0.72	0.0%	0.0%	0.72	$ 1,714,568	$ 3,054,545	No	$ -	$ -	0	0.00
DXD	67th Ave to 51st Ave	A	6LD	2.05	0.0%	0.0%	2.05	$ 4,881,756	$ 8,696,970	No	$ -	$ -	0	0.00
DXD	51st Ave to I-17	A	6LD	2.50	0.0%	0.0%	2.50	$ 5,953,361	$ 10,606,061	No	$ -	$ -	0	0.00
Jenny Lin Rd (JLN), Avenue A to I-17														
JLN	Avenue A to New River Rd	A	6LD	0.83	0.0%	0.0%	0.83	$ 1,976,516	$ 3,521,212	No	$ -	$ -	0	0.00
JLN	New River Rd to I-17	A	6LD	1.12	0.0%	0.0%	1.12	$ 2,667,106	$ 4,751,515	No	$ -	$ -	0	0.00
New River Rd (NRV), Cloud Rd to I-17 (north of Jenny Lin Rd)														
NRV	Cloud Rd to Avenue C	B	6LD	1.00	0.0%	0.0%	1.00	$ 2,097,682	$ 3,939,394	No	$ -	$ -	0	0.00
NRV	Avenue C to Avenue A	B	6LD	1.00	0.0%	0.0%	1.00	$ 2,097,682	$ 3,939,394	No	$ -	$ -	0	0.00
NRV	Avenue A to Pioneer Rd	A	6LD	0.83	0.0%	25.0%	0.83	$ 1,976,516	$ 3,521,212	No	$ -	$ -	0	0.00

Table 17 - 2015-2024 Major Arterials Infrastructure Improvements Plan (IIP) - Northwest/Deer Valley Service Area

Street	Segment	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{ULT}$"	Ultimate Length, "L_{ULT}" (miles)	Percent Physically Complete	Percent Functionally Complete	ROW Needed (Mi-Acre)	Prelim Estimate of Rdwy (Only) Constr. Cost	Prelim Estimate of ROW (Only) Cost	Improvement Included in 2015-2024 IIP?	Rdwy Constr Cost accounted for in 2015-2024 Impact Fee	ROW Cost accounted for in 2015-2024 Impact Fee	Resultant Capacity Increase	
													In Vehicle Miles (VMC)	In Lane Miles
NRV	Pioneer Rd to Desert Hills Dr	A	6LD	0.67	0.0%	25.0%	0.67	$ 1,595,501	$ 2,842,424	No	$ -	$ -	0	0.00
NRV	Desert Hills Dr to Daisy Mtn Dr	A	6LD	1.67	0.0%	25.0%	1.67	$ 3,976,845	$ 7,084,848	No	$ -	$ -	0	0.00
NRV	Daisy Mtn Dr to Anthem Wy	A	6LD	1.50	0.0%	25.0%	1.50	$ 3,572,017	$ 6,363,636	No	$ -	$ -	0	0.00
NRV	Anthem Way to Avenue A	A	6LD	0.83	0.0%	25.0%	0.83	$ 1,976,516	$ 3,521,212	No	$ -	$ -	0	0.00
NRV	Avenue A to I-17	A	6LD	1.50	0.0%	17.7%	1.50	$ 3,572,017	$ 6,363,636	No	$ -	$ -	0	0.00
North Valley Pkwy (NVP), CAP to Carefree Hwy														
NVP	Jomax Rd to 500' s/o CAP	A	6LD	0.15	77.8%	63.3%	0.00	$ 71,440	$ -	No	$ -	$ -	0	0.00
NVP	500' S/O CAP to CAP	A	6LD	0.10	0.0%	83.3%	0.00	$ 238,134	$ -	No	$ -	$ -	0	0.00
NVP	CAP to Quail Track Dr	A	6LD	0.12	100.0%	83.3%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
NVP	Quail Track Dr to Copperhead Trl	A	6LD	0.58	44.4%	25.0%	0.00	$ 762,030	$ -	No	$ -	$ -	0	0.00
NVP	Copperhead Trl to 660' n/o Casino Ave	A	6LD	0.61	88.9%	83.3%	0.00	$ 166,694	$ -	No	$ -	$ -	0	0.00
NVP	660' n/o Casino Ave to Dixileta Dr	A	6LD	0.64	0.0%	66.7%	0.00	$ 1,524,060	$ -	No	$ -	$ -	0	0.00
NVP	Dixileta Dr to Sonoran Desert Dr	A	6LD	1.11	44.4%	31.7%	0.00	$ 1,476,434	$ -	Yes	$ 1,476,434	$ -	41,718	4.55
NVP	Sonoran Desert Dr to Dove Valley Rd	A	6LD	1.12	77.8%	66.7%	0.00	$ 595,336	$ -	No	$ -	$ -	0	0.00
NVP	Dove Valley Rd to 27th Dr	A	6LD	0.26	77.8%	66.7%	0.00	$ 142,881	$ -	No	$ -	$ -	0	0.00
NVP	27th Dr to exist. north end of road	A	6LD	0.41	77.8%	66.7%	0.00	$ 214,321	$ -	No	$ -	$ -	0	0.00
NVP	Exist. North end of road to Carefree Hwy	A	6LD	0.59	0.0%	0.0%	0.29	$ 1,404,993	$ 1,241,391	Yes	$ 1,404,993	$ 1,241,391	32,188	3.51
Pioneer Rd (PIO), New River Rd to I-17														
PIO	New River Rd to Avenue C	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
PIO	Avenue C to Cloud Rd	A	6LD	0.50	0.0%	0.0%	0.50	$ 1,190,672	$ 2,121,212	No	$ -	$ -	0	0.00
PIO	Cloud Rd to Pyramid Peak Pkwy	A	6LD	0.76	0.0%	0.0%	0.76	$ 1,809,822	$ 3,224,242	No	$ -	$ -	0	0.00
PIO	Pyramid Peak Pkwy to 51st Ave	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
PIO	51st Ave to 39th Ave	A	6LD	2.00	0.0%	0.0%	2.00	$ 4,762,689	$ 8,484,848	No	$ -	$ -	0	0.00
PIO	39th Ave to I-17	A	6LD	0.33	0.0%	25.0%	0.33	$ 785,844	$ 1,400,000	No	$ -	$ -	0	0.00
Pyramid Peak Pkwy (PYR), southwest corner of fee area (@ +/-67th Ave & Jomax Rd) to Anthem Wy														
PYR	SW Limit of fee area to 64th Ave	B	6LD	0.18	0.0%	66.7%	0.18	$ 377,583	$ 709,091	No	$ -	$ -	0	0.00
PYR	64th Ave to Cavedale Dr	B	6LD	0.13	0.0%	66.7%	0.13	$ 272,699	$ 512,121	No	$ -	$ -	0	0.00
PYR	Cavedale Dr to 400' N/O Maya Way	B	6LD	0.20	0.0%	66.7%	0.20	$ 419,536	$ 787,879	No	$ -	$ -	0	0.00
PYR	400' N/O Maya Way to 190' S/O Bent Tree Dr	B	6LD	0.29	0.0%	66.7%	0.29	$ 608,328	$ 1,142,424	No	$ -	$ -	0	0.00
PYR	190' S/O Bent Tree Dr to Dynamite Blvd	B	6LD	0.50	0.0%	66.7%	0.50	$ 1,048,841	$ 1,969,697	No	$ -	$ -	0	0.00
PYR	Dynamite Blvd to Brookhart Wy	B	6LD	0.23	0.0%	66.7%	0.23	$ 482,467	$ 906,061	No	$ -	$ -	0	0.00
PYR	Brookhart Wy to CAP	B	6LD	0.70	0.0%	31.7%	0.70	$ 1,468,377	$ 2,757,576	No	$ -	$ -	0	0.00
PYR	CAP to Dixileta	B	6LD	0.77	0.0%	0.0%	0.77	$ 1,615,215	$ 3,033,333	No	$ -	$ -	0	0.00
PYR	Dixileta Dr to Dove Valley Rd	B	6LD	1.44	0.0%	0.0%	1.44	$ 3,020,662	$ 5,672,727	No	$ -	$ -	0	0.00
PYR	Dove Valley Rd to Carefree Hwy	B	6LD	0.98	0.0%	0.0%	0.98	$ 2,055,728	$ 3,860,606	No	$ -	$ -	0	0.00
PYR	Carefree Hwy to Pioneer Rd	B	6LD	3.60	0.0%	0.0%	3.60	$ 7,551,654	$ 14,181,818	No	$ -	$ -	0	0.00
PYR	Pioneer Rd to 51st Ave	B	6LD	0.00	0.0%	0.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
PYR	51st Ave to Daisy Mtn Dr	B	6LD	0.00	0.0%	0.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
PYR	Daisy Mtn Dr to Anthem Wy	B	6LD	0.00	0.0%	0.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Sonoran Desert Dr (SDD), I-17 to east limit of fee area (@ +/- 16th St align.)														
SDD	I-17 to North Valley Pkwy	A	6LD	1.02	33.3%	33.3%	0.68	$ 1,619,314	$ 2,899,273	Yes	$ 1,619,314	$ 2,899,273	37,419	4.08
SDD	North Valley Pkwy to 2530' e/o North Valley Pkwy	A	6LD	0.48	44.4%	31.7%	0.50	$ 642,963	$ 2,121,212	Yes	$ 642,963	$ 2,121,212	18,000	1.96
SDD	2,530' e/o North Valley Pkwy to 2,950' e/o NVP	A	6LD	0.08	44.4%	31.7%	0.06	$ 95,254	$ 254,545	Yes	$ 95,254	$ 254,545	2,990	0.33
SDD	2,950' e/o North Valley Pkwy to Paloma Pkwy	A	6LD	0.11	44.4%	31.7%	0.00	$ 142,881	$ -	Yes	$ 142,881	$ -	4,271	0.47
SDD	Paloma Pkwy to 3600' e/o Paloma Pkwy (interim)	A	2LU+	0.68	0.0%	0.0%	0.00	$ 809,657	$ -	Yes	$ 809,657	$ -	11,787	1.29
SDD	Paloma Pkwy to 3600' e/o Paloma Pkwy (remaining)	A	6LD	0.68	44.4%	31.7%	0.00	$ 452,455	$ -	No	$ -	$ -	0	0.00
SDD	3600' e/o Paloma Pkwy to east limit of fee area (north 1/2)	A	2LU+	2.25	0.0%	0.0%	1.13	$ 2,679,013	$ 2,386,364	Yes	$ 2,679,013	$ 2,386,364	39,002	4.25
SDD	3600' e/o Paloma Pkwy to east limit of fee area (remaining)	A	6LD	2.25	44.4%	31.7%	1.13	$ 1,488,340	$ 2,386,364	No	$ -	$ -	0	0.00
Total, Northwest/Deer Valley Service Area				**84.54**			**69.32**	**$ 162,069,918**	**$ 279,846,603**		**$ 12,839,682**	**$ 17,102,785**	**272,658**	**29.74**

Table 18 - 2015-2024 Major Arterials Infrastructure Improvements Plan (IIP) - Northeast Service Area

Street	Segment	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{ULT}$"	Ultimate Length, "L_{ULT}" (miles)	Percent Physically Complete	Percent Functionally Complete	ROW Needed (Mi-Acre)	Prelim Estimate of Rdwy (Only) Constr. Cost	Prelim Estimate of ROW (Only) Cost	Improvement Included in 2015-2024 IIP?	Rdwy Constr Cost accounted for in 2015-2024 Impact Fee	ROW Cost accounted for in 2015-2024 Impact Fee	Resultant Capacity Increase	
													In Vehicle Miles (VMC)	In Lane Miles
7th St (7S), CAP to Happy Valley Rd														
7S	CAP to Happy Valley Rd	A	6LD	0.71	0.0%	25.0%	0.71	$ 1,690,755	$ 3,012,121	No	$ -	$ -	0	0.00
Black Mountain Blvd (BMB), SR 101 to Cave Creek Rd														
BMB	SR 101 to Mayo Blvd	A	6LD	0.23	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
BMB	Mayo Blvd to Deer Valley Rd	A	6LD	0.24	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
BMB	Deer Valley Rd to Rough Rider Rd	A	6LD	0.50	33.3%	25.0%	0.34	$ 785,844	$ 1,421,212	Yes	$ 785,844	$ 1,421,212	20,625	2.25
BMB	Rough Rider Rd to Pinnacle Peak Rd	A	6LD	0.50	33.3%	25.0%	0.34	$ 785,844	$ 1,421,212	Yes	$ 785,844	$ 1,421,212	20,625	2.25
BMB	Pinnacle Peak Rd to Happy Valley Rd	A	6LD	1.08	0.0%	0.0%	1.08	$ 2,571,852	$ 4,581,818	Yes	$ 2,571,852	$ 4,581,818	59,400	6.48
BMB	Happy Valley Rd to 885' S/O Briles Rd	A	6LD	0.67	0.0%	0.0%	0.67	$ 1,595,501	$ 2,842,424	Yes	$ 1,595,501	$ 2,842,424	36,850	4.02
BMB	885' S/O Briles Rd to Jomax Rd	A	6LD	0.42	33.3%	25.0%	0.28	$ 666,776	$ 1,193,818	Yes	$ 666,776	$ 1,193,818	17,325	1.89
BMB	Jomax Rd to Cave Creek Rd	A	6LD	0.68	0.0%	0.0%	0.68	$ 1,619,314	$ 2,884,848	Yes	$ 1,619,314	$ 2,884,848	37,400	4.08
Cave Creek Rd (CAV), CAP to North City limits														
CAV	CAP to Deer Valley Rd	B	6LD	0.48	77.8%	83.3%	0.11	$ 230,745	$ 416,000	Yes	$ 230,745	$ 416,000	4,400	0.48
CAV	Deer Valley Rd to Cielo Grande Ave	B	6LD	0.89	77.8%	83.3%	0.20	$ 419,536	$ 771,333	Yes	$ 419,536	$ 771,333	8,158	0.89
CAV	Cielo Grande Ave to 835' N/O Cielo Grande Ave	B	6LD	0.16	77.8%	83.3%	0.04	$ 83,907	$ 138,667	Yes	$ 83,907	$ 138,667	1,467	0.16
CAV	835' N/O Cielo Grande to 405' S/O Pinnacle Peak	B	6LD	0.14	77.8%	83.3%	0.03	$ 62,930	$ 121,333	Yes	$ 62,930	$ 121,333	1,283	0.14
CAV	405' S/O Pinnacle Peak to Pinnacle Peak Rd	B	6LD	0.08	77.8%	83.3%	0.02	$ 41,954	$ 69,333	Yes	$ 41,954	$ 69,333	733	0.08
CAV	Pinnacle Peak Rd to Happy Valley Alignment	B	6LD	1.10	88.9%	83.3%	0.12	$ 251,722	$ 477,159	Yes	$ 251,722	$ 477,159	10,094	1.10
CAV	Happy Valley Rd to 2400' south of Jomax Rd	B	6LD	0.57	77.8%	66.7%	0.13	$ 272,699	$ 495,707	Yes	$ 272,699	$ 495,707	10,486	1.14
CAV	2400' south of Jomax Rd to Jomax Rd	B	6LD	0.45	77.8%	66.7%	0.10	$ 209,768	$ 393,939	Yes	$ 209,768	$ 393,939	8,333	0.91
CAV	Jomax Rd to Black Mtn Blvd/SDD	B	6LD	0.40	77.8%	66.7%	0.09	$ 188,791	$ 346,667	Yes	$ 188,791	$ 346,667	7,333	0.80
CAV	Black Mtn Blvd/SDD to Dynamite Blvd	B	6LD	0.75	77.8%	66.7%	0.17	$ 356,606	$ 650,000	Yes	$ 356,606	$ 650,000	13,750	1.50
CAV	Dynamite Blvd to 290' N/O Peak View Rd	B	6LD	0.43	77.8%	66.7%	0.09	$ 209,768	$ 372,667	No	$ -	$ -	0	0.00
CAV	290' N/O Peak View Rd to Tatum Blvd	B	6LD	0.53	77.8%	66.7%	0.12	$ 251,722	$ 459,333	No	$ -	$ -	0	0.00
CAV	Tatum Blvd to Desert Willow Pkwy	B	6LD	0.85	77.8%	66.7%	0.19	$ 398,560	$ 736,667	No	$ -	$ -	0	0.00
CAV	Desert Willow Pkwy to Lone Mtn Rd	B	6LD	0.25	77.8%	66.7%	0.06	$ 125,861	$ 216,667	No	$ -	$ -	0	0.00
CAV	Lone Mtn Rd to 925' N/O Lone Mtn Rd	B	6LD	0.18	77.8%	66.7%	0.04	$ 83,907	$ 156,000	No	$ -	$ -	0	0.00
CAV	925' N/O Lone Mtn Rd to Ashler Hills Dr	B	6LD	0.39	77.8%	66.7%	0.09	$ 188,791	$ 338,000	No	$ -	$ -	0	0.00
CAV	Ashler Hills Dr to Ocupado Dr	B	6LD	0.26	77.8%	66.7%	0.06	$ 125,861	$ 225,333	No	$ -	$ -	0	0.00
CAV	Ocupado Dr to Rancho Paloma	B	6LD	0.18	77.8%	66.7%	0.04	$ 83,907	$ 156,000	No	$ -	$ -	0	0.00
CAV	Rancho Paloma to 300' S/O Smokehouse Trl	B	6LD	0.40	77.8%	66.7%	0.09	$ 188,791	$ 346,667	No	$ -	$ -	0	0.00
CAV	300' S/O Smokehouse Trl to City Limits	B	6LD	0.21	77.8%	66.7%	0.05	$ 104,884	$ 182,000	No	$ -	$ -	0	0.00
Carefree Hwy (CFH), south half (eastbound lanes) only														
CFH - South 1/2	16th St to 42nd St	A	6LD	3.25	77.8%	66.7%	0.72	$ 1,714,568	$ 3,033,333	No		$ -	0	0.00
CFH - South 1/2	42nd St to 1600' West of Black Mountain Blvd	A	6LD	0.76	77.8%	66.7%	0.17	$ 404,829	$ 709,333	No	$ -	$ -	0	0.00
CFH - South 1/2	1600' West of Black Mtn Blvd to East Boundary	A	6LD	0.25	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Deer Valley RD (DEE), Cave Creek Rd to Scottsdale Rd														
DEE	CAP to Cave Creek Rd	B	6LD	0.37	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
DEE	Cave Creek Rd to 28th St	B	6LD	0.58	33.3%	31.7%	0.39	$ 818,096	$ 1,530,848	Yes	$ 818,096	$ 1,530,848	21,798	2.38
DEE	28th St to 32nd St	B	6LD	0.50	33.3%	31.7%	0.34	$ 692,235	$ 1,319,697	Yes	$ 692,235	$ 1,319,697	18,792	2.05
DEE	32nd St to Black Mtn Pkwy	B	6LD	0.50	33.3%	31.7%	0.34	$ 692,235	$ 1,319,697	Yes	$ 692,235	$ 1,319,697	18,792	2.05
DEE	Black Mtn Pkwy to 40th St	A	6LD	1.00	100.0%	100.0%	0.00	$ -		No	$ -	$ -	0	0.00
DEE	40th St to Tatum Blvd	A	6LD	0.74	77.8%	63.3%	0.16	$ 381,015	$ 690,667	Yes	$ 381,015	$ 690,667	14,923	1.63
DEE	Tatum Blvd to Marriott Dr	A	6LD	0.49	88.9%	100.0%	0.05	$ 119,067	$ 228,667	Yes	$ 119,067	$ 228,667	0	0.00
DEE	Marriott Dr to 56th St	A	6LD	0.54	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
DEE	56th St to 64th St	A	6LD	1.17	0.0%	0.0%	1.17	$ 2,786,173	$ 4,963,636	Yes	$ 2,786,173	$ 4,963,636	64,350	7.02
DEE	64th St to Scottsdale Rd	A	6LD	1.09	0.0%	0.0%	1.09	$ 2,595,665	$ 4,624,242	Yes	$ 2,595,665	$ 4,624,242	59,950	6.54
Desert Peak Pkwy (DPK), Happy Valley Rd to Cave Creek Rd														
DPK	Happy Valley Rd to Cave Creek Rd	A	6LD	0.68	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Dynamite Blvd (DYN), Cave Creek Rd to 56th St														
DYN	Black Mtn Pkwy to Cave Creek Rd	A	6LD	0.62	0.0%	0.0%	0.62	$ 1,476,434	$ 2,630,303	No	$ -	$ -	0	0.00
DYN	Cave Creek to 855' W/O Tatum Blvd	A	6LD	1.06	0.0%	25.0%	1.06	$ 2,524,225	$ 4,496,970	Yes	$ 2,524,225	$ 4,496,970	43,725	4.77
DYN	855' W/O Tatum Blvd to Tatum Blvd	A	6LD	0.16	0.0%	25.0%	0.16	$ 381,015	$ 678,788	Yes	$ 381,015	$ 678,788	6,600	0.72
DYN	Tatum Blvd to 665' E/O Tatum Blvd	A	6LD	0.13	0.0%	25.0%	0.13	$ 309,575	$ 551,515	No	$ -	$ -	0	0.00
DYN	665' E/O Tatum Blvd to 52nd St	A	6LD	0.88	0.0%	25.0%	0.88	$ 2,095,583	$ 3,733,333	No	$ -	$ -	0	0.00
DYN	52nd St to 56th St	A	6LD	0.50	0.0%	25.0%	0.50	$ 1,190,672	$ 2,121,212	No	$ -	$ -	0	0.00

Table 18 - 2015-2024 Major Arterials Infrastructure Improvements Plan (IIP) - Northeast Service Area

Street	Segment	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{ULT}$"	Ultimate Length, "L_{ULT}" (miles)	Percent Physically Complete	Percent Functionally Complete	ROW Needed (Mi-Acre)	Prelim Estimate of Rdwy (Only) Constr. Cost	Prelim Estimate of ROW (Only) Cost	Improvement Included in 2015-2024 IIP?	Rdwy Constr Cost accounted for in 2015-2024 Impact Fee	ROW Cost accounted for in 2015-2024 Impact Fee	Resultant Capacity Increase	
													In Vehicle Miles (VMC)	In Lane Miles
Happy Valley Rd (HVR), CAP (@ +/- 7th Ave align.) to Desert Peak Pkwy												$ -		
HVR	CAP to 7th St	A	6LD	1.00	0.0%	25.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
HVR	7th St to east limit of fee area (@ +/- 16th St align.)	A	6LD	1.00	0.0%	0.0%	1.00	$ 2,381,344	$ 4,242,424	No	$ -	$ -	0	0.00
HVR	West Limit of Fee Area(16th St alignment) to Desert Pk Pkwy	A	6LD	1.29	0.0%	0.0%	1.29	$ 3,071,934	$ 5,472,727	No	$ -	$ -	0	0.00
Lone Mountain Rd (LNM), Sonoran Desert Dr to Cave Creek Rd												$ -		
LNM	Sonoran Desert Dr to Black Mtn Blvd	CM	4LD	1.47	0.0%	0.0%	1.47	$ 2,656,956	$ 4,900,000	No	$ -	$ -	0	0.00
LNM	Black Mtn Blvd to 705' W/O Cave Creek Rd	CM	4LD	0.66	0.0%	25.0%	0.66	$ 1,192,919	$ 2,200,000	No	$ -	$ -	0	0.00
LNM	705' W/O Cave Creek Rd to Cave Creek Rd	CM	4LD	0.13	0.0%	63.3%	0.13	$ 234,969	$ 433,333	No	$ -	$ -	0	0.00
Pinnacle Peak Rd, Cave Creek Rd to Scottsdale Rd														
PNP	Cave Creek Rd to Black Mtn Pkwy	A	6LD	1.18	0.0%	25.0%	1.18	$ 2,809,986	$ 5,006,061	Yes	$ 2,809,986	$ 5,006,061	48,675	5.31
PNP	Black Mtn Pkwy to 1140' W/O Cashman Dr	A	6LD	0.52	0.0%	25.0%	0.52	$ 1,238,299	$ 2,206,061	Yes	$ 1,238,299	$ 2,206,061	21,450	2.34
PNP	1140' W/O Cashman Dr to 40th St	A	6LD	0.80	0.0%	25.0%	0.80	$ 1,905,076	$ 3,393,939	Yes	$ 1,905,076	$ 3,393,939	33,000	3.60
PNP	40th St to Tatum Blvd	A	6LD	0.81	0.0%	25.0%	0.81	$ 1,928,889	$ 3,436,364	Yes	$ 1,928,889	$ 3,436,364	33,413	3.64
PNP	Tatum Blvd to 56th St	A	6LD	1.00	0.0%	25.0%	1.00	$ 2,381,344	$ 4,242,424	Yes	$ 2,381,344	$ 4,242,424	41,250	4.50
PNP	56th St to 64th St	A	6LD	0.50	0.0%	25.0%	0.50	$ 1,190,672	$ 2,121,212	Yes	$ 1,190,672	$ 2,121,212	20,625	2.25
PNP	64th St to Scottsdale Rd	A	6LD	1.00	0.0%	25.0%	1.00	$ 2,381,344	$ 4,242,424	Yes	$ 2,381,344	$ 4,242,424	41,250	4.50
Scottsdale Rd (SCO), Bell Rd to Jomax Rd, west half (southbound lanes) only														
SCO - west 1/2	Bell Rd to 450' N/O Princess Dr	A	6LD	1.17	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	450' N/O Princess Dr to Chauncy Ln	A	6LD	0.25	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	Chauncy Ln to Mayo Blvd	A	6LD	0.25	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	Mayo Blvd to 450' S/O SR101	A	6LD	0.12	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	450' S/O SR101 to 410' N/O SR101	A	6LD	0.16	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	410' N/O SR101 to Thompson Peak Pkwy	A	6LD	0.71	66.6%	63.3%	0.23	$ 571,523	$ 994,000	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	Thompson Peak Pkwy to Grayhawk Dr	A	6LD	0.50	66.6%	63.3%	0.17	$ 404,829	$ 700,000	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	Grayhawk Dr to Deer Valley Rd	A	6LD	0.50	66.6%	63.3%	0.17	$ 404,829	$ 700,000	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	Deer Valley Rd to Pinnacle Peak Rd	A	6LD	1.00	66.6%	63.3%	0.33	$ 785,844	$ 1,400,000	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	Pinnacle Peak Rd to Happy Valley Rd	A	6LD	1.04	33.3%	63.3%	0.70	$ 1,643,128	$ 2,956,121	No	$ -	$ -	0	0.00
Scottsdale Rd - west 1/2	Happy Valley Rd to Jomax Rd	A	6LD	0.89	33.3%	63.3%	0.60	$ 1,404,993	$ 2,529,758	No	$ -	$ -	0	0.00
Sonoran Desert Dr (SDD), West limit of fee area (16th St align,?) to Cave Creek Rd.														
Sonoran Desert Dr	West Limit of NE Fee Area to Lone Mtn Rd	A	6LD	1.80	50.0%	30.0%	0.90	$ 2,143,210	$ 3,818,182	No	$ -	$ -	0	0.00
Sonoran Desert Dr	Lone Mtn Rd to Cave Creek Rd	A	6LD	2.06	50.0%	35.6%	1.03	$ 2,452,785	$ 4,369,697	No	$ -	$ -	0	0.00
Tatum Blvd (TAT), CAP to Lone Mtn Rd.														
TAT	CAP to 1105' S/O Mayo Blvd	A	6LD	0.63	55.5%	63.3%	0.28	$ 666,776	$ 1,202,727	Yes	$ 666,776	$ 1,202,727	12,705	1.39
TAT	1105' S/O Mayo Blvd to Mayo Blvd	A	6LD	0.21	66.7%	66.7%	0.07	$ 166,694	$ 294,000	Yes	$ 166,694	$ 294,000	3,850	0.42
TAT	Mayo Blvd to 420' S/O SR101	A	6LD	0.22	66.7%	63.3%	0.07	$ 166,694	$ 308,000	Yes	$ 166,694	$ 308,000	4,437	0.48
TAT	420' S/O SR101 to 360' N/O SR101	A	6LD	0.15	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
TAT	360' N/O SR101 to Deer Valley Rd	A	6LD	0.45	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
TAT	Deer Valley Rd to Abraham Dr	A	6LD	0.16	100.0%	83.3%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
TAT	Abraham Dr to 510' N/O Ranger Dr	A	6LD	1.02	77.8%	66.7%	0.22	$ 547,709	$ 952,000	No	$ -	$ -	0	0.00
TAT 4LU+ to 4LD + 40' Med	510' N/O Ranger Dr to Pinnacle Peak Rd	CM	4LD	0.18	80.0%	95.0%	0.07	$ 72,298	$ 228,000	Yes	$ 72,298	$ 228,000	330	0.04
TAT 4LD +40' Med to 6LD	510' N/O Ranger Dr to Pinnacle Peak Rd	A	6LD	0.18	77.8%	66.7%	0.00	$ 95,254	$ -	No	$ -	$ -	0	0.00
TAT 4LU- to 4LD + 40' Med	Pinnacle Peak Rd to 40th St	CM	4LD	0.55	0.0%	75.0%	0.55	$ 994,099	$ 1,833,333	Yes	$ 994,099	$ 1,833,333	5,042	0.55
TAT 4LD +40' Med to 6LD	Pinnacle Peak Rd to 40th St	A	6LD	0.55	77.8%	66.7%	0.00	$ 285,761	$ -	No	$ -	$ -	0	0.00
TAT 4LU- to 4LD + 40' Med	40th St to Happy Valley Rd	CM	4LD	0.35	0.0%	75.0%	0.35	$ 632,608	$ 1,166,667	Yes	$ 632,608	$ 1,166,667	3,208	0.35
TAT 4LD +40' Med to 6LD	40th St to Happy Valley Rd	A	6LD	0.35	77.8%	66.7%	0.00	$ 190,508	$ -	No	$ -	$ -	0	0.00
TAT 4LU- to 4LD + 40' Med	Happy Valley Rd to 280' S/O Prickly Pear Trl	CM	4LD	0.71	0.0%	75.0%	0.71	$ 1,283,291	$ 2,366,667	Yes	$ 1,283,291	$ 2,366,667	6,508	0.71
TAT 4LD +40' Med to 6LD	Happy Valley Rd to 280' S/O Prickly Pear Trl	A	6LD	0.71	77.8%	66.7%	0.00	$ 381,015	$ -	No	$ -	$ -	0	0.00
TAT	280' S/O Prickly Pear Trl to Jomax Rd	A	6LD	0.42	77.8%	83.3%	0.09	$ 214,321	$ 392,000	Yes	$ 214,321	$ 392,000	3,858	0.42
TAT 4LU- to 4LD + 40' Med	Jomax Rd to Dynamite Blvd	CM	4LD	1.00	0.0%	75.0%	1.00	$ 1,807,453	$ 3,333,333	Yes	$ 1,807,453	$ 3,333,333	9,167	1.00
TAT 4LD +40' Med to 6LD	Jomax Rd to Dynamite Blvd	A	6LD	1.00	77.8%	66.7%	0.00	$ 523,896	$ -	No	$ -	$ -	0	0.00
TAT	Dynamite Blvd to Dixileta Dr	A	6LD	0.63	77.8%	66.7%	0.14	$ 333,388	$ 588,000	No	$ -	$ -	0	0.00
TAT	Dixileta Dr to Cave Creek Rd	A	6LD	0.76	77.8%	66.7%	0.17	$ 404,829	$ 709,333	No	$ -	$ -	0	0.00
TAT	Cave Creek Rd to Black Mtn Pkwy	CM	4LD	0.32	77.8%	66.7%	0.07	$ 126,522	$ 234,667	No	$ -	$ -	0	0.00
TAT	Black Mtn Pkwy to Lone Mtn Rd	CM	4LD	0.92	0.0%	0.0%	0.92	$ 1,662,857	$ 3,066,667	No	$ -	$ -	0	0.00
Total, Northeast Service Area				**59.50**			**33.85**	**$ 77,900,174**	**$ 137,341,715**		**$ 40,973,363**	**$ 73,851,896**	**795,960**	**86.83**

Table 19 - 2015-2024 Major Arterials Infrastructure Improvements Plan (IIP) - Southwest Service Area

Street	Segment	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{ULT}$"	Ultimate Length, "L_{ULT}" (miles)	Percent Physically Complete	Percent Functionally Complete	ROW Needed (Mi-Acre)	Prelim Estimate of Rdwy (Only) Constr. Cost	Prelim Estimate of ROW (Only) Cost	Improvement Included in 2015-2024 IIP?	Rdwy Constr Cost accounted for in 2015-2024 Impact Fee	ROW Cost accounted for in 2015-2024 Impact Fee	Resultant Capacity Increase	
													In Vehicle Miles (VMC)	In Lane Miles
19th Ave (19A), Baseline Rd to Southern Ave														
19th Ave	Baseline Rd to Fremont Rd	D	4LU+	0.25	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
19th Ave	Fremont Rd to Vineyard Rd	D	4LU+	0.25	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
19th Ave	Vineyard Rd to Alta Vista Rd	D	4LU+	0.25	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
19th Ave	Alta Vista Rd to 170' S/O Lynne	D	4LU+	0.14	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
19th Ave	170' S/O Lynne Ln to Lynne Ln	D	4LU+	0.03	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
19th Ave	Lynne Ln to Southern Ave	D	4LU+	0.08	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave (51A), City Limits to I-10														
51st Ave	City Limits to Estrella Dr	CM	4LD	0.60	28.6%	37.5%	0.07	$ 777,205	$ 230,769	Yes	$ 777,205	$ 230,769	13,750	1.50
51st Ave	Estrella Dr to Elliot Rd	CM	4LD	1.00	28.6%	37.5%	0.12	$ 1,283,291	$ 384,615	Yes	$ 1,283,291	$ 384,615	22,917	2.50
51st Ave	Elliot Rd to Dobbins Rd	CM	4LD	1.00	28.6%	37.5%	0.00	$ 1,283,291	$ -	Yes	$ 1,283,291	$ -	22,917	2.50
51st Ave	Dobbins Rd to South Mountain Ave	CM	4LD	0.50	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	South Mountain Ave to 130' S/O Beverly Rd	CM	4LD	0.24	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	130' S/O Beverly Rd to Beverly Rd	CM	4LD	0.03	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Beverly Rd to Baseline Rd	B	6LD	0.24	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Baseline Rd to 905' N/O Baseline Rd	B	6LD	0.17	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	905' N/O Baseline Rd to Burgess Ln	CM	4LD	0.81	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Burgess Ln to Southern Ave	B	6LD	0.19	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Southern Ave to Broadway Rd	CM	4LD	0.68	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Broadway Rd to Salt River Bridge	D	4LU+	0.17	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Salt River Bridge to Broadway Rd	D	4LU+	0.28	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Broadway Rd to Lower Buckeye Rd	D	4LU+	0.74	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Lower Buckeye Rd to N. Limit of Fee Area	D	4LU+	0.50	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	S. Limit of Fee Area to Buckeye Rd	D	4LU+	0.44	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Buckeye Rd to Van Buren St	D	4LU+	1.00	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
51st Ave	Van Buren St to I-10	D	4LU+	0.79	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
75th Ave (75A), Baseline Rd to Buckeye Rd														
75th Ave	Baseline Rd to 1300' N/O Baseline Rd	D	4LU+	0.25	50.0%	39.5%	0.00	$ 197,140	$ -	Yes	$ 197,140	$ -	5,246	0.57
75th Ave	1300' N/O Baseline Rd to 350' N/O Vineyard	D	4LU+	0.33	50.0%	50.0%	0.00	$ 242,634	$ -	Yes	$ 242,634	$ -	5,680	0.62
75th Ave	350' N/O Vineyard to Salt River	D	4LU+	0.42	50.0%	39.5%	0.00	$ 318,457	$ -	Yes	$ 318,457	$ -	8,743	0.95
75th Ave	Salt River to Broadway Rd	D	4LU+	0.93	0.0%	0.0%	0.00	$ 1,410,309	$ -	Yes	$ 1,410,309	$ -	32,241	3.52
75th Ave	Broadway Rd to 1325' N/O Broadway Rd	CM	4LD	0.25	88.9%	94.6%	0.00	$ 54,224	$ -	Yes	$ 54,224	$ -	493	0.05
75th Ave	1325' N/O Broadway Rd to 1300' S/O Lower Buckeye Rd	CM	4LD	0.50	88.9%	95.0%	0.00	$ 108,447	$ -	Yes	$ 108,447	$ -	917	0.10
75th Ave	1300' S/O Lower Buckeye Rd to 1060' S/O Lower Buckeye Rd	CM	4LD	0.05	88.9%	95.0%	0.00	$ 18,075	$ -	Yes	$ 18,075	$ -	92	0.01
75th Ave	1060' S/O Lower Buckeye Rd to Lower Buckeye Rd	CM	4LD	0.20	88.9%	95.0%	0.00	$ 36,149	$ -	Yes	$ 36,149	$ -	367	0.04
75th Ave	Lower Buckeye Rd to 900' N/O Lower Buckeye Rd	CM	4LD	0.17	88.9%	71.3%	0.00	$ 36,149	$ -	Yes	$ 36,149	$ -	1,792	0.20
75th Ave	900' N/O Lower Buckeye Rd to 2370' N/O Lower Buckeye Rd	CM	4LD	0.28	88.9%	71.3%	0.00	$ 54,224	$ -	Yes	$ 54,224	$ -	2,952	0.32
75th Ave	2370' N/O Lower Buckeye Rd to Durango St	CM	4LD	0.05	88.9%	95.0%	0.00	$ 18,075	$ -	Yes	$ 18,075	$ -	92	0.01
75th Ave	Durango St to Buckeye Rd	CM	4LD	0.48	88.9%	71.3%	0.00	$ 90,373	$ -	Yes	$ 90,373	$ -	5,060	0.55
75th Ave (75A), Buckeye Rd to I-10, east half (northbound lanes) only														
75th Ave	Buckeye Rd to Van Buren St	CM	4LD	1.01	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
75th Ave	Van Buren St to Roosevelt St	D	4LU+	0.48	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
75th Ave	Roosevelt St to I-10	D	4LU+	0.21	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Baseline Rd (BLR), 75th Ave to 7th Ave														
Baseline Rd	75th Ave to 71st Ave	B	6LD	0.50	55.6%	66.7%	0.00	$ 461,490	$ -	Yes	$ 461,490	$ -	9,167	1.00
Baseline Rd	71st Ave to 67th Ave	B	6LD	0.50	33.3%	47.5%	0.00	$ 692,235	$ -	Yes	$ 692,235	$ -	14,438	1.57
Baseline Rd	67th Ave to 63rd Ave	B	6LD	0.44	33.3%	47.5%	0.00	$ 608,328	$ -	Yes	$ 608,328	$ -	12,705	1.39
Baseline Rd	63rd Ave to 59th Ave	B	6LD	0.56	0.0%	25.0%	0.19	$ 1,174,702	$ 746,667	Yes	$ 1,174,702	$ 746,667	23,100	2.52
Baseline Rd	59th Ave to 55th Ave	B	6LD	0.49	0.0%	25.0%	0.00	$ 1,027,864	$ -	Yes	$ 1,027,864	$ -	20,213	2.20
Baseline Rd	55th Ave to 890' W/O 51st Ave	B	6LD	0.33	55.6%	66.7%	0.00	$ 314,652	$ -	Yes	$ 314,652	$ -	6,050	0.66
Baseline Rd	890' W/O 51st Ave to 51st Ave	B	6LD	0.17	55.6%	66.7%	0.00	$ 167,815	$ -	Yes	$ 167,815	$ -	3,117	0.34
Baseline Rd	51st Ave to 47th Ave	B	6LD	0.49	44.4%	63.3%	0.00	$ 566,374	$ -	Yes	$ 566,374	$ -	9,882	1.08
Baseline Rd	47th Ave to 43rd Ave	B	6LD	0.49	44.4%	63.3%	0.00	$ 566,374	$ -	Yes	$ 566,374	$ -	9,882	1.08
Baseline Rd	43rd Ave to 1330' W/O 35th Ave	CM	4LD	0.75	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Baseline Rd	1330' W/O 35th Ave to 35th Ave	CM	4LD	0.25	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Baseline Rd	35th Ave to 660' W/O 31st Ave	CM	4LD	0.38	57.1%	95.0%	0.19	$ 289,192	$ 633,333	Yes	$ 289,192	$ 633,333	697	0.08

Table 19 - 2015-2024 Major Arterials Infrastructure Improvements Plan (IIP) - Southwest Service Area

Street	Segment	Ultimate City Std Cross Section, "$XSEC_{ULT}$"	Ultimate Lane Config., "$LCON_{UR}$"	Ultimate Length, "L_{UR}" (miles)	Percent Physically Complete	Percent Functionally Complete	ROW Needed (Mi-Acre)	Prelim Estimate of Rdwy (Only) Constr. Cost	Prelim Estimate of ROW (Only) Cost	Improvement Included in 2015-2024 IIP?	Rdwy Constr Cost accounted for in 2015-2024 Impact Fee	ROW Cost accounted for in 2015-2024 Impact Fee	Resultant Capacity Increase	
													In Vehicle Miles (VMC)	In Lane Miles
Baseline Rd	660' W/O 31st Ave to 125' E/O 29th Dr	CM	4LD	0.38	57.1%	95.0%	0.00	$ 289,192	$ -	Yes	$ 289,192	$ -	697	0.08
Baseline Rd	125' E/O 29th Dr to 27th Ave	CM	4LD	0.25	57.1%	95.0%	0.00	$ 198,820	$ -	Yes	$ 198,820	$ -	458	0.05
Baseline Rd	27th Ave to 19th Ave	CM	4LD	1.00	57.1%	95.0%	0.10	$ 777,205	$ 333,333	Yes	$ 777,205	$ 333,333	1,833	0.20
Baseline Rd	19th Ave to 7th Ave	CM	4LD	1.00	57.1%	95.0%	0.00	$ 777,205	$ -	Yes	$ 777,205	$ -	1,833	0.20
Broadway Rd (BWR), 43rd Ave to 23rd Ave														
Broadway Rd	43rd Ave to 310' W/O 35th Ave	B	6LD	1.04	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Broadway Rd	310' W/O 35th Ave to 35th Ave	B	6LD	0.06	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Broadway Rd	35th Ave to 27th Ave	B	6LD	1.00	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Broadway Rd	27th Ave to 23rd Ave	B	6LD	0.49	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Buckeye Rd (BR), 107th Ave to 75th Ave -south half (eastbound lanes) only														
Buckeye Rd	107th Ave to 1980' E/O 107th Ave	A	6LD	0.37	55.6%	63.3%	0.21	$ 381,015	$ 893,520	Yes	$ 381,015	$ 893,520	7,462	0.81
Buckeye Rd	1980' E/O 107th Ave to 99th Ave	A	6LD	0.63	44.4%	50.0%	0.36	$ 833,471	$ 1,521,399	Yes	$ 833,471	$ 1,521,399	17,325	1.89
Buckeye Rd	99th Ave to 91st Ave	A	6LD	1.00	55.6%	63.3%	0.57	$ 1,047,792	$ 2,414,918	Yes	$ 1,047,792	$ 2,414,918	20,167	2.20
Buckeye Rd	91st Ave to 83rd Ave	A	6LD	0.98	44.4%	50.0%	0.56	$ 1,285,926	$ 2,366,620	Yes	$ 1,285,926	$ 2,366,620	26,950	2.94
Buckeye Rd	83rd Ave to 1300' E/O 83rd Ave	A	6LD	0.25	55.6%	63.3%	0.14	$ 261,948	$ 603,730	Yes	$ 261,948	$ 603,730	5,042	0.55
Buckeye Rd	1300' E/O 83rd Ave to 79th Ave	A	6LD	0.25	44.4%	50.0%	0.14	$ 333,388	$ 603,730	Yes	$ 333,388	$ 603,730	6,875	0.75
Buckeye Rd	79th Ave to 75th Ave	A	6LD	0.50	55.6%	63.3%	0.28	$ 523,896	$ 1,207,459	Yes	$ 523,896	$ 1,207,459	10,083	1.10
Buckeye Rd (BR), 75th Ave to 43rd Ave - Full Street														
Buckeye Rd	75th Ave to 69th Ave	D	4LU+	0.75	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Buckeye Rd	69th Ave to 300' W/O 67th Ave	D	4LU+	0.19	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Buckeye Rd	300' W/O 67th Ave to 67th Ave	D	4LU+	0.06	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Buckeye Rd	67th Ave to 530' E/O 67th Ave	D	4LU+	0.10	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Buckeye Rd	530' E/O 67th Ave to 340' W/O 65th Ave	D	4LU+	0.15	57.1%	78.9%	0.04	$ 90,988	$ 118,881	Yes	$ 90,988	$ 118,881	1,095	0.12
Buckeye Rd	340' W/O 65th Ave to 63rd Ave	D	4LU+	0.24	57.1%	78.9%	0.06	$ 151,646	$ 190,210	Yes	$ 151,646	$ 190,210	1,752	0.19
Buckeye Rd	63rd Ave to 1325' W/O 59th Ave	D	4LU+	0.25	57.1%	78.9%	0.07	$ 166,811	$ 198,135	Yes	$ 166,811	$ 198,135	1,825	0.20
Buckeye Rd	1325' W/O 59th Ave to 59th Ave	D	4LU+	0.25	57.1%	78.9%	0.07	$ 166,811	$ 198,135	Yes	$ 166,811	$ 198,135	1,825	0.20
Buckeye Rd*	59th Ave to 55th Ave	D	4LU+	0.50	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Buckeye Rd*	55th Ave to 51st Ave	D	4LU+	0.50	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Buckeye Rd*	51st Ave to 43rd Ave	D	4LU+	1.00	100.0%	100.0%	0.00	$ -	$ -	No	$ -	$ -	0	0.00
Total, Southwest Service Area				**34.53**			**3.16**	**$ 19,083,179**	**$ 12,645,455**		**$ 19,083,179**	**$ 12,645,455**	**337,732**	**36.84**

Table 20 - Supporting Calculations for 2015-2024 Infrastructure Improvement Plan for Major Arterial Streets - NW Svc Area

Additional Capacity Needs Determination Factors	Trip Gen Potential (veh/day)	Average Trip Length (mi)	Travel Demand (veh-mi)	Network Capacity (veh-mi)	Network Capacity (lane-mi)
Ultimate Overall Capacity of Svc Area Major Arterial Network (SAMA), "VMC_{Ult}" *(from Table 13, 7th column, bottom row)*				4,585,182	500.18
Existing (2014) Overall Capacity of Svc Area MA Network, "$VMC_{2014\ Total}$" *(from Table 13, 8th column, bottom row)*				594,238	64.82
Existing (2014) Capacity of only those segments for which traffic counts were available for this study, "$VMC_{2014\text{-}C}$" *(from Table 13)*				451,971	49.30
Existing (2014) Total Travel Demand for Counted Segments, only, "$VMT_{2014\text{-}C}$" *(from Table 13)*			204,028		
Existing (2014) Total Travel Demand for entire Svc Area MA Network, "$VMT_{2014\ Total}$" *($VMT_{2014\text{-}C}$/$VMC_{2014\text{-}C}$ x $VMC_{2014\ Total}$)*			268,250		
Existing (2014) "Pass-Thru Traffic" portion of Existing Total Travel Demand, "$VMT_{2014\ Pass\text{-}Thru}$" *(15% assumed)*			(40,238)		
Remaining 2014 travel demand attributable to existing service area development, "$VMT_{2014\ SAD,\ SAMA\ Portion}$" *($VMT_{2014\ Total}$ - $VMT_{2014\ Pass\text{-}Thru}$)*			228,013		
Total SAD Trip Generation, "$Trips_{2014\ SAD\ Total}$" *(from Table 4, 4th column, bottom row)*	99,893				
Avg Total Distance of a SAD-generated Trip, "$ATD_{2014\ SAD\ Total}$" *(from Table 4, 5th column, bottom row)*		10.33			
Total SAD-generated Travel Demand for all streets, MA and non-MA, Internal and External, "$VMT_{2014\ SAD\ Total}$" *($Trips_{2014\ SAD\ Total}$ x $ATD_{2014\ SAD\ Total}$)*			1,032,009		
Svc Area Major Arterial portion of $ADT_{2014\ SAD\ Total}$, "$ADT_{2014\ SAD,\ SAMA\ Portion}$", *(($VMT_{2014\ SAD}$/$VMT_{2014\ SAD\ Total}$)*$ADT_{2014\ SAD\ Total}$)*	99,893	2.28	228,013		
Portion of total SAD-generated travel demand that impacts Svc Area Major Arterials, "$VMT_{2014\ SAD,\ SAMA\ Portion}$" *(from above)*					
Minimum Capacity needed to serve Existing Svc Area MA Travel Demand, at adopted standard of service., "$VMC_{2014\ Min}$" *($VMT_{2014\ Total}$/0.9)*				298,056	32.51
2015-2024 Background Non-Pass-Thru Growth, "$VMT_{2015\text{-}2024\ Background\ Non\text{-}Pass\text{-}Thru}$" *($VMT_{2014\text{-}SAD,\ SAMA\ Portion}$ x 1.01^{10} -$VMT_{2014\text{-}SAD,\ SAMA\ Portion}$)*			23,855		
2015-2024 New Non-Pass-Thru Growth,"$VMT_{2015\text{-}2024\ New\ Non\text{-}Pass\text{-}Thru}$"			201,195		
2015-2024 Pass-Thru Growth ($VMT_{2014\ Pass\text{-}Thru}$)x$1.01^{10}$-$VMT_{2014\ Pass\text{-}Thru}$			39,715		
Minimum Capacity Increase necessary to maintain adopted standard of service through 2024. *(Sum of 2015-2024 growth components/0.9)*				294,183	32.09
Maximum Capacity Increase without exceeding existing LOS *(Sum of 2015-2024 growth components/(Capacity-to-Demand Ratio from Table 13))*				586,517	63.98
Existing Capacity Surplus ($VMC_{2014\ Total}$ - $VMC_{2014\ Min}$)				296,182	32.31
Minimum capacity increase that must occur, to maintain adopted level of service through 2024.				**(1,999)**	**(0.22)**
Maximum capacity increase that can occur through 2024 without exceeding existing LOS (per ARS §9-463.05 B)				**290,335**	**31.67**
Capacity increase to be achieved by proposed IIP				**272,658**	**29.74**

Table 21 - Proportionate Share Split of 2015-2024 Growth (VMT2015-2024) - NW Svc Area

Background Non-Pass-Thru Growth's NW/DV Svc Area Share of Projected 2024 Travel Demand	23,855	9.01%
Background Pass-Thru Growth's Share of Projected 2024 Travel Demand	39,715	15.00%
New Service Area Development's Share of Projected 2024 Travel Demand	201,195	75.99%
Total Growth Generated Demand (VMT 2015-24)	264,765	100.00%

Table 22 - Proportionate Share Split of Major Arterial IIP Costs - NW Svc Area

Benefiting Parties	Proportionate Share	Preliminary Estimate of Construction Costs			
		Roadway	Bridge	Culvert	Total
Preliminary Cost Estimate - Total for all Improvements	100.00%	$ 12,839,682	$ 30,974,400	$ 6,581,952	$ 50,396,034
Background Non-Pass-Through Growth's Share	9.01%	$ 1,156,848	$ 2,790,776	$ 593,030	$ 4,540,655
Background Pass-Thru Growth's Share	15.00%	$ 1,925,952	$ 4,646,160	$ 987,293	$ 7,559,405
New Fee Area Development Generated Traffic Growth's Share	75.99%	$ 9,756,881	$ 23,537,464	$ 5,001,629	$ 38,295,974
Gross Construction and ROW Cost Per New EDU	**0.005%**	**$ 662**	**$ 1,598**	**$ 340**	**$ 2,600**

Projected 2015-2024 Fee Area EDU Growth **14,731 EDU's**

Table 23 - Supporting Calculations for 2015-2024 Infrastructure Improvement Plan for Major Arterial Streets - NE Svc Area

Additional Capacity Needs Determination Factors	Trip Gen Potential (veh/day)	Average Trip Length (mi)	Travel Demand (veh-mi)	Network Capacity (veh-mi)	Network Capacity (lane-mi)
Ultimate Overall Capacity of Svc Area Major Arterial Network (SAMA), "**VMC_{Ult}**" *(from Table 14, 7th column, bottom row)*				2,949,925	321.80
Existing (2014) Overall Capacity of Svc Area MA Network, "**$VMC_{2014\ Total}$**" *(from Table 14, 8th column, bottom row)*				1,327,666	144.83
Existing (2014) Capacity of only those segments for which traffic counts were available for this study, "**$VMC_{2014\text{-}C}$**" *(from Table 14)*				1,149,491	125.39
Existing (2014) Total Travel Demand for Counted Segments, only, "**$VMT_{2014\text{-}C}$**" *(from Table 14)*			881,535		
Existing (2014) Total Travel Demand for entire Svc Area MA Network, "**$VMT_{2014\ Total}$**" *($VMT_{2014\text{-}C}$/$VMC_{2014\text{-}C}$ x $VMC_{2014\ Total}$)*			1,018,175		
Existing (2014) "Pass-Thru Traffic" portion of Existing Total Travel Demand, "**$VMT_{2014\ Pass\text{-}Thru}$**" *(15% assumed)*			(152,726)		
Remaining 2014 travel demand attributable to existing service area development, "**$VMT_{2014\ SAD,\ SAMA\ Portion}$**" *($VMT_{2014\ Total}$ - $VMT_{2014\ Pass\text{-}Thru}$)*			865,449		
Total SAD Trip Generation, "**$Trips_{2014\ SAD\ Total}$**" *(from Table 7, 4th column, bottom row)*	191,658				
Avg Total Distance of a SAD-generated Trip, "**$ATD_{2014\ SAD\ Total}$**" *(from Table 7, 5th column, bottom row)*		9.02			
Total SAD-generated Travel Demand for all streets, MA and non-MA, Internal and External, "**$VMT_{2014\ SAD\ Total}$**" *($Trips_{2014\ SAD\ Total}$ x $ATD_{2014\ SAD\ Total}$)*			1,729,674		
Svc Area Major Arterial portion of ADT $_{2014\ SAD\ Total}$, "**$ADT_{2014\ SAD,\ SAMA\ Portion}$**", *(($VMT_{2014\ SAD}$/$VMT_{2014\ SAD\ Total}$)*$ADT_{2014\ SAD\ Total}$*)*		4.52			
Portion of total SAD-generated travel demand that impacts Svc Area Major Arterials, "**$VMT_{2014\ SAD,\ SAMA\ Portion}$**" *(from above)*			865,449		
Minimum Capacity needed to serve Existing Svc Area MA Travel Demand, at adopted standard of service., "**$VMC_{2014\ Min}$**" *($VMT_{2014\ Total}$/0.9)*				1,131,306	123.41
2015-2024 Background Non-Pass-Thru Growth, "**$VMT_{2015\text{-}2024\ Background\ Non\text{-}Pass\text{-}Thru}$**" *($VMT_{2014\text{-}SAD,\ SAMA\ Portion}$ x 1.01^{10} -$VMT_{2014\text{-}SAD,\ SAMA\ Portion}$)*			90,545		
2015-2024 New Non-Pass-Thru Growth,"**$VMT_{2015\text{-}2024\ New\ Non\text{-}Pass\text{-}Thru}$**"			744,335		
2015-2024 Pass-Thru Growth (**$VMT_{2014\ Pass\text{-}Thru}$**)x$1.01^{10}$-$VMT_{2014\ Pass\text{-}Thru}$			15,979		
Minimum Capacity Increase necessary to maintain adopted standard of service through 2024. *(Sum of 2015-2024 growth components/0.9)*				945,398	103.13
Maximum Capacity Increase without exceeding existing LOS *(Sum of 2015-2024 growth components/(Capacity-to-Demand Ratio from Table 14))*				1,109,490	121.03
Existing Capacity Surplus (**$VMC_{2014\ Total}$ - $VMC_{2014\ Min}$**)				196,360	21.42
Minimum capacity increase that must occur, to maintain adopted level of service through 2024.				**749,039**	**81.71**
Maximum capacity increase that can occur through 2024 without exceeding existing LOS (per ARS §9-463.05 B)				**913,131**	**99.61**
Capacity increase to be achieved by proposed IIP				**795,960**	**86.83**

Table 24 - Proportionate Share Split of 2015-2024 Growth (VMT2015-2024) - NE Svc Area

Background Non-Pass-Thru Growth's NE Svc Area Share of Projected 2024 Travel Demand	90,545	10.64%
Background Pass-Thru Growth's Share of Projected 2024 Travel Demand	15,979	1.88%
New Service Area Development's Share of Projected 2024 Travel Demand	744,335	87.48%
Total Growth Generated Demand (VMT 2015-24)	850,859	100.00%

Table 25 - Proportionate Share Split of Major Arterial IIP Costs - NE Svc Area

Travel Demand Generators	Proportionate Share Factor	Proportionate Share of the Costs			
		Roadway	Bridge	Culvert	Total
Preliminary Cost Estimate - Total for all Improvements	100.00%	$ 40,973,363	$ -	$ 29,891,190	$ 70,864,553
Background Non-Pass-Through Growth's Share	10.64%	$ 4,360,228	$ -	$ 3,180,906	$ 7,541,134
Background Pass-Thru Growth's Share	1.88%	$ 769,452	$ -	$ 561,336	$ 1,330,788
New Fee Area Development Generated Traffic Growth's Share	87.48%	$ 35,843,682	$ -	$ 26,148,948	$ 61,992,630
Gross Construction and ROW Cost Per New EDU	**0.004%**	**$ 1,489**	**$ -**	**$ 1,086**	**$ 2,575**

Projected 2015-2024 Fee Area Development Growth **24,071 EDU's**

Table 26 - Supporting Calculations for 2015-2024 Infrastructure Improvement Plan (IIP) for Major Arterial Streets - SW Svc Area

Additional Capacity Needs Determination Factors	Trip Gen Potential (veh/day)	Average Trip Length (mi)	Travel Demand (veh-mi)	Network Capacity (veh-mi)	Network Capacity (lane-mi)
Ultimate Overall Capacity of Svc Area Major Arterial Network (SAMA), "VMC_{Ult}" *(from Table 15, 7th column, bottom row)*				1,327,945	144.86
Existing (2014) Overall Capacity of Svc Area MA Network, "$VMC_{2014\ Total}$" *(from Table 15, 8th column, bottom row)*				1,036,892	113.11
Existing (2014) Capacity of only those segments for which traffic counts were available for this study, "$VMC_{2014\text{-}C}$" *(from Table 15)*				905,351	98.76
Existing (2014) Total Travel Demand for Counted Segments, only, "$VMT_{2014\text{-}C}$" *(from Table 15)*			658,729		
Existing (2014) Total Travel Demand for entire Svc Area MA Network, "$VMT_{2014\ Total}$" *($VMT_{2014\text{-}C}$/$VMC_{2014\text{-}C}$ x $VMC_{2014\ Total}$)*			754,438		
Existing (2014) "Pass-Thru Traffic" portion of Existing Total Travel Demand, "$VMT_{2014\ Pass\text{-}Thru}$" *(15% assumed)*			(113,166)		
Remaining 2014 travel demand attributable to existing service area development, "$VMT_{2014\ SAD,\ SAMA\ Portion}$" *($VMT_{2014\ Total}$ - $VMT_{2014\ Pass\text{-}Thru}$)*			641,273		
Total SAD Trip Generation, "$Trips_{2014\ SAD\ Total}$" *(from Table 10, 4th column, bottom row)*	436,883				
Avg Total Distance of a SAD-generated Trip, "$ATD_{2014\ SAD\ Total}$" *(from Table 10, 5th column, bottom row)*		8.97			
Total SAD-generated Travel Demand for all streets, MA and non-MA, Internal and External, "$VMT_{2014\ SAD\ Total}$" *($Trips_{2014\ SAD\ Total}$ x $ATD_{2014\ SAD\ Total}$)*			3,916,657		
Svc Area Major Arterial portion of $ADT_{2014\ SAD\ Total}$, "$ADT_{2014\ SAD,\ SAMA\ Portion}$", *(($VMT_{2014\ SAD}$/$VMT_{2014\ SAD\ Total}$)*$ADT_{2014\ SAD\ Total}$)*	436,883	1.47	641,273		
Portion of total SAD-generated travel demand that impacts Svc Area Major Arterials, "$VMT_{2014\ SAD,\ SAMA\ Portion}$" *(from above)*					
Minimum Capacity needed to serve Existing Svc Area MA Travel Demand, at adopted standard of service., "$VMC_{2014\ Min}$" *($VMT_{2014\ Total}$/0.9)*				838,265	91.44
2015-2024 Background Non-Pass-Thru Growth, "$VMT_{2015\text{-}2024\ Background\ Non\text{-}Pass\text{-}Thru}$" *($VMT_{2014\text{-}SAD,\ SAMA\ Portion}$ x 1.01^{10} -$VMT_{2014\text{-}SAD,\ SAMA\ Portion}$)*			67,091		
2015-2024 New Non-Pass-Thru Growth,"$VMT_{2015\text{-}2024\ New\ Non\text{-}Pass\text{-}Thru}$"			349,566		
2015-2024 Pass-Thru Growth ($VMT_{2014\ Pass\text{-}Thru}$)x$1.01^{10}$-$VMT_{2014\ Pass\text{-}Thru}$			11,840		
Minimum Capacity Increase necessary to maintain adopted standard of service through 2024. *(Sum of 2015-2024 growth components/0.9)*				476,107	51.94
Maximum Capacity Increase without exceeding existing LOS *(Sum of 2015-2024 growth components/(Capacity-to-Demand Ratio from Table 15))*				588,921	64.24
Existing Capacity Surplus ($VMC_{2014\ Total}$ - $VMC_{2014\ Min}$)				198,627	21.67
Minimum capacity increase that must occur, to maintain adopted level of service through 2024.				**277,480**	**30.27**
Maximum capacity increase that can occur through 2024 without exceeding existing LOS (per ARS §9-463.05 B)				**390,294**	**42.58**
Capacity increase to be achieved by proposed IIP				**337,732**	**36.84**

Table 27 - Proportionate Share Split of 2015-2024 Growth (VMT2015-2024) - SW Svc Area

Background Non-Pass-Thru Growth's SW Svc Area Share of Projected 2024 Travel Demand	67,091	15.66%
Background Pass-Thru Growth's Share of Projected 2024 Travel Demand	11,840	2.76%
New Service Area Development's Share of Projected 2024 Travel Demand	349,566	81.58%
Total Growth Generated Demand (VMT 2015-24)	428,497	100.00%

Table 28 - Proportionate Share Split of 2015-2024 Major Arterial IIP Costs - SW Svc Area

Travel Demand Generators	Proportionate Share Factor	Proportionate Share of the Costs			
		Roadway	Bridge	Culvert	Total
Preliminary Cost Estimate - Total for all Improvements	100.00%	$ 19,083,179	$9,570,312	$ 12,561,894	$ 41,215,385
Background Non-Pass-Through Growth's Share	15.66%	$ 2,987,925	$ 1,498,460	$ 1,966,863	$ 6,453,246
Background Pass-Thru Growth's Share	2.76%	$ 527,281	$264,434	$ 347,093	$ 1,138,808
New Fee Area Development Generated Traffic Growth's Share	81.58%	$ 15,567,973	$7,807,418	$ 10,247,937	$ 33,623,328
Gross Construction and ROW Cost Per New EDU	**0.003%**	**$ 451**	**$ 226**	**$ 297**	**$ 974**

Projected 2015-2024 Fee Area EDU Growth **34,520 EDU's**