				River Bridge +	Connections to Nort	h Loop Evaluation	Matrix							-
						A1		A2			А3		А	١4
						Dahah Fuistina	v	Vestern Alignme	ent		Central Alignmer	nt	Adjacent A	Alignment
						Rehab Existing Bridge (No Build)	454 1 25 0		454 1 25 511 0	404 105 0		454 1 25 51 2	-	
				B.A. a.	I I mite	(Existing Year	AB1: I-35 &	AB3: I-35 & 4th	AB4: I-35, 5th, &	AB1: I-35 &	AB3: I-35 & 4th	AB4: I-35, 5th, &	AB1: I-35 &	AB2: Hybrid
				Measures	Units	Traffic)	Broadway	Direct Crossing	6th Direct Crossing	Broadway Direct	Direct Crossing	6th Direct Crossing	Broadway Direct	Interchange
							Direct Crossing		Crossing	Direct		Crossing		
				,	Years	35	245.000	100	242.000	100			100	
				Area of Existing Bridges being Removed Area of Existing Bridges Left in Place	Area (SF) Area (SF)	242,000	215,000 27,000	234,000 8,000	242,000	215,000 27,000	234,000 8,000	242,000	215,000 27,000	162,000 80,000
			POTENTIAL TO IMPROVE USEFUL LIFE OF FACILITY	Maintenance Cost Existing Bridges Left in Place to 2040	Dollars	\$ 51,480,000				\$ 1,940,000	,		\$ 1,940,000	
		INFRASTRUCTURE		Area of New Bridges being Built	Area (SF)	0	360,000	363,000	377,000	360,000	359,000	383,000	367,000	262,000
				Area of Existing Pavement Left in Place	Area (SF)	372000	329,000	227,000	0	329,000	227,000	0	314,000	264,000
	IMPROVE PHYSICAL CONDITIONS			Maintenance Cost for Existing Roadways Left in Place to 2040	Dollars	\$ 2,976,000	\$ 2,632,000	\$ 1,816,000	\$ -	\$ 2,632,000	\$ 1,816,000	\$ -	\$ 2,512,000	\$ 2,112,000
				Area of Existing Pavement Being Removed or Replaced	Area (SF)	0	378,000	518,000	644,000	378,000	518,000	644,000	373,000	388,000
			POTENTIAL TO IMPROVE SUB-	Number of Existing Substandard Geometric Features Replaced (Red)	Count	0	26	38	39	26	38	39	26	22
		GEOMETRY	STANDARD GEOMETRY	Number of Existing Substandard Geometric Features Replaced (Yellow)	Count	0	2	5	4	2	5	4	2	2
				Replaced (Tellow)										
		US 169	MAINLINE TRAFFIC SPEED	Average Peak Period Travel Speed, SB at AM Peak Hour	МРН	14		28			28		2	28
l NI				Average Peak Period Travel Speed, NB at PM Peak Hour	МРН	43.4		43.4			43.4		43.4	
		TRAFFIC CONGESTION		Total Peak Hour Delay	Delay (Min.)	4:00	2:00	2:00	2:00	2:00	2:00	2:00	2:00	2:00
E			US-169 (at Airport) TO I-35 (at 12th Street) US-169 (at Airport) TO I-70 (at	SB at AM Peak Hour	Travel Time (Min.)	4	1	1	1	1	1	1	1	2
E				NB at PM Peak Hour WB at AM Peak Hour	Travel Time (Min.) Travel Time (Min.)	2	2	2	3	1 2	2	3	1 2	2
D		FREEWAY TRAVEL TIMES	Stateline)	NB at PM Peak Hour	Travel Time (Min.)	2	2	2	3	2	2	3	2	2
s			US-169 (at Airport) TO I-70 (at	EB at AM Peak Hour	Travel Time (Min.)	2	2	3	3	2	3	3	2	2
	OPTIMIZE SYSTEM		Broadway)	NB at PM Peak Hour	Travel Time (Min.)	2	2	3	3	2	3	3	2	2
	PERFORMANCE		DOWNTOWN	Origin: US-169 at Airport. Destination: Broadway/6th Street Intersection.	Travel Time (Min.)	2	2	3	3	2	3	3	2	2
		LOCAL CONNECTIVITY	RIVERMARKET	Origin: US-169 at Airport. Destination: Broadway/4th Street Intersection.	Travel Time (Min.)	3	3	2	2	3	2	2	3	3
		INADI FRAFRITATIONI OF	ACCESS MANAGEMENT STRATEGIES	Examples: Left Turn Restrictions, Minimum Intersection Spacing, Roundabouts, Frontage Roads, etc.	0-2 (Implementation)	0.3		1.1			1.1		1.	.1
		IMPLEMENTATION OF <u>APPLICABLE</u> MARC CONGESTION	ACTIVE TRANSPORTATION STRATEGIES	S Examples: Designated Bike Lanes, Exclusive Non-Motorized ROW, etc.	0-2 (Implementation)	0.25		2			2		7	2
		MANAGEMENT	HIGHWAY STRATEGIES	Examples: Geometric Improvements, HOV Lanes, Acceleration/Deceleration Lanes, etc.	0-2 (Implementation)	0		1.12			1.12		1.	12
		TOOLBOX STRATEGIES	TRANSIT STRATEGIES	Examples: Dedicated ROW for Transit	0-2 (Implementation)	0		0			0		(0
			TRANSPORTATION OPERATIONS & MGMT STRATEGIES	Examples: Reversible Traffic Lanes, Turn Restrictions, etc.	0-2 (Implementation)	0.33		0.33			0.33		0.	33
		DRIVER SAFETY	CONFLICT POINTS AT BRIDGE TERMINALS	Number of conflict points	Count	75	99	113	91	99	113	91	99	73
	IMPROVE SAFETY AND	RESILIENCE	INCIDENT ON BRIDGE	Increase in Delay due to Incident on Bridge	1-4 (Best to Worst)	4	2	1	1	2	1	1	2	3
	SECURITY	BIKE/PEDESTRIAN	BICYCLE/PEDESTRIAN SAFETY	Potential for safety improvements to existing Bike/Ped Facilities	1-4 (Best to Worst)	4		1			1		:	1
		IMPROVE EMERGENCY R	ESPONSE TIMES	Emergency Responder Access to Bridge and ramps.	1-4 (Best to Worst)	4		1			1		1	1

				River Bridge +	Connections to Nort	h Loop Evaluation	Matrix							
				mer bruge .		A1		A2			А3		А	A 4
						Rehab Existing	V	Vestern Alignme	nt		Central Alignmer	nt	Adjacent A	Alignment
	Measures Unit		Units	Bridge (No Build) (Existing Year Traffic)	AB1: I-35 & Broadway Direct Crossing	AB3: I-35 & 4th Direct Crossing	AB4: I-35, 5th, & 6th Direct Crossing	AB1: I-35 & Broadway Direct	AB3: I-35 & 4th Direct Crossing	AB4: I-35, 5th, & 6th Direct Crossing	AB1: I-35 & Broadway Direct	AB2: Hybrid Interchange		
	IMPROVE TRANSPORTATION	CONTRIBUTE TO/COMPLEMENT GREATER KC REGIONAL RTATION BIKEWAY PLAN		Potential for expansion of existing Bike/Ped Facilities	1-4 (Best to Worst)	3	1	2	2	1	2	2	1	1
	CHOICES	BIKE/ PEDESTRIAN RIVER CROSSING		Width of Bike/Ped accommodation on bridge	Width (Feet)	6		10			10		10	
	IMPROVE ECONOMIC	ENHANCE REGIONAL FREIGHT HUBS	PORT OF KC/WEST BOTTOMS	Connectivity to Highway System	1-4 (Best to Worst)	2	3	3	3	3	3	3	3	2
	VITALITY AND PLACEMAKING	rkciuni nubs	FAIRFAX	Connectivity to Highway System	1-4 (Best to Worst)	2	2	2	2	2	2	2	2	2
			DOWNTOWN AIRPORT	Connectivity to Highway System	1-4 (Best to Worst)	4	1	1	1	1	1	1	1	1
		PROMOTE QUALITY PLAC	CES	Visual Character and Aesthetics	1-4 (Best to Worst)	1		3		3			7	2
				Residential	Area (Acres)	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
				Commercial	Area (Acres)	0.0	3.1	0.7	0.7	3.6	2.9	1.4	2.9	0.0
ا ۾ ا				Number of tracts with anticipated ROW acquisition	Count	0	5	3	2	7	6	4	6	0
G O A		COMMUNITY IMPACTS	ROW IMPACTS	Anticipated complexity of right-of-way acquisition	1-4 (Best to Worst)	1	3	2	3	3	4	3	2	1
^				Billboards	Count	0	2	0	1	3	1	1	2	0
L			EJ/LEP POPULATIONS DISPLACED	Residential	Number of Residences	0		0			0		(0
s	IMPROVE SUSTAINABILITY		LITTLE FOR OLATIONS DISPLACED	Commercial	Number of Businesses	0		0			0		(0
	INFROVE 303 FAINABILITY			NHRP Resources (or Potentially Eligible) Impacted	Count	1	2	2	2	2	2	2	2	1
			CULTURAL RESOURCES	Documented Archeology Sites	Count	0		0			0		(0
		PROTECT		Hazmat Sites Impacted	Count	0		1			1			1
		CULTURAL/NATURAL RESOURCES		Improvement Opportunities Water Quality and Stormwater	1-4 (Best to Worst)	4		3			3			3
		RESCORCES	NATURAL RESOURCES	Parks/Trails Impacted	Count	0	1	2	2	1	1	2	1	0
				Wetlands Impacted	Area (Acres)	0		2.2			2.2			.0
				Floodplains Impacted	Linear Feet Crossed	0		1650			1600		15	000
			AIR QUALITY	General Conformity Analysis of Required Pollutants	Tons per Year	See North Loop	See North Loop	See North Loop	See North Loop	See North Loop	See North Loop	See North Loop	See North Loop	See North Loop
		RAILROAD ISSUES		Difficulty of RR Easement Acquisition & Construction	1-4 (Best to Worst)	1	4	4	4	3	3	4	3	2
	FEASIBILITY	AIRPORT ISSUES		Aviation Impacts during Construction	1-4 (Best to Worst)	1	4	4	4	3	3	4	2	2
	FEASIBILIT	TOTAL COST		Planning Level Construction Cost Estimate	Dollars	\$ -	\$ 175,400,000	\$ 176,300,000	\$ 191,600,000	\$ 175,200,000	\$ 174,800,000	\$ 193,000,000	\$ 176,300,000	\$ 130,900,000
		OPPORTUNITY FOR PHAS	SED IMPLEMENTATION		1-4 (Best to Worst)	4	1	2	2	1	2	2	2	3

Planning Level Construction Cost Estimate includes:

Structures - new bridges, new walls and existing bridge removals

Roadway Items - new pavement, earthwork, drainage, signing, marking and existing removals

Project Management for Design-Build Project - mobilization, quality management, design, environmental, maintenance of traffic and contingency

Not Included: right-of-way acquisition, utility relocations, EA Phase efforts, DB stipends, Design/Construction Phase oversight

						B1	B3-6a	B3-6b	B3-7	B7-1
					No-Build	Access Consolidation	Compressed Footprint	Compressed Footprint	Compressed Footprint	Reclassify I-7
			Measures	Units			(South)	(North)	(Existing)	Ave. Parkwa
			Area of Existing Bridges being Removed	Area (SF)	0	55,400	, ,	107,500	, 0,	151,600
			Area of Existing Bridges Left in Place	Area (SF)	151,600	96,200		44,100		0
		DOTENTIAL TO IMPROVE LIGHTIN LIFE	Maintenance Cost for Existing Bridges Left in Place to 2040	Dollars	\$9,400,000	\$4,200,000		\$1,300,000		\$0
	INFRASTRUCTURE	POTENTIAL TO IMPROVE USEFUL LIFE OF FACILITY	Area of New Bridges being Built	Area (SF)	0	82,600	99,100	116,200	116,200	0
IMPROVE PHYSICAL		OT FACILITY	Area of Existing Roadways Left in Place		1,713,000	1,125,000	0	0	0	0
CONDITIONS			Maintenance Cost for Existing Roadways Left In Place to	Dollars	\$13,700,000	\$9,000,000		\$0		\$0
			2040 Area of Existing Pavement being Removed or Replaced	Area (SF)	0	424,383		713,680		713,680
			Number of Existing Substandard Geometric Features	Area (Sr)	U			·		
		POTENTIAL TO IMPROVE SUB-	Removed or Replaced (Red)	Count	0	22		28		30
	GEOMETRY	STANDARD GEOMETRY	Number of Existing Substandard Geometric Features Removed or Replaced (Yellow)	Count	0	13		16		18
			Travel Time Origin: 1-35 SB (NE Corner)	AM (Min.)	4:58	5:07		5:11		6:12
			Dest: I-35 SB (SW Corner)	PM (Min.)	6:17	6:43		6:15		7:33
			Travel Time Origin: 1-35 NB (SE Corner)	AM (Min.)	4:25	4:45		4:32		5:12
			Dest: I-35 NB (NE Corner)	PM (Min.)	8:05	6:21		8:37		15:11
		CONNECTIONS MOST SENSITIVE TO	Travel Time Origin: 1-70 WB (SE Corner)	AM (Min.)	4:35	5:42		4:22		6:22
	REGIONAL	STRATEGIES ARE LISTED HERE - (see	Dest: I-70 WB (NW Corner)	PM (Min.)	4:15	4:12		4:05		5:41
	CONNECTIONS	"Travel Times" Matrix from DTA for	Travel Time Origin: 1-70 EB (NW Corner)	AM (Min.)	4:22	4:12		4:06		5:20
		full results)	Dest: I-70 EB (SE Corner)	PM (Min.)	4:46	4:30		4:51 2:56		7:17
			Travel Time Origin: 1-670 EB (SW Corner) Dest: I-70 EB (SE Corner)	AM (Min.) PM (Min.)	2:49 6:14	2:43 9:04		6:36		4:24 7:17
			Travel Time Origin: 1-70 WB (SE Corner)	AM (Min.)	3:20	3:41		3:43		4:30
			Dest: I-670 WB (SW Corner)	PM (Min.)	2:35	2:38		2:33		2:45
			Average Peak Hour Travel Speed on I-70 EB	MPH (AM / PM)	46.6 / 47.0	47.5 / 47.7		48.1 / 48.2		42.8 / 41.
			Average Peak Hour Travel Speed on I-70 WB	MPH (AM / PM)	45.9 / 47.0	41.5 / 47.7		47.5 / 48.8		40.2 / 45.
	DOWNTOWN LOOP	MAINLINE TRAFFIC SPEED	Average Peak Hour Travel Speed on I-670 EB	MPH (AM / PM)	43.9 / 39.3	43.9 / 40.7		43.0 / 37.0		39.1 / 36.
	DOWNTOWN LOOP	WAINE MATTIC STEED	Average Peak Hour Travel Speed on I-670 WB	MPH (AM / PM)	45.1 / 50.8	42.9 / 50.7		42.1 / 50.4		38.7 / 49.
			Average Peak Hour Travel Speed on I-35 NB	MPH (AM / PM)	44.7 / 44.8	45.6 / 45.4		45.3 / 44.9		40.3 / 37
OPTIMIZE SYSTEM PERFORMANCE			Average Peak Hour Travel Speed on I-35 SB	MPH (AM / PM)	44.8 / 44.1	44.9 / 43.1		45.0 / 44.4 16,206		39.8 / 39
PERFORIVIANCE			Total Peak Hour Delay (DTA System Total Network)	AM Delay (Min.) PM Delay (Min.)	15,105 39,016	15,783 38,391		39,844		17,599 44,740
		TRAFFIC CONGESTION		AM Delay (Min.)	(Pending)	(Pending)		(Pending)		(Pending
	0,407514 144105		Total Peak Hour Delay (DTA System within cordon line)	PM Delay (Min.)	(Pending)	(Pending)		(Pending)		(Pending
	SYSTEM-WIDE		Total Travel Time - Vehicle Hours Traveled (DTA System	AM (Hrs.)	55,625	55,878		56,214		56,397
		TOTAL TRAVEL	Total)	PM (Hrs.)	97,357	97,173		97,434		98,743
		TOTAL MAYEL	Total Daily Travel Distance (DTA System Total)	AM (VMT)	2,319,979	2,317,385		2,319,608		2,315,123
				PM (VMT)	3,505,732	3,497,001		3,499,903		3,505,732
		ACCESS MANAGEMENT STRATEGIES	Examples: Left Turn Restrictions, Minimum Intersection Spacing, Roundabouts, Frontage Roads, etc.	0-2 (Implementation)	0.6	1.3		1.3		1.3
	IMPLEMENTATION OF APPLICABLE MARC	ACTIVE TRANSPORTATION STRATEGIES	Examples: Designated Bike Lanes, Exclusive Non-Motorized ROW, etc.	0-2 (Implementation)	0	1.75		1.75		1.75
	CONGESTION MANAGEMENT TOOLBOX STRATEGIES	HIGHWAY STRATEGIES	Examples: Geometric Improvements, HOV Lanes, Acceleration/Deceleration Lanes, etc.	0-2 (Implementation)	0	0.88		0.88		0.88
	TOOLDON STRATEGIES	TRANSIT STRATEGIES	Examples: Dedicated ROW for Transit	0-2 (Implementation)	0	0		0		0
		TRANSPORTATION OPERATIONS & MGMT STRATEGIES	Examples: Reversible Traffic Lanes, Turn Restrictions, etc.	0-2 (Implementation)	0	1		1		1
		RAMP DENSITY	Ramp Density on I-70	Ramps per Mile	16	6		4		0
	DRIVER SAFETY	CONFLICT POINTS	Number of Conflict Points	Count	201	166		396		418
		INTERSTATE TRAFFIC	Potential for Severe/Fatal Crash Reduction	1-4 (Best to Worst)	4	2		3		1
IMPROVE SAFETY AND		LOCAL ROAD SYSTEM	Potential for Severe/Fatal Crash Reduction Increase in Total Peak Hour Delay (Network-wide) from a	1-4 (Best to Worst)	4	1		2		3
SECURITY	RESILIENCE BIKE/	SYSTEM REDUNDANCY	blocked lane on I-70 Potential for safety improvements to existing Bike/Ped	Delta Delay (Min.)	3	2		1		4
	PEDESTRIAN	BICYCLE/PEDESTRIAN SAFETY	Facilities	1-4 (Best to Worst)	4	3		2		1
	IMPROVE EMERGENCY I	RESPONSE TIMES	Highway Access from KCFD Station 25 (401 E. Missouri Ave)	1-4 (Best to Worst)	4	3		2		1

					No-Build	B1 Access Consolidation	B3-6a Compressed Footprint	B3-6b Compressed Footprint	B3-7 Compressed Footprint	B7-1 Reclassify I-70 (Independence	
			Measures	Units			(South)	(North)	(Existing)	Ave. Parkway	
	CONTRIBUTE TO/COMPLEMENT GREATER KC REGIONAL BIKEWAY PLAN		Potential for expansion of existing Bike/Ped Facilities	1-4 (Best to Worst)	4	3	2			1	
IMPROVE TRANSPORTATION CHOICES	ACCOMMODATE EXISTI	NG AND FUTURE TRANSIT	Potential for Independence BRT Integration	1-4 (Best to Worst)	4	3	1			1	
			Potential for Streetcar Integration	1-4 (Best to Worst)	4	3	1			1	
			Potential to Make Space Available for Commercial/Recreational Development	Area (Acres)	0.0	0.0	11.3	7.2	6.8	26.9	
	REVITALIZATION AREAS		Potential to Make Space Available for Commercial/Recreational Development	Land Value (\$)	\$0	\$0	\$33,500,000	\$21,800,000	\$20,500,000	\$80,400,000	
IMPROVE ECONOMIC			Clear title of existing right-of-way to be released	1-4 (Best to Worst)	N/A	N/A	2	1	4	2	
VITALITY AND PLACEMAKING		PORT OF KC/WEST BOTTOMS	Connectivity to Highway System	1-4 (Best to Worst)	3	2		2		4	
	ENHANCE REGIONAL	FAIRFAX	Connectivity to Highway System	1-4 (Best to Worst)	3	2	2		4		
	FREIGHT HUBS	DOWNTOWN AIRPORT	Connectivity to Highway System	1-4 (Best to Worst)	4	1		2		3	
	PROMOTE QUALITY PLA	ACES	Visual Character and Aesthetics	1-4 (Best to Worst)	4	3		2	2 2 0	1	
		ROW IMPACTS	Residential	Area (Acres)	0	0		0		0	
	COMMUNITY IMPACTS	ROW IIVIPACIS	Commercial	Area (Acres)	0	0		0	00 \$20,500,000	0	
	COMMUNITY INFACTS	EJ/LEP POPULATIONS DISPLACED	Residential	Number of Residences	0	0		0		0	
		LITER FOR OLATIONS DISPLACED	Commercial	Number of Businesses	0	0		0		0	
			NRHP Sites Impacted	Count	0	0		0		0	
		CULTURAL RESOURCES	NRHP Districts Impacted	Count	0	0		0		0	
IMPROVE SUSTAINABILITY	PROTECT	CULTURAL RESOURCES	Documented Archeology Sites	Count	0	0		0		0	
	CULTURAL/NATURAL		Hazmat Sites Impacted	Count	0	0		0		0	
	RESOURCES	NATURAL RESOURCES	Improvement Opportunities Water Quality and Stormwater	1-4 (Best to Worst)	4	3	2	1	2	1	
		INATURAL RESOURCES	Parks Impacted	Area (Acres)	0	0		0		0	
			Wetlands Impacted	Area (Acres)	0	0		0		0	
	PUBLIC HEALTH	AIR QUALITY	General Conformity Analysis of Required Pollutants	Tons per year	2	1	3	3	3	4	
FEASIBILITY	ROW ISSUES		Number of tracts with anticipated right-of-way acquisition challenges	Count	0	0	0	0	0	0	
PEASIBILITY	TOTAL COST		Planning Level Construction Cost Estimate	Dollars	\$0	\$53,800,000	\$113,200,000	\$117,700,000	\$117,700,000	\$61,600,000	

All Traffic Modeling Includes new Broadway Bridge

Differentiating metrics which are being considered for presentation to the public

Planning Level Construction Cost Estimate includes:

Structures - new bridges, new walls and existing bridge removals

Roadway Items - new pavement, earthwork, drainage, signing, marking and existing removals

Project Management for Design-Build Project - mobilization, quality management, design, environmental, maintenance of traffic and contingency

				Downtown Airport Strategy Evaluat	ion Matrix				
							C1	C4	C5
				Measures	Units	No-Build	Half Diamond Intrchg w/ Existing Harlem Access	Half Diamond Intrchg w/ Split Lou Holland Undercrossing	Half Diamond Intrchg w/ New Harlem Single Harlem Railroad Xing
				Area of Existing Bridges being Removed	Area (SF)	0	97,000	97,000	100,000
				Area of Existing Bridges Left in Place	Area (SF)	97,000	0	0	0
		INFRACTRUCTURE	POTENTIAL TO IMPROVE USEFUL LIFE	Maintenance Cost of Existing Bridges Left in Place to 2040	Dollars	\$ 6,510,000	0	0	0
		INFRASTRUCTURE	OF FACILITIES	Area of New Bridges being Built Area of Existing Pavement Left in Place	Area (SF) Area (SF)	0 232,000	107,000 48,000	107,000 47,000	115,000 6,000
	IMPROVE PHYSICAL			Maintenance Cost of Existing Pavement Left in Place to 2040	Dollars	\$ 1,856,000	·		,
	CONDITIONS			Area of Existing Pavement Being Replaced	Area (SF)	0	142,640	126,518	134,025
			POTENTIAL TO IMPROVE SUB-	Number of Existing Substandard Geometric Features Replaced		0	10	10	10
		GEOMETRY	STANDARD GEOMETRY	(Red) Number of Existing Substandard Geometric Features Replaced	Count	0	1	1	1
		10011 100500	LIABUSAA	(Yellow)		·			
		LOCAL ACCESS	HARLEM	Connectivity between US-169 and Harlem	1-4 (Best to Worst) MPH	3	1	1	1 21 5 / 44 9
			US 169 TRAVEL SPEED	Average Peak Hour Travel Speed (AM / PM)		31.6 / 44.9	31.6 / 44.9	31.6 / 44.9	31.6 / 44.9
				NB Off-Ramp, South of Harlem Rd.	2040 AM / PM LOS	C / E	B / E	B / E	B / E
N				NB On-Ramp, North of Harlem Rd.	2040 AM / PM LOS	B / E	B / E	B / E	B / E
E		US 169	EVIT AND ENTRANCE DAMP	SB Off-Ramp, Right-in, Right-out	2040 AM / PM LOS	C / B	С / В	С / В	C / B
D			EXIT AND ENTRANCE RAMP PERFORMANCE	SB On-Ramp, Right-in, Right-out	2040 AM / PM LOS	C / B	c / c	c / c	c / c
S				NB On-Ramp at North Interchange	2040 AM / PM LOS	B / D	B / D	B/D	B/D
				SB Off-Ramp at North Interchange	2040 AM / PM LOS	D / C	D / C	D / C	D / C
				SB On-Ramp at North Interchange	2040 AM / PM LOS	D / C	С / В	С / В	С / В
			ACCESS MANAGEMENT STRATEGIES	Examples: Left Turn Restrictions, Minimum Intersection Spacing,	0-2 (Implementation)	0	1.1	1.1	1.1
		IMPLEMENTATION OF <u>APPLICABLE</u> MARC	ACTIVE TRANSPORTATION STRATEGIES	Examples: Designated Bike Lanes, Exclusive Non-Motorized ROW, etc.	0-2 (Implementation)	0	2	2	2
		CONGESTION	HIGHWAY STRATEGIES	Examples: Geometric Improvements, HOV Lanes, Acceleration/Deceleration Lanes, etc.	0-2 (Implementation)	0	1	1	1
		MANAGEMENT TOOLBOX STRATEGIES	TRANSIT STRATEGIES	Examples: Dedicated ROW for Transit	0-2 (Implementation)	0	1	1	1
		TOOLBOX STRATEGIES	TRANSPORTATION OPERATIONS &	Examples: Reversible Traffic Lanes, Turn Restrictions, etc.	0-2 (Implementation)	0.3	0.67	0.67	0.67
		DRIVER SAFETY	MGMT STRATEGIES CONFLICT POINTS	Total Number of Conflict Points	Count	25	20	13	19
	IMPROVE SAFETY AND	BICYCLE/ PEDESTRIAN	BICYCLE/PEDESTRIAN SAFETY	Potential for safety improvements to existing Bike/Ped Facilities	1-4 (Best to Worst)	4	1	1	1
	SECURITY	IMPROVE EMERGENCY RI	ESPONSE TIMES	Improvement in KCFD Access between Downtown Airport Station		3	2	2	2
	INADDOVE TO ANCOCOTATION	CONTRIBUTE TO/COMPLI	EMENT BIKE KC PLAN	and Harlem Potential for expansion of existing Bike/Ped Facilities	1-4 (Best to Worst)	4	2	3	1
	IMPROVE TRANSPORTATION CHOICES	ACCOMMODATE EXISTIN			1-4 (Best to Worst)	4	3	3	3
		REVITALIZATION AREAS		Potential for Bus/Streetcar Integration Potential to Make Space Available for Commercial/Recreational	1-4 (Best to Worst)	0	0	0	0
	IMPROVE ECONOMIC	ENHANCE REGIONAL		Development	Area (Acres)	-		-	
	VITALITY AND PLACEMAKING	FREIGHT HUBS PROMOTE QUALITY PLACE	DOWNTOWN AIRPORT	Connectivity to Highway System Visual Character and Aesthetics	1-4 (Best to Worst) 1-4 (Best to Worst)	4	2	1	1
G		O.W.O.L. QUALITY PLAC		Residential	Area (Acres)	0	0	0	0
0		COMMANDENCE	ROW IMPACTS	Commercial	Area (Acres)	0.0	0.6	0.2	0.5
Α		COMMUNITY IMPACTS	EJ/LEP POPULATIONS DISPLACED	Residential	Number of Residences	0	0	0	0
L			LI/LLY FORULATIONS DISPLACED	Commercial	Number of Businesses	0	0	0	0
				NRHP Sites Impacted	Count	0	0	0	0
S	IMPROVE SUSTAINABILITY	PROTECT	CULTURAL RESOURCES	NRHP Districts Impacted	Count	0	2	2	2
		CULTURAL/NATURAL		Documented Archeology Sites Hazmat Sites Impacted	Count	0	0	0	0
		RESOURCES		Parks Impacted	Area (Acres)	0	0	0	0
			NATURAL RESOURCES	Wetlands Impacted	Area (Acres)	0	0	0	0
				Floodplains Impacted	Linear Feet Crossed	0	0	0	0
		PUBLIC HEALTH	AIR QUALITY	General Conformity Analysis of required pollutants	Tons per year	See North Loop	See North Loop	See North Loop	See North Loop
	FEASIBILITY	ROW ISSUES		Difficulty of RR Easement Acquisition & Construction	1-4 (Best to Worst)	1	2	3	4
		TOTAL COST		Planning Level Construction Cost Estimate	Dollars	0	\$ 32,300,000	\$ 32,300,000	\$ 39,400,000

Planning Level Construction Cost Estimate includes:

Structures - new bridges, new walls and existing bridge removals
Roadway Items - new pavement, earthwork, drainage, signing, marking and existing removals
Project Management for Design-Build Project - mobilization, quality management, design, environmental, maintenance of traffic and contingency

				West Bottoms Strategy Evaluation Ma	trix				
							D6	D7	D8
				Measures	Units	No-Build	Mulberry St. to Forrester Rd.	Wyoming St. to Forrester Rd.	4th St. to Woodswether Bridge
				Area of Existing Bridges being Removed	Area (SF)	0 25,000	25,000** 0	25,000** 0	25,000 0
				Area of Existing Bridges Left in Place	Area (SF)				
				Maintenace Cost of Existing Bridges Left in Place to 2040	Dollars	\$ 1,800,000	0	\$ -	\$ -
		INFRASTRUCTURE	POTENTIAL TO IMPROVE USEFUL LIFE OF FACILITIES	Area of New Bridges being Built Area of Existing Pavement Left in Place	Area (SF) Area (SF)	281000	186,000	0 147,000	15,000 228,000
	IMPROVE PHYSICAL CONDITIONS		OF FACILITIES	Maintenace Cost of Existing Roadway Left in Place to 2040		\$ 2,248,000			
				Area of Existing Pavement Being Removed or Replaced	Area (SF)	0	167,000	197,000	35,000
		GEOMETRY	POTENTIAL TO IMPROVE SUB-	Number of Existing Substandard Geometric Features Replaced (Red)	Count	0	1	1	1
N		GEOMETRY	STANDARD GEOMETRY	Number of Existing Substandard Geometric Features Replaced (Yellow)	Count	0	0	0	0
E E D		LOCAL ACCESS	CONNECTION FROM WOODSWETHER BUSINESSES TO HIGHWAY ACCESS	Improvement of Highway Access for Woodswether businesses. Origin: Woodswether/Madison Intersection. Destination: Broadway/5th Street Intersection.	1-4 (Best to Worst)	4	3	3	1
S	OPTIMIZE SYSTEM PERFORMANCE	IMPLEMENTATION OF	ACCESS MANAGEMENT STRATEGIES	Examples: Left Turn Restrictions, Minimum Intersection Spacing, Roundabouts, Frontage Roads, etc.	0-2 (Implementation)	0.2	0.4	0.4	0.4
		APPLICABLE MARC CONGESTION	ACTIVE TRANSPORTATION STRATEGIES	Examples: Designated Bike Lanes, Exclusive Non- Motorized ROW, etc.	0-2 (Implementation)	0	0.5	0.5	0.5
		MANAGEMENT	HIGHWAY STRATEGIES	Examples: Geometric Improvements, HOV Lanes, Acceleration/Deceleration Lanes, etc.	0-2 (Implementation)	0.12	0.25	0.25	0.25
		TOOLBOX STRATEGIES	TRANSIT STRATEGIES	Examples: Dedicated ROW for Transit	0-2 (Implementation)	0	0	0	0
			TRANSPORTATION OPERATIONS & MGMT STRATEGIES	Examples: Reversible Traffic Lanes, Turn Restrictions, etc.	0-2 (Implementation)	0	0	0	0
		DRIVER SAFETY	NUMBER OF CONFLICT POINTS	Number of conflict points	Count	116	116	106	140
	IMPROVE SAFETY AND	BIKE/ PEDESTRIAN	BICYCLE/PEDESTRIAN SAFETY	Potential for safety improvement to existing Bike/Ped Facilities	1-4 (Best to Worst)	4	3	3	2
	SECURITY	IMPROVE EMERGENCY R	ESPONSE TIMES	Access to Woodswether businesses from KCFD Station 25 (401 E. Missouri Ave.)	1-4 (Best to Worst)	2	3	3	2
	IMPROVE TRANSPORTATION	CONTRIBUTE TO/COMPL BIKEWAY PLAN	EMENT GREATER KC REGIONAL	Potential for expansion of existing Bike/Ped facilities	1-4 (Best to Worst)	3	2	2	2
	CHOICES	ACCOMMODATE EXISTIN	IG AND FUTURE TRANSIT	Potential for Bus/Streetcar Integration	1-4 (Best to Worst)	4	4	4	2
	IMPROVE ECONOMIC	REVITALIZATION AREAS		Potential to Make Space Available for Commercial/Recreational Development	Area (Acres)	4	3	3	2
	VITALITY AND PLACEMAKING	ENHANCE REGIONAL FREIGHT HUBS	PORT OF KC	Improvement of Woodswether Terminal to 5th & Broadway	1-4 (Best to Worst)	4	3	3	2
G		PROMOTE QUALITY PLACE	CES	Visual Character and Aesthetics	1-4 (Best to Worst)	3	1 0	1	2
0			ROW IMPACTS	Residential Commercial	Area (SF) Area (SF)	0	0	0	0 76,412
A		COMMUNITY IMPACTS	EJ/LEP POPULATIONS DISPLACED	Residential	Number of Residences	0	0	0	0
ΙΩ				Commercial NRHP Sites Impacted	Number of Businesses Count	0	0	0	3
S	IMPROVE SUSTAINABILITY	PROTECT	CULTURAL RESOURCES	NRHP Districts Impacted	Count	0	2	2	2
		CULTURAL/NATURAL	COLI ORAL RESOURCES	Documented Archeology Sites	Count	0	0	0	0
		RESOURCES		Hazmat Sites Impacted Parks Impacted	Count Area (Acres)	0	0	0	0
			NATURAL RESOURCES	Wetlands Impacted	Area (Acres)	0.0	0.0	0.0	0.0
		RAILROAD ISSUES		Difficulty of RR Easement Acquisition & Construction	1-4 (Best to Worst)	1	2	2	4
	FEASIBILITY	ROW ISSUES		Number of tracts with anticipated right-of-way acquisition issues	Count	0	0	0	1
		TOTAL COST		Planning Level Construction Cost Estimate	Dollars	\$0	\$900,000	\$1,100,000	\$6,900,000

Planning Level Construction Cost Estimate includes:

Structures - new bridges, new walls and existing bridge removals, ** Portions of the Woodswether Road Bridge may be considered for use as bicycle and pedestrian accomodations.

Roadway Items - Pavement Overlays, signing, marking and existing removals
Project Management for Design-Build Project - mobilization, quality management, design, environmental, maintenance of traffic and contingency

				I-70 MO-9 Strategy Evaluation	ı Matrix															
				Measures	Units	E1 No-Build	E2a All At-Grade Crossings, Existing Alignment	E2b All At-Grade Crossings, Western Alignment	E3 South At-Grade Connections	E4 South At-Grade Connections/ Split Lanes										
				Area of Existing Bridges being Removed	Area (SF)	0	148,500	177,500	56,300	56,300										
				Area of Existing Bridges Left in Place	Area (SF)	177,500	29000**	0	121,200	121,200										
				Maintenance Cost for Existing Bridges Left in Place to 2040	Dollars	\$800,000	\$50,000	\$0	\$200,000	\$200,000										
		INFRASTRUCTURE	POTENTIAL TO IMPROVE USEFUL LIFE	Area of New Bridge being Built	Area (SF)	0	45,400	52,500	19,200	23,600										
	IMPROVE PHYSICAL		OF FACILITY	Area of Existing Pavement Left in Place	Area (SF)	449,000	0	0	147,000	147,000										
	CONDITIONS			Maintenance Cost for Existing Roadways Left In Place to 2040	Dollars	\$3,592,000	\$0	\$0	121,200 \$200,000 19,200	\$1,176,000										
				Area of Existing Pavement Being Removed or Replaced	Area (SF)	0	490,000	490,000		330,000										
		GEOMETRY	POTENTIAL TO IMPROVE SUB-	Number of Existing Substandard Geometric Features Replaced (Red)	Count	0	16	16	16	16										
			STANDARD GEOMETRY	Number of Existing Substandard Geometric Features Replaced (Yellow)	Count	0	5	5	5	5										
			NORTHAND	Origin: SB MO-9 at HOA Bridge. Destination: SB US-71 at 8th Street.	Travel Time (Min.)	1	4	5	3	2										
N			NORTHLAND	Origin: SB MO-9 at HOA Bridge. Destination: WB I-70 at Broadway	Travel Time (Min.)	1	4	5	3	2										
E		LOCAL/REGIONAL CONNECTIONS	COLUMBUS PARK	Access to/from MO-9	1-4 (Best to Worst)	3	1	1	2	2										
D			RIVER MARKET	Access to/from MO-9	1-4 (Best to Worst)	3	1	1	2	2										
S	OPTIMIZE SYSTEM		OAK/LOCUST CONNECTION	Improved intersection at Oak Trafficway and Oak/Locust	1-4 (Best to Worst)	3	2	2	\$6,300 121,200 \$200,000 19,200 147,000 \$1,176,000 330,000 16 5 3 3	1										
	PERFORMANCE					MARI FAMENTATION OF	IAADI FAAFAITATION OF	IMPLEMENTATION OF	IMPLEMENTATION OF	IMPLEMENTATION OF	IMPLEMENTATION OF	IMADI EMENITATION OF	ACCESS MANAGEMENT STRATEGIES	Examples: Left Turn Restrictions, Minimum Intersection Spacing, Roundabouts, Frontage Roads, etc.	0-2 (Implementation)	0.3	1	1	1	1
		APPLICABLE MARC CONGESTION	ACTIVE TRANSPORTATION STRATEGIES	Examples: Designated Bike Lanes, Exclusive Non-Motorized ROW, etc.	0-2 (Implementation)	0	2	2	2	2										
		MANAGEMENT TOOLBOX STRATEGIES	HIGHWAY STRATEGIES	Examples: Geometric Improvements, HOV Lanes, Acceleration/Deceleration Lanes, etc.	0-2 (Implementation)	0	0.75	0.75	0.75	0.75										
		TOOLDOX STRATEGIES	TRANSIT STRATEGIES	Examples: Dedicated ROW for Transit	0-2 (Implementation)	0	2	2	2	2										
			TRANSPORTATION OPERATIONS & MGMT STRATEGIES	Examples: Reversible Traffic Lanes, Turn Restrictions, etc.	0-2 (Implementation)	0	0.67	0.67	0.67	0.67										
		DRIVER SAFETY	NUMBER OF CONFLICT POINTS		Count	56	180	180	64	60										
	IMPROVE SAFETY AND SECURITY	BIKE/ PEDESTRIAN	BICYCLE/PEDESTRIAN SAFETY	Potential for safety improvements to existing Bike/Ped Facilities	1-4 (Best to Worst)	4	2	1	2	3										
	SECORIT	IMPROVE EMERGENCY R	EESPONSE TIMES	Highway Access from KCFD Station 25 (401 E. Missouri Ave)	1-4 (Best to Worst)	4	1	1	3	3										

				I-70 MO-9 Strategy Evaluation	Matrix					
				Measures	Units	E1 No-Build	E2a All At-Grade Crossings, Existing Alignment	E2b All At-Grade Crossings, Western Alignment	E3 South At-Grade Connections	E4 South At-Grade Connections/ Split Lanes
	MPROVE TRANSPORTATION		EMENT GREATER KC REGIONAL	Potential for expansion of existing Bike/Ped Facilities	1-4 (Best to Worst)	4	2	1	2	2
	CHOICES	ACCOMMODATE EXISTING AND FUTURE TRANSIT		Potential for Bus/Streetcar Integration	1-4 (Best to Worst)	4	1	1	3	3
	IMPROVE ECONOMIC	REVITALIZATION AREAS		Potential to Make Space Available for Commercial/Recreational Development	Area (Acres)	0.0	9.4	9.4	8.1	5.9
		REVITABLE TION AREAS		Potential to Make Space Available for Commercial/Recreational Development	Land Value (\$)	\$0	\$16,500,000	\$15,800,000	\$14,400,000	\$9,700,000
		PROMOTE QUALITY PLACE	res	Visual Character and Aesthetics	1-4 (Best to Worst)	4	1	1	3	3
		PROMOTE QUALITY PLAC		Improved external access to River Market	1-4 (Best to Worst)	4	1	1	4	4
G			ROW IMPACTS	Residential	Area (Acres)	0	0	0	0	0
lol		COMMUNITY IMPACTS	NOW IVII ACIS	Commercial	Area (Acres)	0	0	0	3 4 0	0
		COMMISSION NO ACTS	EJ/LEP POPULATIONS DISPLACED	Residential	Number of Residences	0	0	0		0
Α			EST LET TOT OF THE TOTAL PROPERTY.	Commercial	Number of Businesses	0	0	0		0
L				NRHP Resources Impacted	Count	0	0	0	•	0
s	IMPROVE SUSTAINABILITY		CULTURAL RESOURCES	NRHP Districts Impacted	Count	0	0	0		0
		PROTECT		Documented Archeology Sites	Count	0	0	0	0 0 0 0	0
		CULTURAL/NATURAL		Hazmat Sites Impacted	Count	0	0	0		0
		RESOURCES		Improvement Opportunities Water Quality and Stormwater	1-4 (Best to Worst)	4	2	2	2	2
			NATURAL RESOURCES	Parks Impacted	Area (Acres)	0	0	0	0	0
				Wetlands Impacted	Area (Acres)	U	•	0	0	
		PUBLIC HEALTH	AIR QUALITY	General Conformity Analysis of Required Pollutants	Tons per year	See North Loop	See North Loop	See North Loop	See North Loop	See North Loop
		CONSTRUCTABILITY		Impacts to Heart of America Bridge	1-4 (Best to Worst)	1	3	4	1	1
	FEASIBILITY	ROW ISSUES		Number of tracts with anticipated right-of-way acquisition challenges	Count	0	0	0	0	0
		TOTAL COST		Planning Level Construction Cost Estimate	Dollars	\$0	\$40,900,000	\$44,000,000	\$20,300,000	\$24,400,000

Planning Level Construction Cost Estimate includes:

Structures - new bridges, new walls and existing bridge removals, **NB and SB Ramp Bridges at 3rd St to remain for Optoin E2a

Roadway Items - new pavement, earthwork, drainage, signing, marking and existing removals

Project Management for Design-Build Project - mobilization, quality management, design, environmental, maintenance of traffic and contingency