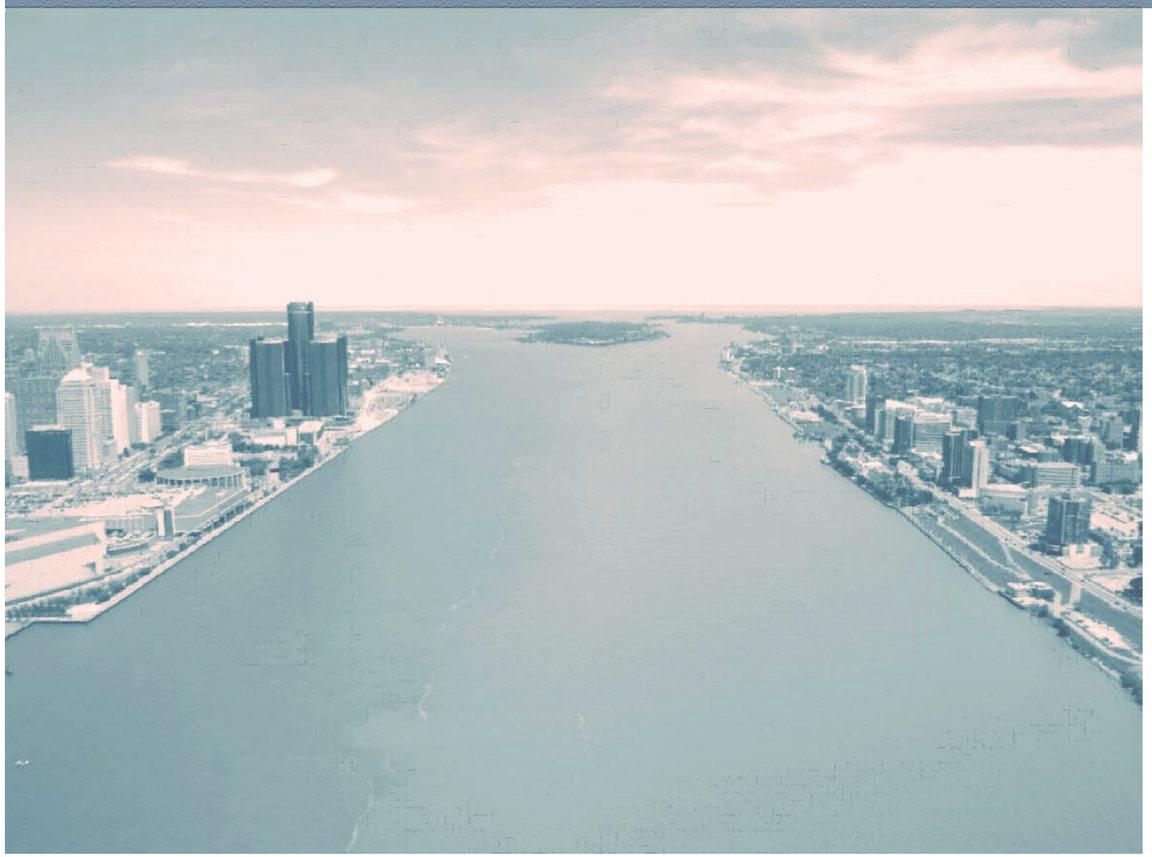

APPENDIX G:
UTILITIES

Utility Owner			**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 5**	**Alternative 7**	**Alternative 9**	**Alternative 11**	**Alternative 14**	**Alternative 16**
AT&T	**Conflicts**		Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft	Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft	Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft	Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft	Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft	Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft	Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft	Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft	Cable in ducts: 9000 ft Fiber cable in ducts: 4100 ft
	Duration	**Study:**									
		Design:									
		Const:	18 to 24 months	18 to 24 months	18 to 24 months	18 to 24 months	18 to 24 months	18 to 24 months	18 to 24 months	18 to 24 months	18 to 24 months
	Cost										
	Required Items		-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground cables -Schedule for design and construction and verification of previously provided construction time -Confirmation of central office on Fort St address -Buffer space requirements for lines within utility corridor -Easement requirements
Comcast	**Conflicts**		OH Coaxial Cable: 21700 ft OH Fiber Cable: 200 ft UG Fiber Cable:1900 ft	OH Coaxial Cable: 21700 ft OH Fiber Cable: 200 ft UG Fiber Cable:1900 ft	OH Coaxial Cable: 21700 ft OH Fiber Cable: 200 ft UG Fiber Cable:1900 ft	OH Coaxial Cable: 20000 ft UG Fiber Cable: 1900 ft	OH Coaxial Cable: 20000 ft UG Fiber Cable: 1900 ft	OH Coaxial Cable: 20000 ft UG Fiber Cable: 1900 ft	OH Coaxial Cable: 20000 ft UG Fiber Cable: 1900 ft	OH Coaxial Cable: 21700 ft OH Fiber Cable: 200 ft UG Fiber Cable:1900 ft	OH Coaxial Cable: 21700 ft OH Fiber Cable: 200 ft UG Fiber Cable:1900 ft
	Duration	**Study:**									
		Design:									
		Const:									
	Cost										
	Required Items		-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements
Dome	**Conflicts**		2-12" Propane Pipeline: 800 ft	2-12" Propane Pipeline: 800 ft	2-12" Propane Pipeline: 800 ft	2-12" Propane Pipeline: 800 ft	No conflicts	No conflicts	No conflicts	2-12" Propane Pipeline: 800 ft	2-12" Propane Pipeline: 800 ft
	Duration	**Study:**	Approximately 2 years from design to construction	Approximately 2 years from design to construction	Approximately 2 years from design to construction	Approximately 2 years from design to construction	N/A	N/A	N/A	Approximately 2 years from design to construction	Approximately 2 years from design to construction
		Design:					N/A	N/A	N/A		
		Const:					N/A	N/A	N/A		
	Cost		$10 - 15 million	$10 - 15 million	$10 - 15 million	$10 - 15 million	N/A	N/A	N/A	$10 - 15 million	$10 - 15 million
	Required Items		-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements	-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements	-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements	-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements	-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements	-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements	-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements	-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements	-Verification of cost/schedule for removing and relocating high pressure natural gas pipeline -Clearance conditions required between other utilities and structures -Easement requirements

Utility Owner		**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 5**	**Alternative 7**	**Alternative 9**	**Alternative 11**	**Alternative 14**	**Alternative 16**
DWSD - Sewer	**Conflicts**	-Dragoon St (10'6"): 2400 ft -Military St (6'6"): 2400 ft -Ferdinand St (5.5'x5.5'): 500 ft -Campbell St (5.5'x5.5'): 650 ft -Lansing St (6'x5.5'): 400 ft -Junction St (5.5'x5.5'): 650 ft -Military St (7'x5'): 500 ft -Livernois St (10'x10'): 400 ft -Morrell St (5.5'x5.5'): 600 ft -6" Sewer Main: 300 ft -8" Sewer Main: 200 ft -10" Sewer Main: 4700 ft -12" Sewer Main: 4800 ft -15" Sewer Main: 4800 ft -15"x20" Sewer Main: 3700 ft -18" Sewer Main: 4800 ft -20" Sewer Main: 3100 ft -24" Sewer Main: 900 ft -27" Sewer Main: 300 ft -30" Sewer Main: 500 ft -42" Sewer Main: 250 ft	-Dragoon St (10'6"): 2400 ft -Military St (6'6"): 2400 ft -Ferdinand St (5.5'x5.5'): 500 ft -Campbell St (5.5'x5.5'): 650 ft -Lansing St (6'x5.5'): 400 ft -Junction St (5.5'x5.5'): 650 ft -Military St (7'x5'): 500 ft -Livernois St (10'x10'): 400 ft -Morrell St (5.5'x5.5'): 600 ft -6" Sewer Main: 300 ft -8" Sewer Main: 200 ft -10" Sewer Main: 4700 ft -12" Sewer Main: 4800 ft -15" Sewer Main: 4800 ft -15"x20" Sewer Main: 3700 ft -18" Sewer Main: 4800 ft -20" Sewer Main: 3100 ft -24" Sewer Main: 900 ft -27" Sewer Main: 300 ft -30" Sewer Main: 500 ft -42" Sewer Main: 250 ft	-Dragoon St (10'6"): 2400 ft -Military St (6'6"): 2400 ft -Ferdinand St (5.5'x5.5'): 500 ft -Campbell St (5.5'x5.5'): 650 ft -Lansing St (6'x5.5'): 400 ft -Junction St (5.5'x5.5'): 650 ft -Military St (7'x5'): 500 ft -Livernois St (10'x10'): 400 ft -Morrell St (5.5'x5.5'): 600 ft -6" Sewer Main: 300 ft -8" Sewer Main: 200 ft -10" Sewer Main: 4700 ft -12" Sewer Main: 4800 ft -15" Sewer Main: 4800 ft -15"x20" Sewer Main: 3700 ft -18" Sewer Main: 4800 ft -20" Sewer Main: 3100 ft -24" Sewer Main: 900 ft -27" Sewer Main: 300 ft -30" Sewer Main: 500 ft -42" Sewer Main: 250 ft	-Dragoon St (10'6"): 2400 ft -Military St (6'6"): 2400 ft -Ferdinand St (5.5'x5.5'): 500 ft -Campbell St (5.5'x5.5'): 650 ft -Lansing St (6'x5.5'): 400 ft -Junction St (5.5'x5.5'): 650 ft -Military St (7'x5'): 500 ft -Livernois St (10'x10'): 400 ft -Morrell St (5.5'x5.5'): 600 ft -6" Sewer Main: 300 ft -8" Sewer Main: 200 ft -10" Sewer Main: 4700 ft -12" Sewer Main: 9100 ft -15" Sewer Main: 4800 ft -15"x20" Sewer Main: 3800 ft -18" Sewer Main: 4800 ft -20" Sewer Main: 3100 ft -24" Sewer Main: 1200 ft -27" Sewer Main: 300 ft -30" Sewer Main: 500 ft -42" Sewer Main: 250 ft	-Dragoon St (10'6"): 400 ft -Military St (6'6"): 1400 ft -Ferdinand St (5.5'x5.5'): 500 ft -Campbell St (5.5'x5.5'): 650 ft -Lansing St (6'x5.5'): 400 ft -Junction St (5.5'x5.5'): 650 ft -Military St (7'x5'): 500 ft -Livernois St (10'x10'): 400 ft -Morrell St (5.5'x5.5'): 600 ft -6" Sewer Main: 300 ft -8" Sewer Main: 200 ft -10" Sewer Main: 4300 ft -12" Sewer Main: 9200 ft -15" Sewer Main: 8500 ft -15"x20" Sewer Main: 3200 ft -18" Sewer Main: 4900 ft -20" Sewer Main: 1900 ft -24" Sewer Main: 1200 ft -42" Sewer Main: 250 ft	-Dragoon St (10'6"): 400 ft -Military St (6'6"): 1400 ft -Ferdinand St (5.5'x5.5'): 500 ft -Campbell St (5.5'x5.5'): 650 ft -Lansing St (6'x5.5'): 400 ft -Junction St (5.5'x5.5'): 650 ft -Military St (7'x5'): 500 ft -Livernois St (10'x10'): 400 ft -Morrell St (5.5'x5.5'): 600 ft -6" Sewer Main: 300 ft -8" Sewer Main: 200 ft -10" Sewer Main: 4300 ft -12" Sewer Main: 9200 ft -15" Sewer Main: 8500 ft -15"x20" Sewer Main: 3200 ft -18" Sewer Main: 4900 ft -20" Sewer Main: 1900 ft -24" Sewer Main: 1200 ft -42" Sewer Main: 250 ft	-Dragoon St (10'6"): 400 ft -Military St (6'6"): 1400 ft -Ferdinand St (5.5'x5.5'): 500 ft -Campbell St (5.5'x5.5'): 650 ft -Lansing St (6'x5.5'): 400 ft -Junction St (5.5'x5.5'): 650 ft -Military St (7'x5'): 500 ft -Livernois St (10'x10'): 400 ft -Morrell St (5.5'x5.5'): 600 ft -6" Sewer Main: 300 ft -8" Sewer Main: 200 ft -10" Sewer Main: 4300 ft -12" Sewer Main: 9200 ft -15" Sewer Main: 8500 ft -15"x20" Sewer Main: 3200 ft -18" Sewer Main: 4900 ft -20" Sewer Main: 1900 ft -24" Sewer Main: 1200 ft -42" Sewer Main: 250 ft	-Dragoon St (10'6"): 2400 ft -Military St (6'6"): 2400 ft 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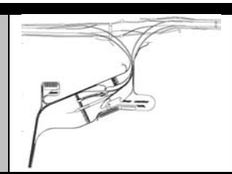
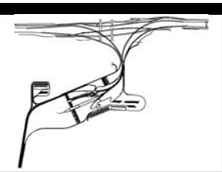
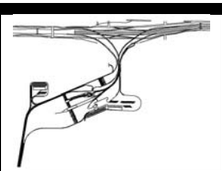
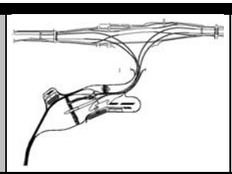
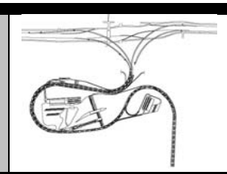
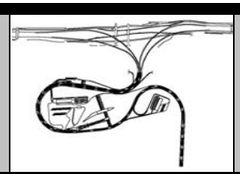
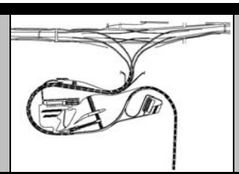
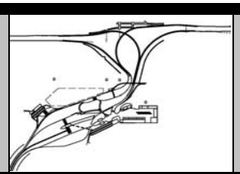
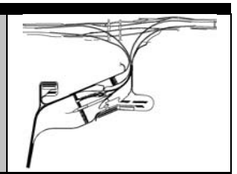
-24" Sewer Main: 900 ft -27" Sewer Main: 300 ft -30" Sewer Main: 500 ft -42" Sewer Main: 250 ft
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost									
	Required Items	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing and relocating all sewer mains and outfalls -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements
DWSD - Water	**Conflicts**	-6" Water Main: 20300 ft -8" Water Main: 9500 ft -12" Water Main: 10400 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft	-6" Water Main: 20300 ft -8" Water Main: 9500 ft -12" Water Main: 10400 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft	-6" Water Main: 20300 ft -8" Water Main: 9500 ft -12" Water Main: 10400 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft	-6" Water Main: 21000 ft -8" Water Main: 7600 ft -12" Water Main: 11500 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft	-6" Water Main: 18800 ft -8" Water Main: 6900 ft -12" Water Main: 10500 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft	-6" Water Main: 18800 ft -8" Water Main: 6900 ft -12" Water Main: 10500 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft	-6" Water Main: 18800 ft -8" Water Main: 6900 ft -12" Water Main: 10500 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft	-6" Water Main: 18800 ft -8" Water Main: 6900 ft -12" Water Main: 10500 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft	-6" Water Main: 18800 ft -8" Water Main: 6900 ft -12" Water Main: 10500 ft -16" Water Main: 8400 ft -42" Water Main: 320 ft -54" Water Main: 2800 ft
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000	-Removal of 48 inch water main = $100 per foot -Placement of 48 inch encased water main = $400 per foot -Placement of concrete gate valve for 48 inch main = $19,000 -Placement of 30 inch gate valve = $42,000
	Required Items	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements	-Cost for removing water mains less than 24" in size within the proposed plaza boundary -Cost for removing and relocating water mains greater than 24" in size -Schedule for design and construction -Buffer space requirements for relocated sewer mains -Easement requirements

										
Utility Owner		**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 5**	**Alternative 7**	**Alternative 9**	**Alternative 11**	**Alternative 14**	**Alternative 16**
ITC	**Conficts**	-120kV & control line: 20500 ft -120kV & 230kV line: 5200 ft Transmission Towers: 4 ea	-120kV & control line: 20500 ft -120kV & 230kV line: 5200 ft Transmission Towers: 4 ea	-120kV & control line: 20500 ft -120kV & 230kV line: 5200 ft Transmission Towers: 4 ea	-120kV & control line: 20000 ft -120kV & 230kV line: 2000 ft Transmission Towers: 4 ea	-120kV & control line: 19600 ft -120kV & 230kV line: 2000 ft Transmission Towers: 4 ea	-120kV & control line: 19600 ft -120kV & 230kV line: 2000 ft Transmission Towers: 4 ea	-120kV & control line: 19600 ft -120kV & 230kV line: 2000 ft Transmission Towers: 4 ea	-120kV & control line: 19600 ft -120kV & 230kV line: 2000 ft Transmission Towers: 4 ea	-120kV & control line: 19600 ft -120kV & 230kV line: 2000 ft Transmission Towers: 4 ea
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line	-$100,000 per aerial tower or $1 million per mile of aerial line and associated towers -$7-10 million per mile of underground line
	Required Items	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating overhead/underground coaxial and fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements
Level3	**Conficts**	Fiber cable: 3400 ft	Fiber cable: 3400 ft	Fiber cable: 3400 ft	Fiber cable: 3400 ft	Fiber cable: 3400 ft	Fiber cable: 3400 ft	Fiber cable: 3400 ft	Fiber cable: 3400 ft	Fiber cable: 3400 ft
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost									
	Required Items	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground fiber lines -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements
Lightcore	**Conficts**	Cable: 2800 ft	Cable: 2800 ft	Cable: 2800 ft	Cable: 2800 ft	Cable: 2800 ft	Cable: 2800 ft	Cable: 2800 ft	Cable: 2800 ft	Cable: 2800 ft
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost	$840,000	$840,000	$840,000	$840,000	$840,000	$840,000	$840,000	$840,000	$840,000
	Required Items	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements
MCI	**Conficts**	Conduit: 10400 ft	Conduit: 10400 ft	Conduit: 10400 ft	Conduit: 10400 ft	Conduit: 10400 ft	Conduit: 10400 ft	Conduit: 10400 ft	Conduit: 10400 ft	Conduit: 10400 ft
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost									
	Required Items	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating conduits -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements

Utility Owner		Alternative 1	Alternative 2	Alternative 3	Alternative 5	Alternative 7	Alternative 9	Alternative 11	Alternative 14	Alternative 16
Michcon	Conflicts	-2" Main: 3000 ft -3" Main: 500 ft -4" Main: 17500 ft -6" Main: 10200 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 1700 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2500 ft	-2" Main: 3000 ft -3" Main: 500 ft -4" Main: 17500 ft -6" Main: 10200 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 1700 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2500 ft	-2" Main: 3000 ft -3" Main: 500 ft -4" Main: 17500 ft -6" Main: 10200 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 1700 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2500 ft	-3" Main: 500 ft -4" Main: 17500 ft -6" Main: 10000 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 5200 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2600 ft	-2" Main: 3000 ft -3" Main: 500 ft -4" Main: 21300 ft -6" Main: 10200 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 1700 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2500 ft	-2" Main: 3000 ft -3" Main: 500 ft -4" Main: 21300 ft -6" Main: 10200 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 1700 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2500 ft	-2" Main: 3000 ft -3" Main: 500 ft -4" Main: 21300 ft -6" Main: 10200 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 1700 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2500 ft	-2" Main: 3000 ft -3" Main: 500 ft -4" Main: 21300 ft -6" Main: 10200 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 1700 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2500 ft	-2" Main: 3000 ft -3" Main: 500 ft -4" Main: 21300 ft -6" Main: 10200 ft -8" Main: 4100 ft -12" Main: 700 ft -16" Main: 1700 ft -24" HP Main: 3700 ft -Unknown Dia HP Main: 2500 ft
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost	High pressure line: $2 million per mile	High pressure line: $2 million per mile	High pressure line: $2 million per mile	High pressure line: $2 million per mile	High pressure line: $2 million per mile	High pressure line: $2 million per mile	High pressure line: $2 million per mile	High pressure line: $2 million per mile	High pressure line: $2 million per mile
	Required Items	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Verification of cost to relocate high-pressure transmission lines -Cost for removing and relocating low-pressure distribution lines -Diameter of high-pressure main crossing beneath I-75 along Greet St -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements
Nextel	Conflicts	Fiber cable: 400 ft	Fiber cable: 400 ft	Fiber cable: 400 ft	Fiber cable: 400 ft	Fiber cable: 400 ft	Fiber cable: 400 ft	Fiber cable: 400 ft	Fiber cable: 400 ft	Fiber cable: 400 ft
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost									
	Required Items	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements
PLD	Conflicts	Street lighting: 27500 ft 24 kV (UG): 9600 ft 28/48 kV (UG): 1600 ft	Street lighting: 27500 ft 24 kV (UG): 9600 ft 28/48 kV (UG): 1600 ft	Street lighting: 27500 ft 24 kV (UG): 9600 ft 28/48 kV (UG): 1600 ft	Street lighting: 21600 ft 24 kV (UG): 8200 ft 28/48 kV (UG): 700 ft	Street lighting: 21600 ft 24 kV (UG): 7800 ft 28/48 kV (UG): 200 ft	Street lighting: 21600 ft 24 kV (UG): 7800 ft 28/48 kV (UG): 200 ft	Street lighting: 21600 ft 24 kV (UG): 7800 ft 28/48 kV (UG): 200 ft	Street lighting: 21600 ft 24 kV (UG): 7800 ft 28/48 kV (UG): 200 ft	Street lighting: 21600 ft 24 kV (UG): 7800 ft 28/48 kV (UG): 200 ft
	Duration	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**	**Study:**
		Design:	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**	**Design:**
		Const:	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**	**Const:**
	Cost									
	Required Items	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating underground/above ground fiber cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements

Utility Owner			**Alternative 1**	**Alternative 2**	**Alternative 3**	**Alternative 5**	**Alternative 7**	**Alternative 9**	**Alternative 11**	**Alternative 14**	**Alternative 16**
Qwest	**Conflicts**		Cable: 530 ft	Cable: 530 ft	Cable: 530 ft	Cable: 530 ft	Cable: 530 ft	Cable: 530 ft	Cable: 530 ft	Cable: 530 ft	Cable: 530 ft
	Duration	**Study:**									
		Design:									
		Const:									
	Cost										
	Required Items		-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements
Telcom	**Conflicts**		Fiber Cable: 7100 ft	Fiber Cable: 7100 ft	Fiber Cable: 7100 ft	Fiber Cable: 7100 ft	Fiber Cable: 7100 ft	Fiber Cable: 7100 ft	Fiber Cable: 7100 ft	Fiber Cable: 7100 ft	Fiber Cable: 7100 ft
	Duration	**Study:**	One year for the Detroit-Toledo Fiber	One year for the Detroit-Toledo Fiber	One year for the Detroit-Toledo Fiber	One year for the Detroit-Toledo Fiber	One year for the Detroit-Toledo Fiber	One year for the Detroit-Toledo Fiber	One year for the Detroit-Toledo Fiber	One year for the Detroit-Toledo Fiber	One year for the Detroit-Toledo Fiber
		Design:									
		Const:									
	Cost										
	Required Items		-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements	-Cost for removing and relocating cables -Schedule for design and construction -Buffer space requirements for lines within utility corridor -Easement requirements
Tunnel	**Conflicts**		No conflicts	No conflicts	No conflicts	No conflicts	No conflicts	No conflicts	No conflicts	No conflicts	No conflicts
	Duration	**Study:**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Design:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Const:	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Cost		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Required Items		-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements	-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements	-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements	-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements	-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements	-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements	-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements	-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements	-Cost for removing and relocating the tunnel -Schedule for design and construction -Buffer space requirements for the tunnel -Easement requirements

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MDOT
Michigan Department of Transportation

LEGEND

- COMCAST FIBER - UG
- COMCAST FIBER - AG
- COMCAST COAXIAL - UG
- COMCAST COAXIAL - AG

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

N

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

COMCAST CABLE

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

MDOT
Michigan Department of Transportation

LEGEND

DOME PIPELINE - 12" HP

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING
UTILITY LOCATION MAP

UTILITY:

DOME

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

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SPRINGWELLS
FORT
LAFAYETTE
RAILROAD
POST
CLARK
JEFFERSON
DETROIT EDISON
DETROIT EDISON WEST END SUBSTATION
DETROIT EDISON ARTILLERY SUBSTATION
DETROIT EDISON WATERMAIN SUBSTATION
DETROIT EDISON MCKINSTRY SUBSTATION

MDOT
Michigan Department of Transportation

LEGEND

- CONDUIT
- CONDUIT
- DETROIT EDISON UG
- DETROIT EDISON SUBSTATION

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

N

DETROIT RIVER INTERNATIONAL CROSSING
UTILITY LOCATION MAP

UTILITY:

DTE

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

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SPRINGWELLS

FORT

LAFAYETTE

RAILROAD

POST

CLARK

JEFFERSON

EX SAN 13'-6" CONC (DWSD)

EX SAN 7'-6" CYL (DWSD)

EX SAN 8'-3" CYL (DWSD)

EX SAN 6'-0" CYL (DWSD)

EX SAN 6'-10" CYL (DWSD)

EX SAN 10'-0" CYL (DWSD)

EX SAN 16'-0" CYL (DWSD)

EX SAN 5'-10" CYL (DWSD)

EX SAN 9'-0" CYL (DWSD)

EX SAN 8'-0" CYL (DWSD)

EX SAN 7'-6" CYL (DWSD)

EX SAN 5'-9" CYL (DWSD)

EX SAN 5'-0" EGG (DWSD)

EX SAN 10'-6" CYL (DWSD)

EX SAN 2-4'-6" CYLS (DWSD)

EX SAN 2-4'-8" CYLS (DWSD)

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Michigan Department of Transportation

LEGEND

EXISTING UTILITY SANITARY LINE

EXISTING UTILITY SANITARY LINE

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING
UTILITY LOCATION MAP

UTILITY:

DWSD SANITARY

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

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DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

DWSD WATER

DATE: OCTOBER, 2007

REVISIONS			
DATE	DESCRIPTION	BY	APPV'D

SPRINGWELLS

120 kV & 230 kV ITC

120 kV & CONTROL CABLE ITC

120 kV & CONTROL CABLE ITC

FORT

120 kV & CONTROL CABLE ITC

120 kV & CONTROL CABLE ITC

120 kV & 230 kV ITC

120 kV & 230 kV ITC

RAILROAD

120 kV & CONTROL CABLE ITC

POST

120 kV & CONTROL CABLE ITC

120 kV & CONTROL CABLE ITC

RAILROAD

120 kV & CONTROL CABLE ITC

FRISBIE-WATERMAN

LAFAYETTE

ITC (2 LINES)
CATO-WATERMAN & ST. ANTOINE-WATERMAN

120 kV & CONTROL CABLE ITC

FORT

CLARK

JEFFERSON

120 kV & CONTROL CABLE ITC

JEFFERSON

120 kV & CONTROL CABLE ITC

120 kV & CONTROL CABLE ITC

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LEGEND

- 120 kV & CONTROL CABLE ITC
- 120 kV & 230 kV ITC
- TRANSMISSION TOWER

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

N

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

ITC

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

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MDOT
Michigan Department of Transportation

LEGEND

- QUEST FIBER
- WCG FIBER
- LEVEL 3 COMM

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

LEVEL 3

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

SPRINGWELLS

FORT

RAILROAD

LIGHTCORE

POST

FORT

LAFAYETTE

RAILROAD

LIGHTCORE

CLARK

JEFFERSON

JEFFERSON

N

MDOT
Michigan Department of Transportation

LEGEND

LIGHTCORE

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

LIGHTCORE

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

SPRINGWELLS

FORT

RAILROAD

POST

JEFFERSON

LAFAYETTE

CLARK

MCI CONDUIT

MCI METALLIC CONDUIT

MCI METALLIC CABLE

MDOT
Michigan Department of Transportation

LEGEND

MCI CONDUIT

MCI METALLIC CONDUIT

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING
UTILITY LOCATION MAP

UTILITY:

MCI

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPVD

f:\646294_dric_study\01.0000 alternative development\01.0200 practical alternatives\01.0210 alternative development\01.0213 road\070822 engineering reports\sheets\utilities\DRIC-MICHCON\DRIC-MICHCON.dgn 10/9/2007 9:31:13 AM

LEGEND

MDOT Michigan Department of Transportation

- MICHCON
- MICHCON HP

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

MICHCON

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APP'D

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SPRINGWELLS

FORT

RAILROAD

POST

JEFFERSON

LAFAYETTE

FORT

RAILROAD

CLARK

JEFFERSON

NEXTEL

NEXTEL

NEXTEL

NEXTEL

NEXTEL

NEXTEL

NEXTEL

N

MDOT
Michigan Department of Transportation

LEGEND

NEXTEL COMM LINE

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

NEXTEL

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

SPRINGWELLS

FORT

RAILROAD

POST

RAILROAD

FORT

LAFAYETTE

CLARK

JEFFERSON

JEFFERSON

MDOT
Michigan Department of Transportation

LEGEND

DEPARTMENT OF PUBLIC LIGHTING

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

N

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

PLD

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

MDOT
Michigan Department of Transportation

LEGEND

QWEST FIBER/
CABLE LINES

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

QWEST

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

SBC 4" PC "C"

SBC 16-4" PC "C"

SBC 16-4" PC "C"

SPRINGWELLS

FORT

WCG FIBER ROUTE

SBC

SBC

SBC 10-4" PC"C"

12-4" PC"C"

SBC 8 MTD

SBC 8 MTD

SBC 6 MTD

SBC 16 MTD

SBC 16 MTD

SBC 18 MTD

SBC 16 MTD

LAFAYETTE

WCG FIBER ROUTE

WCG FIBER ROUTE

FORT

RAILROAD

RAILROAD

POST

JEFFERSON

JEFFERSON

CLARK

N

MDOT
Michigan Department of Transportation

LEGEND

SBC LINE

WCG FIBER ROUTE

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

SBC

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D

SPRINGWELLS

FORT

LAFAYETTE

FORT

RAILROAD

AT&T 24 FIBER
AT&T TOLEDO FIBER

AT&T 24 FIBER
AT&T TOLEDO FIBER

RAILROAD

AT&T 24 FIBER
AT&T TOLEDO FIBER

CLARK

AT&T TOLEDO FIBER

POST

JEFFERSON

JEFFERSON

N

MDOT
Michigan Department of Transportation

LEGEND

AT&T FIBER

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

TELCOM/AT&T

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPY'D

SPRINGWELLS

FORT

RAILROAD

POST

FORT

LAFAYETTE

RAILROAD

JEFFERSON

JEFFERSON

15' TUNNEL

SCREEN HOUSE

N

MDOT
Michigan Department of Transportation

LEGEND

15' TUNNEL

SCREEN HOUSE

0 50 100 150m 200m 300m

DRAWING SCALE 1:5000

DETROIT RIVER INTERNATIONAL CROSSING

UTILITY LOCATION MAP

UTILITY:

TUNNEL

DATE: OCTOBER, 2007

REVISIONS

DATE	DESCRIPTION	BY	APPV'D