

Feature/Consideration	DRAFT NORTH HAMILTON CROSSING (NHX) CONCEPTUAL ALTERNATIVES EVALUATION MATRIX (PID 115755)						
	Preliminary Alternatives						
	No Build Alternative	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative E1
<b>Purpose and Need - Primary Needs</b>							
Improves East-West Connectivity	No	Yes (Ties to NW Washington Blvd, providing connectivity further west)	Yes (Ties to Lagonda Ave with no direct connectivity further west)	Yes (Ties to relocated Rhea Ave, providing connectivity further west)	Yes (Ties to Gordon Ave, providing connectivity further west)	Yes (Ties to relocated Rhea Ave, providing connectivity further west)	Yes (Ties to relocated Rhea Ave, providing connectivity further west)
Improves Lack of Sufficient River Crossings	No	Yes	Yes	Yes	Yes	Yes	Yes
Improves Lack of Grade-Separated Railroad Crossings	No	Yes	Yes	Yes	Yes	Yes	Yes
Improves Mobility/Congestion on Local Road Network	No	Minimal Improvement	Minimal Improvement	Yes	Yes	Yes	Yes
Improves Safety	No	Minimal Improvement	Minimal Improvement	Yes	Yes	Yes	Yes
<b>Purpose and Need - Secondary Needs</b>							
Supports Economic Development	No	Yes	Yes	No, impacts City-identified prime development parcels	No, impacts City-identified prime development parcels	No, impacts City-identified prime development parcels	No, impacts City-identified prime development parcels
Improves Bike/Pedestrian Connectivity	No	Yes	Yes	Yes	Yes	Yes	Yes
Improves Multimodal Linkage	No	Potentially	Potentially	Potentially	Potentially	Potentially	Potentially
<b>Cultural Resources</b>							
NRHP-Listed Sites	None	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery
NRHP-Listed Historic Districts	None	None	None	None	None	None	None
<b>Section 4(f)/6(f) Sites</b>							
Section 4(f)/6(f) Sites	None	Combs Park (bisects), Butler County Fairgrounds (minor), GMR Recreational Trail (minor)	Combs Park (bisects), LJ Smith Park (bisects), Butler County Fairgrounds (minor), GMR Recreational Trail (minor)	LJ Smith Park (bisects), Butler County Fairgrounds (minor), Beltline Trail (minor), GMR Recreational Trail (minor)	LJ Smith Park (minor), Butler County Fairgrounds (minor), Beltline Trail (minor), GMR Recreational Trail (minor)	LJ Smith Park (minor), Butler County Fairgrounds (minor), Beltline Trail (minor), GMR Recreational Trail (minor)	LJ Smith Park (bisects), Butler County Fairgrounds (minor), Beltline Trail (minor), GMR Recreational Trail (minor)
<b>Ecological Resources</b>							
Great Miami River / Hydraulic Canal	None	2 crossings	2 crossings	1 crossing	1 crossing	1 crossing	1 crossing
Other Large Streams	None	None	None	None	None	None	None
Wetlands (not including Open Water features)	None	1	1	None	None	None	None
<b>Floodplains and Floodway</b>							
100-Year Floodplain Encroachment (not including Floodway)	None	20 - 30 ac	3 - 8 ac	< 1 ac	< 1 ac	< 1 ac	< 1 ac
100-Year Floodway Encroachment	None	< 5 ac	< 5 ac	< 5 ac	< 5 ac	< 5 ac	< 5 ac
<b>Hazardous Materials</b>							
Regulated Materials Review	None	6 LUST, 12 UST, 2 RCRA	10 LUST, 13 UST, 5 RCRA, 1 DERR site, 1 site with Institutional Controls	8 LUST, 15 UST, 7 RCRA, 1 NPL site, 1 DERR site, 1 site with Institutional Controls, 1 spill	9 LUST, 20 UST, 5 RCRA, 1 DERR site, 2 sites with Institutional Controls, 1 spill, 3 VAP2	4 LUST, 3 UST, 4 RCRA, 2 spills	3 LUST, 4 RCRA, 1 NPL, 2 spills
<b>Community and Land Use</b>							
Farmland Impacts	None	35 - 45 acres	20 - 30 acres	None	None	None	None
Community Facilities	None	BCEO, Transitional Learning Center	BCEO, Transitional Learning Center	BCEO, Transitional Learning Center, Electric Power House, Pentecostal Apostolic Church	BCEO, Transitional Learning Center, Electric Power House, True Free Christian Church of God	BCESC Main Building, Transitional Learning Center, Hamilton Fire Station 25, Fairwood Elementary School, Butler County Children Services, Juvenile Justice Center, Butler County Board of Developmental Disabilities, Electric Power House, Pentecostal Apostolic Church (R/W)	BCESC Main Building, Transitional Learning Center, Fairwood Elementary School, Butler County Children Services, Juvenile Justice Center, Butler County Board of Developmental Disabilities, Electric Power House, Pentecostal Apostolic Church (R/W)
Cemeteries (Non-Historic)	None	Greenwood Cemetery (<0.5 ac)	Greenwood Cemetery (>0.5 ac)	Greenwood Cemetery (>0.5 ac)	Greenwood Cemetery (>0.5 ac)	None	None
Traditionally Underserved Populations per Census Blocks	None	Impacts to Minority, Low Income & Over 64	Impacts to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64
<b>Stakeholder/Public Involvement</b>							
Public Concerns	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Stakeholder Concerns	TBD	TBD	TBD	TBD	TBD	TBD	TBD
<b>Right-of-Way</b>							
Relocations	None	5 - 15	5 - 15	10 - 20	15 - 25	45 - 55	55 - 65
Right-of-Way (acres)	None	85 - 95 acres	50 - 60 acres	25 - 35 acres	10 - 20 acres	25 - 35 acres	20 - 30 acres
<b>Engineering Considerations</b>							
Alternative Length (mi)	N/A	2.70	2.64	2.59	2.86	2.26	2.29
Design Speed (mph)	N/A	35	35	35	35	35	35
Roadway Design Issues	N/A	Proximity of Elkton Road / NW Washington Blvd intersection to roundabout and steep existing grades near roundabout. Not directly connected to US 127 requiring connecting road and additional traffic signal. Significant fill required in floodplain. Steep grade on alignment near BCEO and requires retaining wall. Intersection of Princeton Road is skewed.	Requires North B Street to be raised roughly 5 feet at west terminus. Requires US 127 to be raised roughly 10 feet. Bikepath along the canal was reduced to a 10 foot width. Steep grade on alignment near BCEO and requires retaining wall. Intersection of Princeton Road is skewed.	North B Street may require profile adjustments at west terminus. Requires US 127 to be raised roughly 13 feet. Intersection at US 127 is skewed. Proximity of US 127 intersection to power plant reduces sight distance. Bikepath along the canal was reduced to a 10 foot width. Steep grade on alignment near BCEO and requires retaining wall. Intersection of Princeton Road is skewed.	North B Street may require profile adjustments at west terminus. North B Street intersection is in a curve. Intersection at US 127 is skewed. Proximity of US 127 intersection to power plant reduces sight distance. Bikepath along the canal was reduced to a 10 foot width. Steep grade on alignment near BCEO and requires retaining wall. Intersection of Princeton Road is skewed.	North B Street may require profile adjustments at west terminus. Intersection at US 127 is skewed. Proximity of US 127 intersection to power plant reduces sight distance. Width of bikepath on Heaton Street reduced to 8 foot width at cemetery. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.	North B Street may require profile adjustments at west terminus. Intersection at US 127 is skewed and may require US 127 to be raised 1 to 2 feet. Proximity of US 127 intersection to power plant reduces sight distance. Steep grade on alignment approaching 127 from crossing over railroad and near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.
Existing Flood Levy Design Issues	N/A	No existing flood levy at this location	Proximity of North B Street to the existing levy system will require the profile to be elevated to avoid the levy. This will require raising the west terminus roughly 5 feet.	The offset of North B Street to the existing levy system will allow a smooth transition of the proposed alignment over the levy to North B Street. This will limit raising at the west terminus to less than 2 feet.	The offset of North B Street to the existing levy system will allow a smooth transition of the proposed alignment over the levy to North B Street. This will limit raising at the west terminus to less than 2 feet.	The offset of North B Street to the existing levy system will allow a smooth transition of the proposed alignment over the levy to North B Street. This will limit raising at the west terminus to less than 2 feet.	The offset of North B Street to the existing levy system will allow a smooth transition of the proposed alignment over the levy to North B Street. This will limit raising at the west terminus to less than 2 feet.
Number of New Structures Requiring Long-Term Maintenance	N/A	5	3	2	2	2	2
Structural Design Issues	Black Street Bridge reaching end of serviceable life for vehicular traffic and cannot be widened. Replacement on same alignment would result in closure during construction.	No significant issues	River Bridge - tie into floodwall system required	No significant issues	River Bridge - Curve at NW end of bridge complicates design RR bridge - Severe skew complicates design	River Bridge - Curve at SE end of bridge & taper at NW end complicates design RR bridge - Severe skew complicates design	River Bridge - Curve at SE end of bridge & taper at NW end complicates design RR bridge - Severe skew complicates design
Major Utility Relocations and/or Issues	None	Electric Transmission Line relocations required at NW Washington Blvd and near SR 4.	Electric Transmission Line relocations required near SR 4. Coordination with hydroelectric plant.	Power plant located on US 127 impacted.	Electric Transmission Line relocations required for Railroad overpass and near SR 4. Power plant located on US 127 impacted.	Electric Transmission & Distribution Line relocations required near US 127. Power plant located on US 127 impacted.	Electric Transmission & Distribution Line relocations required near US 127. Power plant located on US 127 impacted.
<b>Traffic/Maintenance of Traffic Considerations</b>							
Anticipated Alternative Travel Time (MM:SS)	N/A	5:53	6:20	6:37	6:10	5:44	5:44
Anticipated High Street (SR 129) Travel Time Savings (MM:SS)	AM Peak-Hour - 00:00 PM Peak-Hour - 00:00	AM Peak-Hour - 00:09 PM Peak-Hour - 00:00	AM Peak-Hour - 00:09 PM Peak-Hour - 00:00	AM Peak-Hour - 00:21 PM Peak-Hour - 00:28	AM Peak-Hour - 00:18 PM Peak-Hour - 00:20	AM Peak-Hour - 00:33 PM Peak-Hour - 00:56	AM Peak-Hour - 00:33 PM Peak-Hour - 00:56
Anticipated % Reduction in High Street (SR 129) Traffic	AM Peak-Hour - 0% PM Peak-Hour - 0%	AM Peak-Hour - 2% PM Peak-Hour - 0%	AM Peak-Hour - 2% PM Peak-Hour - 0%	AM Peak-Hour - 8% PM Peak-Hour - 7%	AM Peak-Hour - 5% PM Peak-Hour - 5%	AM Peak-Hour - 14% PM Peak-Hour - 15%	AM Peak-Hour - 14% PM Peak-Hour - 15%
Maintenance of Traffic Concerns	None	Construction of roundabout at the intersection of W Elkton Rd and N B St will likely require a closure. Intersection of Neal Blvd and Joe Nuxhall Blvd will likely require short term closures.	Complicated construction staging at North B Street. North B Street & US 127 may require closures to raise the profiles. Complex detours would be required.	Complicated construction staging at North B Street. US 127 may require a closure to raise the profile. Complex detour would be required.	Complicated construction staging at North B Street.	Complicated construction staging at North B Street.	Complicated construction staging at North B Street. May require US 127 profile to be raised 1 to 2 feet requiring a complex MOT configuration.
<b>Preliminary Cost Estimates</b>							
Preliminary Construction Costs	N/A	\$85 - \$95 million	\$75 - \$85 million	\$55 - \$ 65 million	\$70 - \$80 million	\$65 - \$75 million	\$65 - \$75 million
Preliminary Right of Way Costs	N/A	\$7 - \$12 million	\$7 - \$12 million	\$5 - \$10 million	\$8 - \$13 million	\$16 - \$21 million	\$12 - \$17 million
Preliminary Design & Management	N/A	\$15 - \$20 million	\$14 - \$19 million	\$9 - \$14 million	\$13 - \$18 million	\$12 - \$17 million	\$11 - \$16 million
Preliminary Total Cost	N/A	\$97 - \$127 million	\$96 - \$116 million	\$69 - \$89 million	\$88 - \$108 million	\$93 - \$113 million	\$88 - \$108 million
<b>Conclusion</b>							
Recommended for Further Study?	N/A	No	No	No	No	No	No

Feature/Consideration	DRAFT NHX CONCEPTUAL ALTERNATIVES EVALUATION MATRIX (PID 115755)							
	Preliminary Alternatives							
	Alternative AC	Alternative AD	Alternative AE	Alternative BC	Alternative BD	Alternative BE	Alternative ABE	Alternative EBE
<b>Purpose and Need - Primary Needs</b>								
Improves East-West Connectivity	Yes (Ties to NW Washington Blvd, providing connectivity further west)	Yes (Ties to NW Washington Blvd, providing connectivity further west)	Yes (Ties to NW Washington Blvd, providing connectivity further west)	Yes (Ties to Lagonda Ave with no direct connectivity further west)	Yes (Ties to Lagonda Ave with no direct connectivity further west)	Yes (Ties to Lagonda Ave with no direct connectivity further west)	Yes (Ties to NW Washington Blvd, providing connectivity further west)	Yes (Ties to Garden Ave, providing connectivity further west)
Improves Lack of Sufficient River Crossings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Improves Lack of Grade-Separated Railroad Crossings	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Improves Mobility/Congestion on Local Road Network	Minimal Improvement	Minimal Improvement	Yes	Minimal Improvement	Minimal Improvement	Yes	Yes	Yes
Improves Safety	Minimal Improvement	Minimal Improvement	Yes	Minimal Improvement	Minimal Improvement	Yes	Yes	Yes
<b>Purpose and Need - Secondary Needs</b>								
Supports Economic Development	No, impacts City-identified prime development parcels	No, impacts City-identified prime development parcels	No, impacts City-identified prime development parcels	No, impacts City-identified prime development parcels	No, impacts City-identified prime development parcels	No, impacts City-identified prime development parcels	Yes	Yes
Improves Bike/Pedestrian Connectivity	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Improves Multimodal Linkage	Potentially	Potentially	Potentially	Potentially	Potentially	Potentially	Potentially	Potentially
<b>Cultural Resources</b>								
NRHP-Listed Sites	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery	Greenwood Cemetery
NRHP-Listed Historic Districts	None	None	None	None	None	None	None	None
<b>Section 4(f)(6)(f) Sites</b>								
Section 4(f)(6)(f) Sites	Combs Park (bisects), LJ Smith Park (bisects), Butler County Fairgrounds (minor)	Combs Park (bisects), LJ Smith Park (minor), Butler County Fairgrounds (minor)	Combs Park (bisects), LJ Smith Park (minor), Butler County Fairgrounds (minor)	Combs Park (bisects), LJ Smith Park (bisects), Butler County Fairgrounds (minor)	Combs Park (bisects), LJ Smith Park (minor), Butler County Fairgrounds (minor)	Combs Park (bisects), LJ Smith Park (minor), Butler County Fairgrounds (minor)	LJ Smith Park (bisects), Combs Park (bisects), Butler County Fairgrounds (minor), GMR Recreational Trail (minor)	LJ Smith Park (bisects), Butler Co. Fairgrounds (minor), GMR Recreational Trail (minor), Beltline Trail (bisects)
<b>Ecological Resources</b>								
Great Miami River / Hydraulic Canal	1 crossing	1 crossing	1 crossing	1 crossing	1 crossing	1 crossing	2 crossings	2 crossings
Other Large Streams	None	None	None	None	None	None	None	None
Wetlands (not including Open Water features)	None	None	None	None	None	None	1	1
<b>Floodplains and Floodway</b>								
100-Year Floodplain Encroachment (not including Floodway)	< 1 ac	< 1 ac	< 1 ac	< 1 ac	< 1 ac	< 1 ac	5 - 10 ac	5 - 10 ac
100-Year Floodway Encroachment	< 5 ac	< 5 ac	< 5 ac	< 5 ac	< 5 ac	< 5 ac	< 5 ac	< 5 ac
<b>Hazardous Materials</b>								
Regulated Materials Review	8 LUST, 15 UST, 7 RCRA, 1 NPL site, 1 DERR site, 1 site with Institutional Controls	9 LUST, 20 UST, 5 RCRA, 1 DERR site, 2 sites with Institutional Controls, 3 VAP2	4 LUST, 3 UST, 4 RCRA, 1 spill	8 LUST, 15 UST, 7 RCRA, 1 NPL site, 1 DERR site, 1 site with Institutional Controls	7 LUST, 17 UST, 5 RCRA, 1 DERR site, 2 sites with Institutional Controls, 3 VAP2	4 LUST, 3 UST, 4 RCRA, 1 spill	7 LUST, 2 UST, 3 RCRA, 1 spill	7 LUST, 2 UST, 4 RCRA, 1 spill
<b>Community and Land Use</b>								
Farmland Impacts	None	None	None	None	None	None	20 - 30 acres	20 - 30 acres
Community Facilities	BCEO, Transitional Learning Center, Electric Power House, Pentecostal Apostolic Church	BCEO, Transitional Learning Center, Electric Power House, True Free Christian Church of God	BCESC Main Building, Transitional Learning Center, Hamilton Fire Station 25, Fairwood Elementary School, Butler County Children Services, Juvenile Justice Center, Butler County Board of Developmental Disabilities, Electric Power House	BCEO, Transitional Learning Center, Electric Power House, Pentecostal Apostolic Church	BCEO, Transitional Learning Center, Electric Power House, True Free Christian Church of God	BCESC Main Building, Transitional Learning Center, Hamilton Fire Station 25, Fairwood Elementary School, Butler County Children Services, Juvenile Justice Center, Butler County Board of Developmental Disabilities, Electric Power House	BCESC Main Building, Transitional Learning Center, Fairwood Elementary School, Butler County Children Services, Juvenile Justice Center, Butler County Board of Developmental Disabilities, Pentecostal Apostolic Church (R/W)	BCESC Main Building, Transitional Learning Center, Fairwood Elementary School, Butler County Children Services, Juvenile Justice Center, Butler County Board of Developmental Disabilities, Pentecostal Apostolic Church (R/W)
Cemeteries (Non-Historic)	Greenwood Cemetery (>0.5 ac)	Greenwood Cemetery (>0.5 ac)	None	Greenwood Cemetery (>0.5 ac)	Greenwood Cemetery (>0.5 ac)	None	None	None
Traditionally Underserved Populations per Census Blocks	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64	Impacts & Displacements to Minority, Low Income & Over 64
<b>Stakeholder/Public Involvement</b>								
Public Concerns	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Stakeholder Concerns	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
<b>Right-of-Way</b>								
Relocations	5 - 15	10 - 20	45 - 55	10 - 20	15 - 25	45 - 55	55 - 65	55 - 65
Right-of-Way (acres)	25 - 35 acres	5 - 15 acres	25 - 35 acres	20 - 30 acres	10 - 20 acres	20 - 30 acres	50 - 60 acres	45 - 55 acres
<b>Engineering Considerations</b>								
Alternative Length (mi)	3.43	3.61	3.02	2.85	3.02	2.44	3.2	2.49
Design Speed (mph)	35	35	35	35	35	35	35	35
Roadway Design Issues	Proximity of Elkton Road / NW Washington Blvd intersection to roundabout and steep existing grades near roundabout. Fill required in floodplain. Proximity of US 127 intersection to power plant reduces sight distance. Bikeway along the canal was reduced to a 10 foot width. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.	Proximity of Elkton Road / NW Washington Blvd intersection to roundabout and steep existing grades near roundabout. Fill required in floodplain. Proximity of US 127 intersection to power plant reduces sight distance. Bikeway along the canal was reduced to a 10 foot width. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.	Proximity of Elkton Road / NW Washington Blvd intersection to roundabout and steep existing grades near roundabout. Fill required in floodplain. Proximity of US 127 intersection to power plant reduces sight distance. Width of bikeway on Heaton Street reduced to 8 foot width at cemetery. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.	Requires North B Street to be raised roughly 5 feet at west terminus. Proximity of US 127 intersection to power plant reduces sight distance. Bikeway along the canal was reduced to a 10 foot width. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.	Requires North B Street to be raised roughly 5 feet at west terminus. Proximity of US 127 intersection to power plant reduces sight distance. Bikeway along the canal was reduced to a 10 foot width. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.	Requires North B Street to be raised roughly 5 feet at west terminus. Proximity of US 127 intersection to power plant reduces sight distance. Width of bikeway on Heaton Street reduced to 8 foot width at cemetery. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.	Proximity of Elkton Road / NW Washington Blvd intersection to roundabout and steep existing grades near roundabout. Steep grade approaching US 127 intersection from the west due to elevation of railroad crossing. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.	Steep grade approaching US 127 intersection from the west due to elevation of railroad crossing. Steep grade on alignment near Humane Society and requires retaining wall. Intersection of Princeton Road is skewed.
Existing Flood Levy Design Issues	No existing flood levy at this location	No existing flood levy at this location	No existing flood levy at this location	Proximity of North B Street to the existing levy system will require the profile to be elevated to avoid the levy. This will require raising the west terminus roughly 5 feet.	Proximity of North B Street to the existing levy system will require the profile to be elevated to avoid the levy. This will require raising the west terminus roughly 5 feet.	Proximity of North B Street to the existing levy system will require the profile to be elevated to avoid the levy. This will require raising the west terminus roughly 5 feet.	No existing flood levy at this location	The offset of North B Street to the existing levy system will allow a smooth transition of the proposed alignment over the levy to North B Street. This will limit raising at the west terminus to less than 2 feet.
Number of New Structures Requiring Long-Term Maintenance	2	2	2	2	2	2	3	3
Structural Design Issues	No significant issues	RR bridge - Severe skew complicates design	RR bridge - Severe skew complicates design	River Bridge - tie into floodwall system required	River Bridge - tie into floodwall system required RR bridge - Severe skew complicates design	River Bridge - tie into floodwall system required RR bridge - Severe skew complicates design	No significant issues	River Bridge - Curve at the SE end of bridge, skewed alignment and location of dam complicates design. Potential scour concerns.
Major Utility Relocations and/or Issues	Electric Transmission Line relocations required at NW Washington Blvd. Power plant located on US 127 impacted.	Electric Transmission Line relocations required at NW Washington Blvd. Power plant located on US 127 impacted.	Electric Transmission Line relocations required at NW Washington Blvd. Power plant located on US 127 impacted.	Power plant located on US 127 impacted.	Power plant located on US 127 impacted.	Power plant located on US 127 impacted.	Coordination with hydroelectric plant. Potential power substation impacts at US 127.	High voltage power-line tower relocation required. Coordination with hydroelectric plant. Potential power substation impacts at US 127.
<b>Traffic/Maintenance of Traffic Considerations</b>								
Anticipated Alternative Travel Time (MM:SS)	7:00	7:35	6:26	6:48	7:39	5:48	5:53	5:50
Anticipated High Street (SR 129) Travel Time Savings (MM:SS)	AM Peak-Hour - 00:00 PM Peak-Hour - 00:00	AM Peak-Hour - 00:00 PM Peak-Hour - 00:00	AM Peak-Hour - 00:28 PM Peak-Hour - 00:31	AM Peak-Hour - 00:07 PM Peak-Hour - 00:13	AM Peak-Hour - 00:03 PM Peak-Hour - 00:00	AM Peak-Hour - 00:18 PM Peak-Hour - 00:20	AM Peak-Hour - 00:24 PM Peak-Hour - 00:22	AM Peak-Hour - 00:28 PM Peak-Hour - 00:31
Anticipated % Reduction in High Street (SR 129) Traffic	AM Peak-Hour - 0% PM Peak-Hour - 0%	AM Peak-Hour - 0% PM Peak-Hour - 0%	AM Peak-Hour - 11% PM Peak-Hour - 12%	AM Peak-Hour - 1% PM Peak-Hour - 2%	AM Peak-Hour - 0% PM Peak-Hour - 0%	AM Peak-Hour - 5% PM Peak-Hour - 5%	AM Peak-Hour - 8% PM Peak-Hour - 6%	AM Peak-Hour - 11% PM Peak-Hour - 12%
Maintenance of Traffic Concerns	Construction of roundabout at the intersection of W Elkton Rd and N B St will likely require a closure. US 127 may require a closure to raise the profile. Complex detour would be required.	Construction of roundabout at the intersection of W Elkton Rd and N B St will likely require a closure.	Construction of roundabout at the intersection of W Elkton Rd and N B St will likely require a closure.	Complicated construction staging at North B Street. North B Street may require a closure to raise the profile. Complex detour would be required.	Complicated construction staging at North B Street. North B Street may require a closure to raise the profile. Complex detour would be required.	Complicated construction staging at North B Street. North B Street may require a closure to raise the profile. Complex detour would be required.	Construction of roundabout at the intersection of W Elkton Rd and N B St will likely require a closure.	Construction of roundabouts on North B Street will likely require a closure.
<b>Preliminary Cost Estimates</b>								
Preliminary Construction Costs	\$65 - \$75 million	\$75 - \$85 million	\$75 - \$85 million	\$60 - \$70 million	\$70 - \$80 million	\$90 - \$100 million	\$90 - \$100 million	\$115 - \$125 million
Preliminary Right of Way Costs	\$5 - \$10 million	\$5 - \$10 million	\$17 - \$22 million	\$5 - \$10 million	\$5 - \$10 million	\$17 - \$22 million	\$10 - \$20 million	\$10 - \$20 million
Preliminary Design & Management	\$12 - \$17 million	\$14 - \$19 million	\$13 - \$18 million	\$11 - \$16 million	\$13 - \$18 million	\$12 - \$17 million	\$16 - \$21 million	\$21 - \$26 million
Preliminary Total Cost	\$82 - \$104 million	\$94 - \$114 million	\$105 - \$125 million	\$76 - \$96 million	\$88 - \$108 million	\$98 - \$118 million	\$116 - \$141 million	\$146 - \$171 million
<b>Conclusion</b>								
Recommended for Further Study?	No	No	No	No	No	No	Yes	Yes