

RED FLAG SUMMARY REPORT

HAM-32F-0.00

PID 86461

RELOCATED SR-32 SEGMENT 1

RED BANK CORRIDOR IMPROVEMENTS

EASTERN CORRIDOR MULTIMODAL PROJECTS

HAMILTON COUNTY, OHIO

SUBMITTED TO



**OHIO DEPARTMENT OF
TRANSPORTATION**

District 8

Project Manager Keith Smith

505 S. State Route 741

Lebanon, Ohio 45036

August 1, 2011

SUBMITTED BY

URS

URS Corporation
564 White Pond Dr.
Akron, OH 44320

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GENERAL

Project Name (County, Route,	HAM-32F 0.00	PID:	86461
Date Red Flag Summary Completed:	August 1, 2011	Prepared By:	David Wormald, PE, AICP
City, Township or Village Name(s):	City of Cincinnati, Village of Fairfax	ODOT Project Manager:	Keith Smith

GENERAL PROJECT PLANNING INFORMATION:

Project Description:

Eastern Corridor Segment I (HAM-32F-0.00) includes access and capacity improvements to 2.0 miles of Red Bank Expressway/Road between IR 71 and US 50, including the Red Bank Expressway/Road mainline, major intersections, and the local access network. Segment I also includes coordination with other proposed Eastern Corridor improvements, including tie-in to a new interchange at US 50/Red Bank Road (Segment II/III; HAM/CLE-32-0.00; PID 86472), bikeway, transit improvements, and green infrastructure.

Background

Tier 1 Work Program: Tier 1 activities documented in the Eastern Corridor Tier 1 EIS involved development and preliminary assessment of two mainline alternatives for improved Red Bank Road, including an improvement alternative on existing alignment and a bypass alternative. Three local access improvement options were also evaluated.

Additional study conducted in 2006 identified four mainline options and two local access improvement options (in support of the mainline) to be carried forward for further evaluation. The four mainline alternatives generally follow the existing alignment of Red Bank Expressway/Road, and differ in access configuration at Erie Avenue and Madison Road. Development of these alternatives is documented in the “*Preliminary Input for Assessment of Feasible Alternatives for Eastern Corridor Segment I (Red Bank Road)*” submitted to the HCTID, City of Cincinnati and ODOT in December 2006.

Current Project Status: Segment I is following the current 10-Step Project Development Process (PDP) for Minor Projects. The Tier 1 work and subsequent alternatives development for Segment I performed in 2006 completed the Minor PDP to the end of Step 2, except for Concurrence Point #1, which involves providing opportunity for public input on the mainline and local access alternatives currently under consideration as described above.

Scope Elements

Activities described in this scope of services are a continuation of the alternatives development completed in 2006, and include the work necessary to finish Step 2 (Concurrence Point #1) and complete Step 3 (preliminary engineering/environmental analysis).

A separate scope and fee proposal will be developed to complete Segment I through Step 4, which involves environmental clearance and developing Stage I design. A Level 4 Categorical Exclusion is anticipated.

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Project Limits/General Location:

The project is located within the Madisonville neighborhood of the City of Cincinnati north of Erie/Brotherton and within the Village of Fairfax South of Erie Brotherton.

Project extends along Red Bank Expressway/ Road (CR-67) from Interstate 71 at its northern terminus south to Fair Lane a distance of approximately 2.0 miles.

The study extends east and west along the adjacent cross streets approximately 1,000 ft in either direction. Major Cross A streets include Duck Creek Road, Madison Road, Hetzel Street, and Erie/Brotherton Avenues. Lateral limits along Red Bank Expressway/Road are 300 ft and along other local network streets 100 ft.

ODOT DISCIPLINE INVOLVEMENT:

List name and phone number of individual(s) representing each discipline during the site visit and preparation of the Red Flag Summary. One individual may represent multiple disciplines.

DISCIPLINE	NAME	PHONE NUMBER
ODOT County Manager		
District Planning & Engineering Administrator	Joseph Vogel	513 933-6603
District Planning and Programming Administrator	Andy Fluggeman	513 933-6597
Project Manager	Keith Smith	513 933-6590
District Geotechnical Engineer	Joe Smithson	
District Traffic Engineer	Jay Hamilton	513 933-6584

EXTERNAL AGENCY INVOLVEMENT:

Indicate external agency involvement during identification of red flags. List the name and phone number of individual(s) representing each agency during the site visit.

AGENCY	NAME	PHONE NUMBER
City of Cincinnati	Martha Kelly	513 352-3648
Village of Fairfax	Jennifer Kaminar	513 327-6503
Hamilton County Engineers Office	Ted Hubbard	513 946-4250

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General Project Planning Information	
<p>Structures: Bridge Number: I&O Railroad over Red Bank Expressway City Bridge RR-35 Structure File Number 3162672 Bridge Number: Erie Ave over SORTA RR City Bridge 23 Structure File Number 3160939 Bridge Number: Erie Ave over Red Bank Expressway City Bridge 22 Structure File Number 3160998 Bridge Number: Red Bank Road over I&O Railroad City Bridge 36 Structure File Number 3160947 (Closed)</p>	<p>Project Sponsor: ODOT Is local legislation required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Is FHWA oversight required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Is project location on congestion/safety list? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>Estimated Cost: \$346.3 M (OKI LRTP Estimate)</p>	<p>Problem identified by (<i>indicate document date</i>):</p> <ul style="list-style-type: none"> ■ District Work Plan _____ ■ Congestion Study: Hamilton County TID Eastern Corridor Study SR-32 Segment I PID 22970 (Dec. 2006) ■ Safety Study _____ ■ Major New _____ ■ MPO TIP _OKI 2008-2001 TIP Amendment No.15 4-9-09 ■ MPO LRP OKI 2030 LRTP Project No 655 ■ Access Ohio _____ ■ Hot Spot Location _____ ■ HSP Location _____ ■ Other _____
<p>Funding Source(s): TBD</p> <ul style="list-style-type: none"> ■ Federal ■ State ■ Local _____ ■ Private _____ 	
<p>Are funding splits required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Specify: TBD</p>	
<p>Anticipated quarter and Fiscal Year of project award: TBD</p>	
<p>• Are there any other projects in the area (ODOT, local or utility) that might conflict with the project (e.g., a local project on the proposed detour route for the ODOT project, a resurfacing project a year after a pavement marking project)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Specify. HAM 32 - 2.50 Relocated SR-32 is located immediately south of the project area. Local intersection improvements at Madison/Redbank Expressway to accommodate Medpace Development.</i></p> <p>• Are there growth or land use changes in the area surrounding the project that could have an impact on project scope? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Specify. On going private office and retail development ongoing south of Madison Road including new access points and additional trip generation.</i></p> <p>Are there any known public involvement issues? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Specify. Public Involvement for this project is being conducted in conjunction with overall Eastern Corridor Multimodal Projects which includes the relocation of SR-32 and potential rail transit improvements. Some local property owners and businesses have inquired about the status of the project and specifically what impact the project may have to their respective property.</i></p>	

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GENERAL EXISTING INFORMATION:	
Legal Speed 45 mph (Red Bank Expressway), 35 mph local arterials/collectors 25 mph on local streets. Design Speed 45 mph on Red Bank Expressway, 35 mph local arterials/collectors, 25 mph on local streets. Traffic Data: Opening Year ADT: TBD Design Year ADT: TBD Design Hourly Volume: TBD Directional Distribution: TBD Trucks (24 Hour B&C): TBD <i>(Traffic data does not need to be certified for the Red Flag Summary.)</i>	
Functional Classification: ■ Principal Urban Arterial CR-0067 (future SR-32) Red Bank Expressway, CR-0612 Madison Road (West of Red Bank) Minor Urban Arterial Madison Road (East of Red Bank) ■ Urban Collector: Duck Creek Rd. Stewart Ave, Erie/Roslyn Brotherton, Bramble Ave. ■ Local, Hetzel St., Fair Lane, Shannon Way, Murray Rd, Virginia Ave.	
Locale: Urban National Highway System (NHS): None at this time: (SR-32 East of I-275 is Non-Interstate STRAHNET Route) Non-NHS Routes: CR-0067 Red Bank Expressway (Future SR-32) and CR-0612 Madison Rd Resurfacing, Restoration and Rehabilitation (3R) Project? ■ Yes X No	

SITE VISIT:	
<i>A site visit is required for ALL projects. The site visit shall consist of visual inspection of the entire project area including the ditch lines, cut slopes, stream banks, bridge foundations, pavement, embankment slopes, etc.</i>	
Date(s) of site visit:	January 13, 2011 (See Appendix I for Field Discussion Items)

ODOT COUNTY MANAGER CONCERNS:
<i>List any comments/requests from the ODOT County Manager.</i>

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ACCIDENT DATA:

See Appendix A for additional information.

URS used the ODOT GIS Crash Analysis Tool (GCAT) and Crash Analysis Module (CAM) and Data provided by District 8 to map and analyze data within the project area. Upon review of the location data it was noted that there are coding problems differentiating Red Bank Expressway and Red Bank Road additionally many crashes were given at the same latitude and longitude by the responding officer thus precise locations of crashes could only be discerned by reviewing the individual OH-1 reports. Three years of data 2007-2007 included 535 crashes within the study area. (See figures xx through xx for distribution of the crashes. There were two fatal crashes within the study area during this time period.

Crash analysis was focused on four sub areas as follows:

- Intersection of Red Bank Expressway and Madison Road,
- The Red Bank Road corridor from Duck Creek Road northward to the I-71 underpass (a length of approximately 2500', including the area in front of Seven Hills Middle School),
- Erie Avenue corridor within the project limits, and
- Intersection of Murray Road and Virginia Avenue.

Total crashes for each area were mapped, as well as crashes during the morning and afternoon peak hours. The evaluation of the crashes at each sub-area location was considered separately.

In the vicinity of the intersection of Madison Rd and Red Bank Expressway there were a total of 129 crashes. This results in a crash rate of 4.57 crashes/million entering vehicles vs. the Hamilton County average of 3.95 crashes/MVMT. The crash rates at all other subareas were below the county wide average.

There are a few specific locations that could possibly warrant further study. The intersection of Madison Road and Anderson Place could possibly be studied for a pedestrian traffic signal, or other traffic control enhancements. Rear-end and sideswipe crashes appear to be a problem on the Madison Road approaches to Red Bank Expressway. Efforts to decrease the congestion and queue lengths, and improve lane use signage could possibly improve the crash situation at this intersection.

Based on the crash data, there does not appear to be significant safety problems within project limits which would contribute to the project purpose and need. Nor does the distribution of crashes indicate specific significant problems with roadway geometrics, roadside hazards, lighting or pavement conditions.

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ENVIRONMENTAL ISSUES:		
<i>Make a preliminary determination on whether the following resources will be affected by the proposed project. Comments must identify the location of the issue. Comments are required for any Yes or Possible responses.</i>		
Involvement	Resource/Feature	Location/Comments
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Parkland, nature preserves and wildlife areas (<i>Name</i>)	<p>Rosslyn/Erie Greenspace: A 2.1-acre greenspace area owned by the City of Cincinnati occurs along the Duck Creek stream corridor on the upstream side of Erie Avenue; it is partially within the project study area. There are no recreational components to this site; therefore no Section 4(f) issues are anticipated.</p> <p>No public-owned parks, nature preserves or wildlife areas occur in the project study area boundaries. Ault Park (Cincinnati Parks) is located approximately 300 feet southwest of the project southern boundary.</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Cemetery (<i>Name</i>)	No cemeteries are located in the project study area.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Scenic River (<i>Name</i>)	The project occurs in the Little Miami River watershed, Duck Creek sub-watershed (Hydrological Unit Code 05090202-140-050). The Little Miami River is a state scenic river and component of the national scenic river system. The Little Miami River main stem is located about 970 feet southeast (straight line distance) from the southernmost study area boundary, and will not be directly impacted by the project. The project may include a crossing of Little Duck Creek.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Public Facilities (<i>Name</i>)	<p>There is one public school facility and a postal facility in the project study area, including: <u>Public-owned facilities</u></p> <ul style="list-style-type: none"> • John P. Parker Elementary • U.S. Post Office Madisonville <p>Additionally, there are a number of daycare, retirement, medical, school, recreational and church facilities in the study area that are privately owned, including: <u>Other Community Facilities (Privately-owned)</u></p> <ul style="list-style-type: none"> • Seven Hills School • The Cincinnati Children’s Home • Madison Villa (private retirement home) • Barrington of Oakley (private assisted living) • Indian Spring of Oakley (private assisted living) • St. Paul Lutheran Church • St Paul Village (private retirement home) • Madisonville Child Care Center (daycare) • Red Bank Professional Office Building (medical office and healthcare) • The Goddard School (private daycare/preschool) • Dupree House (private retirement home) • Cincinnati Sports Club (recreational)

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<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Threatened and Endangered Species and/or habitat (e.g., Indiana bat trees, etc.)	<p>U.S. Fish and Wildlife reports that Hamilton County is within the known range of five federal listed species, including:</p> <p><u>Federal endangered:</u></p> <ul style="list-style-type: none"> • Indiana bat (<i>Myotis sodalis</i>) • Running buffalo clover (<i>Trifolium stoloniferum</i>) • Fanshell mussel (<i>Cyprogenia stegaria</i>) • Pink mucket pearly mussel (<i>Lampsilis abrupta</i>) <p><u>Federal Proposed Endangered:</u></p> <ul style="list-style-type: none"> • Sheepnose mussel (<i>Plethobasus cyphus</i>) • Snuffbox mussel • Rayed Bean mussel <p><u>Federal Species of Concern</u></p> <ul style="list-style-type: none"> • <u>Bald Eagle</u> <p>Based on reconnaissance field surveys conducted in October 2010, potential summer roosting habitat for Indiana bat occurs sporadically in the project study area, consisting of scattered trees with exfoliating bark and dead limbs/trunks with cavities. Guidance from ODOT-OES on further study of potential Indiana bat habitat in the project study area is pending.</p> <p>Potential suitable habitat for running buffalo clover was noted in the study area, consisting of scattered older residential yards and other wooded areas. These sites will require field survey during the species' flowering season (May-June) to determine presence/absence.</p> <p>No potential habitat for the listed mussel species was noted during reconnaissance field surveys conducted for this project.</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Existing cat tails (<i>Location</i>)	Cattails occur in six distinct areas within the study area. Three areas are considered jurisdictional wetland areas. The remaining three areas are roadside ditch areas that do not meet the U.S. Corps of Engineers jurisdictional wetland criteria (soils, hydrology, and vegetation).

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<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Existing wet areas (<i>Location</i>)	<p>Three wetlands were identified within the study area, including:</p> <ul style="list-style-type: none"> • a 0.12 acre emergent/scrub-shrub, limited quality Category 1 wetland located at the north end of the study area on the west side of Red Bank Road. • A 0.17 acre emergent seep, limited quality Category 1 wetland located at the east edge of the study area between Duck Creek Road and Madison Road. • A 1.26 acre emergent/open water, good quality Category 2 wetland located in a remnant channel of Duck Creek (see comments for streams, rivers and watercourses, below), just south of Fair Lane towards the south end of the study area. <p>None of these three features are isolated wetlands.</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Streams, rivers and watercourses (<i>Use Designation</i>)	<p>The project occurs in the Little Miami River watershed, Duck Creek sub-watershed (Hydrological Unit Code 05090202-140-050). Based on reconnaissance field survey, eleven OHW features were observed within the study area, including three USGS perennial streams (Duck Creek, West Fork Duck Creek, and East Fork Duck Creek), two USGS intermittent streams and six other minor stream features. Preliminary assessment indicates that all of the stream features are limited quality with either low or no flow characteristics or have previously been disturbed. Duck Creek, West Fork Duck Creek and East Fork Duck Creek have official OEPA use designations of Limited Resource Water within the study area.</p> <p>Approximately 1,200 feet of Duck Creek channel was relocated through a concrete arch culvert as a component of the “Metropolitan Region of Cincinnati, Duck Creek, Ohio, Local Flood Protection Project”. This third phase of the project was completed in November 2005. The remnant Duck Creek channel has since converted into a Category 2 wetland (see wetland comments above).</p>

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<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Historic Building(s) (<i>Location</i>)	<p>See the attached Cultural Resources Coordination Package for additional information. At this time it is not anticipated that historic buildings will be directly impacted by potential alternatives. Further evaluation is required during future steps of the project Development Process.</p> <p>The literature review identified one historic district listed as a NHL and one historic district listed in the NRHP within the study area. The Village of Mariemont Historic District (NHL 07000431) is located at the southeast portion of the study area. The Madison-Stewart Historic District (NRHP 75001419) is located at the intersection of Madison Road and Stewart Avenue in the northeast portion of the study area.</p> <p>The literature review identified two buildings and one industrial park documented in the Ohio Historic Inventory files within the study area. The Stewart House at 5540 Madison Road (HAM-0332-13) and the Weir House at 4931 Stewart Avenue (HAM-0385-13) are contributing resources within the NRHP-listed Madison-Stewart Historic District. Buildings in the Westover Industrial Park, including the building at 5657 Wooster Pike, are contributing resources within the Village of Mariemont NHL historic district.</p>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible	Historic Bridge(s) (<i>Location</i>)	None
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible	Farmland (<i>Location</i>)	No current Agricultural Use Value (CAUV) or Agricultural District (AD) parcels are located in the project study area based on review of the 2010 Hamilton County (CAGIS) database.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Air Quality non-attainment area or concerns (ozone particulate or air toxics)	The project area (Hamilton County) is currently in a maintenance area for 8-hour ozone and non-attainment PM2.5.

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<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Possible	Landfill(s), Superfund Site(s) and/or evidence of hazardous materials (Location)	<p>Database records review conducted September 3, 2010 (EDR) indicates no landfills or Superfund sites occur within the study area boundaries; however, a total of 70 database records were reported from within the study area, with 34 unique sites having the potential for hazardous materials concerns, including:</p> <ul style="list-style-type: none"> • Schulte Metals, 4909 Charlemer Dr. (CERCLIS, DERR) • Nutone, 4820 Red Bank Road (BROWNFIELDS, INST CONTROLS, DERR, UIC) - currently undergoing partial site redevelopment • Red Bank Distribution, 4000 Red Bank Road (INST CONTROLS, DERR, RCRA-SCEQG, LUST) - recently fully redeveloped • Ford WWTP Former, 3863 Red Bank Road (DERR) • Additional sites with potential concerns, including 15 RCRA (LQG, SQG or CESQG) sites, 14 LUST sites and one FTTS & PADS site. <p>One historic landfill was noted in the area (referred to as the “City Dump”) based on review of 1969 City of Cincinnati plans for Red Bank Road; this site was not listed in the database review conducted in September 2010.</p> <p>Additional effort and/or cost may be required to address the ESA issues associated with the above-listed sites. It is unlikely the project alternatives will affect Schulte Metals, other sites will likely be impacted but have been or are currently being remediated as part of ongoing private redevelopment in the study area.</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible	Known Archaeological Sites	<p>None of the study area has been previously subjected to an archeological survey and archeological sites within the preferred alternative need to be identified and evaluated for significance and integrity at a later step in the PDP process.</p>
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible	Watershed Specific (i.e. Darby or Olentangy) NPDES Permit Area	<p>The project is not located in any USEPA identified watershed specific NPDES Permit Areas.</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible	Sensitive environmental justice areas	<p>Review of available OKI environmental justice mapping (based on Census 2000 Block Groups) indicates that both minority and low income EJ target populations occur in the project study area primarily north of Erie/Brotherton Avenue.</p> <p>Census 2010 demographics will be reviewed when available and presented in the project environmental document.</p>

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<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Federal Emergency Management Agency (FEMA) floodplains	Current (2010) FEMA mapping indicates that 100-year FEMA-floodplains and associated floodway zones along Duck Creek mainstem, West Fork Duck Creek, and East Fork Duck Creek within the project study area.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Lake Erie Coastal Management Area	There are no Lake Erie Coastal Management Areas in proximity to the study area.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Sole Source Aquifers (Location)	The study area is located within the boundaries of the USEPA-designated Great Miami Sole Source Aquifer.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible	Wellhead Protection Areas (Specify)	There are no OEPA public water supply wells or source water protection areas located in the study area based on current drinking water source information provided by Ohio EPA (September 15, 2010).

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<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible	Does it appear that noise abatement will be an issue for the project?	<p>A review of the project study area was conducted to identify noise sensitive land uses in accordance with the updated FHWA Noise Abatement Criteria (23CFR772).</p> <p>Four general noise-sensitive areas could potentially experience sound-level impacts as a result of improvements associated with the project mainline alternatives located on or along existing Red Bank Road (see Figure 6) including:</p> <p>Area 1 - the Dupree House (retirement home) and residences located along the east side of Erie Avenue and along Forest Hill Drive (to the west of existing Red Bank Expressway)</p> <p>Area 2 - the Goddard School on Red Bank Road and residences located along the west side of Erie Avenue and along Macey Avenue, Erie Station Lane, Centennial Drive, Watertower Court, and Tompkins Avenue (to the east of the existing Red Bank Expressway)</p> <p>Area 3 - John Parker Elementary School, the Madison Villa (retirement home), the St. Paul Lutheran Church and associated retirement home (St. Paul Village), the Madisonville Child Care Center (daycare), and residences located along Stewart Avenue (north of Madison Road), Anderson Place, Chandler Street, Davies Place, Luhn Avenue, Monning Avenue, and Maphet Avenue (to the east of the existing Red Bank Expressway)</p> <p>Area 4 - the Seven Hills School on Red Bank Road, the Barrington of Oakley and Indianspring of Oakley assisted living centers along Madison Road (site of the former drive-in theater), and residences located along Ellmarie Drive, Buffer Lane, and Raywill Court (to the west of the existing Red Bank Expressway, just south of I-71).</p> <p>Additional noise sensitive land use areas occurring at the south end of the study area generally south of Fair Lane are being evaluated under the Eastern Corridor HAM/CLE-32F-2.50 Segment II/III</p>
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible	Other environmental issues	No other environmental issues were noted.

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GEOMETRIC ISSUES:		
<i>Use the design speed, design functional classification and available traffic data to make a preliminary determination as to the geometric standards for the project. Compare these requirements to accident data and impacts if deviations are being considered.</i>		
Design Exception Required?	Design Feature	Preliminary Comments Regarding Justification
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Lane Width (including curve widening)	See Appendix C Geometric design Red Flags Evaluation. There are several locations where lane widths are less than the 12' minimum or preferred however City of Cincinnati policy allows for less than 12' lanes in some circumstances.
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Graded Shoulder Width	There are several areas where current shoulder widths do not meet ODOT criteria. See the attached table for details of Geometric Design Red Flags
<input checked="" type="checkbox"/> Yes X No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Bridge Width	Bridge widths are acceptable
<input checked="" type="checkbox"/> Yes X No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Structural Capacity	There are no load restricted bridges within the study area except for Red Bank Road over the I&O railroad which was closed to vehicular traffic in 1997.
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Horizontal Alignment (including Excessive Deflections, Degree of Curve, Lack of Spirals, Transition/Taper Rates and Intersection Angles)	South of Erie Ave., Red Bank Expressway does not meet minimum radius and taper rates for the proposed project design speed. See the attached table for details of Geometric Design Red Flags
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Vertical Alignment (including grade breaks)	There are several areas where grade breaks exceed ODOT criteria. See the attached table for details of Geometric Design Red Flags
<input checked="" type="checkbox"/> Yes X No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Grades	Grades are acceptable where data has been provided
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Stopping Sight Distance	There are some locations along Red Bank Expressway (at Brotherton) as well as Duck Creek Road that do not provide adequate stopping sight distance based upon the design speed for the project.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Pavement Cross Slopes	See Appendix C Geometric design Red Flags Evaluation
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Super elevation (Maximum rate, transition, position)	See Appendix C Geometric design Red Flags Evaluation
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Horizontal Clearance	See the Appendix C Geometric design Red Flags Evaluation. Horizontal Clearance under Erie Ave. is restrictive.

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GEOMETRIC ISSUES:		
<i>Use the design speed, design functional classification and available traffic data to make a preliminary determination as to the geometric standards for the project. Compare these requirements to accident data and impacts if deviations are being considered.</i>		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Vertical Clearance	At this time it appears that vertical clearance under the existing bridge structures is sufficient. Clearance may be an issue if geometrics of the existing roadways may be a problem. Clearance over the SORTA Oasis RR has not been verified to date.

GEOMETRIC ISSUES:		
<i>Indicate if the following geometric issues are present or should be considered during project development. Consider work on the mainline as well as any side roads or service roads. Provide additional comments as needed.</i>		
	Design Issue	Comments
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does the existing horizontal alignment need to be modified?	Some modifications to the exiting horizontal alignments may be required for Red Bank Expressway to meet the proposed 45 mph design speed.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does the existing vertical alignment need to be modified?	If the intersections of Red Bank Expressway with Madison Road and Erie are reconfigured, changes in the existing vertical alignments are likely.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does stopping sight distance need to be increased?	If the design speed is increased to 45 mph for Red Bank Expressway the stopping site distance will need to be increased in the vicinity of Brotherton unless this intersection is reconfigured.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does intersection sight distance need to be increased?	See Appendix C Geometric design Red Flags Evaluation
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there geometric issues that may affect traffic safety (including Full or Half-Clover Leaf Interchange, Slip Ramps, Weave Areas, and short acceleration/deceleration lanes). <i>Describe.</i>	Future intersection/interchange configurations at Redbank Expressway and Duck Creek Road, Madison Road as well as Erie/Brotherton could affect traffic safety. Existing geometry does not appear to be a significant contributor to traffic safety accepts as it relates to congestion and rear end crashes at the respective intersections.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any hazards in the clear zone? <i>Specify treatment.</i>	Requires further evaluation depending on the design speed selected
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does existing guardrail need to be replaced (e.g., too low, poor condition)?	Existing Guardrail is in fair condition.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is the area for guardrail anchor assemblies insufficient? (E-98 or B-98)? <i>Consider proper grading around the anchor assembly.</i>	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does the number of turn lanes or through lanes need to be increased?	It is likely that additional turn lanes and through lanes will be required to accommodate future traffic volumes from relocated SR-32. Additional turn lanes at the intersection of Madison Rd. and Red Bank Expressway are planned to accommodate private development in the vicinity.

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PID 86461**

GEOMETRIC ISSUES:		
<i>Indicate if the following geometric issues are present or should be considered during project development. Consider work on the mainline as well as any side roads or service roads. Provide additional comments as needed.</i>		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are changes to access control required?	It is likely than some changes to access control will be required in the vicinity of Madison and Red Bank Expressway to eliminate direct driveway access near the intersection.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any drive locations that will require special attention during design (e.g., very steep grades, high volume commercial drives, drives close to bridges or intersections)?	See above
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input checked="" type="checkbox"/> Not Applicable	Are new mailbox turnouts required?	None known at this time
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there any evidence of accidents due to substandard vertical clearance on overpass structures?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will an interchange be added or modified?	It is possible that a grade separated interchange will be required at the intersection of Red Bank Expressway and Madison Road. The existing interchange of Redbank Expressway, Brotherton and Erie may be modified.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Do the existing intersection radius returns need to be modified to accommodate larger truck turning movements?	Curve radii may need to be adjusted at several locations depending on future configuration of intersections.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does grading need to be upgraded? To what criteria (e.g., clear zone, safety, and standard)?	Grading may need to be upgraded. Requires additional evaluation.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input checked="" type="checkbox"/> Not Applicable	Are there any other geometric issues? <i>Describe</i>	To be determined in future steps of the project development process. Potential geometric design issues for the local street network have not been fully evaluated at this time.

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PID 86461**

GEOTECHNICAL ISSUES		
<i>Based on the information compiled during this study indicate whether or not the following geotechnical issues are present or should be further considered during project development. Provide additional comments as needed.</i>		
	Design Issues	Comments
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there evidence of soil drainage problems (e.g., wet or pumping subgrade, standing water, the presence of seeps, wetlands, swamps, bogs)?	See the attached Geotechnical Red Bank Study for additional information.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is the groundwater table anticipated to be affected by construction?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there evidence of any embankment or foundation problems (e.g., differential settlement, sag, foundation failures, slope failures, scours, and evidence of channel migrations)?	In service structures appear to be functioning from a geotechnical standpoint. The foundations of the Red Bank Road over the Indiana and Ohio Railroad have erosion at several piers.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there evidence of any slope instability (soil or rock)?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there evidence of unsuitable materials (e.g., presence of debris or man-made fills or waste pits containing these materials, indications from old soil borings)?	Cincinnati "City Dump" formally located under Red Bank Expressway near Corsica Pl. See Figure 3 for additional info.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there evidence of rock strata (e.g., presence of exposed bedrock, rock on the old borings)?	Shallow Bedrock is present in the extreme southwest and northeast corners of the study area. However, over a substantial majority of the study areas the bedrock is greater than 50 ft depth. See the attached Geotechnical Red Bank Study for additional information.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there evidence of active, reclaimed or abandoned surface mines?	None known
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there information pertaining to the existence of underground mines?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there Acid Mine Drainage present within the study area?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does subgrade stabilization or an undercut appear to be needed?	Typical subgrade conditions are likely to reflect the presence of fine grained shallow soils throughout the study area.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Should the Office of Geotechnical Engineering be contacted to evaluate the project site?	

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GEOTECHNICAL ISSUES		
<i>Based on the information compiled during this study indicate whether or not the following geotechnical issues are present or should be further considered during project development. Provide additional comments as needed.</i>		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Were there any significant items found during plan and specification review? <i>Specify.</i>	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any other geotechnical issues? <i>Specify.</i>	See the attached Geotechnical Red Bank Study for additional information.

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PAVEMENT ISSUES:		
<i>Indicate if the following pavement issues are present or should be considered during project development. Side road and service road work should be considered in this assessment. Provide additional comments as needed.</i>		
	Design Issue	Comments
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are pavement cores needed to determine the existing pavement buildup and/or condition?	Existing Pavement build up is known for Red Bank Road/Expressway. Pavement Cores may be required for older local network streets.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is the proposed pavement buildup unknown? (For pavement preservation projects, pavement treatment, including pavement type & thickness should be specified in the design scope of services)	Proposed Pavement Buildup is not known at this time.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible X Not Applicable	Do dialect tests indicate the existing pavement is in poor condition?	To be determined
<input type="checkbox"/> Yes X No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does the proposed pavement buildup need to be approved by the Pavement Selection Committee?	
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Are joint repairs needed?	To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are pressure relief joints needed?	To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Are pavement repairs needed?	At this time no significant areas of pavement repairs have been noted on Madison Rd. or Red Bank Expressway. Pavement Repairs may be required on local network streets.
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Does the maintenance of traffic scheme require additional permanent or temporary pavement?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Does curb need to be replaced due to deteriorated condition or lack of curb reveal?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Does sidewalk need to be replaced or installed?	Possible, To be determined in subsequent steps of the Project Development Process. Improved accommodations for pedestrians and bicyclists are goal of the City of Cincinnati and Village of Fairfax.
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Are new curb ramps needed?	Possible, To be determined in subsequent steps of the Project Development Process depending on status of future pedestrian facilities within the study area.
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Do truncated domes need to be installed?	Possible, To be determined in subsequent steps of the Project Development Process depending on status of future pedestrian facilities within the study area.
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there any work on side roads, service roads, or ramps?	Likely

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PAVEMENT ISSUES:		
<i>Indicate if the following pavement issues are present or should be considered during project development. Side road and service road work should be considered in this assessment. Provide additional comments as needed.</i>		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any special drive treatments or preferences (e.g., concrete for all drive aprons, curved aprons, etc.)?	To be determined in coordination with the City of Cincinnati
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Has the site received repeated resurfacings in recent years?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does pavement deterioration appear to be caused by drainage or geotechnical problems?	Significant pavement deterioration has not been noted.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any other pavement issues? <i>Specify.</i>	

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STRUCTURAL ISSUES: I&O Railroad Over Redbank Expressway SFN 3162672		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Structure:	Design Issue	Comments
Yes X No Possible Not Applicable	Is it impossible for the structure to be replaced with a prefabricated box culvert or 3-sided box?	
Yes No Possible Not Applicable	Does the bridge (including foundation) violate current design live loading?	
Yes No Possible Not Applicable	Was the existing structure not built according to plan?	Have not reviewed as built plans but bridge inspection reports do not indicate otherwise.
Yes No Possible X Not Applicable	Is deck coring needed?	
Yes No Possible Not Applicable	Is the deck delaminated? <i>Specify.</i>	
Yes No Possible Not Applicable	Is non-destructive testing needed to determine the amount of delaminating?	
Yes No Possible Not Applicable	Is the bridge deck in poor condition? <i>Specify location and level of deterioration.</i>	
Yes No Possible Not Applicable	Does a deck condition survey (see Bridge Design Manual) need to be performed?	
Yes No Possible Not Applicable	Are there areas to be patched or repaired on the deck?	
Yes No Possible Not Applicable	Is the bridge a poor candidate for an overlay? <i>Specify type of overlay if know.</i>	
Yes X No Possible Not Applicable	Does the bridge rail violate current standards?	Some repairs to the railing and spill guards are recommended in bridge inspection reports.
Yes X No Possible Not Applicable	Is fatigue analysis required?	
Yes No Possible Not Applicable	Should all fatigue prone details be retrofitted or replaced? <i>Specify.</i>	
Yes X No Possible Not Applicable	Is the abutment (including backwall, beam seats, breastwall, wingwall, etc.) in poor condition? <i>Specify location and level of deterioration.</i>	Minor Seepage and spalling
Yes X No Possible Not Applicable	Is there any evidence of substructure movement (e.g., settlement, rotation)?	

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STRUCTURAL ISSUES: I&O Railroad Over Redbank Expressway SFN 3162672		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Yes <input checked="" type="checkbox"/> No Possible Not Applicable	Are the piers in poor condition? <i>Specify location and level of deterioration.</i>	
Yes <input checked="" type="checkbox"/> No Possible Not Applicable	Is there any evidence of existing beam deterioration/section loss, strands exposed, shear joints leaking or longitudinal cracks?	There is surface rusting on the top flange of the girders. Repainting has been recommended
Yes No <input checked="" type="checkbox"/> Possible Not Applicable	Are the bearings in poor condition?	Some rusting and anchor bolts missing at NW Bearing
Yes No Possible <input checked="" type="checkbox"/> Not Applicable	Is elimination of the deck joint impossible? What modifications are necessary?	
Yes No Possible <input checked="" type="checkbox"/> Not Applicable	Are new approach slabs needed?	
Yes <input checked="" type="checkbox"/> No Possible Not Applicable	Is it impossible for the hinges to be removed to make the members continuous?	
<input checked="" type="checkbox"/> Yes No Possible Not Applicable	Is the bridge on a curve, skew or superelevation transition?	Bridge is skewed
Yes <input checked="" type="checkbox"/> No Possible Not Applicable	Is there any evidence that the bridge does not meet hydraulic capacity?	
Yes <input checked="" type="checkbox"/> No Possible Not Applicable	Are there existing sidewalks on or adjacent to the bridge?	
Yes <input checked="" type="checkbox"/> No Possible Not Applicable	Is Vandal Protection Fencing required per the BDM?	
<input checked="" type="checkbox"/> Yes No Possible Not Applicable	Will the structure work require any special maintenance of traffic (e.g., closing of roadway for erection of beams, maintenance of waterway traffic, location of cut line, etc.)? <i>Specify.</i>	Replacement or modification of the structure will require maintenance of Traffic on Red Bank Expressway as well as railroad operations. Any work on the bridge must be coordinated with Rail America (Indiana and Ohio Railroad).
Yes No Possible <input checked="" type="checkbox"/> Not Applicable	Is there any erosion in the existing channel?	
Yes No Possible <input checked="" type="checkbox"/> Not Applicable	Is the foundation exposed due to scour?	
Yes No Possible <input checked="" type="checkbox"/> Not Applicable	Will there be more than 25' of channel relocation?	

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STRUCTURAL ISSUES: I&O Railroad Over Redbank Expressway SFN 3162672		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Yes No X Possible Not Applicable	Do no opportunities exist to construct the bridge faster (e.g., precast walls, segmental construction)?	
Yes No X Possible Not Applicable	Does the bridge need to accommodate future roadway lanes or railroad tracks?	Bridge may have to accommodate additional lanes on Red Bank Expressway under the structure for future design year
X Yes No Possible Not Applicable	Will temporary shoring be required next to the railroad?	Temporary shoring would likely be needed if the structure is replaced or modified
Yes No X Possible Not Applicable	Are there any problems with the existing retaining walls?	Seepage and minor spalls at the abutments
Yes No Possible Not Applicable	Are there any other structures issues? <i>Specify.</i>	No other issues have been identified at this time. Coordination with I&O Railroad has not taken place to date.

STRUCTURAL ISSUES: Erie Ave. Over SORTA Oasis RR SFN 3160939		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Structure:	Design Issue	Comments
Yes X No Possible Not Applicable	Is it impossible for the structure to be replaced with a prefabricated box culvert or 3-sided box?	
Yes X No Possible Not Applicable	Does the bridge (including foundation) violate current design live loading?	
Yes X No Possible Not Applicable	Was the existing structure not built according to plan?	Bridge inspection reports do not indicate otherwise.
Yes No Possible X Not Applicable	Is deck coring needed?	
Yes No X Possible Not Applicable	Is the deck delaminated? <i>Specify.</i>	There is some cracking and delamination noted in bridge inspection report
Yes No X Possible Not Applicable	Is non-destructive testing needed to determine the amount of delaminating?	
Yes No X Possible Not Applicable	Is the bridge deck in poor condition? <i>Specify location and level of deterioration.</i>	There is some cracking and delamination noted in bridge inspection report
Yes No X Possible Not Applicable	Does a deck condition survey (see Bridge Design Manual) need to be performed?	
Yes No X Possible Not Applicable	Are there areas to be patched or repaired on the deck?	

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STRUCTURAL ISSUES: Erie Ave. Over SORTA Oasis RR SFN 3160939		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Yes No X Possible Not Applicable	Is the bridge a poor candidate for an overlay? <i>Specify type of overlay if know.</i>	Wearing surface was overlaid with LMC in 2002
Yes X No Possible Not Applicable	Does the bridge rail violate current standards?	Some repairs to the railing are recommended in bridge inspection reports.
Yes No X Possible Not Applicable	Is fatigue analysis required?	Need to confirm with City staff if load rating has been completed
Yes No Possible Not Applicable	Should all fatigue prone details be retrofitted or replaced? <i>Specify.</i>	
Yes X No Possible Not Applicable	Is the abutment (including backwall, beam seats, breastwall, wingwall, etc.) in poor condition? <i>Specify location and level of deterioration.</i>	Minor cracking and spalling
Yes No Possible Not Applicable	Is there any evidence of substructure movement (e.g., settlement, rotation)?	Rockers re-set in 2002
Yes X No Possible Not Applicable	Are the piers in poor condition? <i>Specify location and level of deterioration.</i>	
Yes X No Possible Not Applicable	Is there any evidence of existing beam deterioration/section loss, strands exposed, shear joints leaking or longitudinal cracks?	There is surface rusting on the top flange of the girders. Repainting has been recommended
Yes No Possible Not Applicable	Are the bearings in poor condition?	Some rusting and rockers reset in 2002
Yes X No Possible Not Applicable	Is elimination of the deck joint impossible? What modifications are necessary?	
Yes No Possible X Not Applicable	Are new approach slabs needed?	Approach slabs overlaid in 2002
X Yes No Possible Not Applicable	Is it impossible for the hinges to be removed to make the members continuous?	
X Yes No Possible Not Applicable	Is the bridge on a curve, skew or superelevation transition?	Bridge is skewed
Yes X No Possible Not Applicable	Is there any evidence that the bridge does not meet hydraulic capacity?	
Yes X No Possible Not Applicable	Are there existing sidewalks on or adjacent to the bridge?	

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STRUCTURAL ISSUES: Erie Ave. Over SORTA Oasis RR SFN 3160939		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
X Yes . No Possible Not Applicable	Is Vandal Protection Fencing required per the BDM?	
X Yes No Possible Not Applicable	Will the structure work require any special maintenance of traffic (e.g., closing of roadway for erection of beams, maintenance of waterway traffic, location of cut line, etc.)? <i>Specify.</i>	Replacement or modification of the structure will require maintenance of Traffic on Erie Ave as well as railroad operations. Any work on the bridge must be coordinated with SORTA, Rail America (Indiana and Ohio Railroad) and Norfolk Southern.
Yes No Possible X Not Applicable	Is there any erosion in the existing channel?	
Yes No Possible X Not Applicable	Is the foundation exposed due to scour?	
Yes No Possible X Not Applicable	Will there be more than 25' of channel relocation?	
Yes No X Possible Not Applicable	Do no opportunities exist to construct the bridge faster (e.g., precast walls, segmental construction)?	
X Yes No Possible Not Applicable	Does the bridge need to accommodate future roadway lanes or railroad tracks?	Bridge may have to accommodate additional lanes on Erie Ave in the future design year.
X Yes No Possible Not Applicable	Will temporary shoring be required next to the railroad?	Temporary shoring will likely be required if the bridge is replaced.
Yes No X Possible Not Applicable	Are there any problems with the existing retaining walls?	Seepage and minor spalls at the abutments
Yes No X Possible Not Applicable	Are there any other structures issues? <i>Specify.</i>	Replace guardrail anchor assemblies and remove vegetation below bridge.

STRUCTURAL ISSUES: Erie Ave. over Red Bank Expressway SFN 3160998		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Structure:	Design Issue	Comments
Yes X No Possible Not Applicable	Is it impossible for the structure to be replaced with a prefabricated box culvert or 3-sided box?	
Yes No Possible Not Applicable	Does the bridge (including foundation) violate current design live loading?	
. Yes No Possible Not Applicable	Was the existing structure not built according to plan?	Have not reviewed as built plans but bridge inspection reports do not indicate otherwise.

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STRUCTURAL ISSUES: Erie Ave. over Red Bank Expressway SFN 3160998		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Yes No X Possible Not Applicable	Is deck coring needed?	
Yes No X Possible Not Applicable	Is the deck delaminated? <i>Specify.</i>	There is some cracking and delamination noted in bridge inspection report
Yes No . Possible Not Applicable	Is non-destructive testing needed to determine the amount of delaminating?	
Yes No X Possible Not Applicable	Is the bridge deck in poor condition? <i>Specify location and level of deterioration.</i>	There is some cracking and delamination noted in bridge inspection report
Yes No . Possible Not Applicable	Does a deck condition survey (see Bridge Design Manual) need to be performed?	
Yes No . Possible Not Applicable	Are there areas to be patched or repaired on the deck?	
Yes No Possible . Not Applicable	Is the bridge a poor candidate for an overlay? <i>Specify type of overlay if know.</i>	Wearing surface was overlaid with LMC in 2002
Yes X No Possible Not Applicable	Does the bridge rail violate current standards?	Some repairs to the railing are recommended in bridge inspection reports.
Yes No X Possible Not Applicable	Is fatigue analysis required?	Need to confirm with City staff if load rating has been completed
Yes No Possible . Not Applicable	Should all fatigue prone details be retrofitted or replaced? <i>Specify.</i>	
Yes X No Possible Not Applicable	Is the abutment (including backwall, beam seats, breastwall, wingwall, etc.) in poor condition? <i>Specify location and level of deterioration.</i>	Minor cracking and spalling
Yes No X Possible Not Applicable	Is there any evidence of substructure movement (e.g., settlement, rotation)?	Rockers re-set in 2002
Yes X No Possible Not Applicable	Are the piers in poor condition? <i>Specify location and level of deterioration.</i>	
Yes X No Possible Not Applicable	Is there any evidence of existing beam deterioration/section loss, strands exposed, shear joints leaking or longitudinal cracks?	There is surface rusting on the top flange of the girders. Repainting has been recommended
Yes No . Possible Not Applicable	Are the bearings in poor condition?	Some rusting and rockers reset in 2002

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STRUCTURAL ISSUES: Erie Ave. over Red Bank Expressway SFN 3160998		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Yes <input checked="" type="checkbox"/> No Possible Not Applicable	Is elimination of the deck joint impossible? What modifications are necessary?	
Yes No Possible Not Applicable	Are new approach slabs needed?	Approach slabs overlaid in 2002
X Yes No Possible Not Applicable	Is it impossible for the hinges to be removed to make the members continuous?	
Yes <input checked="" type="checkbox"/> No Possible Not Applicable	Is the bridge on a curve, skew or superelevation transition?	
Yes No Possible Not Applicable	Is there any evidence that the bridge does not meet hydraulic capacity?	
X Yes No Possible Not Applicable	Are there existing sidewalks on or adjacent to the bridge?	
X Yes No Possible Not Applicable	Is Vandal Protection Fencing required per the BDM?	
X Yes No Possible Not Applicable	Will the structure work require any special maintenance of traffic (e.g., closing of roadway for erection of beams, maintenance of waterway traffic, location of cut line, etc.)? <i>Specify.</i>	Replacement or modification of the structure will require maintenance of Traffic on Erie Ave as well as Red Bank Expressway below the bridge.
Yes No Possible Not Applicable	Is there any erosion in the existing channel?	
Yes No Possible X Not Applicable	Is the foundation exposed due to scour?	
Yes No Possible X Not Applicable	Will there be more than 25' of channel relocation?	
Yes No X Possible Not Applicable	Do no opportunities exist to construct the bridge faster (e.g., precast walls, segmental construction)?	
Yes No X Possible Not Applicable	Does the bridge need to accommodate future roadway lanes or railroad tracks?	Bridge may have to accommodate additional lanes on Erie Ave in the future design year.
Yes X No Possible Not Applicable	Will temporary shoring be required next to the railroad?	.
Yes No Possible Not Applicable	Are there any problems with the existing retaining walls?	Seepage and minor spalls at the abutments

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STRUCTURAL ISSUES: Erie Ave. over Red Bank Expressway SFN 3160998		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Yes No X Possible Not Applicable	Are there any other structures issues? <i>Specify.</i>	None known at this time.

STRUCTURAL ISSUES: Red Bank Road over I&O Railroad SFN 3160947		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Structure:	Design Issue	Comments
X Yes No Possible Not Applicable	Is it impossible for the structure to be replaced with a prefabricated box culvert or 3-sided box?	
Yes No Possible X Not Applicable	Does the bridge (including foundation) violate current design live loading?	Bridge is currently closed to vehicular traffic and deck has been removed
. Yes No Possible Not Applicable	Was the existing structure not built according to plan?	Have not reviewed as built plans but bridge inspection reports do not indicate otherwise. Currently in a state of disrepair.
Yes No Possible X Not Applicable	Is deck coring needed?	Deck has been removed
X Yes No Possible Not Applicable	Is the deck delaminated? <i>Specify.</i>	Asphalt overlay has delaminated from wooden deck has been partially removed
Yes No Possible . Not Applicable	Is non-destructive testing needed to determine the amount of delaminating?	See above
X Yes No Possible Not Applicable	Is the bridge deck in poor condition? <i>Specify location and level of deterioration.</i>	
Yes No Possible Not Applicable	Does a deck condition survey (see Bridge Design Manual) need to be performed?	Deck has been partially removed
. Yes No Possible Not Applicable	Are there areas to be patched or repaired on the deck?	Deck is in poor condition and closed to vehicular and pedestrian traffic
Yes No Possible . Not Applicable	Is the bridge a poor candidate for an overlay? <i>Specify type of overlay if know.</i>	Deck has been partially removed
X Yes No Possible Not Applicable	Does the bridge rail violate current standards?	Steel beam on west and metal pipe railing on east.
Yes No X Possible Not Applicable	Is fatigue analysis required?	Bridge closed due to superstructure condition
Yes No Possible . Not Applicable	Should all fatigue prone details be retrofitted or replaced? <i>Specify.</i>	See above

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STRUCTURAL ISSUES: Red Bank Road over I&O Railroad SFN 3160947		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
X Yes No Possible Not Applicable	Is the abutment (including backwall, beam seats, breastwall, wingwall, etc.) in poor condition? <i>Specify location and level of deterioration.</i>	Major cracking and spalling noted in bridge inspection report.
Yes No X Possible Not Applicable	Is there any evidence of substructure movement (e.g., settlement, rotation)?	Rockers re-set in 2002
Yes No Possible Not Applicable	Are the piers in poor condition? <i>Specify location and level of deterioration.</i>	Cracking and deterioration noted in bridge inspection report
X Yes No Possible Not Applicable	Is there any evidence of existing beam deterioration/section loss, strands exposed, shear joints leaking or longitudinal cracks?	Severe loss of section and damage noted in bridge inspection report. Wooden floor beams are deteriorated.
X Yes No Possible Not Applicable	Are the bearings in poor condition?	
Yes X No Possible Not Applicable	Is elimination of the deck joint impossible? What modifications are necessary?	
Yes No Possible X Not Applicable	Are new approach slabs needed?	
X Yes No Possible Not Applicable	Is it impossible for the hinges to be removed to make the members continuous?	
Yes X No Possible Not Applicable	Is the bridge on a curve, skew or superelevation transition?	
Yes No Possible X Not Applicable	Is there any evidence that the bridge does not meet hydraulic capacity?	
X Yes No Possible Not Applicable	Are there existing sidewalks on or adjacent to the bridge?	Wooden sidewalks in poor condition. Closed to the public.
Yes No Possible Not Applicable	Is Vandal Protection Fencing required per the BDM?	
X Yes No Possible Not Applicable	Will the structure work require any special maintenance of traffic (e.g., closing of roadway for erection of beams, maintenance of waterway traffic, location of cut line, etc.)? <i>Specify.</i>	Replacement or modification of the structure will require maintenance of railroad operations below the bridge. Red Bank Road over the railroad is currently closed due to bridge conditions. City has requested that the railroad remove the bridge.
Yes No Possible X Not Applicable	Is there any erosion in the existing channel?	

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STRUCTURAL ISSUES: Red Bank Road over I&O Railroad SFN 3160947		
<i>Indicate if the following structure issues are present or should be considered during project development. Provide additional comments as needed. Provide a separate table for each structure.</i>		
Yes No Possible <input checked="" type="checkbox"/> Not Applicable	Is the foundation exposed due to scour?	
Yes No Possible <input checked="" type="checkbox"/> Not Applicable	Will there be more than 25' of channel relocation?	
Yes No <input checked="" type="checkbox"/> Possible Not Applicable	Do no opportunities exist to construct the bridge faster (e.g., precast walls, segmental construction)?	
<input checked="" type="checkbox"/> Yes No Possible Not Applicable	Does the bridge need to accommodate future roadway lanes or railroad tracks?	Bridge may need to accommodate wider cross section for Red Bank Road if local network improvements are made as well as railroad operations.
<input checked="" type="checkbox"/> Yes No. Possible Not Applicable	Will temporary shoring be required next to the railroad?	Likely if Bridge is replaced
Yes No Possible Not Applicable	Are there any problems with the existing retaining walls?	
Yes No <input checked="" type="checkbox"/> Possible Not Applicable	Are there any other structures issues? <i>Specify.</i>	Structure needs to be removed or replaced.

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HYDRAULIC ISSUES:		
Indicate if the following drainage issues are present or should be considered during project development. Side road and service road work should be considered in this assessment. Provide additional comments as needed.		
	Design Issue	Comments
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Based on visual evidence (height of debris, erosion or other markings left from high water) and approximate drainage areas, does the existing drainage system (culverts, storm sewers and/or ditches) appear to be inappropriately sized and not functioning properly? <i>Describe deficiencies.</i>	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there evidence of alignment or flow velocity problems (e.g., scour, bank erosions, silting) at culvert entrances or exits?	None have been noted, further evaluation is required.
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there sinkholes or other deterioration in the pavement that would indicate separations in the existing pipes?	None have been noted
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible	Is ditch clean-out required?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input checked="" type="checkbox"/> Not Applicable	Should guardrail over culverts be eliminated with clear zone grading?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Should the existing culverts be replaced?	To be determined. Existing Culvert appears to be in satisfactory condition.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Should the existing culverts be extended?	May need to extend existing culvert under Red Bank Expressway if improvements are made at Madison and Red Bank Intersection.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will a new alignment concentrate flow (in culverts) that is currently overland flow?	Unlikely
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will the maximum height of cover (100') be exceeded for any culvert?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will bankfull design be used for any culverts?	To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does the existing drainage system have an odor that might indicate that it includes septic connections?	None noted
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is the exposed curb height in existing gutters inadequate to contain flow (include height of proposed resurfacing)?	To be determined. Curbs are not present in some locations.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Do the existing inlets or catch basins need to be raised to meet proposed grade?	Possible, To be determined in subsequent steps of the Project Development Process

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HYDRAULIC ISSUES:		
Indicate if the following drainage issues are present or should be considered during project development. Side road and service road work should be considered in this assessment. Provide additional comments as needed.		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does the project affect a wetland or waterway (e.g., stream, river, jurisdictional ditch)?	See the attached mapping Figures xx. Deerfield and Duck Creek will be impacted.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is the existing and/or proposed channel alignment incompatible with the existing/proposed structure?	Possible, To be determined in subsequent steps of the Project Development Process. Changes to existing channel at Madison and Red Bank may be required.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will channel relocation be required?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will post construction BMPs be required that could impact R/W or utilities?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is there evidence of existing field tiles?	None noted
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are underdrain outlets not functioning properly?	To be determined
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will a new storm sewer outfall be required?	Unlikely but To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does the drainage work warrant any special maintenance of traffic considerations?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any other hydraulic issues? <i>Describe.</i>	

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TRAFFIC CONTROL ISSUES:		
<i>Indicate if the following traffic control (signals, signing, pavement markings, etc.) issues are present or should be considered during project development. Provide additional comments as needed.</i>		
	Design Issue	Comments
X Yes ■ No ■ Possible ■ Not Applicable	Do the existing signs need to be replaced due to poor condition?	
■ Yes ■ No ■ Possible ■ Not Applicable	Are there any obvious deviations from requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD)?	Requires further evaluation. Significant deviations have not been noted to date.
■ Yes ■ No X Possible ■ Not Applicable	Is a particular type of pavement marking desired (e.g., paint, epoxy, thermoplastic)?	Possible, To be determined in subsequent steps of the Project Development Process
■ Yes ■ No X Possible ■ Not Applicable	Will coordination with Ohio Rail Development Commission (ORDC) be required (i.e. at-grade railroad crossings located within 400' of an intersection within the project area)?	Possibly, SORTA owned Oasis line is parallel to the project study area south of Brotherton. Indiana & Ohio Railroad is located over Red Bank Expressway and under Red Bank Road within the project area. New grade separation structures may be necessary.
X Yes ■ No ■ Possible ■ Not Applicable	Will pavement planning affect loop detectors?	Likely, Specific impacts to loop detectors to be determined in subsequent steps of the Project Development Process
■ Yes ■ No X Possible ■ Not Applicable	Will pavement widening affect pole locations?	Possible, To be determined in subsequent steps of the Project Development Process
■ Yes ■ No ■ Possible X Not Applicable	Will resurfacing affect signal height?	It is likely that existing signals would be replaced as part of overall reconstruction of the Red Bank Expressway Corridor.
■ Yes ■ No X Possible ■ Not Applicable	Does it appear that any traffic control items will fall outside the existing right of way limits (e.g., large signs, strain poles)?	Possible, To be determined in subsequent steps of the Project Development Process
■ Yes ■ No ■ Possible ■ Not Applicable	Are there any accidents that can be related to existing signal deficiencies (e.g., timing, lack of turn lanes)?	Possible but specific causes have not been determined time. Further evaluation may be required at specific subareas. See attached accident maps for additional information. There is some rear end crashes associated with congested conditions at some locations.
■ Yes ■ No X Possible ■ Not Applicable	Do turn lane lengths appear to have insufficient storage capacity?	Possible pending evaluation of future traffic forecasts
■ Yes ■ No X Possible ■ Not Applicable	Does the controller need to be upgraded?	Possible, To be determined in subsequent steps of the Project Development Process in conjunction with the City of Cincinnati.
■ Yes ■ No X Possible ■ Not Applicable	Do proprietary materials need to be specified?	Possible, To be determined in subsequent steps of the Project Development Process in conjunction with the City of Cincinnati.
■ Yes ■ No X Possible ■ Not Applicable	Should signs or signal installations be supplemented with lighting?	Lighting Warrant Analysis will be conducted for the project study area.

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TRAFFIC CONTROL ISSUES:		
<i>Indicate if the following traffic control (signals, signing, pavement markings, etc.) issues are present or should be considered during project development. Provide additional comments as needed.</i>		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are any TODS signs present?	Not directly within the study area.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	If traffic control at an intersection is being changed from stop control to signalization, does the stop condition road need to be upgraded to accommodate faster traffic?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any other traffic control issues? <i>Specify.</i>	To be determined during future steps of the project development process.

MAINTENANCE OF TRAFFIC ISSUES:
<i>Briefly describe the maintenance of traffic and any constraints. A list of considerations has been provided below.</i>
Maintenance of Traffic Considerations
<p>Maintenance of Traffic will be determined during future steps of the project development process. Specific evaluation of potential maintenance of traffic issues has not been conducted to date pending the development of alternatives to accommodate design year traffic volumes.</p> <p>At this time it is assumed that traffic will be maintained on Red Bank Expressway, Duck Creek, Erie and Madison Roads during construction</p>

Maintenance of Traffic Description
<p>.</p>

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RIGHT OF WAY/SURVEY ISSUES:		
<i>Indicate if right of way or survey issues are present or should be considered during project development. Provide additional comments as needed.</i>		
	Design Issue	Comments
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will there be any work beyond the existing right of way limits?	It is assumed that additional capacity will require roadway expansion beyond the existing right of way limits at some locations.
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Will major real estate relocation acquisition be involved?	It is possible that relocation will be required. Numbers of relocations and total right of way take remain to be determined.
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Will relocation of residences be involved?	Possible, however it appears that residential relocations will be unlikely
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Will relocation of businesses be involved?	Possible, especially in the vicinity of Madison Road and Red Bank Expressway
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Will the project cause relocation of parties that might be eligible for relocation assistance? If so, list the estimated number of residential and non-residential relocations?	Possible, number of relocations to be determined in future steps of the project development process
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will the project require modifying the access control to any properties? If so, list the estimated number and type of properties affected.	Number of properties to be determined. Convenience and retail stores in the Vicinity of Madison Rd. and Red Bank Expressway.
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Are there any objects within the existing right of way limits that may be considered an encroachment?	To be determined, field survey work has not been completed to date
<input type="checkbox"/> Yes X No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will it be difficult or impossible to determine the number of involved property owners? If not how many are involved?	
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Will temporary parcels be needed (e.g., for drive work)?	Acquisition of temporary parcels is likely especially along local network streets as needed.
X Yes <input type="checkbox"/> No Possible <input type="checkbox"/> Not Applicable	Will right of way need to be acquired for an agency other than ODOT (e.g., county, city)? <i>Specify.</i>	It is likely that improvements or modifications will be required on Madison Rd and other local network streets which will not be maintained by ODOT.
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Will additional right of way be needed for utility relocations?	Possible, To be determined in future steps of the project development process.
<input type="checkbox"/> Yes <input type="checkbox"/> No X Possible <input type="checkbox"/> Not Applicable	Will right of way need to be acquired for storm sewer outfalls?	Possible, To be determined in subsequent steps of the Project Development Process
X Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Do property owners need to be contacted for the locations of underground items such as leach fields, septic systems, or field tiles that might be affected by the proposed take?	Yes adjacent property owners should be contacted to determine if there are subsurface drainage systems or other utilities which could be affected by future property acquisition.

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RIGHT OF WAY/SURVEY ISSUES:		
<i>Indicate if right of way or survey issues are present or should be considered during project development. Provide additional comments as needed.</i>		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any mineral rights considerations?	None known
Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any specific property owner concerns? If so, list property owners and concerns.	Cincinnati Sports Club (3950 Red Bank Road) representatives expressed objections to any new roadway connections between Virginia Ave and Red Bank Rd.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are work agreements prohibited for any reason?	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are the centerline of right of way and centerline of construction different?	Possible, To be determined in subsequent steps of the Project Development Process. The centerline of the existing roadway is not always at the centerline of the existing right of way.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will right of way be acquired for wetland or stream mitigation?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any other right of way or survey issues? <i>Specify.</i>	

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UTILITY ISSUES:		
<i>Indicate if the following utility issues are present or should be considered during project development. Provide additional comments as needed.</i>		
	Design Issue	Comments
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Do existing utilities need to be relocated? <i>If so, please identify.</i>	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is it impossible to minimize utility conflicts? (e.g., by careful placement of storm sewer and under drains)?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Would the project benefit from subsurface utility engineering (SUE)?	Sub-surface utility investigation should be carried out during future phases of the Project Development Process.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there existing utilities on an existing structure that need to be relocated?	None noted on bridge inventory reports or in the field. Need to verify.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any specific utility requirements or concerns? <i>Specify.</i>	Possible, To be determined in subsequent steps of the Project Development Process.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is additional right of way needed to accommodate utility relocations?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there water or sanitary lines that will be relocated as part of the ODOT contract?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any other utility issues? <i>Specify.</i>	To be determined. There are several subsurface utilities located within the existing right of way. Existing Duke Energy Substation and high voltage transmission line is located within the project limits but should be minimally impacted by future improvements. Formal Coordination with Duke Energy has not begun to date.

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MISCELLANEOUS ISSUES:		
<i>Indicate if the following issues are present or should be considered during project development. Provide additional comments as needed.</i>		
	Design Issue	Comments
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will any of the construction activity take place over, under, or near railroad property?	Likely under/over Rail America (I&O Railroad) and SORTA owned OASIS Line.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Could material with long lead times for delivery have an impact on the construction schedule (e.g., strain poles, large box culverts, steel beams, etc.)?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will a value engineering study be required due to project cost (total cost greater than \$20 million) or project complexity?	Likely
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will warranties be used?	Possible, To be determined in subsequent steps of the Project Development Process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there aesthetic concerns? <i>Specify.</i>	City of Cincinnati wishes to employ context sensitive design elements and to minimize impact to Madisonville community to the extent possible. Specific plans to incorporate aesthetic design elements remain to be developed during future steps of the project development process
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any concerns relating to noise walls?	Remains to be determined in future steps of the project development process.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there no areas available within the existing right of way for portable plants or waste and borrow sites?	No
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any specific concerns related to pedestrian or bicycle access?	City of Cincinnati and Fairfax wish to improve accommodations for bicyclists and pedestrians.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any concerns related to landscaping?	City of Cincinnati wishes to employ context sensitive design elements and to minimize foot print to the extent possible. Specific plans to incorporate landscaping remains to be developed during future steps of the project development process.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any concerns related to existing or proposed lighting (e.g., light trespass, river navigation, airway clearance)?	Minimize light trespass onto adjacent residential neighborhoods. Specific lighting details and fixtures may be requested by the City of Cincinnati
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Are there any other project concerns? <i>Specify</i>	
PERMIT ISSUES:		
<i>Indicate if the following permit issues are present or should be considered during project development. Provide additional comments as needed.</i>		
	Issue	Comments

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MISCELLANEOUS ISSUES:		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will an individual Corps of Engineers/ Environmental Protection Agency 404/401 permit be required?	Some impacts to surface water streams and wetlands are anticipated. A Nationwide Permit #14 is most likely applicable for this project, but it is possible that an individual permit may be required, depending on final impacts.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Does it appear that the project can be constructed under a nationwide 404/401 permit? If so, which permit and what specific requirements apply?	See above
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Will a Coast Guard permit be required?	No
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is review by a local public agency or project sponsor required? <i>Specify.</i>	City of Cincinnati, Village of Fairfax, Hamilton County Engineer, SORTA, MSD.
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is Airway/Highway clearance analysis required?	No
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is State Historic Preservation Office (SHPO) coordination for work involving historic bridges or historic properties required?	To be determined in future steps of the PDP process. See Appendix B for additional information.
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is coordination with ODNR for work involving State Scenic Rivers, State Wildlife Areas or State Recreational Areas required?	There are no State Wildlife Areas or State Recreational Areas in the project vicinity. The Little Miami River is a state scenic river and component of the national scenic river system. Since the southernmost project limits occur within 1,000 feet of the Little Miami River, coordination with ODNR may be required.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Is coordination with any other agency required (see Location and Design Manual Volume 3)?	City of Cincinnati, Hamilton County Public Works, Hamilton County Engineer, Village of Fairfax, and SORTA.

SCOPE, SCHEDULE AND BUDGET CONSIDERATIONS:		
<i>Based on the responses to the red flag questions, do any of the following need to be modified?</i>		
	Issue	Comments
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Conceptual scope	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Work limits	Termini appear to be reasonable based on current scope of work, need to be coordinated with adjacent Segment II. /III Section PID through remaining steps of the PDP process.
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Probable environmental document type	Categorical Exclusion –Level III is anticipated at this time
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Major/Minor/Minimal classification	The cost and scope of this project may require reclassification as a major project moving forward.

HAM 32F-0.00 Relocated SR-32 Segment 1
Red Bank Corridor Improvements
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SCOPE, SCHEDULE AND BUDGET CONSIDERATIONS:		
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Schedule	Schedule is likely to be adjusted during future steps of the PDP process. Project is dependent to some degree on the progress of SR-32 Segments II/III adjacent to the project area. Purpose and need are based on accommodation of future traffic volumes from relocated SR-32.
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible <input type="checkbox"/> Not Applicable	Budget	To be determined in future steps of the PDP process. Funding for Right of Way and Construction has not been obtained at this time.