

RED BANK CORRIDOR

Community Partners Committee Meeting

Madisonville Recreation Center

May 21, 2013

RED BANK CORRIDOR PROJECT

Create a balance of mobility and access to better serve local communities, businesses and neighborhoods

- Reduce congestion, delays
- Improve accessibility, safety, traffic flow
- Increase capacity to better support current and future traffic volumes
- Better accommodate bicyclists and pedestrians

RED BANK CORRIDOR TIMELINE

 Environmental Screening 	Spring 2011
Traffic Counts	2010/2011
 Traffic Modeling 	Fall/Spring 2011-2013
Develop Conceptual Alternatives	s Summer <mark>2012-</mark> 2013
 Public Involvement 	2012-2013
Refine Conceptual Alternatives	Summer/Fall 2013
 Select Preferred Alternative 	Fall/Winter 2013
 Environmental Documentation 	Spring 2014
 Develop plan for Implementation 	Ongoing

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RED BANK PUBLIC INVOLVEMENT

- Cincinnati City Council Committee meeting August 2011
- Three Madisonville Community Partners Committee meetings
 - December 2011 Madisonville Recreation Center
 - February 2012 Medpace
 - May 2012 Madisonville Recreation Center
- Various stakeholder and property owner meetings

COMMENTS RECEIVED

- Provide shoulders north of Madison
- Slow through traffic on Red Bank Expressway
- Address congestion between Madison and Erie
- Improve pedestrian safety at Madison
- Improve Old Red Bank Road south of Hetzel including RR bridge
- Address cut-through traffic at Hetzel
- Provide separate bike/ped accommodations
- Erie/Brotherton connection is not intuitive
- Minimize footprint of any improvements

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TRAFFIC FORECASTS

- Traffic counts establish current volumes
- Traffic forecasted for 2030 as basis for design
- 2030 forecasts developed with and without relocated SR-32 Connection to Eastgate Area
- Volumes increase on Red Bank and Decrease on Madison and other east west corridors with Relocated SR-32
- Forecasted hourly volumes at intersections used to determine capacity
- Adjustments have been made to account for future build out of Medpace development

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EXISTING INTERSECTION CAPACITY

- Intersections on Red Bank with Duck Creek and Madison do not operate satisfactorily today or in 2030
- Traffic backs up north of Duck Creek and south of Hetzel during rush hours.
- Erie Avenue functions satisfactorily today but not in 2030 with Relocated SR-32
- Red Bank functions with three/four lanes depending on intersection capacity.

CONCEPTUAL ALTERNATIVES

Conceptual Alternatives for the following:

- Duck Creek/Red Bank
- Madison/Red Bank
- Erie/Brotherton/Red Bank

DUCK CREEK / RED BANK

- Increase through-capacity on Red Bank
- Short distance between Red Bank Expressway and Red Bank Road
- At-Grade or grade-separation
- Large left-turning percentages at Madison/Duck Creek
- Concerns about mixing peds and through-traffic
- Gateway design elements possible

DUCK CREEK / RED BANK



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DUCK CREEK / RED BANK



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DUCK CREEK ROAD MATRIX

	ALTERNATIVE DUCK CREEK - 1	ALTERNATIVE DUCK CREEK - 1A ALTERNATIVE DUCK CREEK - 2		ALTERNATIVE 1 - STRUCTURE POINT ALTERNATIVE 2 - STRUCTUREPOINT		ALTERNATIVE 3 - STRUCTUREPOINT	CITY ALTERNATIVE	
	RED BANK EXPRESSWAY AND DUCK CREEK ROAD INTERSECTION WITH SIGNALIZED INTERSECTION AT RED BANK ROAD	RED BANK EXPRESSWAY AND DUCK CREEK ROAD Intersection with signalized intersection at red Bank Road	JAD T RED BANK EXPRESSWAY AND DUCK GREEK ROAD TO INDABOUT WITH ROUNDABOUT AT RED BANK ROAD		INTERCHANGE ROUNDABOUTS BYPASS		TIGHT SPLIT DIAMOND WITH SIGNALIZED INTERSECTIONS	
EVALUATION CATEGORY	Comments	Comments	Comments	Comments	Comments	Comments	Comments	
CONGESTION RELIEF/TRAFFIC OPERATIONS Efficient Traffic Movement Throughout Corridor	-Requires 3 thru lanes on the NB and SB approaches, a SB RTL, and dual NB LTL. -Acceptable overall intersection LOS for Red Bank Exp.Duck Oreek and Red Bank RDJck Creek intersections. WB In NB taffic from Madison Rd. bypasses Duck Creek Rd. intersection.	-Requires 3 thru lanes on Red Bank NB and SB approaches, 358 RTL, and dual NB LTL -Acceptable overall interaction LOS for Red Bank Exp.Duck Creek and Red Bank Rd.Duck Creek Interactions. Reduces forecasted delay from "No Build" Alternative	All NB traffic typasses the Duck Creek Road Interaction. Requires 3 lane roundabout to accommodate forecasted SB traffic volumes. Results in lasta mount of overall intersection delay of the alternatives presented.	Current traffic microsimitation models (Cydra) indicate that a multi lane roundabout is needed to accomodate forecasted traffic. Level of service must be verified.	Intersection of Duck Creek Road & Red Bank Expays will be grade separated, and through traffic will experience lewer delays. Intersection type of Duck Creek Road & Red Bank Expay will be a roundabout having 2 lanes, which should improve traffic efficiency.	Intersection of Duck Dresk Read & Red Bank Expay will be experienced, and through traffic will experience fearer delays. Intersection type of Duck Dresk Road & Red Bank Expay will be a roundboot having 2 lanes, which should improve traffic efficiency.	May require the elimination of Metzel Intersection. Removes Red Back thru staffic from Duck Creek and Madison. All intersections operate at acceptable LOS.	
TRAFFIC SAFETY	Expected to be improved due to reduced congestion & segregation of NB through movements	Expected to be improved due to reduced congestion	Roundabouts anticipated to result in lower overall accident rates than conventional signalized intersections.	Roundabouts anticipated to result in lower overall accident rates than conventional signalized intersections however multi lane roundabout is not a typical configuration which may lead to vehicular conflicts for unfamiliar drivers.	Roundabouts anticipated to result in lower overall accident rates than conventional signalized intersections. Grade separation of through and local traffic will reduce conflicting vehicular movements	Roundabouts anticipated to result in lower overall accident rates than conventional signalized intersections. Grade separation of through and local traffic will reduce conflicting vehicular movements	Reduces congestion so should improve traffic safety however signalized intersections typically have higher accident rates than roundabouts.	
ABILITY TO MEET DESIGN STANDARDS	Interaction spacing on Duck Orek Rd between Ref Bank Espa and Red Bank Rd. Iess than 600 recommended between signalized interactions. Signal operation will require complex coordination to minimize queuing impacts between signals similar to existing conditions.	Intersection spacing on Duck Creek Rd. between Red Bank Egs. and Red Bank Rd. less than 600 recommended between signalized intersections. Signal operation will between signals aimilar to existing conditions.	Need for design acceptions have not been identified at this time. S. B. free flow speeds will be below design speed.	Interaction of Duck Oreak Road 3. Rod Bank Expay will be alrgrade and is expected to meet design standards. Interaction type of Duck Oreak Road 8. Rod Bank Expay will be a roundabout having 2 lanes plus bypasses, but horizontal leverical alignment might limit some design criteria.		Intersection of Duck Creek Road & Red Bank Espay will be grade separated, but short ramp lengths might limit vertical8305 design criteria. Intersection type of Duck Creek Road & Red Bank Espay will be a roundabot having 2 lanes, but hoticostal al alignment might limit some design criteria.	No design exceptions anticipated.	
PEDESTRIAN MOVEMENT (MOBILITY AND SAFETY)	Signalized intersections will have protected pedestrian movements similar to existing. Crossing distance is increased (6 lanes) on Duck Creek Rd.	Signalized intersections will have protected pedestrian movements similar to existing. Crossing distance is increased (8 lanes) on Duck Creek Rd. Signalized intersections are not anticipated to as safe as roundabout configurations	Roundabouts anticipated to be safer for pedestrians due to refuge and shorter crossing distances HAWK pedestrian signals will be required at multi-lane crossings for per ADA requirements	Roundabouts anticipated to be safer for pedestrians due to refuge and shorter crossing distances HAWK pedestrian signals will be required at multi-lane crossings for per ADA requirements	Roundabouts anticipated to be safer for pedestrians due to refuge and shorter crossing distances HAWR pedestrian signals will be required at multi-lane crossings for per ADA requirements	Roundabouts anticipated to be safer for pedestrians due to refuge and shorter crossing distances HAWK pedestrian signals will be required at multi-lane crossings for per ADA requirements	Improved pedestrian by reducing crossing distance, only one ramp at a time and removing Red Bank traffic from the intersection.	
CYCLISTS (MOBILITY AND SAFETY)	Separate Shared Use Path along the west side of Red Bank Exp. is introduced at intersection. Nature of on-street bike facility to be determined	Separate Shared Use Path along the west side of Red Bank Exp. is introduced at intersection. Nature of on-street bike facility to be determined	Separate Shared Use Path along the west side of Red Bank Exp. is introduced at intersection. Nature of on-street bike facility to be determined. Bike movements in Roundabout may be problematic	Separate Shared Use Path along the west side of Red Bank Exp. is introduced at intersection. Nature of on-street bike facility to be determined			Improved similar to pedestrians. Bikes can be accommodated on structure over Red Bank Road.	
ACCESS TO BUSINESS	Existing commercial property access is not impacted.	Existing commercial property access is not impacted.	Existing commercial property access is not impacted. Coke trucks will need to negotiate roundabouts	Existing commercial property access is not impacted. Coke trucks will need to negotiate roundabouts	Existing commercial property access is not impacted. Coke trucks will need to negotiate roundabouts. Requires grade separation at Madison Road	Existing commercial property access is not impacted. Coke trucks will need to negotiste roundabouts.	Some access on Red Bank will be eliminated and on Madison close to the Red Bank ramps.	
IMPROVED CLIMATE FOR ECONOMIC DEVELOPMENT	Not anticipated to be a significant differential impact among alternatives	Not anticipated to be a significant differential impact among alternatives	Not anticipated to be a significant differential impact among alternatives	Not anticipated to be a significant differential impact among alternatives			Improved mobility, reduced congestion and improved safety should be good for economic development. Potential total take of businesses at corner of Red Bank/Madison.	
AESTHETICS (Develop and Preserve Green Space)	Some impacts inside and outside of existing ROW. No impacts to Parker Elementary property and minimal impacts to Collident's News Colicinated poperty. Limited ability to incorporate significant urban design features	Least impacts outside of existing ROW. No impacts to Parker Elementary and minimal impacts to Children's Home of Cincinnal property. Limited opportunity to incorporate significant urban design features.	Substantial medians and noundabout interiors provide opportunity for urban design features. Potential new green space for Serven Kills School to mitigate impacts at Red Bank Expy. Provides opportunity for aesthetic treatments inside roundabout.	Sidestinitist mediares and roundabout interiors provide opportunity for urban design features. Provides opportunity for aesthetic treatments inside roundabout.	Substantial medians and roundabout interious provide opportunity for urban design features. Potential new green space for Saven Hills School on mitigate impacts at Red Bank Cary. Does monore not existing vegetation Provides opportunity for aesthetic treatments inside roundabout.	Substantial medians and roundabout interiors provide opportunity for urban design features. Potential new green space for Sever Mills School on millipla impacts at Red Bank Expy. Provides opportunity for assthetic treatments inside roundabout.	Positive from landscaping and street scaping. Can blend into sesthetics for the neighborhood.	
CONTEXT SENSITIVE DESIGN FEATURES	Signalized intersection results in wide typical section. Median could include landscaping on Red Bank Expy. NB bypass has potential impacts to Deeffeld Creek. Community has shown preference for Roundabout designs	Signalized intersection results in wide typical section.	The roundabout will act as a speed control gateway between 1-71 and the commercial area of Red Bank Exp. NB bypass has potential stream impacts	The roundabout will act as a speed control gateway between 171 and the commercial area of Red Bank Ep. NB bypass has potential stream impacts culvert will need to be extended	New green spaces and medians provide ability to incorporate landscaping and urban design elements.	New green spaces and medians provide ability to incorporate landscaping and urban design elements.	Can fit into character of neighborhood. Lots of opportunity for hard and soft scape. Build only what is needed.	
PROPERTY IMPACTS AND R/W TAKES	Minimal impacts outside existing RW.	Minimal r/w impacts.	Anticipate five residential property relocations along Duck Creek C1; relocation of Red Bank Road; expanded ROW on Red Bank Expressway.	Preservation of existing residential property along Duck Creek may be problematic as currently shown.	Largest footprint of all Duck Creek alternatives	Larger footprint than at grade alternatives	Total take required near intersection of Madison/Red Bank and loss of access on Red Bank from Madison to Hetzel.	
ENVIRONMENTAL RED FLAGS	NB bypass has potential impacts to Deerfield Creek and vegetative cover. Minor utility impacts	Anticipate minimal environmental/utility impacts.	Larger footprint for removal of vegetation, stream impacts to Deerfield Creek. Residential property relocations. Likely utility impacts to water, sewer, electric.	Larger footprint for removal of vegetation, some stream impacts to Deerfield Creek. Possible residential property relocations. Likely utility impacts to water, sewer, electric.	Stream Impacts to Deerfield Creek. Largest footprint and removal of existing vegetation	Stream impacts to Deerfield Creek. Potential ESA at intersection of Madison/Red Bank.	Stream impacts to Deerfield Creek. Potential ESA at intersection of Madison/Red Bank.	
MOBILITY BETWEEN EXISTING COMMERCIAL AND RESIDENTIAL DEVELOPMENTS	Not anticipated to be a significant differential impact among alternatives	Not anticipated to be a significant differential impact among alternatives	Not anticlpated to be a significant differential impact among alternatives	Not anticipated to be a significant differential impact among alternatives	Not anticipated to be a significant differential impact among alternatives but grade separation should improve conflicts with through traffic.	Not anticipated to be a significant differential impact among alternatives. Grade separation should improve conflicts with through traffic.	Reduced congestion should improve mobility along Madison. Potential loss of Hetzel intersection could impact east west connectivity.	
CONSTRUCTION COST	Cost anticipated to be less than grade separated alternatives	Cost anticipated to be less than grade separated alternatives	Cost anticipated to be less than grade separated alternatives	Cost anticipated to be less than grade separated alternatives	Higher than st grade options	Higher than at grade options	Higher than at grade options but not as complex as grade separated round about options	
CONSTRUCTABILITY	No Significant constructability issues are anticipated	No Significant constructability issues are anticipated	Compact design with some MOT challenges	Compact design with some MOT challenges	MOT will be challenge	MOT will be challenge	MOT will be challenging but not as complex as roundabout grade separations.	

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- Increase through-capacity on Red Bank
- Short distance to Duck Creek
- At-Grade or grade-separation
- Large left-turning percentages at Madison/Duck Creek
- Concerns about mixing peds and through-traffic
- Gateway design elements possible

CONCEPTUAL FOOTPRINTS

Duck Creek/ Madison at Red Bank



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MADISON ROAD MATRIX

	ALTERNATIVE MADISON - 1 RED BANK EXPRESSWAY AND MADISON ROAD INTERSECTION WITH EXISTING MEDPACE WAY ACCESS MAINTAINED	ALTERNATIVE MADISON - 24 RED BANK EXPRESSIVAT AND MADISON ROAD ROUNDABOUTS WITH RED BANK ROAD TO MADISON ROAD CONNECTION		ALTERNATIVE 1 STRUCTUREPOINT AT GRADE ROUNDABOUTS	ALTERNATIVE 2 - STRUCTUREPOINT INTERCHANGE ROUNDABOUTS	ALTERNATIVE 3 - STRUCTUREPOINT BYPASS	CITY ALTERNATIVE	
EVALUATION CATEGORY	Comments	Comments	Comments	Comments	Comments	Comments	Comments	
CONGESTION RELIEF/TRAFFIC OPERATIONS Efficient Traffic Movement throughout corridor	-Requires 4 thru lanes on the NB and SB Red Bank Exp. approaches, a NB and SB RFL, and dual NB and SB (TL, Reduces forecasted delay compared to "No Duild" alternative. More intuitive than grade separated alternatives	Requires 1 thru lanes on the NB and SB approaches, a SB RTL, and dual NB.11. Free fee four travel time for through movement on Ref back Rep. splingtmethy netword. Reduces forecasted delay compared to No Build alternative. Less controllants MAI Refrances MAIO-28, Aro 3 throu lanes needed on Red Bank Expressway? Only show two on Hetzel option	Requires 3 thru lanes on the NB and 58 approaches, a 58 RTL, and dual NB LTL. Free flow travel time for through movement on Red Bank Eps, significantly reduced. Reduces forecasted delays compared to No Rol Bank Expressway? Only show two on Retzel option	Based on SIDRA microsimulation analysis this alternative fails to meet PBN due to failing levels of service. LOS and performance must be verified	May require the elimination of Hetzel Interaction. Removes Red Bank thru traffic from Duck Creak and Madrian. All Interactions assumed to operate at acceptable LOB.	May require the estimation of Netael Interaction. Removes Red Stark thrus traffic from Duck Creek and Madison. All intersections assumed to operate at acceptable LOS.	May require the elimination of Hetzei intersection. Removes Red Bank thru traffic from Duck Creek and Madison. All intersections operate at acceptable LOS.	
TRAFFIC SAFETY	Expected to be improved due to reduced congestion	Expected to be improved due to reduced congestion & segregation of Rd Bank Exp. through movements. Roundabouts anticipated to result in lower overall accident rates than conventional signalized intersections.	Expected to be improved due to reduced congestion & segregation of Rd Bank Exp. through movements. Roundabouts anticipated to result in lower overall accident rates than conventional signalized intersections.	Because design does not meet capacity ranked slightly lower because of inherent congestion/safety issue.	Segregation of through movements should improve traffic safety.	Segregation of through movements so should improve traffic safety.	Reduces congestion so should improve traffic safety.	
ABILITY TO MEET DESIGN STANDARD	Need for design exceptions have not been identified at this time.	Need for design exceptions have not been identified at this time. Specing to existing Babson Place and Medpace entrance signals along Madison must be evaluated.	Need for design exceptions have not been identified at this time. Spacing to existing Babson Place signal along Madison must be evaluated.	Need for design exceptions have not been identified at this time. Spacing to existing Bubson Place signal along Madison must be evaluated.	Modition Road at Red Bank Expoy will be grade separated, of abort ramp length night limit verticalSSD design critical sector and the sector of the sector of the sector Modiano Road concrets to Red Bank Expoy with diamond- style ramps & a 2-tane boxie roundabout on Madison, but horizontal /vertical alignment might limit some design criteria.	Short ramp length might limit vertica1850 design criteria. Madison Road connects to Red Bank Expey with Hefhand ramps & a single Z-lime roundabout on Madison, horizontal Ivertical alignment might limit some design criteria.	No design acceptions anticipated at this time.	
PEDESTRIAN MOVEMENT (MOBILITY AND SAFETY)	Signalized intersections will have protected pedestrian movements similar to existing. Crossing distance is significant across MadisonRedbank Intersection.	Roundabouts inticipated expected to be safer for pediatrions. Predestrines asymptotic from Red Bank Exp. thru traffic HAMK signals will be required: at multi-kane roundabout crossings per ADA requirements. Pedestrian crossing at the NB bypass could be difficult.	Roundabouts anticipated expected to be safer for pedestrians Pedestrians segregated from Red Bank Exp. thru traffic HAWK signals with bereginet at multilative contabout crossings per ADA requirements; Pedestrian crossing at the NB bypass could be difficult.	Roundabouts anticipated expected to be safer for pedestrians however three later croundabout with multilate approaches will be more complex than typical roundabouts	Roundabouts anticipated expected to be safer for pedestrians asymptote from Red Bank Exp. thm traffic HAMK signals will be required at multi-lane roundabout crossing per ADA requirements, Pedestrian crossing at the NB bypass could be difficult.	Pedestrians located on inside of through traffic bypass not as appealing as Structure Point Alternative 2.	Improved pedestrian by reducing crossing distance, only one ramp at a time and removing Red Bank traffic from the intersection.	
CYCLISTS (MOBILITY AND SAFETY)	Separated Shared Use Path along the west side of Red Bank Exp. Bikes would cross intersection with traffic signals. Path not shown on drawing.	Separated Shared Use Path along the west side of Red Bank Exp. to be grade separated from Madison Rd. with connections to Madison west of Red Bank Exp.	Separated Shared Use Path along the west side of Red Bank Exp. to be grade separated from Madison Rd. with connections to Madison west of Red Bank Exp.		Improved similar to pedestrians. Bikes can be accommodated on structure over Red Bank Road.	Improved similar to pedestrians. Bikes can be accommodated on structure over Red Bank Road.	Improved similar to pedestrians. Bikes can be accommodated on structure over Red Bank Road.	
ACCESS TO BUSINESS	Mainline access to existing commercial properties at intersection likely to be restricted.	Mainline access to existing commercial properties at intersection to be removed	Mainline access to existing commercial properties at intersection to be removed	Mainline access to existing commercial properties at intersection to be removed	Some access on Red Bank will be eliminated and on Madison close to the Red Bank ramps. Access to Hetzel is a concern.	Some access on Red Bank will be eliminated and on Madison close to the Red Bank ramps. Access to Hetzel is a concern.	Some access on Red Bank will be eliminated and on Madison close to the Red Bank ramps. Access to Hetzel is a concern.	
IMPROVED CLIMATE FOR ECONOMIC Development	May require taking of commercial property at intersection due to widening and loss of access. Could vacate ex. Red Bank Rd. RW in SE quadrant	Will require removal of commercial property at intersection. New connection though Medgace development site could affect redevelopment of abutting lots. Could vacate ex. Red Bank Rd. RW in SE quadrant	Will require removal of commercial property at intersection. Could vacate ex. Red Bank Rd. RW in SE quadrant.	May require taking of commercial property at intersection due to widening and loss of access.	Improved mobility, reduced congestion and improved safety should be good for economic development. Potential total take of businesses at correr of Red Bank/Marison. Larger af of ROW impacts than split diamond	Improved mobility, reduced congestion and improved safety should be good for economic development. Potential total take of businesses at corner of Red Bank/Madison. Larger sf of ROW impacts than split diamond	Improved mobility, reduced congestion and improved safety should be good for economic development. Potential total take of businesses at corner of Red Bank/Nadison.	
AESTHETICS (Develop and Preserve Green Space)	Moderate impacts outside of existing ROW. Limited opportunity to incorporate significant urban design features. Removal of existing commercial signage at intersection	New bridge structure, walls, medians and roundabout interiors provide significant opportunity to incorporate urban design elements. Provides opportunity for aesthetic treatments inside roundabout.	New bridge structure, walls, medians and roundabout interiors provide significant opportunity to incorporate urban design elements. Provides opportunity for aesthelic treatments inside roundabout.	New bridge structure, walls, medians and retaining walls provide significant opportunity to incorporate urban design elements.	Impacts to existing green space is a detriment due to large foot print.	Impacts to existing green space is a detriment due to large foot print.	Positive from landscaping and street scaping. Can blend into aesthetics for the neighborhood.	
CONTEXT SENSITIVE DESIGN FEATURES	See aesthetics comment - smallest footprint of alternatives at intersection. Widening of mainline will have impacts along Red Bank Exp.	See sesthetic comments above, more compact than Alternative MAD 2B but will have significant physical and visual impacts.	Will increase through traffic at Medpace Way but allow for redevelopment of site. Will have largest overall area of impact. Wayfinding less intuitive	Large central median could provide ability to integrate urban design elements. Smaller footprint than grade separate alternatives. Better Visibility for adjacent commercial property.	Has highest potential for best finished aesthetic but disturbs a larger sf of existing green space.	Pedestrian experience is an issue. Traveling between traffic lanes.	Can fit into character of neighborhood. Lots of opportunity for hard and soft scape. Build only what is needed.	
PROPERTY IMPACTS AND R/W TAKES	Access impacts at intersection - Potential strip takes along Mainline	Several commercial relocations of property south of Madison Rd. New access east of Red Bank Exp. Will affect future Medpace commercial development.	Several commercial relocations of property south of Madison Rd. Will result in additional traffic volumes in Medpace commercial development. Potential residential impacts along Madison east of Medpace entrance.	Access impacts at intersection - Potential strip takes along Mainline and total takes at intersection	Largest foot print. Significant takes at the intersection of Madison and Red Bank	Total takes required near intersection of Madison/Red Bank and loss of access on Red Bank from Madison to Hetzel.	Total take required near intersection of Madison/Red Bank and loss of access on Red Bank from Madison to Hetzel.	
ENVIRONMENTAL RED FLAGS	Potential impacts to ESA flagged parcels at intersection. Potential Gas Station Take	More significant UBIIty impacts due to grade separation. Potential impacts to ESA flagged parcels at intersection. Stream impacts to Deerfield Creek from NB Bypass. Potential Gas Station Take	More significant Utility impacts due to grade separation. Potential impacts to ESA flagged parcels at intersection. Stream impacts to Deerfield Creek from NB Bypass. Potential Gas Station Take	Potential impacts to ESA flagged parcels at intersection. Potential Gas Station Take	More significant UBilty impacts due to grade separation. Potential impacts to ESA flagged parcels at intersection. Stream impacts to Deerfield Creek from NB Bypass.	More significant Utility impacts due to grade separation. Potential impacts to ESA flagged parcels at intersection. Stream impacts to Deerfield Creek from NB Bypass.	Potential ESA at intersection of Madison/Red Bank. Smaller footprint compared to Roundabout grade separations	
MOBILITY BETWEEN EXISTING COMMERCIAL AND RESIDENTIAL DEVELOPMENTS	Similar to existing conditions. Compatible with a full Hetzel intersection.	Less direct connectivity for all movements between Madison and Redbank Exp. Improved connectivity to "old" Red Bank Rd	Less direct connectivity for all movements between Madison and Redbank Exp. Improved connectivity to "old" Red Bank Rd			Potential Gas Station Take	Reduced congestion should improve mobility along Madison. Potential loss of Hetzel intersection could impact east west connectivity.	
CONSTRUCTION COST	Less costly than grade separation	Grade separation more costly than at grade options		Less costly than grade separation but more so than conventional signalized intersection	Grade separation more costly than at grade options	Likely to be the most costly alternative		
CONSTRUCTABILITY	No Significant constructability issues are anticipated	MOT will be challenging.	MOT will be challenging	MOT more complex than conventional signalized intersection. Phased earthwork required		MOT will be difficult, grade separation more complex than at grade options		

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ERIE / BROTHERTON / MURRAY

- Insufficient space between Brotherton/ Murray
- Provide greater space between Red Bank and Erie Ave.
- Realign Murray approach
- Realign Red Bank Road
- Roundabout options



HETZEL AVE. CONNECTION



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ERIE / BROTHERTON / RED BANK



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ERIE / BROTHERTON / RED BANK



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Erie Ave. Alternative Matrix

	ALTERNATIVE ERIE - 1 RED BANK EXPRESSWAY AND ERIE AVENUE INTERSECT WITH SIGNALIZED INTERSECTION AT BROTHERTON COU	ALTERNATIVE ERIE - 2 ED BANK EXPRESSWAY AND ERIE AVENUE SINGLE WITH ROUNDABOUT AT BROTHERTON COURT	ALTERNATIVE ERIE - 3 RED BANK EXPRESSWAY AND ERIE AVENUE DOUBLE YOKE WITH NO ACCESS TO BROTHERTON COURT			
EVALUATION CATEGORY	Comments		Comments		Comments	
CONGESTION RELIEF/TRAFFIC OPERATIONS Efficient Traffic Movement throughout corridor	Signalized intersection along Red Bank Exp. requires 6 thru lanes, dual SB LTL. Marginally acceptable LOS based on forcasted traffic volumes. Reduces forecasted delay from "No Build" Alternative		Requires 3 lane roundabout along Red Bank Exp. To accommodate forecasted volumes. Free flow speed on Redbank Exp. Reduced by roundabout. Wayfinding not intuitive. Reduced delay when compared with signalized intersection on Red Bank Exp.		More capacity and higher free flow speeds on Red Bank Exp. Least delay and highest level of service for Red Bank Expressway. More intuilive connections for Murray and Erie.	
TRAFFIC SAFETY	Not anticipated to have significant effect on traffic safety		Roundabouts anticipated to result in lower overall accident rates than conventional signalized intersections.		Roundabouts anticipated to result in lower overall accident rates than conventional signalized intersections.	
ABILITY TO MEET DESIGN STANDARDS	Need for design exceptions have not been identified at this time.		Need for design exceptions have not been identified at this time. Grades and existing connections may be a constraint		Need for design exceptions have not been identified at this time. Grades and existing connections may be a constraint	
PEDESTRIAN MOVEMENT (MOBILITY AND SAFETY)	Signalized ped crossings provided similar to existing conditions. Crossing distance is lengthened on Red Bank Exp.		Sidewalk provided on all roadway segments. Improved pedestrian connectivity to "Old" Red Bank Rd. Peds must cross multilane round about on Red Bank Expy with HAWK signals;		Sidewalk provided on all roadway segments. Pedestrians segregated from Red Bank Exp. Mainline. Improved pedeform for the second second second pedeform and the second pedeform ded consisting on the Are: Increase accounting time to crose Red Bank Expressions, since the path goes across Erie and back down. The right time slots and other one lane crossing in the roundabout will be unsignalized.	
CYCLISTS (MOBILITY AND SAFETY)	Bike connection to Murray Trail must cross signalized Red Bank Exp.; Drawing does not shown shared use path.		Bike connection form multi use path to Murray Trail must use 3 lane roundabout		Cyclist not required to cross Red Bank Exp. Most comprehensive shared use trail connectivity	
ACCESS TO BUSINESS	May impact access to existing commercial property at intersection of Red Bank Exp. and Murray. Access on Erie is generally unaffected.		Provides improved "Old Red Bank Rd" connection between Erie and Maldean. Existing commercial property along Redbank Exp. north of Erie ar removed. Erie and Brotherton CL. commercial property access impacted. New access to Erie CL needed.		Provides improved "Old Red Bank Rd" connection between Erie and Maldion. Existing commercial property along Redbank Exp., Brotherton C. and Erin, Cl. to be relocated. Access to on Erie is generally unaffected	
IMPROVED CLIMATE FOR ECONOMIC DEVELOPMENT	Minimal access changes to adjacent commercial property. New connectivity to old Red Bank.		Will require changes to access for Erie Ct. Potential redevelopment potential for commercial property west of Red Bank Exp.		Will impact existing commercial properties west of Red Bank Exp. Potential redevelopment potential but double yoke results in less residual property for redevelopment.	
AESTHETICS (Develop and Preserve Green Space)	Minor impacts outside of existing ROW. Limited opportunity to incorporate significant urban design features.		Bridge structure, medians and roundabout interiors provide opportunity for urban design features. Potential gateway features along Erie		Bridge structure, medians, embankments and roundabout interiors provide opportunity for urban design features. Potential gateway features along Erie.	
CONTEXT SENSITIVE DESIGN FEATURES	See comments above. Potential wider cross section on Red Bank Exp.		Roundabout along Red Bank Exp. reduces mainline free flow speeds. Wayfinding somewhat simplified. Better Connectivity on local street network.		Largest footprint Creates community gateway along Erie. Segregation of pedestrians and vehicles. Improved accommodation of bikes and peds.	
PROPERTY IMPACTS AND R/W TAKES	Business Acquisition (2) - Speedway, commercial structure		Business Acquisition (2) - Speedway, commercial structure		Eliminates all businesses along Brotherton and Erie Court	
ENVIRONMENTAL RED FLAGS	Potential ESA parcel acquisitions		Potential ESA parcel acquisition, Utility impacts to water, sewer, gas		Potential ESA parcel acquisition. Utility impacts to water sewer, & gas.	
MOBILITY BETWEEN EXISTING COMMERCIAL AND RESIDENTIAL DEVELOPMENTS	No significant changes		Makes "Old Red Bank Road" connection between Erie and Madison eliminating the need to use Red Bank Exp. for local trips between Madison and Erie.		Nakes "Old Red Bank Road" connection between Erie and Madison eliminating the need to use Red Bank Exp. For local network trips.	
CONSTRUCTION COST	Likely to be least costly		Moderate costs when compared with widening or double yoke		More Costly than single yoke or widening	
CONSTRUCTABILITY	No Significant constructablity issues are anticpated		MOT and constructability more complex with new connections for grade separation		MOT and constructability more complex with new connections for grade separation	

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NEXT STEPS

- CPC provide feedback by June 7
 - Two preferred concepts for each location
- Public Involvement Meeting (mid summer)
- CPC form subcommittees for design review
- Review input received/revise concepts if needed
- Complete environmental studies/documentation
- Select preferred alternative by end of 2013
- Develop phasing plan for implementation

CPC TO PROVIDE FEEDBACK BY JUNE 7



Questions?

www.EasternCorridor.org

for additional information





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