city of CINCINNATI

RAILROAD IMPROVEMENT AND SAFETY PLAN

Department of Transportation & Engineering
Transportation Planning & Urban Design

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Executive Summary

Introduction

The railroad infrastructure in Cincinnati is critical for the movement of goods within the City, region, and country. It also provides the infrastructure for intercity passenger rail. The City of Cincinnati Department of Transportation and Engineering (DOTE) conducts short and long range railroad planning in coordination with development projects, rail freight expansion, and passenger rail proposals. The Railroad Improvement and Safety Plan (RISP) will provide an overarching framework for these efforts related to the entire rail system and its connectivity with the City’s roadway, bike and pedestrian network.

Purpose

The railroad infrastructure in Cincinnati is critical for the movement of goods and the operation of intercity passenger rail. There are many locations where rail infrastructure interfaces other public rights-of-way, particularly roadways and structures/viaducts. It is important to understand that improvements to rail facilities can benefit public safety and travel efficiency for all users of the transportation network. These improvements have been placed into three groups:

1. Enhance rail passenger service to the Cincinnati Union Terminal
2. Enhance freight rail service to and through Cincinnati
3. Identify railroad related safety improvements

As part of the RISP, a number of projects were identified are grouped by the level of complexity to implement.

Category A: Projects ready to implement if funding is obtained

These are projects which will require coordination and approval from the railroad to implement but most preconstruction activity will be the responsibility of the City. Typically, the railroads have established guidelines that a municipality must follow to implement a particular project. They may require a Preliminary Engineering Agreement between the City and the railroad. Projects include:

Traffic Signal Preemption at Railroad Grade Crossings

CSX Quiet Zone Corridor

Category B: Projects which will require a higher level of approval from the railroad

These are projects that significantly impact the railroad’s operations, such as the proposed construction of a new rail spur into a new industrial development or a potential grade separation. These projects will require significant railroad input and approval. Implementation may be led by the respective railroads with coordination and funding assistance provided by the City. Projects include:
Station Track at the Cincinnati Union Terminal

Western Hills Viaduct Project

Category C: Projects which will require the highest level of railroad input and approval

These are capacity related projects that would greatly impact the railroad’s operations. In-depth coordination with the railroad will be required. The use of the Railroad Traffic Controller Model (RTC) may be required to confirm the impacts and benefits of the proposed improvements to railroad operations before railroads will move forward with implementation. Projects include:

- Winton Place Junction Capacity improvements
- Reconstruction of the Southwest Connection

Recommendations

It is recommended that the DOTE:

1. Update the RISP project list as projects are implemented and new ones are identified.
2. Continue coordination with the railroads.
3. Seek funding for continued project planning, design, and implementation.
4. Continue to assist the City’s Economic Development Department in railroad related issues associated with existing or new developments.
5. Coordinate with the planning efforts of local, regional and state partners.
Introduction

The railroad infrastructure in Cincinnati is critical for the movement of goods within the City, region, and country. It also provides the infrastructure for intercity passenger rail. The City of Cincinnati Department of Transportation and Engineering (DOTE) conducts short and long range railroad planning in coordination with development projects, rail freight expansion, and passenger rail proposals. The Railroad Improvement and Safety Plan (RISP) will provide an overarching framework for these efforts related to the entire rail system and its connectivity with the City’s roadway, bike and pedestrian network. The RISP is part of the comprehensive plan for the City, which is reflected in the recently adapted Plan Cincinnati.

Background

Due to the character of the local topography, the railroads in Cincinnati are located principally in the valleys, along the rivers and streams such as the Ohio and Little Miami Rivers and the Mill Creek. Major industrial areas developed along those lines and formed concentrated railroad and industrial districts such as the “Ivorydale” area. Cincinnati became a major destination for rail during the latter half of the nineteenth century and, by 1890, was the third busiest rail freight center in the county, behind Chicago and St. Louis. In the early 1900s, Cincinnati’s role switched from destination to gateway. The volume of freight passing through Cincinnati in 1920 was six times greater than originating and terminating tonnage. The challenge was to get trains through and exchange cars between the respective railroads as efficiently as possible. With a number of mergers over the years, there has been a refinement of rail traffic patterns that concentrated north-south freight on a few main lines.

The City of Cincinnati is the only municipality in the country to own an interstate railroad. An Ohio law enabling the creation of the Cincinnati Southern Railway was enacted on May 4, 1869. Cincinnati voters adopted a resolution designating Chattanooga as the southern terminus one month later. This new railroad was intended to expand the economy of Cincinnati. This enterprise continues today, under a long-term lease with the operating railroad, Norfolk Southern. The City owns the right-of-way, while the railroad owns the track. The City’s lease of the railroad to NS generates revenue annually for capital infrastructure improvements and repair throughout the City of Cincinnati.

The completion of the Cincinnati Union Terminal (CUT) in 1933 brought about significant changes to the railroad network in the City. Before its construction, there were several passenger rail stations located in the vicinity of the Cincinnati riverfront. Passengers connecting from one railroad to another had to transfer to another station. The CUT was constructed to consolidate all passenger rail service into one location. It was constructed in the lower Mill Creek Valley. Because of this location, several new bridge structures were needed and new railroad connections built. Long elevated structures had to be constructed to connect the CUT with the railroad lines from the south and west. The construction of the CUT also changed the roadway network in the Mill Creek Valley. Long viaducts had to be constructed over the new track work associated with the CUT. This new track work needed for passenger rail service also improved the flow of freight through the area.
Figure 1 - Cincinnati Area Railroads (1965)
Figure 2 - Cincinnati Area Railroads (Existing)
The 1970s and 80s brought on several abandonments of railroad corridors and yards in the Cincinnati area. Figure 1 shows the Cincinnati area railroads in 1965, while Figure 2 shows the existing railroad network. At one time, there were fifteen railroads serving Cincinnati, now this number has dwindled to four. Four significant railroad corridors have been abandoned during the past 25 years:

1. In 1978, the Chesapeake and Ohio Railway's C&O of Indiana line was abandoned between its Liberty Street Yard and Cottage Grove, Indiana. From Liberty Street Yard to Cheviot, Ohio, the rail line used a series of trestles that spanned the hilly topography of the western part of Cincinnati that ran parallel to Queen City Avenue. For a period of time in the mid-1970s, this line served as the route of Amtrak's Cardinal train (Figure 3). With the decision to construct Queensgate Yard, the C&O of Indiana's bridgework approach needed to be removed. By 1978, the portion of the line between Cincinnati and Cottage Grove was downgraded to branch line status for freight. Therefore, based on the need to abandon the line, the Amtrak train and remaining freight trains were rerouted over the Baltimore and Ohio (B&O) to Cottage Grove to connect with the C&O line to Chicago. The abandonment of the C&O of Indiana left the western side of Cincinnati with railroad service limited to the River Road (US-50) corridor along the Ohio River.

2. Conrail's Blue Ash Secondary was originally part of the Cincinnati Lebanon and Northern Railroad (CL&N). The CL&N eventually became part of the Pennsylvania Railroad then Penn Central. It was the route from the Lebanon, Ohio area to the Cincinnati CBD. Norfolk and Western passenger trains from the east and certain Pennsylvania Railroad passenger trains used this line to access the CBD until the Cincinnati Union Terminal was opened in 1933. The Blue Ash Secondary connected to the Pennsylvania Railroad Oasis Subdivision tracks that ran along the riverfront via a connecting track in Eggleston Avenue. The southern portion of this rail line was abandoned in the 1970s. Figure 4 shows a Penn Central locomotive waiting for its next assignment near Court Street in 1976.

3. B&O's former "Toledo Main" originally ran west of the Mill Creek, and crossed streets at-grade through several Cincinnati neighborhoods before heading north. This line was originally part of the Cincinnati Hamilton and Dayton Railroad (CH&D). Figure 5 shows the line at the Winton Road grade crossing in the 1980s.
4. The Riverfront Running Track (RRT) connected railroad lines on the eastern part of the City to rail lines west of the City and Southern Railway’s bridge over the Ohio River. Rail spurs from the many produce companies and other industries on the Cincinnati riverfront fed into the RRT (Figure 6). Significant railroad traffic ended on the RRT in 1986 when a trestle that was part of the Southern Railway’s “High Line” connection to the RRT caught fire. Because of the damaged bridge, rail traffic was rerouted through the Mill Creek Corridor. The City of Cincinnati envisioned the redevelopment of the central Riverfront, so this rerouting of freight rail service provided an opportunity for the City to advocate for the removal of railroad operations on the central riverfront.

In 1995, the City of Cincinnati and the Norfolk and Western Railway (NW) entered into a Transition Agreement regarding the RRT. This agreement provided for the acquisition of the RRT by the City of Cincinnati, in coordination with the Southwest Ohio Regional Transit Authority (SORTA) once all rail carrier interests had been discontinued or extinguished, and the NW had abandoned the line. NW filed for the abandonment of the Eastern portion in 1998 and the 0.3 mile Western portion in 1999. Figure 7 shows the railroads on the Cincinnati Riverfront in 1976. As part of this same agreement, the City facilitated the construction of a third mainline track through the Mill Creek Valley which provided more capacity for NW.

In the 1990s, several railroad segments abandoned by the large railroad lines in the Cincinnati area were taken over by the new short line railroads including Indiana and Ohio (I&O), Central Railroad Company of Indiana (CIND) as well as SORTA. Conrail’s Oasis Branch was purchased by SORTA with freight operating rights going to I&O.

As with the construction of the CUT, the opening of the Chessie System (now CSX) Queensgate Yard made a significant impact to the railroad network in the Cincinnati area. Queensgate Yard was built in the late 1970s, opening in 1980 to replace the yards of the Chessie System constituents in the Cincinnati area. These not only included the five former B&O and C&O yards covered over by the new yard, but also C&O’s Stevens Yard in Silver Grove, Kentucky. After the formation of CSX, the former DeCoursey Yard in Kentucky was closed in favor of Queensgate in 1984. B&O’s Oakley and Storrs Yards were also closed and operations consolidated into Queensgate. The yard has eight reception tracks, fifty classification tracks and six departure tracks. Queensgate Yard sorts about 2000 cars per day.
Figure 7 - Railroads on the Cincinnati Riverfront (1976)
Purpose

The railroad infrastructure in Cincinnati is critical for the movement of goods within the City and region, as well as the operation of intercity passenger rail. As previously described, changes to major roadway and viaducts also occurred as the railroad facilities changed. However, even with consolidations and railroad abandonments, there remain many locations where rail infrastructure interfaces other public right-of-way. It is important to understand that improvements to rail facilities can benefit public safety and travel efficiency for all users of the transportation network. These improvements have been placed into three categories:

I. Enhance rail passenger service to the Cincinnati Union Terminal

II. Enhance freight rail service to and through Cincinnati

III. Identify railroad related safety improvements

I. Enhance Rail Passenger Service to the Cincinnati Union Terminal

On May 1, 1971, The National Railroad Passenger Corporation (Amtrak) took over most of the nation’s passenger service. The City of Cincinnati was left with only one passenger train.

For the first two months, Amtrak operated a Chicago to Cincinnati train named the James Whitcomb Riley (the name of the Penn Central train that followed the same route) and a Cincinnati to Washington DC (and Newport News) train named the George Washington (the name of the Chesapeake and Ohio train that followed the same route). The two trains were eventually combined into one. This train was called the George Washington in the eastbound direction and the James Whitcomb Riley in the westbound direction. The train was given the numbers 50 (eastbound) and 51 (westbound).

Amtrak Trains 50 and 51 used the CUT as the Cincinnati station until October 28, 1972. The station was shifted to a location on River Road (US-50) near the Ohio River, just west of the Cincinnati CBD. This small simple station was the first new station constructed by Amtrak. When trains 50 and 51 used the CUT, they accessed the Penn Central rail line to Chicago using a railroad flyover called the “Southwest Connection.” After the train was shifted to the River Road Station, this rail connection was not needed. The Southwest Connection’s superstructure was dismantled; however, several piers remain in place (Figure 8). When running east to Washington D.C., the trains accessed the C&O Bridge over the Ohio River via a connection from the Penn Central “Ditch Track” to the bridge (Figure 9).
The land on which the CUT’s concourse was built (which included fourteen platform tracks) was sold to the Southern Railway (now Norfolk Southern) in October 1972. In January 1973, the concourse was demolished, paving the way for Southern to construct an intermodal facility.

In 1991, after eighteen years at the River Road station location, the Amtrak train, now named The Cardinal was shifted back to the CUT. Since the Amtrak trains were the primary users of the Ditch Track connection to the C&O Ohio River Bridge, it was dismantled. The Cardinal is now a tri-weekly train. The Cardinal stops on CSX Transportation’s No. 2 Mainline Track to unload and load passengers (Figure 10). The last remaining passenger platform from the original CUT is used. There is a proposal by Amtrak to make the Cardinal a daily train. It stops in the early morning hours (3:17am eastbound and 1:13am westbound). Between Indianapolis and Chicago, the Cardinal shares the same route as Amtrak’s “Hoosier State” train. The Hoosier State currently runs on days the Cardinal does not. Because of this there is daily service between Indianapolis and Chicago.

As part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) the Federal Department of Transportation designated a series of proposed High Speed Rail Corridors. Included were corridors linking Cleveland with Cincinnati and Chicago with Cincinnati. The proposal envisioned several 110 mph trains per day. The Cleveland to Cincinnati Corridor (3C) was planned to utilize existing Norfolk Southern tracks for much of the route and is part of the proposed Ohio Hub Plan. The Chicago to Cincinnati Corridor is part of the Midwest Regional Rail System (MRRS). The Chicago to Cincinnati Corridor would make use of three different railroads. The segment entering Cincinnati would utilize the Central Railroad of Indiana rail line originating in Shelbyville, Indiana. This was the original route of Amtrak’s Cardinal (James Whitcomb Riley). The MRRS and the 3C Corridor are part of the Chicago Hub Network (Figure 11).

In addition to intercity passenger rail, there is also the potential for commuter rail service to the CUT. Commuter Rail is defined in this document as passenger rail service that operates on existing freight railroad tracks (using FRA compliant passenger equipment) to the suburbs and/or areas outside the
metropolitan area. Commuter Rail service is operated in many metropolitan areas of the country, such as METRA in Chicago, Virginia Railway Express in Northern Virginia, and the Metro North Commuter Railroad in the New York-Connecticut area. Potential Cincinnati area corridors include:

Cincinnati to Middletown, Ohio (or possibly an extension to Dayton) on Norfolk Southern
Cincinnati to Lawrenceburg, Indiana on the Central Railroad Company of Indiana
Cincinnati to Wilmington, Ohio on the Indiana and Ohio Railway's Midland Subdivision

Commuter rail service would face the same congestion issues as intercity passenger rail accessing the CUT. The use of alternative stations might be a better alternative. For instance, Longworth Hall could be a terminus station.

Figure 11
Understanding that the CUT (in its existing state) could not serve the proposed trains and the existing Amtrak Cardinal, the DOTE conducted a study to determine the best location for an intercity passenger rail station. A location near the Cincinnati Riverfront known as the "Longworth Hall Site" was considered. This site is closer to the Cincinnati CBD and would have room to store trains. However, Amtrak's existing Cardinal train cannot easily access the site since it must ascend the CSX Bridge over the Ohio River via elevated trackage, while the Longworth Hall Site is at ground level.

After considering many locations, it was decided that the best option was to use the CUT (aka the Cincinnati Museum Center) as the preferred passenger station location. This means that modifications would be needed to the terminal building as well as to connections with the adjoining railroad network. In order for the CUT to serve multiple passenger trains, several areas need to be addressed:

1. Enhanced Passenger Station

   The passenger waiting area in the CUT is adequate for the existing Amtrak service, but if additional service is added, it is likely that more space will be needed. The Museum Center’s master plan for the CUT envisions a new expanded intercity rail passenger station.

2. Train Layover/Storage Capability

   If Cincinnati is a terminal city for expanded intercity passenger rail service, facilities for train layover space would be needed. It is critical to have some layover capability at the station. However, given the limited space, a larger offsite layover yard will be needed. If the Cardinal becomes a daily train, a "Station Track" at the CUT would be useful. The schedules of the eastbound and westbound trains are such that, if one of the trains is running late, both trains could arrive in Cincinnati at the same time. A dedicated station track would facilitate both trains in the station at the same time. The station track would also create more operational flexibility at the Cincinnati station, which could potentially lead to daytime Amtrak service. With the current situation at the station, trains don’t have the ability to layover at the station. A short term goal might have the Hoosier State converted into a daily daytime train between Chicago and Cincinnati (which could layover in Cincinnati if necessary). The Cardinal could continue on its existing schedule. Due to infrequent service and inconvenient arrival times, many travelers don’t make use of Amtrak Service in Cincinnati. One of the goals of the RISP is to elevate Cincinnati’s position in the national passenger rail system.

Figure 12
The ownership, dispatching and maintenance of the new station track would have to be determined. Amtrak has expressed interest in working with the City to continue the planning and design process for the track. The proximity of the CSX Queensgate Yard’s Locomotive Facility could be beneficial for small repairs or service to locomotives. Figure 12 shows an Amtrak locomotive at the CSX Locomotive Facility at Queensgate Yard.

3. Enhanced Rail Connections and Capacity

CSX Transportation and Norfolk Southern own the railroad corridors through the Mill Creek Valley. These corridors are critical to their freight operations. Based on information provided by the respective railroads, additional passenger service would negatively impact their current operations in the vicinity. Therefore, before any additional passenger service to CUT from the north can be initiated, more capacity (tracks) must be available. The DOTE proposes a separate passenger main track extending from the CUT to NA Tower (in St. Bernard) be planned and constructed if new passenger service is implemented. Due to the restricted nature of NS Corridor between NA Tower and CP Mill (in Evendale), there is a possibility that passenger service could use an alternative route between these two points. Before directional running was initiated, certain NS trains used trackage rights over the CSX Midland Subdivision and the I&O Oasis Subdivision as an alternative to the direct former NYC route. Passenger service could use this same routing (Figure 13).

In order for trains of the MRRS to directly access the CUT from the River Road rail corridor, the Southwest Connection (the elevated track which connected the CUT to the B&O and NYC lines to the west) must be reestablished (Figure 14).

4. Enhanced Multimodal Access

Roadway access to the CUT is marginal. There is direct access from southbound I-75, but no direct access from northbound I-75. A new full movement interchange will provide access to the CUT as part of the planned reconstruction of I-75 by the Ohio Department of Transportation. The schedule for reconfiguration of I-75 is yet to be determined, pending the identification of funding. Enhanced roadway wayfinding is also recommended. Metro, operated by the Southwestern Ohio Regional Transit Authority (SORTA), operates one fixed route (Metro Route #1) that stops at the CUT. There are conceptual plans for the implementation of a future Streetcar Circulator to connect the CUT with the planned streetcar loop in the Cincinnati CBD.

If these access improvements are addressed, the CUT would be more of a destination in the Amtrak system, rather than just a station stop, increasing the multimodal accessibility of the CUT-Museum Center to downtown (hotels, attractions, etc.)

It is important to create sufficient rail capacity to allow for any additional rail passenger service to the CUT, while providing adequate freight capacity. The RISP will include planning and engineering to improve the deficiencies identified above and work with Museum Center, City Departments, Amtrak, and host railroads to implement them.
Figure 13 - Conceptual Passenger Rail Corridor

- Traditional 3C Route (NS)
- Alternate 3C Route (I&O)
- Cincinnati Union Terminal
Figure 14 - Southwest Connection

CINCINNATI UNION TERMINAL
SOUTHWEST CONNECTION
HILLTOP SITE
Temporary Stations

If new passenger rail service through the Mill Creek Corridor is initiated before improved passenger rail facilities for CUT can be established, the City of Cincinnati has identified two alternative “temporary” stations locations: the Lunken Park Drive Site (in the vicinity of Lunken Airport) and the Bond Hill Site (north of Norfolk Southern’s Berry Yard). In regards to the MRRI Chicago to Cincinnati Corridor, the Longworth Hall Site could be used on a temporary basis until a connection from the CUT to the western railroad lines can be made. The temporary station sites could also be potential commuter rail stations.
II. Enhance Freight Rail Service to and Through Cincinnati

The DOTE considers freight movement by rail as an important part of the multi-modal freight transportation system. At the present time, four railroads serve the City of Cincinnati. CSX, a Class I railroad has the most mileage and operates the Queensgate Yard which includes a classification yard and intermodal facility. Norfolk Southern, the other Class I railroad, utilizes several classification, intermodal and maintenance yards in the region. Norfolk Southern’s base of operations in the Cincinnati area is its Gest Street Yard located south of and adjacent to Queensgate Yard. Gest Street Yard includes a classification yard and intermodal facility. Sharon Yard, in Sharonville, Berry Yard in Bond Hill and an engine maintenance yard in Ludlow Kentucky are the other NS yards. South of Queensgate, CSX has rail lines which cross the CSX bridge over the Ohio River and run south to Louisville, Kentucky (LCL Subdivision), south to Corbin, Kentucky (CC Subdivision), and east to Russell, Kentucky (Cincinnati Subdivision). To the south, via the trackage rights on the CIND owned Oklahoma Track, CSX operates its Indiana Subdivision along US-50 along the Ohio River to Seymour, Indiana. North of Queensgate, CSX operates its Toledo Subdivision to Dayton and Indianapolis Division which branches off the Toledo Subdivision in Hamilton, Ohio. In addition, CSX operates a local train to serve customers on its Industrial Track (former CH&D) and the Wood Street Lead to serve Cincinnati Bulk Terminals.

South of its Gest Street Yard, NS operates its First District (Cincinnati Southern Railroad) to Chattanooga, Tennessee. It leases this line from the City of Cincinnati. North of Gest Street, NS operates its New Castle District to Ft Wayne, Indiana and its Dayton District to Dayton and Columbus, Ohio.

Genesse and Wyoming (formerly Rail America) operates several Class III (short line) railroad lines in the Cincinnati area. From NA Tower to Columbus, Ohio, the Indiana and Ohio Railway (IORY) operates its Midland Subdivision. The IORY also operates its Oasis Local, Blue Ash Switcher (over a portion of the former CL&N). The IORY also operates a daily train from McCullough Yard, its base of operations in Norwood, to Flat Rock, Michigan. The Central Railroad of Indiana (CIND) operates from Cincinnati west to Shelbyville, Indiana. Some CIND trains use trackage rights over CSX to McCullough Yard.

The busiest segment of railroad operations occurs between RH Tower (at the north part of Queensgate Yard) to Winton Place Junction (Figure 15). This 2.3 mile segment has two CSX mainline tracks and one NS mainline track. CSX, NS, and I&O run trains on this segment (a total of over 70 trains per day).

The DOTE actively works with the City of Cincinnati’s Economic Development Department to assist with providing rail service to new companies. The DOTE is aware that the railroads alter their operations to service new industrial spurs. For example, a trainmaster has to decide if he can maneuver his locomotive to serve the spur. The railroad’s engineering department has to decide where the turnout to serve the spur needs to be located. Although the spur may be owned by a private customer, the purpose, design and operation of the facility must be approved by the host railroad.

The DOTE considers it important to keep all freight movement options open. The demand for rail traffic on low volume or dormant rail lines to existing or new Cincinnati industries could increase in the coming years. The expansion of the Panama Canal could also increase rail traffic through the City.
In addition to providing rail service to Cincinnati companies, the DOTE’s goal is to provide more efficient freight rail throughput through the Cincinnati area. The DOTE does not intend to “plan” capital or operational improvements for the railroads; however, the RISP will provide suggested improvements and new connections that could assist the railroad operations while at the same time fostering economic development opportunities within the City:

1. New Connection to the Western Railroads

The Southwest Connection identified in the passenger rail section could also benefit freight operations. There are currently no direct connections from CSX Tracks 1 and 2 or the Intermodal Lead to the CSX Indiana Subdivision. This new rail segment would provide those connections.

2. New Capacity in the Mill Creek Corridor

Any new capacity designed for passenger rail could be used for freight rail also. This would include a third mainline track between NA Tower and Winton Place Junction and fourth mainline track from Winton Place Junction to Hopple Street. Potential Winton Place Junction Improvements include an additional track for the “Head-On” Connection. This would assist CSX for trains on the Toledo Subdivision that need to run in the “wrong” direction of the directional running, such as the Amtrak train and some local freight trains. If the Western Hills Viaduct (WHV) is replaced, the new structure could require a fewer number of piers. The extra space would open the possibility to accommodate reconfigured or expanded rail facilities. In discussions with CSX Transportation, it has been determined that an additional bypass track would assist in the WHV reconstruction project.

3. New Connection Between the Indiana and Ohio’s Midland and Oasis Subdivisions

In discussions with the Genesse and Wyoming (G&W), their representatives felt that a connection between the I&O Midland and Oasis Subdivision would aid their operations in the Cincinnati area. The two rail lines cross in the Madisonville neighborhood of Cincinnati.

4. New Options for Columbus to Cincinnati Freight Service

The proposal for a new passenger main and new capacity on the Midland and Oasis Subdivisions opens the possibility of an alternative for NS trains with a destination in Columbus. Those trains would have the option of using the former NYC route between NA tower and CP Mill or using the alternative route. This operation was used by NS before directional running was initiated. Another option would be the use of I&O from NA Tower (via Wilmington, Ohio) to Columbus. An agreement between NS and G&W would have to be established.

5. Intermodal Freight Opportunities on the Former Conrail Site

The Conrail Site is a 60 acre parcel of land that was originally a railroad classification yard owned by the Big Four Railroad (which later became the New York Central Railroad) called Riverside Yard. The site is bordered by River Road (US-50) to the north and the Central Railroad of Indiana (CIND) to the south. Therefore, intermodal transfers are possible. Although direct access to the Ohio River does not currently exist, it is possible that the site developers could negotiate river access with the companies that border the river. The Conrail Site is partially owned by the City of Cincinnati and
partially owned by a developer. The City's Economic Development Department is actively working with the developer to find a user for the site.

6. New Capacity on the Central Railroad of Indiana Ditch Track

The CIND Ditch Track runs from the junction at CP Oklahoma to Longworth Hall, where it dead-ends. There is only one track. CIND uses it to serve Cincinnati Bulk Terminals (CBT) and stores empty rail cars at the end of it. G&W, the parent company of CIND has proposed a siding in the vicinity of CBT to aid in its operations of serving that facility. The City feels that it would be a good idea to completely double-track the CIND from CP Oklahoma to Longworth Hall given the potential of commuter rail to Longworth Hall.

7. Queensgate Industrial Corridor

The Old B&O Toledo Main (former Cincinnati Hamilton and Dayton Railroad) extended from the Cincinnati Riverfront, the west side of the Mill Creek, north through Cummins ville, then west through Northside and the Spring Grove Cemetery, then headed north. There were several at-grade crossings. Because of the large number of grade crossings and growth in the amount of rail traffic by the 1940s, there was a push to grade separate the line in certain locations. The railroad decided to move the mainline to east of the Mill Creek (on a mostly elevated/grade separated alignment) in 1970. This left the former CH&D line to serve only local businesses. Beginning in the late 1970s, segments of the line were put up for abandonment. The first segment was the part that went through Northside with at-grade crossings of Colerain and Hamilton Avenues. Later segments to be abandoned extended from Crawford Avenue through Spring Grove Cemetery and the at-grade crossing of Winton Road. The only remaining segment extends from Mill Creek Road south to the active portion south of the Western Hills Viaduct. CSX only serves one customer on the southern portion of the line. CSX calls this remaining segment its "Industrial Track." Figure 16 shows a train on the Industrial Track approaching the Evans Street grade crossing. Like many low-production lines, Class I railroads such as CSX tend to abandon rail lines that are seen as not economically viable for them. The DOTE feels that the northern part of the CSX Industrial Track could be restored to service, and possibly used as a bypass of the Mill Creek yards for intercity passenger rail or local freight service.

Figure 16
Service to New Developments
In January 2008, the GO Cincinnati (Growth Opportunities Study for the City of Cincinnati) Final Report established an economic development strategy to increase City tax revenues. The report recommends the best strategies to attract jobs and increase tax revenues. The Go Cincinnati Plan recommends that the City focus its resources on "place based" development activities where the greatest opportunities exist in conjunction with strategic workforce development and transportation investments. The report identifies three New Growth Opportunity Areas: the Madison Road Corridor, the Seymour/Reading Corridor and the Queensgate/South Mill Creek Corridor.

The Queensgate/South Mill Creek Industrial Corridor is considered ripe for redevelopment. It is roughly bounded by the Ohio River to the south, I-75 to the east, I-74 to the north, and the Beekman/State Avenue corridor to the west. The major objectives of the South Mill Creek Corridor are to:

- Identify and market the redevelopment of brownfield and underutilized sites to developers for the development of green industrial development, including the City’s Metro West Development
- Work with the City’s Planning and Building Department to develop a land use plan for the corridor and to ensure zoning is consistent with recommended uses
- Encourage redevelopment of sites and structures to create the desired combination of green industrial development and connecting employment training to redevelopment opportunities

The CSX Industrial Track could continue to provide rail service to new developments. The northern portion of the track should be restored to service. A new railroad bridge over the Mill Creek could be built to provide a connection from the track to the CSX #3 Main Track.

Bypass Track
The connection of the CSX Industrial Track to the CSX #3 Main Track, would create another bypass option around Queensgate Yard. This could prove to be useful if the Western Hills Viaduct is reconstructed and if any of the CSX mainline tracks would need to be shut down for an extended period of time.

Potential Abandonments
The DOTE considers railroad lines have a potential for abandonment if there has been no railroad service for five years or more. There are four railroad corridors which fit that criteria (see Figure 17):

Norfolk Southern - Bond Hill to Idlewild Junction
The DOTE recommends that this rail segment be preserved for future rail transit use

Norfolk Southern - Idlewild Junction to Clare Yard
The DOTE recommends that this rail segment be preserved for future rail transit use

Norfolk Southern - Idlewild Junction to Bridge over Victory Parkway
The DOTE recommends that this rail segment be preserved for future rail transit use

CSX Old Toledo Main - End of active track north to Mill Creek Road
The DOTE recommends that this rail segment be upgraded for freight rail service
Figure 17 - Potential Railroad Abandonments
III. Identify Railroad Related Safety Improvements

Roadways and railroad tracks can interface in two different ways: grade separated crossings and at-grade crossings. Grade separated crossings involve the railroad either above the roadway on a rail bridge or below, with the roadway on a bridge over the tracks. An at-grade crossing or “grade-crossing” is a crossing of the road and railroad at grade, with no physical separation.

1. Identify potential new grade separated crossings at existing at-grade crossings

Separated crossings are safer than at-grade crossings since the roadway and railroads do not intersect in a shared space. Grade separation projects are generally major engineering projects and require significant capital funds to construct and maintain. There are two types of grade separated crossings: railroad over roadway or roadway over railroad. There have been two large corridor scale railroad grade separation projects in the Cincinnati area over the last one-hundred years. Railroad traffic increases in the early 20th century prompted the grade-separation of most road crossings between downtown and Columbia/Tusculum of the Little Miami Railroad (essentially following Riverside Drive). The B&O Railroad was elevated between the Queensgate area and St. Bernard in 1970 (essentially following Spring Grove Avenue).

2. Identify needed improvements at existing grade separated crossings

There are certain locations where additional clearance for vehicular traffic would provide added safety. To provide for this clearance, there are two options: raising the roadway or railroad bridge or lowering the underlying roadway or railroad. The RISP recommends identifying locations where more vertical or horizontal clearance may be necessary; with prioritization based on factors such as crash experience, volume of traffic, and importance of the roadway within the overall street network.

3. Identify improvements needed at railroad-roadway at-grade crossings

Railroad/roadway at-grade crossings have signs and/or warning devices for vehicular traffic. The minimum protection is a simple cross-buck, while the most protective installation is a cross-buck with lights and gates. Cross-bucks with lights and gates are the most expensive to implement. The RISP recommends identifying where upgrades in warning devices at grade crossings are may be necessary.

Grade crossings in close proximity to traffic signals must be handled in a special way. Trains send information to the traffic signal controller of their approach, while also activating railroad crossing lights and gates. The normal traffic signal operation is “preempted” to stop any pedestrian or vehicular movement at the intersection, except what is needed to clear vehicles stopped on or near the tracks. The timing of the traffic signal and the crossing gates must be synchronized to allow for the clearance of the vehicles, not just before the train arrives, but before the gates come down and trap drivers. The City of Cincinnati currently has four traffic signal locations with railroad preemption, all on River Road.
Quiet Zones

The residents of several Cincinnati neighborhoods have requested that the City administration establish quiet zones at the grade crossings near their residences. These zones would allow the trains to travel through at-grade crossings without blowing their horns as warning of their approach, as required by the Federal Rail Administration. Quiet zones are established to reduce noise levels, and are not intended to improve vehicular or pedestrian safety by their installation. However, significant modification to existing grade crossing warning devices is often required; hence the inclusion of quiet zones in this section of the RISP. It is recommended that the City of Cincinnati develop policy and procedures for the implementation of proposed quiet zones requested by residents, businesses or the general public. With limited funding, these requests must be considered with all other rail related projects that may be needed within the city, especially those that improve public safety.

RISP Projects

The RISP will maintain a list of proposed capital improvement projects. DOTE will seek Federal, State, local or private funding for implementation.

The projects are listed by three categories:

Category A: Projects ready to implement if funding is obtained

These are projects which will require coordination and approval from the railroad to implement but most preconstruction activity will be the responsibility of the City. Typically, the railroads have established guidelines that a municipality must follow to implement a particular project. They may require a Preliminary Engineering Agreement to implement.

1. Madison Road Grade Separation Improvement.
2. Grade Crossing Upgrades (new gates, lights etc.).
4. Quiet Zones.
5. Railroad Related Enhancements (railroad bridge painting).

Category B: Projects which will require a higher level of approval from the railroad

These are projects that significantly impact the railroad's operations, such as the proposed construction of a new rail spur into a new industrial development or a potential grade separation. These projects will require significant railroad input and approval. Implementation may be led by the respective railroads with coordination and funding assistance provided by the City.

1. Western Hills Viaduct Project.
2. New Station/Layover Track at the Cincinnati Union Terminal.
3. Additional bypass track along the west side of Queensgate Yard.

4. Upgrade CSX Industrial Track (possible new connection to CSX Mainline).

5. Add Capacity to the CIND Ditch Track.

6. Former Conrail Site Railroad Improvements.

7. Riverside Drive and Delta Avenue railroad overpass modifications.

**Category C: Projects which will require the highest level of railroad input and approval**

These are capacity related projects that would greatly impact the railroad’s operations. In-depth coordination with the railroad will be required. The use of the Railroad Traffic Controller Model (RTC) may be required to confirm the impacts and benefits of the proposed improvements to railroad operations before railroads will move forward with implementation.

1. Reconstruct the Southwest Connection between the CUT and the CSX Indiana Subdivision.

2. Winton Place Junction Railroad Capacity Improvements.

3. Fourth Mainline Track between Winton Place Junction and Hopple Street.

4. Third Mainline Track between NA Tower and Winton Place Junction.

5. New Connection between the Indiana and Ohio Midland and Oasis Subdivisions.

The projects identified in the three categories above are shown in **Figure 18**. Their cost and priority are shown in **Figure 19**.
## Figure 19

### Railroad Improvement and Safety Plan Project Cost and Priority

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>COST ESTIMATE</th>
<th>TIMING</th>
<th>NOTES</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Preemption Upgrades at Four Grade Crossings of Streets that Intersect River Road</td>
<td>$1,000,000</td>
<td>SHORT</td>
<td>$250,000 per crossing. Potential ORDC Funding</td>
<td>Planning</td>
</tr>
<tr>
<td>New Traffic Signal with Preemption at the Thornton Avenue Grade Crossing</td>
<td>$350,000</td>
<td>SHORT</td>
<td></td>
<td>Planning</td>
</tr>
<tr>
<td>Madison Road Grade Separation Improvement</td>
<td>$7,000,000</td>
<td>SHORT</td>
<td>At Indiana and Ohio Railway bridge</td>
<td>Preliminary Engineering</td>
</tr>
<tr>
<td>Cincinnati Union Terminal Station Track</td>
<td>$4,000,000</td>
<td>SHORT</td>
<td>New station/layover track east of platform with improvements</td>
<td>Preliminary Engineering</td>
</tr>
<tr>
<td>New Siding on the Central Railroad of Indiana Ditch Track</td>
<td>$1,282,000</td>
<td>SHORT</td>
<td>Funding (80%) acquired from CMAQ grant</td>
<td>Planning</td>
</tr>
<tr>
<td>Former Conrail Site Railroad Improvements</td>
<td>$2,000,000</td>
<td>SHORT</td>
<td></td>
<td>Planning</td>
</tr>
<tr>
<td>Quiet Zone Project</td>
<td>$3,000,000</td>
<td>SHORT</td>
<td>Maximum Cost (Capital)</td>
<td>Planning</td>
</tr>
<tr>
<td>Western Hills Viaduct Project</td>
<td>$222,000,000</td>
<td>MID</td>
<td>Cost is for replacement</td>
<td>Preliminary Engineering</td>
</tr>
<tr>
<td>Reconstruct Southwest Connection</td>
<td>$38,000,000</td>
<td>MID</td>
<td>Follows original alignment east of Millcreek</td>
<td>Preliminary Engineering</td>
</tr>
<tr>
<td>Riverside Drive Railroad Overpass Modification</td>
<td>$20,000,000</td>
<td>MID</td>
<td>Included In the Eastern Corridor Project Study Area</td>
<td>Planning</td>
</tr>
<tr>
<td>Delta Avenue Railroad Overpass Modification</td>
<td>$20,000,000</td>
<td>MID</td>
<td>Included In the Eastern Corridor Project Study Area</td>
<td>Planning</td>
</tr>
<tr>
<td>Upgrade CSX Industrial Track and New Connection to CSX Mainline</td>
<td>$18,100,000</td>
<td>MID</td>
<td>New Bridge over Millcreek/ Replace all existing track</td>
<td>Planning</td>
</tr>
<tr>
<td>New CSX Bypass Along West Side of Queensgate Yard</td>
<td>$11,300,000</td>
<td>MID</td>
<td>RH Tower to CIND Oklahoma Track</td>
<td>Planning</td>
</tr>
<tr>
<td>Fourth Mainline Track Between Winton Place Junction and Hopple Street</td>
<td>$30,850,000</td>
<td>LONG</td>
<td>New bridges over Spring Grove, I-74 Ramp, Mill Creek and Clifton</td>
<td>Planning</td>
</tr>
<tr>
<td>Third Mainline Track Between NA Tower and Winton Place Junction</td>
<td>$20,600,000</td>
<td>LONG</td>
<td>New bridge over Mitchell, New superstructure on Mill Creek bridge</td>
<td>Planning</td>
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<tr>
<td>New Connection Between Indiana and Ohio Oasis and Midland Subdivisions</td>
<td>$10,900,000</td>
<td>LONG</td>
<td>3000' elevated track and new bridge over Duck Creek</td>
<td>Planning</td>
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<tr>
<td>Winton Place Junction Capacity Improvements</td>
<td>$15,900,000</td>
<td>LONG</td>
<td>Double track 1600' replace bridge over Spring Grove and Mitchell</td>
<td>Planning</td>
</tr>
</tbody>
</table>

### TIMING

- SHORT = 0 - 5 Years
- MID = 6 - 10 Years
- LONG = 11 - 50 Years
Conclusions

The purpose of the RISP is to identify individual railroad related projects for implementation in the context of a master plan such as the Chicago Region Environmental and Transportation Efficiency Program (CREATE) project in Chicago. Since the City of Cincinnati’s transportation infrastructure interfaces the rail lines that pass through the City, it is important to maintain a good relationship and dialogue with the railroads. The RISP will aid them in understanding our short and long-term rail transportation plans. Updates of this plan will also help to inform staff as they proceed with various roadway, bridge, and bikeway projects as well as coordinate with economic development initiatives.

Recommendations

It is recommended that the DOTE:

4. Update the RISP project list as projects are implemented and new ones are identified.

5. Continue coordination with the railroads.

6. Seek funding for continued project planning, design, and implementation.

4. Continue to assist the City’s Economic Development Department in railroad related issues associated with existing or new developments.

7. Coordinate with the planning efforts of local, regional and state partners.
Credits

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