

Key Issue	Range of Mitigation Options/ Design Elements	Comments
Noise <ul style="list-style-type: none"> ■ Residents ■ School(s) ■ Park/Open Areas 	Improve track from jointed to continuously welded rail (CWR). Implementation of Quiet Zone Crossings Noise Walls Reduce/removal of switching operations	Part of proposed action Coordination with the FRA and the City Noise walls can not be located within existing CP ROW Part of proposed action
Vibration <ul style="list-style-type: none"> ■ Perceptible level ■ Structural Impact 	Improve track from jointed to CWR Reduction in travel speed	Part of proposed action
Safety <ul style="list-style-type: none"> ■ Pedestrian ■ Vehicle/bus/emergency ■ Activity on Railroad ROW ■ Derailments ■ Hazardous Materials/Fire ■ Proximity to homes/school 	Closure of existing grade crossing(s) Implementation of Quiet Zone Crossing Improved signalization at grade crossings Pedestrian crossing gate arms Safety Related Outreach Efforts Grade Separated Pedestrian Crossings Provide additional fencing along track alignment Grade Separation of Railroad Crossing Expand existing right-of-way Track improvements to improve sight lines Reduce/remove switching operations in Skunk Hollow area	Currently, the railroad design concept reflects the closure of 29th Street. Coordination with the FRA and City on implementation of Quiet Zones Part of proposed action/upgrades programmed Overpass or tunnel type of crossing Location of fencing would need to meet safety/design requirements of railroads It is anticipated that given the surrounding character of the area, this mitigation option would result in substantial impacts to the crossing area, beyond the existing railway ROW. Expanding right-of-way in some areas of the study area would result in impacts to existing residences and businesses. Acquisition and relocation of homes/businesses would require impact evaluation. Part of proposed action Part of proposed action
Through Movement of Trains in City/Traffic/Emergency Vehicle/Bus Operations Impacts at Crossings	Moderately increase speed of trains through City Provide for improvements that allow through movement from CP–Bass Lake Spur to BNSF–Wayzata Sub Coordination with City regarding emergency response plans Coordination with St. Louis Park High School regarding emergency evacuation plans	Part of proposed action. Part of proposed action.



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Right –of-Way Impacts	<p>Provide connection from CP – Bass Lake Spur to MN&S on structure</p> <p>Tighten curves from CP- Bass Lake Spur to MN&S. Shift Take off from existing CP- Bass Lake spur to the west</p> <p>Consider potential phasing of southern connection to MN&S</p>	<p>Structure costs higher than retaining wall</p> <p>Curves need to meet safety/design requirements of railroads</p> <p>Would require alternative move for TC&W trains to head south to Savage from CP- Bass Lake Spur</p>
Parks and Natural Resources	<p>Provide grade separated crossing of Cedar Lake Trail</p> <p>Fencing along right-of-way (safety)</p> <p>Minimize wetland impacts through alignment configuration and design elements (primarily northern section of study area)</p>	<p>Part of proposed action</p> <p>See comment in Safety section of table</p> <p>Wetland permitting process would further define design requirements to minimize wetland impacts (northern section)</p>
Soil Contamination	<p>Avoid and/or minimize impacts to existing contaminated sites</p> <p>Propose construction techniques and right-of-way alignment that minimizes impacts to the greatest extent possible</p>	
Visual	Landscaping to serve as visual buffer	Plantings would need to meet railroad safety/design requirements
Property Values		
Development/Redevelopment Impacts	Develop design that allows for future development and redevelopment opportunities	On-going effort through consideration of design options
<ul style="list-style-type: none"> ■ Land acquired for right-of-way 		
Business Impacts	Develop design concept that is operationally efficient and minimizes grade crossing closures	
<ul style="list-style-type: none"> ■ Disruption of traffic ■ Noise ■ Potential property acquisition 		
Health Related Concerns		
<ul style="list-style-type: none"> ■ Diesel fumes 		
Hazardous Materials	Work with railroads and City in regarding emergency response action plan	



General Questions Regarding Noise And Vibration

11/09/10

- How would replacing jointed rail with continuously welded rail reduce noise and vibration impacts?
Typically noise and vibration levels are reduced by about 5 decibels.
- How would the implementation of Quiet Zones reduce noise levels near grade crossing (1/4 mile):
Near grade crossings (1/4 mile) the noise levels can be reduced by 20 to 30 decibels with Quiet Zones.
- What impact would increasing the train speed from 10 to 25 miles per hour have on noise and vibration?
Increase in speed from 10 to 25 miles per hour would reduce noise levels from locomotives about 4 decibels.
Increase in speed from 10 to 25 miles per hour will raise noise level from railcars by approximately 8 decibels.
Increase in speed from 10 to 25 miles per hour results in about an 8 decibel increase in vibration.
- What impact does increasing the number of cars on a train have on noise?
Increasing rail cars from 50 to 100 (for illustrative purposes only) would result in a 3 decibel increase.
- What is considered a “perceptible change in noise and vibration”?
Typically, a 3 decibel change is perceptible.
- What is considered “perceptible” vibration, and is there a particular threshold for vibration where there could be impacts to surrounding structures?
Typically, vibration levels around 65 vibration decibels (VdB) are at the limit of human perception, “annoyance” impact is around 72-80 VdB and the thresholds for damage for the most sensitive structures are around 95 to 100 VdB.



11/02/10

Outline of Proposed Study Needs

- Need to provide the TC&W railway with a safe, economic and efficient movement of freight to St. Paul, while minimizing adverse impacts to the surrounding community, and providing a system that is consistent with the State Rail Plan.
- Need to reduce/eliminate current switching/blocking operations in the Skunk Hollow area of the City of St. Louis Park.
- Need to improve/reduce existing grade crossings with the railway.
- Need to improve through movement of trains through City of St. Louis Park.

Outline of Proposed Study Goals

- Provide for a safe, efficient and economical movement of freight rail traffic through the City of St. Louis Park.
- Provide improvements to the railway that increases the operational efficiency/movement of freight movements through the City of St. Louis Park.
- Provide improvements to the railway to enhance safety at grade crossings, and throughout the corridor.
- Provide a transportation solution that would minimize impacts to surrounding neighborhoods and sensitive environmental areas (trails, parks, wetlands, contaminated soils).
- Provide a transportation solution that addresses the importance of future development/redevelopment opportunities, particularly in the Skunk Hollow area.
- Provide a transportation solution that does not preclude the ability to expand the "corridor".
- Provide a transportation solution that effectively integrates feasible/reasonable mitigation measures to the greatest extent possible.
- Provide a transportation solution that minimizes impacts to businesses.
- Provide a transportation solution that minimizes and effectively mitigates property impacts.



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As this study considers potential transportation improvements to private infrastructure (railway/ right-of-way owned by CP and BNSF), specific requirements/expectations of the railroads are defined below; and reflected in the preliminary railway design concepts.

General Overview

- Speed of trains is regulated by each owner-railroad, and track conditions must conform to the Federal Railroad Administration's (FRA) track standard rules for the railway's desired track speed.
- FRA regulates and monitors track conditions and equipment conditions.
- Track design requirements set forth through the following:
 - Current Canadian Pacific (CP) and BNSF Track Engineering and Design Standards
 - American Railway Engineering and Maintenance Association (AREMA) Engineering and Design Standards
 - Other applicable engineering and design standards

Defined Railroad Expectations for MN&S Study

- MN&S track would be upgraded to meet FRA Class 2 operations: maximum allowable speed of 25 miles per hour
- Existing MN&S rail to be replaced and all new-construction to be 136 pound continuously welded rail with new ballast, ties, and track switches.
- All railway/roadway at-grade crossings would be signalized (minimum requirement).
- Closure of 29th Street at-grade crossing.
- Elimination of TC&W switching movements in Skunk Hollow area required to move trains west on the MN&S to Savage.
- Maintain access to current CP customer in Skunk Hollow area.
- Maximum grade requirement of 1.0 percent
- Maximum (tightest) curve of 8 degrees
- BNSF would require a 10,000 +/- foot controlled siding



Summary of Existing Alignment Configuration and Operations

11/09/10

Characteristics of Canadian Pacific – Bass Lake Spur/ St. Louis Park Junction Area

- Currently double track, with the south track serving as the single main track and north track serving as the siding
- Bike trail parallels the alignment on the north side, within existing HCRRA right-of-way (100 feet)
- Current track is 112 pound jointed rail, on crushed stone ballast
- Maximum operating speed of 25 mph/10 mph loaded coal trains
- Rail served customer on south side of tracks, west of Louisiana
- Existing right-of-way: Varies between 54 and 70 feet
- Grade crossings, with signals, at Wooddale Avenue and Beltline Boulevard.

Characteristics of MN&S Spur Area

- Current track is 90 pound rail, on a mixture of slag and crushed stone ballast
- Recent grade crossing surface improvements at Walker Street, Lake Street, Library Lane, Dakota and recent undergrade bridge reconstruction at Minnetonka Boulevard (112 -115 pound rail)
- Existing allowable maximum speed is 10 miles per hour for all movements
- Existing right of way:
 - From 27th Street to Minnetonka Boulevard ROW is 66 feet.
 - From Minnetonka Boulevard to Brunswick Avenue majority of ROW is 145 feet, however there are a couple of areas that are 105 feet, and 3 parcels adjacent rail ROW at 35, 45 and 55 feet.
 - From Brunswick to Highway 7 irregular ROW, varying from 50 to 121 feet+.
- Newly-constructed rail bridge carries MN&S over Minnetonka Blvd.
- Entire grade of MN&S through St. Louis Park is approximately 25 feet above grade of Bass Lake Spur and Wayzata Sub.
- Grade crossings from the BNSF – Wayzata Sub to CP Bass Lake Spur:
 - West 28th and 29th Streets: Crossbuck and stop sign
 - Dakota Avenue S.: Gates and flashers
 - Library Lane: Flashers
 - Lake Street: Overhead flashers
 - Walker Street: Flashers
 - Brunswick Avenue: Ped crossing only



Characteristics of Iron Triangle - Burlington Northern Santa Fe - Wayzata Sub Area

- Wayzata Subdivision extends appropriately 90 miles from Minneapolis to Wilmar
- BNSF operates this as a mainline track. Maximum allowable speed is 60 miles per hour for all movements.
- Currently single track, with 115 pound rail on crushed stone ballast. Some rail has been replaced with 132 to 141 pound rail.
- Cedar Lake bike path run parallel to and south of the existing railway.
- Not a current connection from MN&S to BSNF. However, the roadbed of former/abandoned alignment is still intact.
- Existing right-of-way: BNSF Wayzata Sub ROW varies from 100 to 221 feet.
- 10,000 +/- of available right of way exists east of proposed connection switch location for proposed siding location

Current Operations

TC&W Operations to Connect to St. Paul

- Currently operate four trains into and out of Twin Cities from Hopkins, six to seven days per week. Trains work in and out of the Hopkins/Minnetonka/St. Louis Park area.
- Current trains average 50 to 75 cars and seasonally can exceed 100 cars. Cars carry grain and miscellaneous loads on the way to St. Paul and return empty cars via the same route.
- TC&W also currently operates a "unit" train, which varies per week. Average 5-7 unit trains per month, at an average length per train of 80 to 120 cars. Unit trains carry ethanol (east) or coal (west).
- Other materials may also be transported based on customer needs.
- Existing allowable maximum speed is 10 mph

CP and TC&W on the MN&S

- Current number and length of trains operating on the MN&S line: CP is the only company running trains on the MN&S line today. TC&W has trackage rights, but is not currently running trains on the line today. CP operates one local assignment, round trip, 5 days per week on this property. The length of the train is variable, but typically the size ranges between 10-30 cars per day.

BNSF - Wayzata Sub

- Currently run 8 to 20 trains per day. Track is controlled by a Centralized Traffic Control System (CTC).

Note: From Lake Street to Cedar Lake Junction there are currently two grade crossings: Cedar Lake Boulevard and W. 21st Street.



Project Management Team Meeting #3

Working Tour of Study Area, October 2, 2010

General Summary of Questions Raised/Discussion Items During The Tour

- Important to study the potential longer term requirements/impacts of increased rail traffic north of the BNSF Wayzata Sub.
- How will businesses be brought into the study process? Business related impacts should address both direct and indirect impacts.
- General question on the potential disturbance of existing contamination at southern end of study area.
- General question regarding the structural requirements to make the northern connection from the CP Bass Lake Spur to the MN&S Spur.
- Discussion regarding electrical substation impacts at southern end of study area and proximity of power poles to existing tracks.
- General comment that the study needs to evaluate economic impacts.
- General discussion/question regarding the grades of the current and proposed track.
- General comment and concern regarding the impact to traffic at grade crossings (how long will the crossing be closed for train movement).
- General comment/concern regarding pedestrian activity (students from high school) on and near the tracks.
- Questions/comments regarding the number of trains and the length of trains in the future.
- Question/Discussion regarding who makes the decisions.
- Concern about emergency vehicle access.
- Concern about overall safety (pedestrian crossings, day care facility, derailment, proximity to homes).
- General concern regarding noise and vibration impacts and mitigation measures. What are perceptible levels of vibration, and will there be damage to homes.
- General discussion regarding Quiet Zone requirements.
- General question regarding who will pay for mitigation.
- Question regarding traffic volumes at grade crossing locations.
- General request for right-of-way information as part of the study process.
- Concern regarding safety/pollution response plan relative to toxic materials.
- Concern regarding proximity of alleyways/ access to railway.
- General concern regarding the potential for trains to stop at grade crossings.
- General concern regarding impact to property values.
- General discussion on future freight movements from a regional perspective.
- General concern regarding potential increase in CP and TC&W traffic levels and the impact the new Panama Canal could have on train traffic in the area.
- General discussion on next steps in the PMT process (PMT #4 focused on review of Preliminary Design Concepts).

