



**Record of Decision**

**Attachment F**  
**Responses to Comments Received on the Final EIS**

<b>Comment #</b>	#1
<b>Commenter</b>	Kristofer Gunnar Paso
<b>Commenter Organization</b>	None

**Response**

Thank you for your comments on the METRO Blue Line Light Rail Transit (BLRT) Extension project Final Environmental Impact Statement (Final EIS). The Metropolitan Council (Council) acknowledges support for another alignment other than the BLRT Extension project. The BLRT Extension project was developed to meet specific transportation needs in the City of Minneapolis and several northern and western suburbs. As outlined in the Purpose and Need, the BLRT Extension project is needed to effectively address long-term regional transit mobility and local accessibility needs while providing efficient, travel-time competitive transit service that supports economic development goals and objectives of local, regional, and statewide plans.

The development of the BLRT Extension project started with an Alternatives Analysis (AA) that culminated in the selection of the locally preferred alternative (LPA). An Osseo alignment was explored during the AA process, but was not advanced into the Draft EIS because it did not pass the service area screening criterion. Specifically, to pass the service area screening criteria an alternative alignment must be accessible to transit dependent populations, the north end must serve a major traffic or employment generator, and the alignment must serve the highest concentration of trip origins and destinations. The Maple Grove alignment passed the service area criterion because it is anchored by a major trip generator. However, as documented in the Bottineau Transitway Draft EIS, the Maple Grove alignment was not advanced further in part because it was less effective than the selected LPA alignment (the BLRT Extension project; the selection of the LPA is discussed in Chapter 2 of the Final EIS) in enhancing transit effectiveness in the corridor. The presence of the existing Maple Grove transit service factored into this determination.

In the BLRT Extension project, the community of North Minneapolis will be served by the stations at Van White Boulevard, Penn Avenue, and Plymouth Avenue. The alternative alignment that would have served North Memorial Medical Center (Alignment D2) was not advanced further because of extensive residential, business, traffic, and noise impacts that would be disproportionately borne by low-income and minority populations.

<b>Comment #</b>	#2
<b>Commenter</b>	Earl Faulkner Sr.
<b>Commenter Organization</b>	None

**Response**

Thank you for your comments on the METRO Blue Line Light Rail Transit (BLRT) Extension project Final Environmental Impact Statement (Final EIS). A breakdown of funding sources is located in Table 10.1-2 of Chapter 10 of the Final EIS totaling \$1.496 billion. The various sources of funding for the BLRT Extension project are taxpayer monies, as noted by the commenter. The Metropolitan Council (Council) assumes the following capital funding breakdown:

- Capital Investment Grant (CIG) Program funding from the Federal Transit Administration (FTA) – 49 percent
- State of Minnesota – 10 percent
- County Transit Improvement Board – 31 percent
- Hennepin County Regional Railroad Authority – 10 percent

By allocating cost responsibility to various public funding entities, the cost participation is spread out between agencies whose constituents will receive the benefits of the BLRT Extension project and who are charged with meeting the transportation needs of their constituents. Non-riding taxpayers may also benefit from the operation of light rail as the regional demand on roadways continues to intensify.

FTA and the Council have minimized the potential for capital cost overruns through the implementation of FTA-developed project cost estimation methods that include the incorporation of appropriate contingency levels associated with various levels of risk. At this stage of design (15 to 30 percent), the contingency included in the BLRT Extension project cost estimate is approximately 30 percent.

Operations and maintenance costs will be paid for with transit operating revenues including fare revenues, state general funding, and Counties Transit Improvement Board (CTIB) funding. A financial analysis of the BLRT Extension project is discussed in Chapter 10 of the Final EIS.

<b>Comment #</b>	#3
<b>Commenter</b>	Staff Comments
<b>Commenter Organization</b>	City of Minneapolis

**Response**

Thank you for your comments on the METRO Blue Line Light Rail Transit (BLRT) Extension project Final Environmental Impact Statement (Final EIS). The following sections provide responses to the City’s comments received on the Final EIS.

**A. Design**

The Metropolitan Council (Council) acknowledges the design changes made through the design modification process in partnership with the City.

Relocation of the Bassett Creek Tunnel has now been adopted into the scope of the BLRT Extension project, per Corridor Management Committee (CMC) action at the meeting on July 21, 2016. At the time of the publication of the Final EIS, this action had not been approved and thus was not part of the environmental impact analysis. The BLRT Extension project was designed to avoid impacts to the existing Old Bassett Creek Tunnel. Since that time Council staff, in coordination with the Minnesota Department of Transportation (MnDOT) and City of Minneapolis staff, have determined that reconstructing the tunnel beneath Olson Memorial Highway (Trunk Highway 55) provides a better long-term stormwater management solution. Given the age, condition, and location of the current Old Bassett Creek Tunnel crossing, the reconstruction of the tunnel is considered an enhancement to the stormwater system, and is therefore not considered a negative impact to the physical environment, and no new mitigation will be required. Details of the Bassett Creek Tunnel relocation will continue to be coordinated with the City of Minneapolis and MnDOT. Permitting tasks relating to mitigation and construction will be taken up following the issuance of this Record of Decision (ROD), under the jurisdictions of various local permitting agencies including the City of Minneapolis. FTA and the Council note that Table 9.5-1 in the Final EIS identifies the City of Minneapolis as a local permitting agency with respect to Minnesota Wetland Conservation Act (WCA) approvals and sediment and erosion control permitting.

With respect to floodplain mitigation, FTA and the Council concur that both the City of Minneapolis and the Minneapolis Park and Recreation Board (MPRB) will be involved in the floodplain mitigation design review process. FTA and the Council note that while section 5.2 of the Final EIS did not express this specifically, the Preliminary Floodplain Impacts and Mitigation Technical Memorandum included in Appendix F of the Final EIS states that “The [floodplain] mitigation site will be designed in collaboration with MPRB and the City of Minneapolis.”

With respect to wetland mitigation, FTA and the Council concur that the City of Minneapolis will need to review and approve wetland mitigation plans for mitigation that occurs within the city or on land over which the city holds an easement. This review and approval process will be accomplished through the aforementioned collaboration on the floodplain mitigation site, which is also a likely wetland mitigation site; and more generally through the city’s review and approval of the wetland replacement plan required under the WCA.

## **B. Construction Impacts**

The Council will coordinate with the City on the development of the Construction Mitigation Plan, which will reference design and specification information contained in the BLRT Extension project's construction documents. Means and methods, hours of operation, noise control, access routes and best management practices for mitigating dust and debris during construction will be included in this plan and communicated to the contractor. These and other mitigation measures for the BLRT Extension project are located in Attachment A to this ROD.

## **C. LRT Operational Noise and Vibration**

The BLRT Extension project's noise and vibration analysis was conducted in accordance with FTA's Transit Noise and Vibration Impact Assessment Manual (FTA, 2006) and is contained in Final EIS Sections 5.6 and 5.7 and Appendix F Noise and Vibration Technical Report. The Council will continue to evaluate noise and vibration levels throughout the construction phase of the BLRT Extension project. The Council will respond to complaints on noise after LRT operations begin, and will work with City staff to resolve these complaints.

## **D. Traffic**

The Council acknowledges the role of the City of Minneapolis in defining the final design conditions of Olson Memorial Highway (Trunk Highway 55).

## **E. Ridership**

The Council has an established goal of growing metropolitan transit ridership. Long-range transportation plans and shorter-range capital programming documents work in support of this goal. For the BLRT Extension project, Council staff have worked in partnership with Hennepin County and city staff to develop LRT station area plans that articulate the vision of local communities for transit-oriented development and other opportunities. Metro Transit's marketing efforts will additionally act in support of the Minneapolis' interest in continuing to find ways to increase transit ridership. As part of FTA's Capital Investment Grant program, the Council will submit travel forecasts required for funding recommendation and such forecasts will be consistent with the metropolitan area's travel demand model.

## **F. Equity**

The Council acknowledges the necessity of continuing community engagement efforts for the BLRT Extension project. Chapter 9 of the Final EIS describes the public outreach process used for public and stakeholder outreach. For the BLRT Extension project, the Council has implemented a comprehensive public outreach program that has engaged nearby communities and underrepresented groups in the BLRT Extension project design and engineering process. This includes appointing two voting members to the BLRT Extension project CMC that represent the Blue Line Coalition (a community-based group working to advance local and regional equity and community health along the Blue Line Corridor). The BLRT Extension project has also established a Business Advisory Committee and Community Advisory Committee to seek public input and advise the CMC and the Council. The Council will continue to engage community groups directly and via local/neighborhood-based media to provide information on BLRT Extension project progress.

**Adequacy of the Final EIS**

The Council acknowledges the City's finding that the Final EIS is adequate under Minnesota law, and the Council will consider that finding when making its determination of adequacy under the Minnesota Environmental Policy Act (MEPA).

<b>Comment #</b>	#4
<b>Commenter</b>	Michaela E. Noble
<b>Commenter Organization</b>	United States Department of the Interior

Thank you for your comments on the METRO Blue Line Light Rail Transit (BLRT) Extension project Final Environmental Impact Statement (Final EIS). The Metropolitan Council (Council) and the Federal Transit Administration (FTA) acknowledge US Department of Interior (USDOI) concurrence with the FTA determinations regarding Section 4(f) properties. As requested, the executed Section 106 Memorandum of Agreement is included in Attachment C of this Record of Decision.

<b>Comment #</b>	#5
<b>Commenter</b>	Kenneth A. Westlake
<b>Commenter Organization</b>	United States Environmental Protection Agency

**Response**

Thank you for your comments on the METRO Blue Line Light Rail Transit (BLRT) Extension project Final Environmental Impact Statement (Final EIS). The sections below provide responses to the recommendations made in USEPA’s letter regarding topics warranting more specificity in the Record of Decision (ROD).

**Regarding Mobile-Source Air Toxics (MSATs)/Air Toxics** *(The US Environmental Protection Agency [USEPA] generally recommended greater specificity on measures the BLRT Extension project would implement to reduce short-term construction impacts to air quality.)*

Mitigation measures to address short-term, construction-phase impacts and mitigation measures associated with air quality were included in Section 5.10.5 of the Final EIS. This ROD includes the following mitigation measures (see Attachment A of the ROD – Project Mitigation Measures and Responsible Parties by Environmental and Transportation Category), which are consistent with the mitigation measures identified in the Final EIS.

Given the scattered, intermittent, and temporary nature of construction activities, the Council does not expect any exceedances of ambient air quality standards during the construction phase of the BLRT Extension project. However, the contractor will implement a series of Best Management Practices (BMPs) during construction to control dust. These BMPs could include the following preventive and mitigation measures:

- Minimize land disturbance during site preparation
- Use watering trucks to minimize dust
- Cover trucks while hauling soil or debris off site or transferring materials
- Stabilize dirt piles if they are not removed immediately
- Use dust suppressants on unpaved areas
- Minimize unnecessary vehicle and machinery idling
- Revegetate any disturbed land post-construction

The Council will develop traffic-control measures in subsequent stages of the BLRT Extension project to address detours and the flow of traffic.

Construction will cause an unavoidable temporary increase in greenhouse gas (GHG) emissions because of both direct emissions from construction equipment exhaust and indirect emissions from production of construction materials such as steel and concrete. However, in the long term, these emissions will tend to be offset by the net reductions in emissions from project operation.

The Federal Transit Administration (FTA) and the Council note that one of the strategies listed (minimize unnecessary vehicle and machinery idling) is consistent with USEPA’s suggestion.

The Council will explore the potential for adding recommendations for the use of clean diesel engines to construction contract specifications.

**Regarding Stormwater Management and Wetlands** *(USEPA recommended that regulated wetlands not be allowed to be used for stormwater detention and that the ROD address this issue, as well as addressing sustainable stormwater practices, e.g., rain gardens and permeable pavements.)*

The BLRT Extension project includes several strategies for managing stormwater. These include wet ponds, bioretention basins, underground detention, and improvement of existing ponds. To the extent practicable, stormwater management features have been sited to avoid existing water resource features. However, in certain cases, there is no practicable alternative to continuing the use of existing water features for stormwater management. This is especially true in the section of the BLRT Extension project corridor that lies between 36th Avenue and Olson Memorial Highway (Trunk Highway 55). This section of the corridor is depressed, and stormwater runoff flows directly into the ditches and ponds adjacent to the existing freight rail embankment. The BLRT Extension project presents an opportunity to implement improved treatment of runoff prior to discharge to receiving waters; in most cases, if not all, this is a requirement of the state and/or local regulatory agencies. The BLRT Extension project is not introducing new stormwater discharges to water resource features that are not currently receiving stormwater runoff. To the extent practicable, any stormwater discharging to existing adjacent water resource features will receive water quality treatment and rate attenuation in filtration ditches and rain gardens throughout the portion of the corridor in the freight rail corridor.

The US Army Corps of Engineers (USACE) has reviewed the Section 404 permit application (see Appendix I of the Final EIS) and issued a National Environmental Policy Act (NEPA)/Section 404 Merger Concurrence Point 4 letter indicating that USACE concurs that FTA and the Council have sufficiently implemented avoidance and minimization strategies with respect to wetlands.

The Council will continue to work cooperatively with the cities along the corridor, the affected watershed districts/watershed management organizations, and the Minnesota Pollution Control Agency to enhance and refine stormwater management designs to meet rate/volume control requirements and achieve water quality requirements. Where reasonable and feasible, these refined stormwater management designs may include rain gardens or porous surfaces.

**Regarding Wildlife Crossings** *(USEPA recommended that the ROD comment to specific considerations for crossings to promote wildlife, including considerations for culvert design and providing dry culverts to act as wildlife corridors.)*

USEPA notes that, while FTA and the Council mention the potential for implementing wildlife crossings on the BLRT Extension project, a specific commitment to do so has not been made. The Council will continue to evaluate the possibility of providing wildlife crossings in the portions of the corridor adjacent to park land/green space. However, this area is also the lowest portion of the corridor, and has the highest water table. FTA and the Council acknowledge the benefit of dry culvert structures to facilitate the movement of non-aquatic/non-amphibian species. However the engineering requirements for the BLRT Extension project, which include a minimum amount of fill and ballast between the bottom of the freight and light rail tracks and the top of culvert structures, may make it infeasible to install dry culverts in these wet areas.

Five bridges that cross over the corridor adjacent to park land/green space will be reconstructed as part of the BLRT Extension project. These bridge openings will be widened, and will improve the ability of wildlife to travel parallel to the corridor.

**Regarding Forest/Tree Mitigation** (*USEPA recommended greater quantification of proposed tree removal and that coordination with US Fish and Wildlife Service (USFWS), the Minnesota Department of Natural Resources, and local municipalities take place regarding providing voluntary mitigation for tree loss.*)

Table 5.8-8 in the Final EIS indicates that of the 224 acres of forest complexes surrounding the corridor, approximately 17.9 acres will be impacted by the construction of the BLRT Extension project. Appendix F (specifically Appendix F.9 – Biological Environment Technical Report) of the Final EIS presents the location and acreage of each forest complex and the total impact to each forest complex (see Table 7 of Appendix F.9).

Tree inventory work is in progress, and is focused on boulevard trees in Olson Memorial Highway and West Broadway Avenue (County State-Aid Highway 103), as well as trees in parks that are adjacent to the BLRT Extension project. Much of this information will be used to develop tree replacement plans, which will be developed in coordination with BLRT Extension project stakeholders, including the municipalities as well as the Minneapolis Park and Recreation Board. The survey information will also be used to identify tree species and determine the presence of specimen trees that may require special consideration for protection or replacement.

Overall, the majority of the tree removal will occur within the existing BNSF Railway (BNSF) right-of-way. Those trees will not be replaced as the space cleared will be occupied by freight rail and light rail infrastructure. Trees that will be removed outside of the permanent project right-of-way due to construction staging and/or access requirements will be considered for replacement. Such replacement will be conducted in accordance with applicable city ordinances and in coordination with the Minneapolis Park and Recreation Board and other project stakeholders, as appropriate.

FTA and the Council note that USFWS has evaluated the potential for the BLRT Extension project to affect the northern long-eared bat (NLEB) under Section 7 of the Endangered Species Act. USFWS has concurred with FTA's determination, developed using the Final 4(d) Rule, that the BLRT Extension project may affect the NLEB, but incidental taking of the NLEB is not prohibited. Mitigation of forest impacts to address NLEB impacts is therefore not required.

<b>Comment #</b>	#6
<b>Commenter</b>	Claire Ruebeck
<b>Commenter Organization</b>	Citizens Acting for Rail Safety – Twin Cities (CARS-TC)

**Response**

Thank you for your comments on the METRO Blue Line Light Rail Transit (BLRT) Extension project Final Environmental Impact Statement (Final EIS). The sections below provide responses to the comments received on the Final EIS.

**Light Rail Transit Located with High Hazard Flammable Trains is Incompatible with Public Safety**

Refer to Section 3.2.1 of the Final EIS for information regarding the Federal Railroad Administration’s (FRA’s) jurisdiction determination for the BLRT Extension project, including which FRA regulations apply to the BLRT Extension project. FRA’s jurisdiction determination for the BLRT Extension project is limited to its regulatory role over at-grade light rail crossings of roadways in the vicinity of existing at-grade freight rail crossings of roadways. FRA will retain full jurisdiction over freight rail that is co-located with light rail and all safety measures which apply to freight rail will still be applicable. The Metropolitan Council (Council) may petition FRA’s Safety Board for a waiver of those regulations under the procedures set forth in 49 CFR Part 211. If waivers are pursued, they will be completed in coordination with FRA, the Federal Transit Administration (FTA), and the Council in accordance with FRA guidelines.

As you correctly state, the *US Department of Transportation Regulations Requiring Risk Analysis of Rail Route Selection* applies to freight rail carriers. However, the BLRT Extension project has taken the applicable factors identified in Exhibit II to CARS-TC’s letter into consideration for the route design and analysis for LRT and freight rail co-location in portions of the BNSF Railway (BNSF) Monticello Subdivision. For example, Section 3.2.3 of the Final EIS discusses train operations, including number of trains, train movement control, maximum operating speeds, siding locations, crossings and connections with other freight railroads, and the locations of existing at-grade freight rail/roadway crossings. Table 4.7-1 lists existing and proposed warning and safety devices at roadway crossings of the freight rail corridor. Sections 3.2.4 and 4.7.4.1 of the Final EIS discuss preventative maintenance measures that will be implemented to avoid adverse interactions between LRT and freight rail operations.

On May 1, 2015, the US Department of Transportation (USDOT) announced its Final Rule to Strengthen Safe Transportation of Flammable Liquids by Rail. The final rule, developed by the Pipeline and Hazardous Materials Safety Administration (PHMSA) and FRA, in coordination with Canada, focuses on safety improvements that are designed to prevent accidents, mitigate consequences in the event of an accident, and support emergency response. The rule:

1. Unveiled a new, enhanced tank car standard and an aggressive, risk-based retrofitting schedule for older tank cars carrying crude oil and ethanol;
2. Requires a new braking standard for certain trains that will offer a superior level of safety by potentially reducing the severity of an accident, and the “pile-up effect”;
3. Designates new operational protocols for trains transporting large volumes of flammable liquids, such as routing requirements, speed restrictions, and information for local government agencies; and

4. Provides new sampling and testing requirements to improve classification of energy products placed into transport.

The rule applies to “high-hazard flammable trains” (HHFTs) that are a continuous block of 20 or more tank cars loaded with a flammable liquid or 35 or more tank cars loaded with a flammable liquid dispersed through a train. This includes the commodities of ethanol and crude oil, along with other regulated commodities.

The rule requires rail carriers (including BNSF the operating railway in this corridor) to perform the following (in part) tasks with respect to its management of trains carrying HHFTs:

*Rail Routing – More Robust Risk Assessment*—Railroads operating HHFTs must perform a routing analysis that considers, at a minimum, 27 safety and security factors, including “track type, class, and maintenance schedule” and “track grade and curvature,” and select a route based on its findings. These planning requirements are prescribed in 49 CFR Part 172.820.

*Rail Routing – Improves Information Sharing*—Ensures that railroads provide State and/or regional fusion centers, and State, local and tribal officials with a railroad point of contact for information related to the routing of hazardous materials through their jurisdictions. This replaces the proposed requirement for railroads to notify State Emergency Response Commissions (SERCs) or other appropriate state-designated entities about the operation of these trains through their states.

In the State of Minnesota, BNSF provides this information to the Minnesota Department of Public Safety.

In addition to the USDOT Final Rule, Minnesota Statutes Section 4. [115E.042] Preparedness and Response for Certain Railroads must be complied with by a person who owns or operates railroad car rolling stock transporting a unit train (a train with more than 25 tanker railcars carrying oil or hazardous substance cargo. These requirements include:

Subd. 2. Training. (a) Each railroad must offer training to each fire department having jurisdiction along the route of unit trains. Initial training under this subdivision must be offered to each fire department by June 30, 2016, and refresher training must be offered to each fire department at least once every three years thereafter. (b) The training must address the general hazards of oil and hazardous substances, techniques to assess hazards to the environment and to the safety of responders and the public, factors an incident commander must consider in determining whether to attempt to suppress a fire or to evacuate the public and emergency responders from an area, and other strategies for initial response by local emergency responders. The training must include suggested protocol or practices for local responders to safely accomplish these tasks.

Subd. 3. Coordination. Beginning June 30, 2015, each railroad must communicate at least annually with each county or city emergency manager, safety representatives of railroad employees governed by the Railway Labor Act, and a senior fire department officer of each fire department having jurisdiction along the route of a unit train, to ensure coordination of emergency response activities between the railroad and local responders.

Subd. 4. Response capabilities; time limits. (a) Following confirmation of a discharge, a railroad must deliver and deploy sufficient equipment and trained personnel to contain and recover discharged oil or hazardous substances and to protect the environment and public safety. (b) Within one hour of confirmation of a discharge, a railroad must provide a qualified company

employee to advise the incident commander. The employee may be made available by telephone, and must be authorized to deploy all necessary response resources of the railroad. (c) Within three hours of confirmation of a discharge, a railroad must be capable of delivering monitoring equipment and a trained operator to assist in protection of responder and public safety. A plan to ensure delivery of monitoring equipment and an operator to a discharge site must be provided each year to the commissioner of public safety. (d) Within three hours of confirmation of a discharge, a railroad must provide qualified personnel at a discharge site to assess the discharge and to advise the incident commander. (e) A railroad must be capable of deploying containment boom from land across sewer outfalls, creeks, ditches, and other places where oil or hazardous substances may drain, in order to contain leaked material before it reaches those resources. The arrangement to provide containment boom and staff may be made by:

- (1) training and caching equipment with local jurisdictions;
- (2) training and caching equipment with a fire mutual-aid group;
- (3) means of an industry cooperative or mutual-aid group;
- (4) deployment of a contractor;
- (5) deployment of a response organization under state contract; or
- (6) other dependable means acceptable to the Pollution Control Agency.

(f) Each arrangement under paragraph (e) must be confirmed each year. Each arrangement must be tested by drill at least once every five years. (g) Within eight hours of confirmation of a discharge, a railroad must be capable of delivering and deploying containment boom, boats, oil recovery equipment, trained staff, and all other materials needed to provide:

- (1) on-site containment and recovery of a volume of oil equal to ten percent of the calculated worst case discharge at any location along the route; and
- (2) protection of listed sensitive areas and potable water intakes within one mile of a discharge site and within eight hours of water travel time downstream in any river or stream that the right-of-way intersects.

(h) Within 60 hours of confirmation of a discharge, a railroad must be capable of delivering and deploying additional containment boom, boats, oil recovery equipment, trained staff, and all other materials needed to provide containment and recovery of a worst case discharge and to protect listed sensitive areas and potable water intakes at any location along the route.

Subd. 5. Railroad drills. Each railroad must conduct at least one oil containment, recovery, and sensitive area protection drill every three years, at a location and time chosen by the Pollution Control Agency, and attended by safety representatives of railroad employees governed by the Railway Labor Act.

Subd. 6. Prevention and response plans. (a) By June 30, 2015, a railroad shall submit the prevention and response plan required under section 115E.04, as necessary to comply with the requirements of this section, to the commissioner of the Pollution Control Agency on a form designated by the commissioner. (b) By June 30 of every third year following a plan submission under this subdivision, a railroad must update and resubmit the prevention and response plan to the commissioner.

The Council is implementing the BLRT Extension project's *Safety and Security Management Plan (SSMP)* in coordination with the cities of Minneapolis, Golden Valley, Robbinsdale, Crystal, and Brooklyn Park Fire and Police Departments, as well as Minneapolis Park and Recreation Board's Police Department, BNSF, and Metro Transit's Safety, Police and Rail Operations divisions. The Council, through the Metro Transit Director of Rail and Bus Safety, will establish an LRT Fire Life Safety and Security Committee (FLSSC) that will be made up of first responders.

The LRT FLSSC provides input to and comments on the fire protection, emergency preparedness plans and procedures, safety plans and security plans. As the BLRT Extension project progresses through final design, construction and into integrated testing and revenue operations, the FLSSC agencies will participate in the planning, performance and evaluation of emergency simulation on the system. These exercises will include discussion based (tabletop) drills, familiarization exercises, and operations-based (full-scale) exercises.

After each training exercise, formal reviews and lessons learned will be incorporated into improvements in incident response and resolution procedures for coordination between freight rail and LRT operators. These will be tracked through corrective action plans that will be submitted to the Minnesota State Safety Oversight Agency (SSOA) and updated monthly.

Metro Transit has an *Operations Emergency Management Plan (OEMP)* that establishes the response process and responsibilities for various Metro Transit departments, employees, and emergency response agencies in the event of a freight or LRT rail emergency. The *OEMP* employs the National Incident Management System (NIMS) in responding to an emergency. As the BLRT Extension project advances, these policies and procedures will be captured into the *OEMP*.

Light rail and freight rail co-location in a shared corridor is not an unusual occurrence in the United States. These are known as "Common Corridor Operations." The Council collected and documented information on locations, including mitigation measures in place.

Based on this research the following Light Rail Operators have Common Corridor Operations on portions of their lines: Charlotte NC LYNX, Dallas DART, Denver RTD, Jersey City NJT Hudson-Bergen LRT, Los Angeles LACMTA Green and Gold Lines, Sacramento CA, Sacramento RTD, St. Louis, Bi-State Development Agency, San Jose, VTA, Maryland Counties, Purple Line, Washington Metropolitan Area Transportation Authority (WMATA), and Portland MAX Orange Line. The Council contacted staff associated with these projects to identify the following common methods currently used or planned to be used after system build-out. Some of these projects and methods are still in development, but the following is a summary of these measures:

- Reliance on direct communication by internal radio systems and emergency telephone contact with the adjacent railway's dispatch center and vice-versa for notification of an accident that interferes with the other's operation.
- Have established incident response protocols with the adjacent railway and first responders as part of their emergency preparedness programs.
- Conduct light rail emergency response exercises and drills as part of their training requirements. Many properties actively support "Operation Lifesaver" to reduce trespasser/transit rail accidents.
- Construct corridor protection walls between freight and light rail.
- Install intrusion detection devices in areas between freight and light rail.

These methods are also planned to be used on the BLRT Extension project and will be incorporated into the construction and management documents, as applicable.

The BLRT Extension project alternative selected by the Council accordingly does not result in any change to current rail operations. Nor do the Council, Hennepin County Regional Rail Authority (HCRRA), the cities of Minneapolis, Golden Valley, Robbinsdale, Crystal, and Brooklyn Park, or the State have any right to interfere with the type of cargo or the routings over which the railroads choose to handle in view of the broad statutory preemptions enacted by the US Congress in the Interstate Commerce Commission Termination Act of 1995, 49 USC § 10501(b) and the Federal Rail Safety Act, 49 USC §§ 20101–20153. See *CSX Transp., Inc. v. Williams*, 406 F.3d 667 (DC Cir. 2005). (An ordinance of the District of Columbia to restrict the movement of hazardous material train operations through the city was enjoined as an undue burden on commerce and accordingly preempted by federal law.)

#### **High Hazard Freight Train Liability Insurance Gaps and Indemnity**

The Final EIS does not address the liability insurance and/or self-reserve requirements for railroads/shippers of Class 3 flammable liquids because liability requirements associated with freight rail operations are outside the scope of the federally funded BLRT Extension project. FTA and the Council have no jurisdiction over liability insurance carried by freight rail operators. However, freight rail operators will continue to respond to claims, as they do now, for claims unrelated to LRT operations.

#### **Electromagnetic Fields Created by LRT Can Impede Transit and Freight Rail Signaling**

The Council has analyzed electromagnetic fields (EMF) and electromagnetic interference (EMI) on multiple LRT projects in the Twin Cities and reviewed similar analyses by transit operators in other geographic locations. The Council anticipates the generation of electromagnetic energy at various levels in the shared-use corridor that will be caused by the LRT traction electrification system and the light rail vehicle motors. As such, the design of both of these light rail associated sources accommodates both current freight rail operation conditions and the potential for the implementation of future freight rail technology by freight rail operators in the BNSF Monticello Subdivision, including the implementation of Positive Train Control. The Council has developed a technical memorandum regarding its approach to designing systems that avoid electromagnetic energy interfering with signaling systems.<sup>1</sup> This approach is summarized below.

The design of the LRT electrification system and the light rail vehicle motors is in accordance with the METRO Light Rail Transit Design Criteria (Council, 2015) and the BLRT Extension project includes provisions to operate without interference with the LRT's own signal and communication systems. LRT startup activities will include EMI evaluation and testing to verify there are no EMI impacts on the LRT Rail Signal System from the 750-volt DC LRT power supply or catenary lines and/or other nearby utilities. Because of the proximity of freight rail in the co-location segment of the BNSF Monticello Subdivision, potential interference between LRT and freight systems will be addressed during this evaluation as well.

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<sup>1</sup> Technical memorandum from the Council to the BNSF Vice President and Senior General Counsel – Regulatory, and to the BNSF Assistant Director Public Projects. Memorandum dated May 30, 2016.

As discussed in Sections 3.2.4 and 4.7.4.1 of the Final EIS, the design of the BLRT Extension project will include safeguards in the catenary system for the BLRT Extension project to help minimize the possibility of sparking occurring in the overhead catenary wires. Electrical sparks, or arcing, occurs when there is a gap between the overhead contact wire and the vehicles pantograph. Numerous safeguards are included in the design of the BLRT Extension project to address and minimize electrical sparking. Ice cutters will be utilized to maintain positive contact between the contact wire and pantograph during winter weather. Additionally, Metro Transit will regularly inspect pantographs for grooves along the pantograph's carbon strip (as it does on its existing light rail lines), which could cause arcing. Included in the design of the BLRT Extension project to minimize arcing are contact wire gradients, which meet or exceed American Railway Engineering and Maintenance-of-Way Association (AREMA) recommendations, staggering or zig-zags of the contact wire to ensure even wear, and overlaps between power sections. Finally, the design accounts for the Occupational Safety and Health Administration (OSHA) 10-foot zone of influence, and meets or exceeds National Electrical Safety Code (NESC) requirements along the proposed shared light rail and freight rail corridor.

### **Risks of High Hazard Freight Train Operations during Construction and Operation of Bottineau LRT**

You state that BNSF currently operates in a segment of the planned BLRT Extension project route and regularly hauls high hazard flammable oil unit trains in the proposed shared rights-of-way corridor. According to our information, and as presented in Section 3.2.3, BNSF operates about four to eight trains per week. These trains generally are less than twenty cars long and carry inert materials such as construction materials (lumber and building supplies). The Council and FTA are not aware that any oil unit trains have recently traversed this section of the BNSF Monticello Subdivision.

Responses to your specific comments are as follows:

#### 1. Construction Site Impediments and Drainage

The Council will require the contractor to monitor the track structure and geotechnical conditions, including site conditions and drainage during construction activities, to facilitate the safe passage of freight trains adjacent to the construction area. During construction, any construction activity occurring within 25 feet of the existing BNSF track will be under the control of a BNSF flagger. This flagger will review the corridor to confirm that activities and conditions allow for safe train passage adjacent to construction. Your comments also referenced concerns related to the installation of guard rail. For the BLRT Extension project, guard rail is shown at grade crossings for both freight and LRT (where other corridor protection treatment techniques are not possible) and on bridges and other structures for LRT. The risk of derailments due to snow buildup on guardrail tips has been minimized by reducing the overall quantity of guardrail on the BLRT Extension project and limiting its use to at-grade crossings, bridges, and other structures. In addition to guard rail, the BLRT Extension project will implement other freight rail safety measures including replacing existing rail with continuously welded rail and tie replacements.

## 2. Separation of Adjacent Freight and Bottineau LRT Track

The AREMA does not publish guidelines for the separation between passenger and freight rail operations. However, where the light rail alignment will be at-grade and adjacent to at-grade freight track, the minimum dimension between centerline of LRT track and freight track will be 25 feet.

## 3. Operation Times and Speed Restrictions

Train operations can be permitted to pass through the BLRT Extension project construction area 24 hours a day. However, current freight service only occurs four to eight times per week and only during the day. As noted above, these trains generally carry lumber and other construction materials. The Council will require the contractor to monitor the track structure and geotechnical conditions, including site conditions and drainage during construction activities, to facilitate the safe passage of trains adjacent to the construction area.

See the response to the CARS statement “Light Rail Transit Located with High Hazard Flammable Trains is Incompatible with Public Safety” above and “Emergency Planning and Incident Response Capabilities” below for detailed information regarding rail safety. Refer also to the Final EIS Sections 3.2.4 and 4.7.4.1 for a description of emergency plans, exercises and safety measures the Council will have in place for light rail service in the vicinity of freight rail service. Specifically, the Council will work with local jurisdictions, who serve as first responders, on emergency preparedness and response plans, and the Council will conduct a comprehensive emergency preparedness exercise prior to commencing LRT operations.

### **Emergency Planning and Incident Response Capabilities**

As discussed in Section 4.7.4.1 of the Final EIS, the Council will coordinate with first responders on emergency planning and preparedness, including emergency preparedness exercises conducted prior to operation of the BLRT Extension project. The safety measures for the BLRT Extension project are detailed in Section 4.7 of the Final EIS.

The BLRT Extension project is being developed to conform to FTA’s Rail Fixed Guideway Systems; State Safety Oversight Program for Safety and Security Guidance for Recipients with Major Capital projects (Circular C 5800.1), covered under 49 CFR Part 633 – Project Management Oversight. The BLRT Extension project will be designed to meet the following minimum objectives, in accordance with FTA Guidance:

- Design for the identification, minimization, and elimination of hazards through the use of appropriate safety design concepts and/or alternative designs
- Use of fixed, automatic, or other protective safety devices, such as warning signals and devices to control hazards that cannot be eliminated
- Provide special procedures for hazards that cannot be minimized by the aforementioned devices

Further, the design and operations of the BLRT Extension project will conform to the State of Minnesota rail safety regulations that went in effect in July 2014 as part of MN Statutes Section 4, Chapter 115E.042. Key features of this legislation include the following: the preparation of

prevention plans; increased safety inspections; emergency response training; requirement to plan for emergency responses; and improving response capacity.

In order to provide and maintain safety and security related to construction and operation of the BLRT Extension project, the Council will implement the BLRT Extension project's *SSMP* (Council, 2016) and the Metro Light Rail Transit Design Criteria (Council, 2015). The purpose of the *SSMP* is to consider safety and security when designing and constructing the BLRT Extension project. The plan covers requirements for safety and security design criteria, hazard analyses, threat and vulnerability analyses, construction safety and security, operational staff training, and emergency response measures. These plans and programs also specify actions and requirements of the Council and Metro Transit Police to maintain safety and security during operation of the BLRT Extension project. In addition, the Metro Light Rail Transit Design Criteria (Council, 2015) includes design guidelines for features that will maintain safety and provide security, which will be included in the design of the BLRT Extension project. The design of the BLRT Extension project in the vicinity of freight rail facilities will be developed in accordance with the Metro Light Rail Transit Design Criteria, which includes design standards and specifications to provide security and/or enhance safety. This includes operations and maintenance safeguards to prevent LRT operational derailments, emergency guard rails where appropriate (i.e., a rail or other structure laid parallel with the running rails of the track to keep derailed wheels adjacent to the running rails), and corridor protection barriers (i.e., commonly referred to as "crash walls"; they are thick/massive barriers placed between freight rail and light rail tracks) for light rail and freight rail where either light rail or freight rail tracks are elevated above the adjacent tracks or the clearance between the centerline of the light rail tracks and the centerline of the freight tracks is less than 25 feet. In addition, where clearance between the centerline of the light rail tracks and the centerline of the freight tracks is less than 50 feet, intrusion detection to detect freight or light rail derailment will be installed, where appropriate.

See the response to the CARS statement "Light Rail Transit Located with High Hazard Flammable Trains is Incompatible with Public Safety" above for information about how the Council is implementing the BLRT Extension project's *SSMP*, establishing an LRT FLSSC, and incorporating BLRT Extension project policies and procedures in Metro Transit's *OEMP*.

Emergency vehicle access to properties and areas within the vicinity of the BLRT Extension project will be maintained. In particular, access via public roadways will be maintained by providing either at-grade, above-grade, or below-grade light rail crossings of roadways. In the few areas where existing roadway connections or driveways to properties will be affected by the BLRT Extension project, alternate roadway connections or driveways will be provided for continued emergency vehicle access (see Section 4.7.4.1 of the Final EIS). Emergency vehicle access to individual properties will also be maintained under the BLRT Extension project, either: (1) the existing vehicular access to a property will be maintained; or (2) alternate vehicular access will be provided where existing vehicular access to a property will be closed to accommodate the BLRT Extension project. In addition, access for emergency response vehicles to parks and trails will be maintained at all times during construction and operation of the BLRT Extension project in accordance with all relevant laws and standards, as appropriate. To help avoid or minimize delays to emergency vehicles at proposed at-grade light rail crossings, the Council will coordinate with emergency services providers on the identification of alternative crossing routes that will avoid the proposed

at-grade light rail crossings and the potential for delay. Additional coordination will occur through the LRT FLSSC, as described in the BLRT Extension project's *SSMP* (Council, 2016).

The Council will develop and implement a freight rail operations coordination plan that will be based on and coordinated with the BLRT Extension project's construction documents. During the BLRT Extension project's construction, the Council will continue to work closely with the railways concerning railway coordination. The Council will adopt and use the safety and construction specifications and standards of the Class 1 railways (Canadian Pacific Railway and BNSF Railway) when construction is adjacent or on railways' rights of way, in addition to all applicable OSHA Construction and other Safety Regulations. The railways' safety and construction specifications and standards are very specific and rigorous in their intent and execution. In addition, contractors' personnel, project engineering staff and Metro Transit staff and all other support staff working on or adjacent to the railways' rights of way will be required to have completed and possess valid FRA Rule 214 Roadway Worker Training Certification, e-RAILSAFE and BNSF Contractor Orientation Training. Railway flaggers will be used to control train movements through construction limits. Qualified inspectors will be used to assess the operational safety condition of the right-of-way prior to the movement of a train through areas of railway trackage that may be disturbed by excavating and excavations, pile driving, crane lifts and related activities that may impact the safety of the site and rail operations through the construction limits.

#### **Final EIS Adequacy Determination and Oversight**

Minnesota Rule 4410.2800, subp. 1, states that the Responsible Government Unit (RGU) shall determine the adequacy of the Final EIS under the Minnesota Environmental Policy Act (MEPA), unless notified by the Minnesota Environmental Quality Board (EQB), on its own initiative or at the request of the RGU, or other interested persons, that EQB will determine the adequacy. Further, EQB intervenes only if: the RGU is unable to provide an objective appraisal of the potential impacts of the BLRT Extension project; the BLRT Extension project involves complex issues that the RGU lacks the technical ability to assess; or the BLRT Extension project has multijurisdictional effects. The Council is able to provide an objective appraisal of the impacts of the BLRT Extension project and has the technical ability to assess the BLRT Extension project. Further, the Council has completed prior environmental review and adequacy determinations for regional light rail projects and has the jurisdiction to complete these actions.

<b>Comment #</b>	#7
<b>Commenter</b>	Richard E. Weicher
<b>Commenter Organization</b>	BNSF Railway

**Response**

Thank you for your comments on the METRO Blue Line Light Rail Transit (BLRT) Extension project Final Environmental Impact Statement (Final EIS). The sections below provide responses to the comments received on the Final EIS.

The Council has met on multiple occasions, beginning in October 2014, and frequently shared project information with BNSF Railway (BNSF) engineering staff as well as its passenger rail team to develop a mutual understanding of the BLRT Extension project and the needs and concerns of BNSF. Refer to the following table summarizing these interactions. The current project design reflects input provided by BNSF at those meetings. Specific examples of modifications to the design presented in the BLRT Extension project’s Draft EIS, and based on input from BNSF, include the selection of key dimensions, such as the distance between freight and LRT track centerlines; maintaining BNSF on existing embankments and bridges where possible; and the reconstruction of roadway bridges to eliminate piers that would otherwise have constrained future capacity improvements. These refinements to the design plans presented in the Draft EIS were made consistent with operational principles articulated by BNSF and shared with the Council design team. The current design locates freight and LRT alignments such that BNSF has the ability to make future capacity improvements in a configuration consistent with what can be constructed without the BLRT Extension project in place. The Council acknowledges the engineering issues identified by BNSF in its comment letter and believes that these issues can be addressed in the context of discussions regarding the design and implementation of the BLRT Extension project following the completion of the environmental review process.

The engineering details that BNSF has indicated are missing from the Final EIS are important components of the BLRT Extension project design. The Final EIS is based on a 15–30 percent level of design, which is adequate to complete environmental review. While the Council has shared available information on multiple topics consistent with this level of design, including geotechnical design based on soil borings, the BLRT Extension project design has not advanced to the point where all the questions BNSF has asked can be answered. The Council is looking forward to working with BNSF to advance the BLRT Extension project design in that portion of the BLRT Extension project that lies within the BNSF Monticello Subdivision. This coordination will include addressing the specifics of property rights; catenary system design; corridor protection design; geotechnical design, especially in areas of poor soils; construction phasing; and maintenance and operation.

## Summary of Council/BNSF Coordination on the BLRT Extension Project during Project Development

<b>Date</b>	<b>Type</b>	<b>Notes</b>	<b>BNSF Staff</b>
October 24, 2014	Meeting	Review proposed improvements on BNSF right-of-way, early project activities, permit requirements, and next steps	Assistant Director Public Projects; Manager Public Projects – Minnesota (MN), North Dakota (ND), South Dakota (SD); other technical staff
December 15, 2014	Meeting	Review feasibility of design to accommodate a potential future second track by BNSF; introduce topic of corridor protection	Assistant Director Public Projects; Manager Public Projects – MN, ND, SD; other technical staff
February 17, 2015	Communication	Letter from BNSF providing Commuter Principles and addressing potential shared use of Monticello, potential future negotiations, and initial technical comments	Assistant Vice President – Passenger Operations; Assistant Director Public Projects; Manager Public Projects – MN, ND, SD; other technical staff
March 6, 2015	Meeting	Review key design parameters; follow-up on feasibility of design to accommodate a potential future second track by BNSF; follow-up on corridor protection	Assistant Director Public Projects; Manager Public Projects – MN, ND, SD; other technical staff
April 10, 2015	Meeting	Follow-up on feasibility of design to accommodate a potential future second track by BNSF; share corridor protection design concepts and cross sections; discuss electromagnetic interference concerns with respect to signaling	Assistant Director Public Projects; Manager Public Projects – MN, ND, SD
May 1, 2015	Meeting	Review progress on LRT cross sections and layouts	Manager Public Projects – MN, ND, SD; other technical staff
June 5, 2015	Communication	Transmit overview of key design assumptions, proposed improvements on BNSF right-of-way, and agreements timeline	Assistant Vice President – Passenger Operations; Manager Public Projects – MN, ND, SD
June 12, 2015	Meeting	Review layout and cross section in southern half of corridor	Assistant Director Public Projects; Manager Public Projects – MN, ND, SD
July 10, 2015	Meeting	Review constructability considerations and pedestrian treatments at roadway/rail grade crossings	Assistant Director Public Projects; Manager Public Projects – MN, ND, SD; other technical staff

<b>Date</b>	<b>Type</b>	<b>Notes</b>	<b>BNSF Staff</b>
July 30, 2015	Meeting	Review proposed improvements on BNSF right-of-way; discuss corridor protection options; review timeline and schedule	Assistant Vice President – Passenger Operations; Assistant Director Public Projects; Manager Public Projects – MN, ND, SD; other technical staff
August 5, 2015	Communication	Letter from BNSF providing Commuter Principles and stressing importance of protecting current and future freight mobility, including a potential future second track	Assistant Vice President – Passenger Operations
August 19, 2015	Meeting	Follow-up on constructability considerations and pedestrian treatments at roadway/rail grade crossings	Assistant Director Public Projects; other technical staff
September 3, 2015	Communication	Letter to BNSF noting the importance of BNSF to achieving the Twin Cities goals, acknowledging receipt of Commuter Principles, and emphasizing past partnerships	Assistant Vice President – Passenger Operations
September 4, 2015	Communication	Letter to BNSF noting Council is ready to discuss how projects intend to address Commuter Principles	Assistant Vice President – Passenger Operations; Assistant Director Public Projects
September 11, 2015	Meeting	Review progress on freight and LRT track alignment and Xcel coordination; follow-up on pedestrian treatments at roadway/rail grade crossings	Assistant Director Public Projects; other technical staff
October 2, 2015	Meeting	Review progress on freight and LRT track alignment and Xcel coordination	Assistant Director Public Projects; other technical staff
October 26, 2015	Communication	Transmit Assessment of Corridor Protection Treatments Technical Memorandum in advance of meeting	Assistant Vice President – Passenger Operations
October 28, 2015	Meeting	Review proposed improvements on BNSF right-of-way, proposed corridor protection treatments, and review timeline and schedule; discuss BNSF priorities, issues, and concerns related to LRT project and protecting current and future freight mobility	Vice President and Senior General Counsel – Regulatory; Assistant Vice President – Passenger Operations; General Attorney; Assistant Director Public Projects
November 6, 2015	Meeting	Review Xcel west side alignment, typical sections, and clearances	Assistant Director Public Projects; other technical staff

<b>Date</b>	<b>Type</b>	<b>Notes</b>	<b>BNSF Staff</b>
December 14, 2015	Communication	Transmit Technical Position Statement summarizing Council's understanding of technical conversations, articulating principles for shared corridor use, and seeking confirmation of key technical assumptions in advance of meeting	Assistant Vice President – Passenger Operations; Assistant Director Public Projects
December 17, 2015	Meeting	Review Technical Position Statement, key issues, and schedule	Vice President and Senior General Counsel – Regulatory; Assistant Vice President – Passenger Operations; Director Suburban Services; Senior General Attorney; General Attorney; Assistant Director Public Projects
January 15, 2016	Conference Call	Review draft framework for an Engineering Agreement to reimburse BNSF for staff expenses	General Attorney; Assistant Director Public Projects
January 25, 2016	Meeting	Review BNSF priorities, issues and concerns related to LRT project and protecting current and future freight mobility	Vice President and Senior General Counsel – Regulatory; Assistant Vice President – Passenger Operations; Director Suburban Services; Senior General Attorney; General Attorney; Assistant Director Public Projects
February 12, 2016	Meeting	Feedback on Corridor Protection Treatment Technical Memorandum and Technical Position Statement; discuss electromagnetic interference	Assistant Director Public Projects; General Attorney
March 4, 2016	Communication	Transmit Principles of Collaboration with the Freight Railroad seeking to guide development of a mutually beneficial cooperative relationship	Vice President and Senior General Counsel – Regulatory
March 8, 2016	Meeting	Discuss Principles of Collaboration	Vice President and Senior General Counsel – Regulatory
March 10, 2016	Conference Call	Review geotechnical recommendations to address locations of poor soil	Assistant Director Public Projects; other technical staff
April 4, 2016	Communication	Transmit letter addressing BNSF concerns related to protecting current and future freight mobility	Vice President and Senior General Counsel – Regulatory
April 5, 2016	Communication	Transmit letter addressing BNSF concerns related to proposed corridor protection treatments	Vice President and Senior General Counsel – Regulatory

<b>Date</b>	<b>Type</b>	<b>Notes</b>	<b>BNSF Staff</b>
April 22, 2016	Meeting	Discuss BNSF concerns related to protecting current and future freight mobility; review proposed light rail project improvements	Vice President and Senior General Counsel – Regulatory; Assistant Vice President – Passenger Operations; Director Suburban Services; Senior General Attorney; General Attorney; Assistant Director Public Projects; General Director for Federal Government Affairs; Regional Assistant Vice President State Government Affairs; Regional Director Public Affairs
May 6, 2016	Communication	Transmit draft Memorandum of Understanding outlining intent to enter into negotiation of definitive agreements upon receipt of Record of Decision on the Final EIS	Vice President and Senior General Counsel – Regulatory
May 30, 2016	Communication	Transmit Design of LRT to Mitigate Electromagnetic Interference Technical Memorandum	Vice President and Senior General Counsel – Regulatory, Assistant Director Public Projects
August 9, 2016	Communication	Letter to BNSF addressing status of upcoming meetings	Vice President and Senior General Counsel – Regulatory
August 25, 2016	Communication	Letter from BNSF addressing status of upcoming meetings	Vice President and Senior General Counsel – Regulatory
September 7, 2016	Communication	Letter to BNSF addressing status of upcoming meetings	Vice President and Senior General Counsel – Regulatory

### **Regarding Shared Use of Existing BNSF Right-of-Way**

FTA and the Council acknowledge BNSF statement that currently there are no agreements in place to operate the BLRT Extension project as described in the BLRT Extension project's Final EIS and Record of Decision (ROD). Such agreements must be in place prior to receiving federal funding for the BLRT Extension project. Agreements related to the transfer of freight rail property rights will be negotiated as part of the BLRT Extension project's acquisition process. Those agreements will be negotiated and executed after FTA issues the BLRT Extension project's ROD, as required by law. Currently, the Council anticipates developing three such agreements for access to, construction activities in, and shared-corridor use of the Monticello Subdivision that will be required to construct and operate the BLRT Extension project adjacent to BNSF freight operations. The nature and form of any transfer of rights by BNSF for the construction and operation of the BLRT Extension project remains to be determined. The Council acknowledges that any such transaction must provide adequate provisions to enable BNSF to fully utilize its remaining right-of-way for permanent freight operation, with adequate capacity to safely meet freight shipper demand. The negotiations for this transaction will also address BNSF's capacity to meet future freight shipper demand.

### **Regarding the Freight Rail Study Area**

The physical changes to the BNSF Monticello Subdivision will not disrupt overall BNSF freight operations. During construction, freight rail operations could be maintained 24 hours a day. After the completion of construction, the 7.8-mile segment of the Monticello Subdivision will be left in a better condition than it is in today, with new track, ties, and ballast over the majority of the corridor. The ability of BNSF to expand its freight capacity in the corridor will be maintained as well. The BLRT Extension project will not physically affect the Monticello Subdivision connection to the rest of the Twin Cities freight rail system via the BNSF Wayzata Subdivision, and will not have any downstream or upstream impacts on freight rail traffic.

### **Regarding the Financial Analysis and Evaluation of Alternatives**

The assumptions regarding the cost of the BLRT Extension project as presented in the Final EIS include estimates for compensation BNSF would receive for a shared use arrangement. As with all components of the BLRT Extension project, estimates were developed using industry standard engineering and property valuation estimating methods for projects at the 15–30 percent level of design. In the case of property acquisitions, qualified appraisers and other right-of-way professionals developed cost estimates for easements; these estimates were included in the overall project cost estimate.

As noted above, agreements related to ownership of rights of way will be negotiated and executed after the issuance of the ROD. The National Environmental Policy Act (NEPA) prohibits the acquisition of property, the development of third party binding agreements, and the compensation for shared use agreements prior to the completion of the environmental review process or issuance of a ROD. Therefore, the Council cannot engage in property negotiations or execute agreements prior to the completion of the NEPA process and is prohibited from disclosing individual property value estimates and undertaking negotiations with property owners.

### **Regarding the Overhead Catenary**

The Council anticipates the generation of electromagnetic energy at various levels in the shared-use corridor that will be caused by the LRT traction electrification system and the light rail vehicle motors. The Council has the same goal as BNSF in ensuring electromagnetic energy does not affect signaling systems. The Council has shared its approach, summarized below, with BNSF in a technical memorandum<sup>2</sup> and is ready to address any questions from BNSF.

The design of both of these light rail associated sources accommodates both current freight rail operating conditions and potential future freight rail technology in the Monticello Subdivision, including Positive Train Control. The design of the LRT electrification system and the light rail vehicle motors is in accordance with the Metro Light Rail Transit Design Criteria (Council, 2015) and the BLRT Extension project includes provisions to operate without interference with the LRT's own signal and communications systems. LRT startup activities will include EMI evaluation and testing to verify there are no EMI impacts on the LRT Rail Signal System from the 750-volt DC LRT power supply or catenary lines and/or other nearby utilities.

Because of the proximity of freight rail in the BNSF Monticello Subdivision, potential interference between LRT and freight systems will be addressed as well. Additional coordination with BNSF regarding grounding and stray current design details and testing will be addressed in construction documents and in agreements between the Council and BNSF that will be negotiated and executed after the publication of the ROD.

Testing will be performed at various stages of construction of the system to provide assurance the system is performing properly and meeting specifications with regard to grounding and stray current. The results of this testing will be made available to BNSF.

### **Regarding Corridor Protection**

As discussed in Section 3.2.4.1 of the Final EIS, three corridor protection treatments have been proposed; these include a ditch, a retained embankment option, and a wall. The Council prepared, shared, and discussed with BNSF a technical memorandum summarizing both its review of available information and the proposed treatments. As summarized in the table presented above, corridor protection was the subject of discussion in eight of the meetings or correspondences starting with the December 15, 2014 meeting with the BNSF Assistant Director Public Projects and other technical staff, and most recently in a letter dated April 5, 2016, to the BNSF Vice President and Senior General Counsel – Regulatory. BNSF has shared its Commuter Principles with the Council; these principles have been used by the Council to inform BLRT Extension project designs. The Council has communicated with BNSF its approach to addressing the principles in a letter dated September 4, 2015 to the BNSF Assistant Vice President of Passenger Operations.

These proposed corridor protection treatments, as noted in the Final EIS, were developed based on input from BNSF and a thorough review of potential treatments to minimize the likelihood of a derailment obstructing operations of an adjacent track. This included review of available

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<sup>2</sup> Technical memorandum from the Council to the BNSF Vice President and Senior General Counsel – Regulatory, and to the BNSF Assistant Director Public Projects. Memorandum dated May 30, 2016.

technical reports, applicable industry standards, and treatments on other similar corridors throughout the country, as well as conversations with industry experts. Available data and research, despite limitations, provides some insight into the likelihood of a derailment obstructing operations of an adjacent track at various track separation distances. The overall risk that both a derailment occurs and the dispersion of rolling stock obstructs an adjacent track remains low given reasonable assumptions related to current and anticipated future freight and LRT operations. The Council has shared its review of available information with BNSF in an October 26, 2015, letter to the BNSF Assistant Vice President of Passenger Operations.

In light of these considerations, the Council proposed the three treatments of ditch, retained embankment, and wall. These treatments combine horizontal separation, vertical separation, and other physical means that aim to minimize remaining risks associated with a possible derailment and to achieve safe freight and passenger operations. Together these improvements seek to minimize the dispersion of rolling stock in the event of a derailment. In addition, the Council has proposed the use of intrusion detection and emergency guardrail at select locations. The selection of which of the potential treatments to use, as reflected in the Final EIS design plans and as shared in meetings and via communications with BNSF, was made based on the context of the corridor. The Council will work cooperatively with BNSF to engage in further analysis and refinement of the proposed design as the BLRT Extension project advances through Engineering (the next phase of FTA's Capital Investment Grant program).

FTA and the Council agree with BNSF that additional analysis is necessary, and the Council will include more detailed analysis of corridor protection treatments in the Engineering phase of the BLRT Extension project. With respect to the corridor protection barrier and retained embankment, the current design accounts for impact forces and reflects best practices in AREMA Manual for Railway Engineering and in limited applications in other corridors across the country. The Council is not aware, nor has BNSF made the Council aware, of any governmental safety regulatory body authorized to provide additional oversight and confirmation of design safety. The Council is amenable to outside review by qualified third parties and remains open to exploring outside validation of the Council's corridor protection design. The Council is looking forward to working with BNSF on the process of design review and approval in order to arrive at a mutually acceptable final corridor protection design.

#### **Regarding Bridges and Soil Stabilization**

With the permission of BNSF, the Council has collected significant data regarding soil conditions in the corridor and has shared that data with BNSF. The results of this effort have informed the Council's potential engineering solutions to address areas where poor soils have been identified. The engineering solutions being considered would provide a stable platform for LRT infrastructure and reconstructed freight rail facilities. FTA and the Council acknowledge the extensive experience that BNSF has operating freight rail in the corridor. The Council anticipates that this experience will be very useful as BNSF and the Council coordinate on the final design and construction of the BLRT Extension project.

The effect of the construction and operation of the BLRT Extension project on the need for additional inspections and maintenance of transportation assets in the corridor will be considered during the development of future agreements between the Council and BNSF.

### **Overriding Freight Rail Mobility and Fluidity Issues**

As noted in the Southwest LRT (METRO Green Line Extension) ROD (see Attachment D of that document, page D-106) the Council has reviewed the Target Field area and confirmed that the Southwest LRT project will not impact fluidity or capacity of freight traffic on the BNSF Wayzata Subdivision if future transit projects are constructed in that vicinity. As noted in the response above regarding the freight rail study area, the BLRT Extension project can allow for freight movement on the Monticello Subdivision 24 hours a day during construction. The completion of the BLRT Extension project will provide BNSF with an improved freight rail corridor. Additionally, the BLRT Extension project will not physically alter or affect the BNSF Monticello Subdivision connection with the BNSF Wayzata Subdivision.