

Attachment 3: Master Responses to Comments Received on the Supplemental Draft EIS

Master Responses to Comments Received on the Supplemental Draft EIS

MR ID ^a	Topic	Master Response	Original Comment Number
1	Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail co-location	<p>The Southwest Transitway Scoping Process did not initially include the analysis of freight rail changes (either relocation of freight rail to the MN&S Spur or co-location of freight rail and light rail in the Kenilworth Corridor), because at that time potential freight rail modifications were not considered part of the Project. Prior to 2011, freight rail relocation out of the Kenilworth Corridor was the subject of separate action being undertaken by Hennepin County and MnDOT.</p> <p>The Project's Scoping Process began with a notice published on August 23, 2008, and publication of a notice of intent in the EQB Monitor on September 8, 2008, and the Federal Register in September 23, 2008. The Scoping comment period ended on November 7, 2008. The Project conducted three formal public hearings and one agency meeting where written comments were received and where verbal comments were recorded. A Scoping Booklet was published that explained the EIS process (including the Scoping Process, how to comment, which agencies were involved, and how to stay involved after the Scoping Process). Exhibits at the scoping meetings explained the Scoping Process in more detail, the alternatives that were under consideration, and the upcoming EIS process. Approximately 250 people attended the three Scoping public hearings and comments were received from 295 individuals, groups, and agencies during the Scoping period.</p> <p>During the Project's Scoping comment period, the City of St. Louis Park requested, in their October 14, 2008, letter that HCRRA ensure that issues associated with the potentially rerouted freight rail through the City of St. Louis Park, including identification of funded mitigation measures to address associated adverse impacts, be included within the Project's EIS. At that time, the potential freight rail relocation was considered a separate, disconnected action from the Southwest Transitway project due to its history. As such, HCRRA responded to the City of St. Louis Park and stated that impacts and mitigation associated with the relocation of the freight rail line in St. Louis Park were part of an independent study being undertaken by MnDOT and Hennepin County (See Appendix J(2) and Appendix K of the Scoping Summary Report for the City's comment letter and HCRRA's response, respectively). In response to similar comments from other jurisdictions and individuals, the Scoping Summary Report similarly noted that the potential relocation of the freight line St. Louis Park was outside the scope of the Southwest Transitway Draft EIS. The documentation of the Project's Scoping Process, including comments received and responses to those comments, was published in the Southwest Transitway Scoping</p>	1, 42, 47, 66, 74, 83, 112, 131, 133, 205

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		<p>Summary Report in January 2009 (see Appendix C of the Final EIS for instruction on how to access that report).</p> <p>While the relocation of freight trains onto the MN&S Spur and Wayzata Subdivision was considered to be a separate action not connected to the Southwest Transitway Project and would, therefore, be outside the scope of the Southwest Transitway EIS (see Section 5.3 of the Southwest Transitway Scoping Summary Report), nonetheless, comments on freight rail relocation and co-location were received from agencies and the public and were accepted by HCRRA and are documented in Appendix J of the Southwest Transitway Scoping Summary Report. As previously noted, HCRRA responded to those comments (Appendix K) by stating freight rail relocation was considered part of an independent study by MnDOT and Hennepin County.</p> <p>During and prior to the Scoping Process for the Southwest Transitway, HCRRA and MnDOT, in cooperation with the City of St. Louis Park, were conducting an evaluation to determine the preferred permanent home for freight rail operations using the Kenilworth Corridor. In addition, HCRRA, in cooperation with MnDOT and the City of St. Louis Park, also conducted an analysis of seven alternatives for co-location of freight rail and light rail operations in the Kenilworth Corridor (Kenilworth Corridor – Analysis of Freight Rail/Light Rail Transit Co-Existence; HCRRA, December 2010).</p> <p>In June 2010, the St. Louis Park City Council passed Resolution 10-071, which requested that the HCRRA reanalyze the potential routes in the TCWR Freight Rail Realignment Study, 2009 in greater detail. The St. Louis Park City Council also requested that the HCRRA conduct an analysis of routing both freight rail and light rail in the Kenilworth Corridor. In response to this request, the HCRRA, in partnership with MnDOT, the City of St. Louis Park, and the affected private freight railroads, began an Environmental Assessment Worksheet (EAW) on the MN&S freight rail study. The purpose of the EAW was to provide an analysis and overview of the potential environmental impacts for the proposed freight rail project and to assist MnDOT (the RGU) in determining if there would be any significant impacts from the proposed freight rail project that would require the preparation of an Environmental Impact Statement. In May 2011, MnDOT and HCRRA issued notice of availability for the Environmental Assessment Worksheet for the MN&S Freight Rail Study in St. Louis Park and Minneapolis, and they conducted a public open house on the EAW on June 8, 2011. The comment period on the EAW concluded on June 15, 2011. On June 30, 2011, MnDOT issued a negative declaration regarding the need for an environmental impact statement for the proposed freight rail project.</p>	

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		<p>In its September 2, 2011 letter to the Council approving the entry into Preliminary Engineering, FTA directed the Council to analyze impacts of relocating freight rail as part of the Project's EIS. Additionally, in response to public comments received on the Scoping Process for the Southwest Transitway, FTA requested that the EIS also include an alternative that would co-locate freight rail and light rail in the Kenilworth Corridor to meet the requirement under 40 C.F.R. 1502.14(a). In response, on September 25, 2012, HCRRA amended the Southwest Transitway Scoping Summary Report (which serves as the Scoping Decision Document under MEPA) to include the impacts of relocating freight rail for each of the build alternatives, and for a co-location alternative in which freight rail, light rail and the commuter bike trail would be co-located between Louisiana Avenue and Penn Avenue. The amendment was authorized with approval of Board Action Request 12-HCRRA-0049. Notice of the amendment to the scoping report was issued in the EQB Monitor on October 15, 2012. Further, MnDOT vacated the MN&S Freight Rail Study EAW that identified and evaluated freight rail relocation alternative on December 20, 2011. While it is true that at the Scoping meetings in 2008 HCRRA may have noted that the freight rail relocation effort was part of an independent study not connected to the Southwest Transitway, subsequent to the Scoping Process, FTA and the Council considered the written and verbal testimony summarized in the Scoping Report. In summary, the Scoping Process for the Southwest Transitway Project met MEPA requirements (Minnesota administrative rule 4410.2100) and NEPA requirements (40 CFR 1501.7).</p> <p>After the close of the Draft EIS public comment period in December 2012, the Council assumed local lead agency responsibility for the Project from Hennepin County. As previously noted and described in Section 2.2 and Appendix F of the Final EIS, the Council developed and evaluated a range of design adjustments as a result of comments received on the Draft EIS, including those related to freight rail relocation and co-location. The design adjustment process included a four-step process to develop and evaluate adjustments to LRT 3A and LRT 3A-1 directly related to the following: (1) whether TC&W freight trains currently operating along the Kenilworth Corridor should be rerouted to sections of the MN&S Spur and Wayzata Subdivision; or (2) whether the TC&W freight trains should continue to operate along the Bass Lake Spur and Kenilworth Corridor as they currently do. As part of the design adjustment process, the Council held four workshops in June and July 2013 addressing the location of freight rail as part of the Southwest LRT Project. The Council received over 400 comments during and after these workshops. Based on the analysis, committee recommendations, and public comments received during the design adjustment process, the Council identified in April 2014 the design adjustments to be incorporated into the Project, which would allow for the co-location of light rail and freight rail in the Kenilworth Corridor. The Council found, that relative to the other options considered, the Shallow LRT Tunnel – Over Kenilworth Lagoon (i.e., LRT 3A-1 – co-location) design adjustment would best balance</p>	

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		costs, benefits, and environmental impacts, and best meet the Project's Purpose and Need. The Council and FTA published a Supplemental Draft EIS in May 2015 that documented the design adjustments to the Project, with the co-location of freight rail and light rail in the Kenilworth Corridor. Three public hearings on the Supplemental Draft EIS in June 2015 provided additional opportunity for public input. Appendix M of the Final EIS documents the comments received on the Supplemental Draft EIS and responses to those comments.	
2	Project sought municipal consent prior to the publication of the Supplemental Draft EIS	Minnesota law does not require the Council to publish any particular Draft EIS prior to participating in the municipal consent process. Municipal consent is a process, entirely separate from environmental review, which is required to be completed under Minn. Stat. § 473.3994. Under this process, the Council must provide the physical design component of the preliminary design plans for the Project to municipalities and the county in which the route is proposed to be located and all such entities hold public hearing(s) regarding those plans within their boundaries. The municipalities and county then have the opportunity to review and approve the plans or disapprove the plans. The United States District Court for the District of Minnesota has concluded that the Minnesota law does not require that a Draft EIS or Supplemental Draft EIS must be provided before initiating the municipal consent process. <i>Lakes and Parks Alliance of Minneapolis v. Metropolitan Council</i> , Civ. No. 14-3391 JRT-SER, ___ F. Supp. 3d ___, 2015 WL 4635934 at *13-14 (D. Minn. Aug. 4, 2015).	1, 66, 124, 149
3	General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor	<p>The 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 Project will be designed to meet the following minimum objectives, in accordance with FTA guidance:</p> <ul style="list-style-type: none"> • 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 <p>Further, the design and operations of the Project will conform to the State of Minnesota rail safety regulations that went into 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</p>	1, 7, 37, 38, 43, 44, 50, 51, 56, 57, 58, 59, 61, 66, 68, 69, 78, 81, 82, 83, 101, 103, 116, 117, 119, 143, 149, 171, 189, 196, 203, 214

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		<p>responses; and improving response capacity. The full requirements are shown in response to comment number 196.</p> <p>In order to provide and maintain safety and security related to construction and operation of the Project, the Council will implement the Project’s Safety and Security Management Plan (SSMP) (Council, 2014) 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 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 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 Project. The design of the 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.</p> <p>During construction, some trails and sidewalks may be detoured either on a signed route on other trails/roadways or on a temporary facility built to re-route pedestrian and bicycle traffic around an obstruction, in order to maintain safety of park and trail users. This includes the Kenilworth Trail, and the trails and sidewalks that provide access to East Cedar Lake Beach, Cedar lake Park, and Lake of the Isles Park.</p> <p>Specific mitigation strategies for short-term impacts related to construction activities will be identified in the Construction Mitigation Plan, which includes a Construction Communication Plan and construction staging plan. The Construction Mitigation Plan and its components will be implemented by the Council prior to and during construction. The purpose of the Construction Communication Plan is to prepare Project-vicinity residents, businesses, and commuters for</p>	

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		<p>construction; to listen to their concerns; and to develop plans to minimize harmful or disruptive effects. Strategies may include:</p> <ul style="list-style-type: none"> • Issue construction updates and post them on the Project website • Provide advance notice of roadway closures, driveway closures, and utility shutoffs • Conduct public meetings • Establish a 24-hour construction hotline • Prepare materials with applicable construction information • Address property access issues • Assign staff to serve as liaisons between the public and contractors during construction <p>The Construction Communication Plan will include coordination with the park owners, advance notice of construction activities, highlighting road, sidewalk, and trail closures and detour routes. Mitigation measures for short-term (construction) impacts to roadways, traffic, and pedestrian facilities (such as trails) will be implemented by the Council prior to and during construction through the Construction Mitigation Plan, which includes strategies to maintain safety. In addition, Contractors will be required to comply with all guidelines established in the Minnesota Manual on Uniform Traffic Control Devices (2015), which conforms to industry standards for the design and operations of pedestrian and bicycle facilities. The Council will also develop and implement freight rail coordination plans. The purpose of these plans is to facilitate coordination between the Project and the affected freight railroads during construction activities affecting freight rail operations. As part of this effort, Council staff will also work with affected freight rail owners and operators to provide provisions in the construction contract to identify how the contractor will interact with the railroads. Further, Council staff will work with affected freight rail owners and operators to sequence construction to minimize effects on freight movements and to identify optimal periods for closing the rail service and reducing speeds. Dates and times for all stoppages will be determined through coordination with the railroad owners and operators.</p> <p>Multiple commenters have expressed concern over potential safety issues related to the possibility of sparking electrical currents from LRT overhead catenary wires igniting explosive freight cargo, in areas where the Project will include LRT operations within the vicinity of freight rail facilities.</p> <p>It is not uncommon practice for electrified railroads to be aligned adjacent to freight rail corridors and Council staff have surveyed several transit properties that operate in those conditions, highlighting safeguards that they have implemented as best management practices. Safeguards that are consistent with nation-wide best management practices identified in that survey will be implemented by the Council to ensure that the Project is designed and operated safely adjacent to</p>	

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		<p>freight rail alignments, including measures to address concerns raised about the issue of sparking of the catenary along the corridor adjacent to freight rail.</p> <p>One such safeguard is that the catenary system is designed to 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 vehicle pantograph. Ice cutters are utilized to maintain positive contact between the contact wire and pantograph during winter weather. Additionally, Metro Transit regularly inspects pantographs for grooves along the pantograph's carbon strip, which could cause arcing. Included in the design of Southwest LRT to minimize arcing are contact wire gradients which meet or exceed 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 OSHA 10-foot zone of influence, and meets or exceeds National Electrical Safety Code (NESC) requirements along the shared LRT and Freight corridor.</p> <p>The protective design features identified above promote safe and independent light rail and freight operations in their respective alignments and in the shared corridor and addresses the potential for freight rail interference with light rail electrical systems.</p> <p>Under the Project, emergency vehicle access to properties and areas within the vicinity of the 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 Project, alternate roadway connections or driveways will be provided for continued emergency vehicle access (see Section 4.6.3.1). Emergency vehicle access to individual properties will also be maintained under the 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 Project. In addition, access for emergency response vehicles to parks and trails will be maintained at all times during construction and operation of the Project in accordance with all relevant laws and standards, as appropriate.</p> <p>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 Fire Life Safety and Security Committee (LRT FLSSC), as described in the Project's SSMP (Council, 2014).</p> <p>In addition, the Council maintains an emergency preparedness exercise plan, in compliance with the SSMP. The emergency preparedness exercise plan identifies emergency preparedness exercises, which will be carried out by the LRT FLSSC. In advance of operation of the Project, a</p>	

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		<p>number of drills will be planned, conducted, and documented in the emergency preparedness exercise plan. Emergency preparedness training exercises will be designed to address areas such as rail equipment familiarization, situational awareness, passenger evacuation, coordination of functions, communications, and hands-on instruction. The LRT FLSSC will coordinate training exercises with the Council and the freight railroad owners and operators, as appropriate. During normal revenue service, the LRT FLSSC will coordinate training exercises to evaluate emergency preparedness. The exact nature of emergency preparedness exercises will be developed in coordination with the LRT FLSSC prior to construction, but could include one tabletop and one full-scale emergency preparedness exercise, annually.</p> <p>As shown in the <i>Kenilworth Shallow LRT Tunnel Basis of Design Report</i>, appropriate sheet piling and bracing will be designed to safely support the open excavation for light rail tunnel construction as well as to support adjacent freight infrastructure. Other construction safeguards such as horizontal and vertical movement and settlement monitoring of both existing freight rail infrastructure and light rail tunnel support of excavation will be used as construction of the tunnel progresses. Monitoring data will be collected and analyzed by construction staff and coordinated with railroad operations staff to verify that safe freight rail operations can be maintained through the construction area at all times.</p> <p>The Council will develop and implement a freight rail operations coordination plan that will be based on and coordinated with the Project's construction documents. During the 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 (CP) 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.</p> <p>See sections 4.4.4.3 and 4.4.5.2 of the Final EIS for additional information on short-term impacts and mitigation measures. Under the Project, the Federal Railroad Agency (FRA) will maintain</p>	

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		jurisdiction over the existing freight rail within the Kenilworth Corridor. The FRA is the federal agency with jurisdiction over railroad safety.	
4	Concern about inadequate evaluation of potential impacts to the Grand Rounds Historic district	<p>Section 3.5 of the Final EIS includes the Project's cultural resources analysis which was conducted under Section 106 of the National Historic Preservation Act and assesses the Project's anticipated effect on eligible historic properties. FTA, the Council, and MnHPO, in coordination with other consulting parties, have documented the adverse effect in the <i>Section 106 Assessment of Effects for Historic Properties</i> (see Appendix H) and have concluded that the Project will have an adverse effect on the Kenilworth Lagoon, which is a contributing element of the Grand Rounds Historic District.</p> <p>In addition, as part of the Section 106 consultation process, FTA and the Council have included mitigation measures in a <i>Section 106 Memorandum of Agreement</i> (MOA) for the Project (see Appendix H). As described in Section 3.5, measures to avoid, minimize, and mitigate the adverse effect on the Lagoon and the historic district were reviewed and coordinated with MnHPO and consulting parties, including MPRB, KIAA, and CIDNA. These measures are summarized below.</p> <ul style="list-style-type: none"> • Install a parapet wall and rail damper on the LRT bridge over the waterway to mitigate the moderate noise impact at the Kenilworth Lagoon. • Rehabilitate/Reconstruct WPA Rustic Style Retaining walls to minimize and mitigate adverse effects. • Design Project elements within and adjacent to the Grand Rounds Historic District in accordance with the SOI's Standards (36 CRF 68), to be reviewed by the MnHPO and consulting parties, to further minimize adverse effects. • Develop a Construction Protection Plan detailing the measures to be implemented during Project construction to avoid adverse effects. • Prepare guidance for future preservation activities within the portion of the GRHD: Canal System, including adjacent parkland, extending from the north end of Lake Calhoun to the east end of Cedar Lake, and including the entirety of the Lake of the Isles Park and Kenilworth Lagoon elements (Attachment D). The plans shall be prepared in accordance with the SOI's Standards (36 CFR 68); the SOI's Standards for Preservation Planning; the NPS's Guidelines for the Treatment of Cultural Landscapes, Preservation Briefs and Tech Notes. <p>As documented in the Project's <i>Section 106 MOA</i>, the Kenilworth Channel/Lagoon will be temporarily closed and detoured during construction. Best Management Practices (BMPs) will be developed and implemented during removal of the existing bridges and construction of the new bridges across the channel. Refer to Chapter 6 for the Final Section 4(f) Evaluation for the Project that also addresses this Section 106 determination of adverse effect.</p>	7, 76

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5	Concern over the potential for the Project to eliminate the proposed Penn Station	The proposed Penn Station will be constructed as part of the Project. The proposed Penn Station is described in Section 2.1 of the Final EIS and illustrated in the Project's Preliminary Engineering Plans (see also Appendix E of the Final EIS).	27, 29, 64
6	Freight rail operations should not be considered an existing condition and should be excluded from the baseline data	<p>These comments relate to the permanency of freight rail in the Kenilworth Corridor and state that the Project is making freight rail a <i>permanent</i> condition, where it previously was considered a temporary condition, therefore these comments state that environmental consequences of freight rail operation should be analyzed as a <i>new</i> condition within the Project's definition. Pursuant to NEPA regulation and guidance (<i>Council on Environmental Quality, Forty Most Asked Questions Concerning CEQ's NEPA Regulations [1981]</i>), all analyses were conducted using the current existing conditions or a "no-action alternative" (commonly referred to as the No Build Alternative) as the baseline from which to measure potential impacts. The purpose of a baseline condition (or the No Build alternative) assessment under NEPA is to provide policymakers and the public a benchmark against which to measure the environmental consequences of the future condition (see <i>Custer County Action Association v. Garvey</i>, 256 F.3d 1024, 1040 (10th Cir. 2001); 46 Fed. Reg. 18,026, 18,027).</p> <p>This Project does not control the future disposition of freight rail operations within the Kenilworth Corridor. Freight rail service in the Kenilworth Corridor can only be terminated or vacated by the freight rail operators holding the trackage rights to operate in this segment—CP and TC&W. In addition, there are no public plans or policy documents stating the future removal of freight rail service in the Kenilworth Corridor. Freight rail has been in operation in the Kenilworth Corridor for nearly 20 years. Removing an existing condition from the "No Build" arbitrarily, without any substantiation, would introduce a faulty analysis framework. Freight rail operations within the Kenilworth Corridor are subject to many factors, including Surface Transportation Board regulations that govern freight rail commerce and local, regional, and national market forces that effect freight rail operations and facility development, both of which are outside of the scope of influence of the Project.</p> <p>Further, NEPA does not require that an EIS assume that current conditions "do not exist" or to "recreate" prior conditions within the baseline used to make present day development decisions <i>American Rivers V. Federal Energy Regulatory Commission</i>, 201 F.3d 1186, 1199-1201 (9th Cir. 2010). Further, a court may overturn an agency's definition of the "no action alternative" only if there is evidence that the actual "existing conditions" are different than the conditions analyzed in the environmental review <i>Cent. Sierra Env'tl. Res. Ctr.</i>, 916 F. Supp.2d 1078, 1091 (E.D. Cal. 2013).</p>	45, 65, 67, 74, 76, 78, 102, 116, 117, 143, 196

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		<p>An agency's no-action alternative NEPA analysis can be found invalid if it improperly defines the baseline (<i>Friends of Yosemite Valley v. Kempthorne</i>, 520 F.3d 1024, 1038 (9th Cir. 2008), <i>Cent. Sierra Envtl. Res. Ctr</i>, 916 F.Supp.2d at 1090-1091, however, the courts will defer to the agency's decision-making processes if reasonable and consistent with the application of the law. (916 F. Supp. 2d at 1091 (citing <i>Citizens to Preserve Overton Park, Inc. v. Volpe</i>, 401 U.S. 402, 415 (1971), <i>Akiak Native Cmty. v. U.S. Postal Serv.</i>, 213 F.3d 1140, 1146 (9th Cir. 2000))).</p> <p>The Project definition does not include freight rail operations in the Kenilworth Corridor as a condition of the Project, since freight rail operation is analyzed under the No Build baseline. Furthermore, the permanency of freight rail operations in the Kenilworth Corridor is outside the scope of this Project. The Project is making minor infrastructure modifications to freight rail for very limited areas, mainly to facilitate the movement of light rail transit. As noted in Section 5 of the trackage rights agreement between CP/TC&W and Hennepin County Regional Railroad Authority, terminating or vacating the freight rail service along the Kenilworth Corridor is to be decided by the freight rail operators at their discretion, whenever a feasible alternative route is made available for their operation. Neither the FTA nor the Council can facilitate freight rail service in the Kenilworth Corridor on a temporary or permanent basis.</p>	
7	Concerns related to vibration impacts from LRT tunnel construction	<p>As described in Section 3.13.3 of the Final EIS, the Project will not result in long-term vibration impacts. The Project will result in short-term vibration impacts during construction in some locations. In order to minimize the impact of construction vibration, high-vibration activities, such as impact pile driving and vibratory rolling, will be limited and alternate construction methods with lower vibration levels will be utilized, where appropriate. To mitigate vibration impacts from construction activities, the following measures will be applied, where feasible:</p> <ul style="list-style-type: none"> • Limit Construction Hours. Limit high-vibration activities at night. • Construction Specifications. Include limits on vibration in the construction specifications, especially at locations where high-vibration activities. • Alternative Construction Methods. Minimize the use of impact and vibratory equipment, where possible and appropriate. • Truck Routes. Use truck haul routes that minimize exposure to sensitive receptors and minimizes damage to roadway surfaces, where appropriate. 	7, 50, 52, 53, 54, 55, 60, 65, 77, 79, 100, 101, 111, 121, 124, 140, 146, 171

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		<ul style="list-style-type: none"> • Pre-Construction Survey. Perform pre-construction surveys to document the existing conditions of the structures in the vicinity of sites where high-vibration construction activities will be performed. • Vibration Monitoring. If a construction activity has the potential to exceed the damage criteria at any building, the contractor will be required to conduct vibration monitoring and, if the vibration exceeds the limit, the activity must be modified or terminated. <p>The Project will result in will result in ground-borne noise impacts at 54 units (five buildings) for residential land uses in the tunnel section south of the Kenilworth Channel without mitigation. In order to mitigate ground-borne noise impacts due to ground-borne vibration in the area of the Kenilworth Tunnel, highly resilient rail fasteners in the tunnel section (approximately 2,200 feet) will be used to eliminate ground-borne noise impacts. The fasteners will be designed to provide at least 5 dB of reduction in vibration levels at 80 Hz and higher.</p> <p>The efficacy of resilient fasteners as a mitigation measure for vibration and ground borne noise impacts has been broadly documented in the U.S. and globally. The degree of insertion loss or effectiveness of resilient fasteners is shown to be largely dependent on the degree of stiffness change between the typical fastener and the resilient fastener. Based on data obtained before and after installation of resilient fasteners, there is typically a 15dB change in insertion loss for each tenfold change in fastener static stiffness¹ and resilient fasteners have been shown (based on before and after study) to result in an insertion loss between 30 Hz - 80 Hz of approximately 14 dB.²</p> <p>The fasteners included in the Project (e.g., reduce vibration by as much as 5 to 10 dB at frequencies above 30 to 40 Hz) are at the low end of the range of vibration reductions achieved by typical resilient fasteners, and at a much higher frequency. For vibration mitigation, higher frequencies are easier to mitigate than lower frequencies, so the specifications for the fasteners required for the Project is well within the performance range of standard resilient fasteners.</p> <p>These types of fasteners are standard within the rail industry and have been in use for decades. A manufacturer of the resilient fasteners would provide evidence of the effectiveness and performance of their products, typically with a graph showing the reduction in vibration levels as a function of frequency. This information, combined with other project specifications, such as the required stiffness, would lead to a choice of a specific product to be used.</p>	

¹ Barlow, Steven C. Field Measurements of Slab Track Vibration to demonstrate the insertion loss of low stiffness rail fasteners. 2004. https://www.acoustics.asn.au/conference_proceedings/AAS2004/ACOUSTIC/PDF/AUTHOR/AC040086.PDF.

² Delkor Rail Fasteners. Company Information Brochure. Accessed April 2016. <http://www.delkorrail.com/>.

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		<p>The Project will perform pre-construction surveys to document the existing conditions of the structures in the vicinity of sites where high-vibration construction activities will be performed, including where the shallow LRT tunnel will be constructed. If a construction activity has the potential to exceed the criteria at any building, the contractor will be required to conduct vibration monitoring and, if the vibration exceeds the limit, the activity must be modified or terminated.</p> <p>Within the area of the tunnel area, the footing with the nearest proximity to the Project is encroaching on the public right-of-way by 1.5 feet. The distance from the edge of that building to the public right-of-way is 0.5 feet. The distance from the proposed LRT centerline to the nearest residential structure is 12.1 feet and the distance from the proposed LRT centerline to the nearest residential building face is 14.1 feet.</p> <p>More information about construction activities for the Project can be found in Section 2.1.1.2 of the Final EIS. Additional information on mitigation measures for short-term (construction) vibration impacts can be found in Section 3.13.4.3 of the Final EIS. Section 3.13 also includes an updated assessment of long-term vibration and ground-borne noise impacts, as well as a description of the mitigation measures that will be implemented with the Project.</p> <p>The FTA will include mitigation measures identified in the Final EIS (see Tables 3.0-1 and 4.0-1 and the mitigation sections of specific environmental and transportation categories in Chapters 3 and 4, respectively) in the Project's Record of Decision (ROD). FTA will stipulate within the ROD that mitigation measures included in the ROD must be incorporated into the Project by the Council as a condition for receipt of federal funds for the proposed Project, and cannot be reduced or removed without proper reevaluation in the form of an additional environmental review</p> <p>Refer to <i>Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor</i>, and <i>Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right</i> for additional information on other comments related to LRT tunnel construction.</p>	
8	Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor	As described in Section 3.14.2, the Kenilworth Corridor area is generally aligned within the vicinity of multiple former rail yards that have since been redeveloped with industrial/commercial properties and recreational parks and trails. This area was evaluated as part of the Phase I environmental site assessment (ESA) process, which identified one site within the vicinity of the proposed shallow tunnel in the Kenilworth and one site within the vicinity of the Cedar Lake Junction in the Kenilworth Corridor where there is a risk of encountering hazardous and contaminated materials. As part of a Phase II ESA, these sites were tested and the extent of the existing contamination was verified (refer to 3.14.2 for more information on Phase II ESAs).	39, 62, 75, 77, 81, 101, 203

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		<p>The Kenilworth Corridor is addressed in the Construction Response Action Plans (RAP) (Southwest Light Rail Transit East Segment, dated November 17, 2015). The RAP indicates that soil in the Kenilworth Corridor is characterized by “Unregulated Fill” and “Urban Fill” from West Lake Street to west of Penn Station. Unregulated fill is defined as uncontaminated material based on MPCA definitions. Unregulated fill will be managed as unrestricted reuse material both on the Project site and as excess material off-site. Urban Fill is defined as wide-spread low level contaminated material typical of historic urban/industrial areas with key indicator parameters (metals, PAHs) and debris indicating a diffuse anthropogenic origin. The majority of urban fill in the Project area also includes mixed rail bed fill material as described in the RAP. Urban fill will be managed as unrestricted reuse material on the Project site based on MPCA definitions. The urban fill will be reused in areas where it will be capped with concrete or bituminous pavement, rail guideways, structure slabs, topsoil and/or sod, depending on location. Urban fill that cannot be reused within the Project limits because of lack of capacity for reuse will be properly disposed at a permitted industrial or solid waste landfill facility.</p> <p>Two zones of soil contamination, one at either end of the Kenilworth Corridor (i.e., just west of West Lake Station on the southwest end of the Kenilworth Corridor, and in the vicinity of the Cedar Lake Junction on the northeast end of the Kenilworth Corridor), were identified and addressed in the RAP. These zones are called “discrete areas” or “outlier areas”. Discrete areas are defined in the RAP as medium to high level contaminated areas distinguishable from urban fill based on the magnitude, type and compact areal extent of detected contaminant(s) indicating a concentrated/localized “point source” origin. Outlier areas are defined as locations where contaminant levels in a single boring (with no near-by corroborating borings) exceed RAP screening criteria. The RAP states that soil excavated from discrete areas and outlier areas will be managed by being properly disposed at a permitted industrial or solid waste landfill facility. The Discrete Area at the west end of the Kenilworth Corridor (south of Lake Street and east of the Southwest LRT alignment) is designated D-E08, and includes soil contaminated with DRO (19.8 to 21,600 mg/kg), mercury (0.043 to 10.8 mg/kg) and lead (821 to 1690 mg/kg) from 0 to 20 feet below ground surface (bgs), and BaP equivalents (0 to 45.5 mg/kg) from 0 to 5 feet bgs. The Outlier Area at the east end of the Kenilworth Corridor is designated D-E09, and includes soil contaminated with DRO (non-detect to 5,600 mg/kg) from 0 to 5 feet bgs, and BaP equivalents (0 to 64 mg/kg) from 0 to 2 feet bgs. Refer to the Project’s Phase II ESA reports (see Appendix C for instructions on how to access these documents) for maps showing the location of these sites.</p> <p>In addition, two zones of groundwater contamination, one at either end of the Kenilworth Corridor (corresponding to the locations of the soil contamination described above), were identified and addressed in the RAP; groundwater throughout the remainder of the corridor was characterized as not contaminated. The contaminated zones are called “Groundwater Impact Areas”, and are</p>	

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		<p>defined as areas surrounding a groundwater sample with an analytical result that exceeded method reporting limits (except metals). The Groundwater Impact Area at the west end of the Kenilworth Corridor is designated as GW-E06, and includes groundwater contaminated with DRO (non-detect to 352 µg/L) trichloroethene (non-detect to 2 µg/L) and vinyl chloride (non-detect to 0.4 µg/L). The Groundwater Impact Area at the east end of the Kenilworth Corridor is designated as GW-E07, and includes groundwater contaminated with DRO (non-detect to 34,700 µg/L), and GRO (non-detect to 1,790 µg/L). Based on data from the Phase II ESAs, all contaminant levels detected in the Groundwater Impact Areas indicate that groundwater would be acceptable for sanitary sewer disposal without treatment. The RAP states that small volumes of potentially contaminated groundwater will be collected, tested, transported and disposed at an approved facility under conditions of the facility discharge permit; and that larger volumes of potentially contaminated groundwater discharge will preferentially be disposed into the sanitary sewer as permitted with the Publicly Owned Treatment Works (POTW) or the Metropolitan Council Environmental Services (depending on location) under conditions of the facility discharge permit.</p> <p>Long-term hazardous and contaminated materials impacts relate to the generation and storage of hazardous materials or regulated wastes. No adverse long-term hazardous or contaminated material impacts are expected as a result of the Project. This is due to the fact that operation of the light rail vehicles will not generate hazardous materials or regulated wastes. Impacts resulting from the operation of the Hopkins OMF could occur in association with accidental petroleum releases from the equipment and materials stored at the Hopkins OMF site. The long-term operation of the Hopkins OMF will include responsible management practices such as containment of hazardous materials that are used and stored onsite, consistent with applicable regulatory standards (principally Minnesota Rules Chapter 7045). The collection and disposal of oils, grease, and other waste materials generated during vehicle maintenance and repair activities will be accomplished in accordance with industry BMPs for rail transit maintenance facilities at the Hopkins OMF. A potential beneficial long-term indirect effect of properties being on or in the vicinity of proposed transit stations is that hazardous and contaminated properties may be cleaned up as redevelopment occurs.</p> <p>Short-term direct and indirect impacts typically result from earthwork or other disturbance at or in proximity to contaminated areas that might mobilize or result in the release of hazardous and contaminated materials. As described in Section 3.14.4, the Council will conduct site remediation in accordance with the Minnesota Pollution Control Agency (MPCA) Brownfield Program regulatory framework and the approved Response Action Plans (RAP) for the Project.</p> <p>It is reasonable to expect that previously undocumented soil or groundwater contamination may be encountered during construction. The Council has prepared a Construction Contingency Plan</p>	

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		<p>(CCP) to address the discovery of unknown contamination (refer to Appendix C for instructions on how to access this document). The CCP was approved by MPCA and includes outlines of procedures for initial contaminant screening; soil and groundwater sampling; laboratory testing; and removal, transport, and disposal of contaminated materials at licensed facilities. Contaminated material removal and disposal will be in accordance with this plan, monitored by qualified inspectors, and documented in final reports for submittal to MPCA.</p> <p>The costs of hazardous and contaminated material remediation (as described in Section 3.14) are included in the Project's capital cost estimate (see Chapter 7, Table 7.1-1, Site Work and Special Conditions). The capital cost estimate includes estimated remediation costs for the entire Project and does not isolate remediation costs specific to the Kenilworth Corridor.</p>	
9	Concern over potential damages to property values within the vicinity of the Project	<p>As discussed in Section 3.2.3.2 of the Final EIS, research has shown that major transit investments, such as light rail, generally increase property values, in nearby areas, even in affluent, upper middle class neighborhoods. There is the potential for an increase in property values in the areas surrounding proposed light rail stations, as light rail access can increase the convenience and desirability of nearby residential, commercial, and office properties. Light rail transit can also contribute to existing market forces that can increase the potential for transit-oriented development or redevelopment. Development and redevelopment is regulated by the cities and is predominantly driven by regional and local economic conditions and allowable land uses as defined in locally adopted comprehensive plans. However, light rail lines can advance the timing and increase the intensity of development, especially in areas near proposed stations, within the limits allowed by local comprehensive plans.</p> <p>As an example, in 1996, New Jersey Transit introduced "Midtown Direct" service, a one-seat ride to New York Penn Station on the Morris & Essex Lines. The expanded service led directly to an increase in property values of homes within walking distance of stations on the Morris & Essex line by \$90,000 more than homes farther away, after direct service to Midtown Manhattan was inaugurated in 1996 (Michaelson, 2004). Houses immediately adjacent to San Francisco's BART (south and northeast of San Francisco) sold for nearly 38 percent more than identical houses in areas not served by BART (Landis and Cervero, 1995). Residential rents decreased by 2.4 percent for every one-tenth mile further from Washington, D.C., Metro stations (Benjamin and Sirmans, 1996). Single-family homes in communities served by Boston's commuter rail were worth 6.7 percent more than similar homes in other communities (Armstrong, 1994). In Chicago, the prices of single-family houses located within 1,000 feet of stations were 20 percent higher than comparable houses located a mile away (Gruen, 1997). Median home prices in the</p>	50, 54, 124

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		<p>Philadelphia region were 10 percent higher in census tracts served by a PATCO rail line and 4 percent higher in tracts served by a SEPTA rail line (Voith, 1991).</p> <p>Light rail can have a positive impact on nearby business communities as transitways can provide a new connection for riders to access these businesses, and because pedestrian and vehicular traffic around stations and park-and-ride lots can increase. As an example, since 2009, the year before the Council's Green Line LRT (Central Corridor) construction started, the neighborhoods between the Downtown East station in Minneapolis and the Union Depot station in Saint Paul have experienced more than \$3 billion in commercial and residential development – including new construction, redevelopment, and expansion. In addition, businesses on the corridor prior to the Green Line opening reinvested in their businesses and related community efforts to create distinctive districts around the stations (http://www.metrocouncil.org/News-Events/Transportation/Newsletters/Connections-ground-businesses,-arts-on-METRO-Green.aspx).</p> <p>Light rail also has the potential to cause environmental impacts (“nuisance effects”) that could reduce the value of an area for some properties and/or lower the revenue of local businesses over the long term. These potential nuisance effects include disruptive noise levels; visual impacts; and reductions in vehicular access and parking. The rate and timing of such impacts would depend on the location of the business relative to the new station, changes in business activity during construction and operation of the system, business visibility, and local land use plans and development standards. For the Project, the potential nuisance effects are expected to be minimal.</p>	
10	Rationale for incorporating freight rail co-location into the Project	<p>The Final EIS describes the process the Council used to develop and evaluate design adjustments since completion of the Draft EIS, including potential freight rail modifications that were evaluated in the Supplemental Draft EIS. The Draft EIS evaluated two alternatives for incorporating freight rail modifications into the LPA. Under LRT 3A, TC&W freight trains currently operating on a portion of the Bass Lake Spur and in the Kenilworth Corridor would be rerouted to the MN&S Spur and Wayzata Subdivisions. Under LRT 3A-1, TC&W freight trains would continue to operate in the Bass Lake Spur and Kenilworth Corridor. LRT 3A and LRT 3A-1 are also referred to in the Draft EIS as freight rail “relocation” and “co-location,” respectively. As noted in the Draft EIS and Supplemental Draft EIS, LRT 3A and LRT 3A-1 would provide the same transit service, with differing freight rail options, therefore the LPA is incorporated within both LRT 3A and LRT 3A-1.</p> <p>After the close of the Draft EIS public comment period, the Council and FTA reviewed the comments received on the Draft EIS. Of note was the U.S. Army Corps of Engineers (USACE)</p>	74, 76, 158, 196, 211

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		<p>designation of LRT 3A-1 (co-location) as the <i>least environmentally damaging practicable alternative</i>. The FTA and Council were required to consider the co-location alternative in greater detail to satisfy the requirements under the Clean Water Act (CWA). The USACE is a cooperating agency under NEPA for the Project and must determine whether the Project complies with the CWA Section 404(b)(1) (Guidelines). The USACE stated “as proposed [in the Draft EIS] the chosen LPA, alternative LRT 3A, would not qualify as the <i>least environmentally damaging practicable alternative</i>, which as proposed would be alternative LRT 3A-1 (co-location).”</p> <p>In addition, TC&W, the freight carrier operating on the existing freight rail line within the co-location segment of the Kenilworth Corridor, expressed concern that LRT 3A (freight rail relocation) would likely result in increased costs for TC&W to operate its trains to and from shippers in greater Minnesota and result in operational issues related to track alignments, and therefore TC&W and its shippers were opposed to LRT 3A as presented in the Draft EIS. TC&W is a private freight rail operator with operating rights within the Kenilworth Corridor, granted by a Trackage Rights Agreement (TRA) executed in 1998. As described in Section 5 of the TRA, terminating or vacating the freight rail service along the Kenilworth Corridor requires agreements by either TC&W or the Canadian Pacific (Soo Line) or after a new connection between the current operating route of TC&W and the MN&S Spur becomes operational, or at such time other feasible alternative(s) satisfactory to TC&W become available and operational.</p> <p>Based on the comments received on the Draft EIS and through meetings with the public, businesses, municipalities, and other groups, the Council initiated a process to develop adjustments to the Project’s design. The design adjustment process included a four-step process to develop and evaluate adjustments to LRT 3A and LRT 3A-1 directly related to the following: (1) whether TC&W freight trains currently operating along the Kenilworth Corridor should be rerouted to sections of the MN&S Spur and Wayzata Subdivision; or (2) whether the TC&W freight trains should continue to operate along the Bass Lake Spur and Kenilworth Corridor as they currently do. Following is a brief description of the process used to develop and evaluate adjustments to LRT 3A and LRT 3A-1 (see Section 2.2 and Appendix F of the Final EIS for additional detail):</p> <ul style="list-style-type: none"> • The first step evaluation included the development of a relatively wide range of adjustments to the light rail improvements and freight rail-related modifications under the two freight rail operating scenarios (relocation and co-location), focusing on meeting key design parameters, while avoiding or minimizing adverse impacts and minimizing Project costs. Based on comments received from the public, stakeholders, and participating agencies and on various evaluation measures, the potential design adjustments were narrowed to one freight rail relocation and two co-location adjustments. 	

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		<ul style="list-style-type: none"> • The second step evaluation included a detailed analysis of the potential adjustments identified in the first step evaluation, narrowing to one design adjustment under each of the two freight rail operating scenarios (relocation and co-location). Additional design detail was added or modified, in response to questions or requests from jurisdictions, to meet a specific design requirement, or to avoid or minimize an identified adverse environmental impact. The Council used the criteria and the measures reported in Table F.5-5 in Appendix F of the Final EIS (e.g., acquisitions, costs, support by freight railway owners, traffic, effects on stations) to evaluate the three potential freight rail-related design adjustments to LRT 3A and LRT 3A-1. Based on the evaluation measures and recommendations from the CMC, the Deep Bore LRT Tunnel adjustment to LRT 3A-1 was dismissed from further study, while Brunswick Central (LRT 3A) and Shallow LRT Tunnels – Over Kenilworth Lagoon (LRT 3A-1) were retained for further study in the third step evaluation. • The third step evaluation included the refinement of the two second step design adjustments, addressing public and agency comments, followed by a detailed assessment of the tradeoffs between the two potential adjustments remaining after the second-step evaluation. As a result of the third step evaluation, the Freight Rail Relocation Brunswick Central design adjustment was dismissed from further study and the Shallow LRT Tunnel – Over Kenilworth Lagoon adjustment was advanced into the fourth step evaluation (see Exhibit 2.3-9). • The fourth step evaluation involved three primary components: (1) preparation of an independent study that identified the MN&S North design adjustment for further evaluation; (2) development and evaluation of Shallow Cut-and-Cover Tunnel design variations; and (3) identification of additional design adjustments reflected in a memorandum of understanding between the Council and the City of Minneapolis. <p>In October 2013, as directed by the Chair of the Metropolitan Council, in coordination with Minnesota Governor Mark Dayton, the Council commissioned an independent study to conduct a review of existing and potential freight rail relocation alternatives. The independent study evaluated eight previously identified route options, two additional concepts developed by the Council, and one additional concept developed by the firm commissioned to conduct the study. None of the design options were found to be satisfactory by TC&W from an operational or safety standpoint (refer to Appendix F of the Final EIS for additional information and Appendix D for how to access the independent study). The results of the study were incorporated into the fourth step of the evaluation process discussed above. In addition, abandonment and discontinuance of rail lines is governed by federal regulations (49 U.S.C. § 10903), and neither the FTA nor the Council have authority over freight rail service in the Kenilworth Corridor on a temporary or permanent</p>	

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		<p>basis. The TRA gives TC&W and CP the right to transport freight cargo over the Kenilworth Corridor, without restriction as to the type of freight cargo. In light of the broad statutory preemptions enacted by the US Congress in the Interstate Commerce Commission Termination Act of 1995, 49 U.S.C. § 10501(b) and the Federal Rail Safety Act, 49 U.S. C. §§ 20101-20153, the Council, HCRRA, the City of Minneapolis, the State and FTA cannot compel TC&W to relocate their operations. The co-location alternative selected by the Council accordingly does not result in any change to current rail operations. See <i>CSX Transp., Inc. v. Williams</i>, 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).</p> <p>Based on the analysis, committee recommendations, and public comments received during the process, the Council adopted in April 2014 freight rail co-location and the Shallow LRT Tunnel – Over Kenilworth Lagoon (i.e., LRT 3A-1 – co-location) alignment as part of the LPA. A Supplemental Draft EIS was developed to further evaluate the adjustments made to LRT 3A-1. Relative to the other options considered, the Shallow LRT Tunnel – Over Kenilworth Lagoon design adjustment would best balance costs, benefits, and environmental impacts, and best meet the Project’s Purpose and Need. See Section 8.4 for a description of the determination that the LPA with freight rail retained in the Kenilworth Corridor (LRT 3A-1) would be the Project’s environmentally preferred alternative, rather than the LPA with the relocation of freight rail (LRT 3A).</p> <p>As a result of this design adjustment process, the USACE stated “The project scope as identified by the Council on April 9, 2014, which would retain existing freight rail service in the Kenilworth Corridor, is consistent with USACE’s comment letter from December 20, 2012, stating that LRT 3A-1, which would also have retained existing freight rail service in the Kenilworth Corridor, meets the USACE project purpose and has the least amount of impact to aquatic resources . . .” (page 5). LRT 3A-1 was advanced based on USACE’s identification of LRT 3A-1 as the LEDPA.</p> <p>In addition to the evaluation process described above, Governor Dayton requested that the Council review a range of lower cost transit options, including the No Build Alternative, Enhanced Bus, and Bus Rapid Transit (BRT) Alternatives (see http://metro council.org/getdoc/73777f40-2fd1-48c8-af49-a62531e581c2/Presentation.aspx). In summary, the CMC reviewed the analysis of lower cost transit options and dismissed these alternatives as they do not meet the Project’s Purpose and Need. The prior evaluation of these alternatives is also documented in Section 2.2 of the Final EIS, which provides the rationale for why the Enhanced Bus and BRT alternatives were previously dismissed from further study.</p>	

		<p>In summary, with the changes made during the design adjustment process and in comparison to freight rail relocation (LRT 3A), freight rail co-location (LRT 3A-1) would:</p> <ul style="list-style-type: none"> • Result in less harm to Section 4(f) protected properties; • Maintain regional freight rail connectivity; • Minimize reconstruction of freight rail tracks and construction-related disruptions; • Avoid diminishing the potential for transit oriented development around light rail stations located in the vicinity of freight rail tracks; • Avoid the displacement of any residents or businesses in the Kenilworth Corridor due to Project construction; • Include bicycle and pedestrian improvements that would provide connections between light rail stations and their surrounding neighborhoods; and, • Minimize the displacement of wetlands and satisfy the concerns of the USACE. <p>Based on the steps taken and process followed to identify LRT 3A-1 as the environmentally preferred alternative, the Final EIS does not include a detailed analysis on the impacts from the relocation of freight rail, as part of LRT 3A, for the following environmental categories as identified in comment letters:</p> <ul style="list-style-type: none"> • Land use • Economic activity • Neighborhoods and community • Acquisitions and displacements • Cultural resources • Parks, recreation areas and open spaces • Visual quality • Geology and groundwater • Water resources (i.e., wetlands, stormwater, and floodplains) • Ecosystems • Air quality • Noise • Vibration • Hazardous and contaminated materials • Electro-magnetic interference and utilities • Energy • Transit 	
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		<ul style="list-style-type: none"> • Roadways and traffic • Parking • Pedestrian and bicycle • Safety and security 	
11	Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor	<p>Multiple commenters expressed concerns over the safety of transporting hazardous freight cargo within the Kenilworth Corridor. The Project does not make any long-term changes to the operations of freight rail in the Kenilworth Corridor; therefore, commenters who noted that the Project will make freight rail a “permanent” infrastructure in the Kenilworth Corridor should review <i>Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data</i>, and <i>Master Response 10, Rationale for Incorporating Freight Rail Co-Location into the Project</i>. While the Project will provide for minor adjustments to freight rail infrastructure, freight rail operations, including oversight of freight rail cargo, is outside of the scope of this Project and outside of the jurisdiction of the Council and FTA.</p> <p>Regulation of railroad safety is with the jurisdiction of the Federal Railroad Agency (FRA). Under authority delegated to FRA by the Secretary of Transportation, the Hazardous Materials Division of FRA administers a safety program that oversees the movement of hazardous materials (including dangerous goods), such as petroleum, chemical, and nuclear products, throughout the Nation’s rail transportation system, including shipments transported to and from international organizations.</p> <p>On May 1, 2015, the 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 Federal Railroad Administration (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:</p> <ol style="list-style-type: none"> 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. 	50, 81, 82, 83, 143, 149, 196, 203, 214

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		<p>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.</p> <p>The rule requires rail carriers (including the TC&W as the operating railway in this corridor) to perform the following (in part) tasks with respect to its management of trains carrying HHFTs:</p> <p><i>Rail Routing – More Robust Risk Assessment</i>—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 §172.820.</p> <p><i>Rail Routing – Improves Information Sharing</i>—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.</p> <p>In the State of Minnesota, TC&W provides this information to the Minnesota Department of Public Safety.</p> <p>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:</p> <p>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.</p> <p>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</p>	

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		<p>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.</p> <p>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:</p> <ol style="list-style-type: none"> (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. <p>(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:</p> <ol style="list-style-type: none"> (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 	

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		<p>(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.</p> <p>(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.</p> <p>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.</p> <p>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.</p> <p>TC&W is a private freight rail operator with operating rights over the Kenilworth Corridor granted by a Trackage Rights Agreement (TRA) executed in 1998. Termination of this TRA, including removal of freight rail operations within the Kenilworth Corridor, requires the approval of TC&W. The Council has worked closely with TC&W to study alternatives to operations within the Kenilworth Corridor, however none were found to be satisfactory based on safety and/or operational conditions. See Chapter 2 and Appendix F of the Final EIS for additional information on freight rail relocation options studied. Regulation over the operations and related communications from TC&W to emergency responders are outside of the jurisdiction of the Council and FTA.</p>	
12	Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the	<p>As part of the proposed freight rail modifications in the Bass Lake Spur, the Project will sever the connection to and require the removal of the northern branch of the existing Skunk Hollow switching wye. The switching wye currently allows for train for freight train movements between the Bass Lake Spur and the MN&S Spur. In addition, the southern branch of the existing switching wye provides access to a customer which is currently serviced by TC&W freight rail operations.</p> <p>The existing function of the northern branch of the Skunk Hollow switching wye will be replaced with the new "Southerly Connector," which will allow TC&W trains continued access between the</p>	102, 103, 104, 110, 112, 114, 118, 120, 122, 132, 135, 223

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	Bass Lake Spur and the MN&S Spur	<p>Bass Lake Spur eastbound to the southbound MN&S Spur and the reverse. The Project will not affect the southern branch of the Skunk Hollow switching wye and will not change access to the existing TC&W customer it serves.</p> <p>The proposed Southerly Connector is included in the Project (see Section 2.1), and related environmental consequences resulting from the Southerly Connector are evaluated as part of this Final EIS. This includes the evaluations of potential impacts related to neighborhoods and communities (see Section 3.3), visual quality (see Section 3.7), noise (see Section 3.12), vibration (see Section 3.13), and safety and security (see Section 4.6), among others.</p> <p>As documented in Section 4.4.4.2, the replacement of a portion of the Skunk Hollow switching wye with the new Southerly Connector could lead to improved freight rail travel times, making the movement more efficient for trains that make this connection. However, the replacement of the portion of the Skunk Hollow switching wye with the Southerly Connector will not change access to existing freight rail markets nor will it open access to new freight rail markets. This freight rail modification could result in increased operational efficiencies that could lead to increases in the number and length of freight trains traveling along the MN&S spur to the south of the Southerly Connector as freight railroads and shippers realize the benefits in operational efficiencies. These changes are not included in the Final EIS analyses as freight rail operations are outside of the jurisdiction of the FTA and the Council and because the information needed to evaluate related impacts to the human environment is unavailable in accordance with 40 CFR 1502.22 and Minnesota Statutes 4410.2500.</p> <p>Adding a light-rail bridge over the wye instead of constructing the Southerly Connector was developed and evaluated. However, this bridge was dismissed from further study, as it would conflict with the existing MN&S freight rail bridge over the Bass Lake Spur and would result in additional adverse impacts and cost to the LRT alignment and Louisiana Station.</p> <p>For more information about the design adjustment process, refer to <i>Master Response 10: Rationale for incorporating freight rail co-location into the Project</i>.</p>	
13	Rationale for dismissal of the “Brunswick Central” freight rail relocation alignment	<p>After the close of the Draft EIS public comment period, the Council undertook a four-step process to develop and evaluate adjustments to LRT 3A and LRT 3A-1 directly related to the following: 1) whether TC&W freight trains currently operating along the Kenilworth Corridor should be rerouted to sections of the MN&S Spur and Wayzata Subdivision (termed “freight rail relocation adjustments”); or 2) whether the TC&W freight trains should continue to operate along the Bass Lake Spur and Kenilworth Corridor as they currently do (termed “Kenilworth Corridor</p>	76, 102, 112, 181

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		<p>adjustments”). See Appendix F of the Final EIS for maps illustrating alternatives or features referenced in this response and for a description of the four-step process.</p> <p>The third step of the four-step process led to the development and evaluation of potential design adjustments and freight rail modifications in St. Louis Park and Minneapolis. In summary, the third step in the process involved the detailed comparison of the Freight Rail Relocation Brunswick Central and the Shallow LRT Tunnels – Over Kenilworth Lagoon adjustments (i.e., the Project).</p> <p>The Brunswick Central freight rail relocation adjustment was developed to minimize impacts to commercial, residential, and public properties associated with the Brunswick West alignment. This design adjustment would shift the existing MN&S rail tracks to the east, south of Highway 7, replacing the current freight rail bridge over the Bass Lake Spur and realigning the MN&S Spur between Bass Lake Spur and 33rd Street on new railroad right-of-way. Under the Brunswick Central design adjustment, the potential freight rail connection would be elevated to minimize the number of vertical curves and vertical grade changes and flatten horizontal curves needed to meet the railroad operator’s operational and safety requirements.</p> <p>The Council presented an evaluation of the options for freight rail and light rail in the Kenilworth Corridor to the CMC in October 2013 and based on the subsequent CMC recommendation, the Council adopted the Shallow LRT Tunnels – Over Kenilworth Lagoon adjustments as part of the Project. The analysis concluded that the Shallow LRT Tunnels – Over Kenilworth Lagoon adjustments (the Project) would provide the best balance of costs, benefits, and environmental impacts, compared to the Freight Rail Relocation Brunswick Central adjustments. In summary, the advantage of the Shallow LRT Tunnels – Over Kenilworth Lagoon adjustment (included in the Project) is that it would avoid the various adverse impacts associated with the Freight Rail Relocation Brunswick Central design, including: additional capital costs (the Brunswick Central option was approximately \$40 million more than the Kenilworth Corridor Shallow LRT Tunnels option – see Appendix F for more detail); the full acquisition of approximately 32 parcels, including 12 residential, 18 commercial, and 2 public parcels; the complete use of the Park Spanish Immersion School playground (a Section 4(f)-protected property); and the adverse visual, neighborhood, and community cohesion impacts resulting from the construction of berms and structures associated with the modified freight rail alignment in the vicinity of St. Louis Park High School. By comparison, the Shallow LRT Tunnels – Over Kenilworth Lagoon adjustment (the Project) would not result in the full acquisition of any residential, commercial, or institutional properties or displacement of residences or commercial/institutional buildings, or uses. The third-step evaluation measures are summarized in Table F.5-6 in Appendix F. As a result of the third-step evaluation, the Freight Rail Relocation Brunswick Central design adjustment was dismissed</p>	

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		from further study and the Shallow LRT Tunnels – Over Kenilworth Lagoon adjustment (the Project) was advanced into the fourth-step evaluation (see Exhibit 2.3-9).	
14	Relocate the Kenilworth Trail instead of co-location of freight rail and light rail within the Kenilworth Corridor	<p>As described in Section 2.1 of the Final EIS, the Project will maintain the existing Kenilworth Trail within the Kenilworth Corridor with relatively minor adjustments to its location. The option of relocating the existing Kenilworth Trail out of the Kenilworth Corridor, instead of the relocation of freight rail service from portions of the Bass Lake Spur and the Kenilworth Corridor, was considered and dismissed from further study because the existing development in the surrounding area does not provide trail route alternatives that would provide the same direct trail connectivity with regional park and natural resources. The Council also looked at an option to elevate the Kenilworth Trail through a portion of the Kenilworth Corridor, however this was not advanced due to due to visual impacts due to structure height and connecting ramps, impacts to the visual quality and setting of the trail (e.g., separation from ground vegetation), the addition of grade changes to the trail, and potential visual impacts on Kenilworth Lagoon. As the design adjustment process continued for the Project through 2014, the need to relocate either the Kenilworth Trail or freight rail is no longer necessary to avoid some adverse impacts associated with the co-location of freight rail and light rail in the Kenilworth Corridor identified in the Draft EIS. Specifically, in April 2014, the Council identified adjustments to the Project that would locate the light rail alignment within a shallow tunnel within the most physically constrained portion of the Kenilworth Corridor, thus allowing the trail to remain in its current location and not displacing residences or businesses. The design includes barriers and/or clear separations between the three transportation uses.</p> <p>Section 2.1 describes the LPA for the Project and the alternatives that were considered during the Project's alternatives analysis and NEPA scoping processes. More detailed information on the Project's alternatives analysis, scoping, and LPA identification process may be found in the following documents: Southwest Transitway Alternatives Analysis Final Report; Southwest Transitway Scoping Summary Report; Southwest LRT Locally Preferred Alternative Report (refer to Appendix C for instructions on how to access these documents).</p>	106, 107, 108, 112, 120, 129, 223
15	Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood	Thank you for the Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA) and LRT-Done Right comments on the Southwest LRT (METRO Green Line Extension) <i>Supplemental Draft Environmental Impact Statement</i> (EIS).	123, 136, 145, 146, 147, 148, 152, 153, 155, 157, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 172, 173, 174,

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	Association (CIDNA), and LRT-Done Right	<p>These letters present a range of issues concerning the Project's environmental impacts, social and safety impacts, and impact minimization and mitigation measures. The following lists the topics addressed in these letters.</p> <ul style="list-style-type: none"> • Concern over change in Project alternative from including freight rail relocation to colocation • Assertion that freight rail should not be included as part of the existing condition (No Build Alternative) and that the Project will make freight rail a permanent condition • Concern over safety impacts related to LRT operation in close proximity to freight rail carrying hazardous materials through urban environment • Potential Acquisitions and Displacements Impacts • Potential Cultural Resources Impacts • Parklands, Recreation Areas, and Open Spaces • Visual Quality and Aesthetics • Geology and Groundwater, Water Resources • Noise • Vibration • Hazardous and Contaminated Materials • Economic Impacts • Roadway and Traffic • Parking • Freight Rail • Bicycle and Pedestrian • Safety and Security • Section 4(f) Evaluation • Project Costs <p>The following are responses to these topics.</p> <p>Concern over change in Project alternative from including freight rail relocation to colocation <i>Please see Master Response 10: Rationale for incorporating freight rail co-location into the Project.</i></p> <p>Assertion that freight rail should not be included as part of the existing conditions (No Build Alternative) and that the Project will make freight rail a permanent condition <i>Please see Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.</i></p>	176, 179, 183, 184, 185, 186, 187, 193, 194, 202, 203, 212, 213, 215, 216, 217, 218, 222, 224, 225

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		<p>Concern over safety impacts related to LRT operation in close proximity to freight rail carrying hazardous materials in an urban environment <i>Please see Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor. Please also see Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor.</i></p> <p>Potential Acquisitions and Displacements Impacts Regarding the request for more information on the ownership of 3400 Cedar Lake Parkway, the Minnesota Department of Transportation Right of Way Department has determined through a review of property tax records that this property is privately owned by BNSF not by MPRB. BNSF confirmed that it owns this parcel. As such, this is not a Section 4(f) property, nor is it a historic property under Section 106 of the National Historic Preservation Act. Any property acquired for the Project will be acquired in accordance with the Uniform Relocation and Real Property Acquisitions Policies Act of 1970, as amended, (42 U.S.C. 4601 et seq.), which also is known as the Uniform Relocation Act. Property acquired for the Project will also be subject to Minn. Stat. 117 which sets forth requirements for acquisition of land (Minn. Stat. 117.38), compensation (Minn. Stat. 117.155 – 117.187), and uniform relocation benefits (Minn. MN Stat. 117.52). Assessments and agreements of property value are determined through the property acquisition process as regulated by the Uniform Relocation Act.</p> <p>Properties that are fully acquired (with or without relocation) or partially acquired properties where relocation was involved are fully removed from the tax base. For partially impacted properties without relocation, property tax revenues will be reduced by the proportion of the property tax that was impacted by the Project. Furthermore, for partial acquisitions, only the value of the land was impacted. For example, if a parcel had a total assessed value of \$400,000 where the building was valued at \$300,000 and the land was valued at \$100,000 and 10 percent of the parcel was permanently impacted, then the overall property would be impacted by \$10,000 (land value = \$100,000 X 10 percent = \$10,000). The value of the building would remain unchanged. The revised assessed value of the property would be \$390,000, a reduction of 2.5 percent. The corresponding initial property tax impact on this property would be a reduction of 2.5 percent.</p> <p>Mitigation for adverse impacts from noise, traffic, visual, and construction related impacts (i.e., dust and access), are included in the applicable sections of the Final EIS. Mitigation measures are identified in the last subsection of each section. Regarding maintaining access for emergency responders, refer to Master Response 3: <i>General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.</i></p>	

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		<p>The Council notes the comment on the sale of remnant parcels as it relates to the Kenilworth Corridor. The Council continues to work with the City, railroads, and the MPRB on the disposition of railroad right-of-way property in the Kenilworth Corridor.</p> <p>Potential Cultural Resources Impacts</p> <p>FTA and the Council have continued the Section 106 consultation process since publication of the Supplemental Draft EIS and have included mitigation measures in a Section 106 Memorandum of Agreement (MOA) for the Project. The 106 MOA has been reviewed by SHPO and consulting parties, including KIAA and CIDNA. The Section 106 consultation process considered anticipated direct and indirect effects on the identified architecture/history and archaeological properties from construction and operation of the Project. As shown in Table 3.5-2, the Kenilworth Lagoon and the Grand Rounds Historic District will be adversely effected by the Project. As described in Section 3.5, measures to avoid, minimize, and mitigate the adverse effect on the Lagoon and the historic district were reviewed and coordinated with all consulting parties and are included in the Section 106 MOA (Appendix H). These measures are summarized below.</p> <ul style="list-style-type: none"> • Install a parapet wall and rail damper on the LRT bridge over the waterway to mitigate the moderate noise impact at the Kenilworth Lagoon. • Rehabilitate/Reconstruct WPA Rustic Style Retaining walls to minimize and mitigate adverse effects. • Design Project elements within and adjacent to the Grand Rounds Historic District in accordance with the SOI's Standards (36 CRF 68), to be reviewed by the MnHPO and consulting parties, to further minimize adverse effects. • Develop a Construction Protection Plan detailing the measures to be implemented during Project construction to avoid adverse effects. • Prepare guidance for future preservation activities within the portion of the GRHD: Canal System, including adjacent parkland, extending from the north end of Lake Calhoun to the east end of Cedar Lake, and including the entirety of the Lake of the Isles Park and Kenilworth Lagoon elements (Attachment D). The plans shall be prepared in accordance with the SOI's Standards (36 CFR 68); the SOI's Standards for Preservation Planning; the NPS's Guidelines for the Treatment of Cultural Landscapes, Preservation Briefs and Tech Notes. <p>The design of the Kenilworth/Lagoon bridge crossing was developed in consultation with the Section 106 consulting parties. All consulting parties had an opportunity to comment on the design process as it progressed, and this consultation process was integral in the development of the three-bridge design. See Appendix H for the consultation materials provided on the evolution</p>	

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		<p>of the bridge design and consulting party comments received throughout this process and the Section 106 MOA that identifies mitigation measures for the lagoon, including continued consultation on design plans.</p> <p>The Section 106 MOA identifies avoidance, minimization and mitigation measures for historic properties, including St. Paul, Minneapolis & Manitoba Railroad / Great Northern Railway Historic District; William Hood Dunwoody Industrial Institute; Lake of the Isles Residential Historic District (LIRHD); Lake Calhoun (GRHD element); Cedar Lake (GRHD element; Cedar Lake Parkway (GRHD element); Lake of the Isles (GRHD and LIRHD element); Lake of the Isles Parkway (GRHD and LIRHD element); Park Board Bridge No. 4 / Bridge No. L5729 (individual resource and GRHD and LIRHD element); Minikahda Club; Peavey-Haglin Experimental Concrete Elevator; Minneapolis & St. Louis Railway Depot; Hopkins Commercial Historic District; and Archaeological Site 21HE0409; GRHD; Kenilworth Lagoon (GRHD and LIRHD element); Chicago, Milwaukee, St. Paul & Pacific Railroad Depot; Archaeological Site 21HE0436; and Archaeological Site 21HE0437.</p> <p>The Council assessed visual, traffic, noise, and construction related impacts as part of the assessment of effects on historic properties. A traffic analysis was conducted on the 21st Street and West Lake station areas (see PEC-West Traffic Memorandum, 2015 and PEC-East Traffic Memorandum, 2015. Refer to Appendix C). As described in the Section 106 Assessment of Effects for Historic Properties and Section 106 Memorandum of Agreement (see Appendix H), changes to traffic patterns and additional traffic related to station access were effects considered in the historic resources analysis for the Lake of the Isles Residential Historic District and Kenwood Parkway Residential Historic District. The analysis concluded with a no adverse effect finding. As described in the <i>Section 106 Assessment of Effects for Historic Properties</i> (see Appendix H), the Project will have adverse effects on five properties, including the Kenilworth Lagoon and Grand Rounds Historic District. Please refer to this report for a detailed discussion each historic property. See sections 3.12 and 3.13 for the noise and vibration analyses, respectively, including identification of sensitive receptors, and construction related impacts and mitigation. The Section 106 MOA addresses mitigation for all adverse impacts to historic properties; however, since no historic homes are impacted by the Project, additional coordination is not needed (see Table 3.5-3 if the Final EIS).</p> <p>As described in Section 3.5 of the Final EIS (and as presented in Table 3.4-5 of the Supplemental Draft EIS), the following cultural resources will not be adversely effected by the Project: Lake of the Isles Residential Historic District, Kenwood Parkway Residential Historic District, Lake Calhoun, Cedar Lake Parkway, Cedar Lake, Park Bridge #4, Lake of the Isles Parkway, Lake of the Isles, Kenwood Parkway, Kenwood Park, Kenwood Water Tower and four NRHP listed or</p>	

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		<p>eligible homes in the Area of Potential Effect. As described in the <i>Section 106 Assessment of Effects for Historic Properties and Section 106 Memorandum of Agreement</i> (see Appendix H), changes to noise, visual setting, and traffic patterns and additional traffic related to station access were effects considered in the historic resources analysis for these areas and the analysis concluded with a no adverse effect finding. Refer to Table 3.5-3 of the Final EIS for a description of effects considered for the no adverse effect finding and related avoidance/minimization/mitigation measures.</p> <p>Possible station area development adjacent to and within the Kenwood Parkway Residential Historic District was also considered for the preliminary no adverse effect finding for cultural resources in the Supplemental Draft EIS. Station area development/redevelopment is possible at all station areas. As described in Section 3.1.3 of the Final EIS, light rail lines can advance the timing and increase the intensity of development, within the limits allowed by local comprehensive plans, particularly in areas surrounding proposed station. However, no development or redevelopment is anticipated to occur within the area of the 21st Street Station (including the Kenwood Neighborhood) related to the Project as this area is currently fully developed with existing residential uses.</p> <p>Please also see Master Response 4: Concern over evaluation of potential impacts to the Grand Rounds Historic district for more detail.</p> <p>Parklands, Recreation Areas, and Open Spaces Section 3.6 of the Final EIS evaluates impacts to parklands, recreation areas, and open spaces from the Project and identifies mitigation measures and commitments based on the design adjustments identified by the Council in April and July 2014 and July 2015. Section 4.5 of the Final EIS evaluates pedestrian and bicycle facilities. The Final Section 4(f) Evaluation (Chapter 6 of the Final EIS) addresses parks and recreation areas protected under Section 4(f).</p> <p>Table 3.6-2 identifies indirect impacts that will occur to parks, recreation areas, and open spaces as a result of the Project. Within the Kenilworth Corridor area, those include Park Siding Park, Kenilworth Channel/Lagoon, and Bryn Mawr Meadows Park. Mitigation measures for indirect impacts to park, recreation areas, and open spaces (visual, noise, access) are addressed in Sections 3.7 and 3.12 and in Chapter 4, respectively. FTA has determined that those indirect impacts (also termed “proximity impacts”) will not substantially impair the recreational use of those properties.</p> <p>FTA and the Council have had ongoing coordination with MPRB, including participation in coordination meetings, to explore ways to avoid, minimize and mitigate long-term direct impacts to the Kenilworth Channel/Lagoon, Cedar Lake Park and Bryn Mawr Meadows Park. Section 3.6 of</p>	

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		<p>the Final EIS includes an updated analysis of long-term impacts on parklands, recreation areas, and open spaces and applicable mitigation measures.</p> <p>Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the “Kenilworth Corridor” is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway).</p> <p>During construction, some trails and sidewalks may be detoured either on a signed route on other trails/roadways or on a temporary facility built to re-route pedestrian and bicycle traffic around an obstruction, in order to maintain safety of park and trail users. This includes the Kenilworth Trail, and the trails and sidewalks that provide access to East Cedar Lake Beach, Cedar Lake Park, and Lake of the Isles Park. Construction of the Project will be phased in such a way that a paved surface will be maintained for use by pedestrians and bicyclists when the existing trail is closed during construction periods. In addition, a Construction Communication Plan will be developed that will include coordination with the park owners, advance notice of construction activities, highlighting road, sidewalk, and trail closures and detour routes. Mitigation measures for short-term (construction) impacts to roadways and traffic will be implemented by the Council prior to and during construction through the Construction Mitigation Plan, which includes strategies to maintain safety. In addition, Contractors will be required to comply with all guidelines established in the Minnesota Manual on Uniform Traffic Control Devices (2015), which conforms to industry standards for the design and operations of pedestrian and bicycle facilities.</p> <p>See Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor, for information related to comments on safety of trail and park users.</p> <p>Visual Quality and Aesthetics</p> <p>The visual impact analysis for the Project was updated for the entire corridor since the publication of the Supplemental Draft EIS. The update caused a renumbering of the viewpoints from the Supplemental Draft EIS to the Final EIS. The updated visual quality assessment can be found in Section 3.7 of the Final EIS. Six viewpoints were studied within the Kenilworth Corridor for the visual assessment completed for the Final EIS. Section 3.7.4 of the Final EIS documents level of visual impact anticipated for each viewpoint.</p> <p>For the viewpoints within the Kenilworth Corridor, these impacts ranged from low to substantial. Viewpoints 5 and 6, included in the Supplemental Draft EIS, are renumbered to 16 and 18, respectively, in the Final EIS. Further, an additional viewpoint from the Burnham Road Bridge</p>	

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		<p>looking southeast down the channel toward the Kenilworth Corridor Bridges was added to the analysis—viewpoint 17. The level of impact remains the same for viewpoints 16 and 18 (low level of impact), however, there will be a substantial level of impact at viewpoint 17 as construction of the new bridges will require noticeable clearing of trees and other vegetation on the west side of the right-of-way.</p> <p>The visual quality evaluation for the area north of the Kenilworth Channel (viewpoint 18 – looking toward the 21st Street Station) concluded that the level of visual impact will be low. Removal of trees is a contributing factor in the visual assessment for this area. The visual evaluation found that the removal of trees will slightly decrease the vividness of the view. However, the addition of the street trees, the widened sidewalk, and the plantings in the 21st Street Station area will make a positive contribution. For a more detailed explanation of the rationale for this conclusion, refer to the “Concern over visual impacts at 21st Street Station” in <i>Master Response 16: Concerns related to 21st Street Station and related impacts</i>.</p> <p>These findings are based on FHWA’s Visual Impact Assessment of Highway Projects (FHWA, 1988). The method was designed to provide a systematic and objective approach to evaluation of the visual changes. The FHWA methodology is well established and widely accepted for the assessment of visual impacts and is well suited to assess the visual impacts of linear transportation facilities in urban areas. The assessment for the Project was based on visual assessment of the Project corridor, completed through site visits, analysis of existing conditions, and an evaluation of visual change. All viewpoint sites were visited and the corresponding views were photographed to document the existing views. This field work, review of the photographs, and the subsequent coordination/consultation process with the Project team provided a basis for understanding the typical visual issues for each visual assessment area. Computer modeling and rendering techniques were then used to produce simulated images of the with-Project conditions for the viewpoints evaluation (see Appendix J). These visual simulations provided the bases for the assessment of visual change.</p> <p>The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. Furthermore, the Council retained a landscape design consultant to prepare a landscape design study for the Kenilworth Corridor, which will be implemented into the Project. See Section 9.2 of the Final EIS for additional detail on this committee.</p>	

		<p>Geology and Groundwater, Water Resources Refer to <i>Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor.</i></p> <p>Regarding concerns over settlement below and in the vicinity of the Kenilworth tunnel and at Calhoun Village, the advanced design of the shallow LRT tunnel will incorporate structural loadings from the adjacent building foundations and address settlement potential of the existing building foundations during LRT tunnel construction. The Council has, and will continue, to coordinate with the owners of Calhoun Village. Refer to the Kenilworth Shallow LRT Tunnel Basis of Design (November 2014) (see Appendix C for more information).</p> <p>Regarding comments on the “recently installed dual force mains” between Depot Street and W. 28th Street, the design and configuration of the sewer connection has been coordinated and reviewed by Metropolitan Council Environmental Services, the designer of the force main construction in 2013. During construction of the LRT tunnels, the force main will be temporarily connected around the construction area, allowing the force main to remain operational during tunnel construction. The permanent reconnection of the force main will occur over the tunnel, retaining the current depth of the tunnel (see the Project Engineering Plans as referenced in Appendix C). Regarding the comment on risks associated with stray electrical current, stray electrical current that may affect the relocated sewer force main is designed in accordance with the Project’s design criteria and details are shown in the 90% plans. The cost of removing and relocating the force sewer main, and associated street restoration, are included in the Project’s budget. Lift stations will not be required. The construction will not impact Park Siding Park and will be maintained within the Project’s limit of disturbance. See Appendix E for the Project’s limit of disturbance in this area. The Project will develop a Noise Control plan for the construction period that specifies noise control measures, specific equipment types and noise limits and will conduct noise and vibration monitoring during construction, See section 3.12 and 3.13 of the Final EIS for additional information.</p> <p>Noise Specific mitigation measures for severe and moderate impacts, where applicable, can be found in Section 3.12 of the Final EIS. The associated costs of mitigation have been included in the Project cost estimate, included in Chapter 7. Appendix K of the Final EIS also includes detailed information on the noise analysis conducted for the Project.</p> <p><i>Comment that the Supplemental Draft EIS substantially minimizes noise impacts</i> Noise impacts caused by the Project were assessed according to the guidance used by FTA on all transit projects throughout the country. This included measuring the existing noise, including all sources of noise in the area, projecting noise from LRT operations at all sensitive locations, determining impacts using FTA impact criteria, and applying mitigation or minimization measures at locations where impacts were identified. Some factors influencing the number of impacts</p>	
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		<p>relative to the Draft EIS include changes in operations, including the number of trains operating per day, and at night, and changes to the operational assumptions relative to bell sounding at 21st Street. The northern bank of the Kenilworth Lagoon, generally between West Lake of the Isles Parkway and South Upton Avenue, is classified as category 1 land use, and the lagoon itself is classified as category 3. Residences are classified as category 2. A noise measurement was conducted at a residence less than 200 feet from the channel and approximately 50 feet from the proposed LRT line, which provided the actual existing noise level, without any subjective characterization of the noise.</p> <p>The Grand Rounds National Scenic Byway was designated a National Scenic Byway by the FHWA in 1998. The Grand Rounds National Scenic Byway is intended to be a transportation resource and its designation as a scenic byway is not intended to create a park or recreation area within the meaning of 49 U.S.C. 303 or 23 U.S.C. 138 [Section 4(f) of the U.S. Department of Transportation Act of 1966]. Therefore, the Grand Rounds National Scenic Byway as a roadway is not a noise-sensitive land use, as with all National Scenic Byway designations.</p> <p>The FTA noise impact criteria have been designed to take potential public health effects related to noise into consideration in the identification of noise impacts. As documented in the FTA Noise and Vibration Manual, the FTA noise impact criteria include consideration for “noise levels consistent with the protection of public health and welfare against hearing loss, annoyance, and activity interference.”</p> <p><i>Comment that the Supplemental Draft EIS uses wrong data as fundamental framework</i> Please see Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data. In addition, the 2012 noise assessment in the Draft EIS included freight trains operating in the Kenilworth Corridor in the existing noise measurement. Information regarding the existing noise measurements for the Draft EIS is contained in a memo in Appendix K of the Final EIS (HDR, 2016). In summary, this memo clarifies that noise data reported in 2010 did not include noise from freight train pass-bys and noise data from 2012 did contain noise from freight train pass-bys. The numeric values reported for 2010 and 2012 are correct and reflect noise measurements at that time. For the 2010 data, noise from freight train pass-bys was removed and the noise levels were recalculated. The 2012 data reflects the noise measurement without removing freight pass-bys. Freight trains were also included in the existing conditions in the Final EIS. This is the appropriate method for assessing existing noise in a location as the existing noise assessment includes all existing noise, including freight trains currently operating in the area. To exclude them would invalidate the entire FTA noise assessment, since it would not be based on the existing noise levels actually experienced in the Kenilworth Corridor. For locations where the freight rail will be shifted closer to noise sensitive</p>	

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		<p>locations as a part of the Project, the Final EIS noise assessment does account for the small increase in noise levels from the shifted freight.</p> <p>The FTA assessment methodology is based on a comparison of the existing noise with the Project noise This includes assessing the existing noise as it is, and not excluding any source, such as freight rail. To exclude freight rail, which is an existing noise source and part of the baseline condition, would invalidate the assessment. FTA requires that existing conditions be used as the baseline for assessing impacts (see Master Response 6 for more information).</p> <p>Existing noise levels were measured at representative sites near the proposed Project during March 2010, July and August 2013, and May 2015. Measurement sites were selected to represent a range of existing noise conditions throughout the corridor. The distance between the source (LRT) and the receptor (residence) is a very important factor affecting the noise impact results. The actual distance between the tracks and every receptor in the Kenilworth Corridor was used in the assessment, and varied in distance from 50' to 350'. Other factors are the speed of the vehicle, obstructions between the source and receptor, use of horns/bells, special track work, etc. Refer to Section 3.12.1 for more information on the noise impact analysis methodology.</p> <p>Multiple commenters expressed concern that noise levels vary with changing seasons. However, there is no conclusive evidence on what effect seasonal noise measurements would have on noise levels in the Kenilworth Corridor. The noise analysis was completed in compliance with the FTA guidance.</p> <p>Multiple commenters asked that all monitoring locations be made public. The Final EIS includes all noise measurements taken for the Project. Exhibits 3.12-3 and 3.12-4 in Section 3.12 illustrate the general location of the noise monitoring sites, Appendices K and H includes additional information.</p> <p>Noise from bells and horns was included in the Supplemental Draft EIS at all locations where these devices would need to be sounded. Crossing bells will be sounded for 20 seconds for each light rail vehicle at shared light rail and freight rail grade crossings (shared crossing fall under FRA jurisdiction) and for five seconds at light rail only grade crossings (not under FRA jurisdiction). A summary of the existing freight train frequencies and operating characteristics is included in Section 4.4 of the Final EIS. As described above, both LRT and freight train noise were included in the noise assessments in the Supplemental Draft EIS and the Final EIS.</p> <p><i>Comment on inaccurate land use designations for the Kenilworth Channel</i> The Council, in consultation with the MPRB and MnHPO, reached agreement on designation of land use categories for the parks within the Kenilworth Corridor, including high-sensitivity sites</p>	

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		<p>near the Kenilworth Lagoon/Channel. The northern bank of the Kenilworth Lagoon, generally between West Lake of the Isles Parkway and South Upton Avenue, is classified as category 1 land use and the lagoon itself is classified as category 3. Residences are classified as category 2. Section 3.12 of the Final EIS provides a description of land use categories and metrics used to identify noise sensitive receptors according to FTA criteria (see Table 3.12-2). Active use areas like bike and running trails are generally not categorized as noise sensitive receptors because these are areas where quiet is not an essential element and the intended purpose. The channel itself supports primarily active uses (e.g., kayaking, skiing), while the lagoon bank is used for more contemplative uses. Noise assessments were conducted using these land use classifications. The assessment at the Channel indicated noise impacts to the Channel but not to the banks of the lagoon, which are located significantly further from the tracks. Mitigation has been recommended at this location, including low height noise barriers on the bridge and rail dampers on the tracks to minimize the noise. While the banks of the lagoon were not identified as impacts, the mitigation for the channel on the bridge would reduce the noise levels at the banks as well.</p> <p>Southwest LRT Breaks the System of Minneapolis Parks Multiple commenters expressed the opinion that the Supplemental Draft EIS does not address the impacts on the larger park system, rather it focuses on individual elements. The Kenilworth Lagoon is part of the Minneapolis Chain of Lakes Regional Park which is the most popular destination within the Minneapolis Park system. By providing LRT service to the area, the Project will provide enhanced access to and from this park system allowing more people to visit the park. Further, under Section 106, the Project considers effects on the Kenilworth Lagoon/Channel as part of the larger Grand Rounds Historic District.</p> <p>21st Street Noise Impacts The draft noise analysis was updated and is described in Section 3.12 of the Final EIS. The noise analysis was conducted in compliance with FTA's Transit Noise and Vibration Impact Assessment guidance manual (FTA, 2006). The number of impacts shown in the Draft EIS, Supplemental Draft EIS and Final EIS have changed over time with changes to operational assumptions, including the number of trains per day, the number of nighttime operations, changes to assumptions regarding horn and bell sounding at grade crossings and stations, the presence of the tunnel and avoidance and minimization measures that have been incorporated into the Project.</p> <p>From Lake Cithomes to South Upton Avenue there will be 18 buildings with moderate noise impacts and one building with a severe noise impact without mitigation; with mitigation, there will be residual noise impacts (moderate) at five buildings (seven units at Lake Cithomes and four residences at Burnham Road North). The residences with residual moderate noise impacts do not</p>	

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		<p>meet the threshold for mitigation (e.g., impact does not meet 3-dB increase threshold) as defined by Council's Regional Transitway Guidelines (see Appendix D).</p> <p>Some of the noise impacts near 21st Street Station will be mitigated by the use of wayside bells instead of the routine sounding of train horns. For the residences not mitigated by the use of a wayside bell (one severe and four moderate impacts identified along Thomas Avenue South and Burnham Road North), interior noise testing will be conducted to determine if the residences meet the interior noise level criteria (defined in Appendix K). Based on the results, the Council will identify the noise mitigation to be implemented for the residences. If the interior noise level exceeds the criteria set in the Council's Regional Transitway Guidelines (Appendix D), the Council will work with property owners on applicable mitigation. This could include implementation of sound insulation, which would require approval by the property owner(s).</p> <p>This 21st Street crossing will continue to be in a quiet zone; however, locomotive horns will be sounded while workers are present in the construction zone near the track and in emergency situations. In addition to this area remaining a quiet zone, mitigation in the form of wayside bells has been identified for this location. In emergency situations, horns may be sounded. See Section 3.12 of the Final EIS for additional information about noise impacts and mitigation.</p> <p>Multiple commenters noted that some of the residences determined to have a moderate impact on Thomas Avenue South are actually located on Sheridan Avenue South. The noise analysis has been updated to correct this typographical error for the Final EIS, and residences along Sheridan Avenue are correctly identified.</p> <p>Noise at tunnel portals is projected to increase noise levels by one decibel (dB) for locations within 100 feet of the tunnel portal to account for reverberation inside the tunnels, based on modeling using "Terrain 1.4.3.0" Olive Tree Labs sound propagation software (see Appendix K for detailed discussion). This is included in the noise impact assessment for the Project. The type of track was accounted for in the analysis at all locations, along with the specific speeds of the LRT vehicle and the distances from the track to all residences in the Kenilworth Corridor. Tunnels significantly reduce both the number and magnitude of noise impacts as compared with at-grade operations. There is a very small increase in noise immediately adjacent to the portal, and this additional noise was included in the assessment for all applicable receptors.</p> <p>Regarding comments on tunnel ventilation, under normal LRT operations there will be no need for a continuous operational tunnel ventilation system. Generally, because of the length of the tunnel, tunnel ventilation will occur naturally as a result of the light rail vehicles traveling through the tunnel. A ventilation system will be installed in the tunnel, but it will only be used during emergency situations and during periodic testing. Because testing of the tunnel ventilation system</p>	

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		<p>will occur infrequently (approximately once a month), noise from the tunnel ventilation system would not result in noise impacts, based on FTA noise methods and criteria.</p> <p>Regarding comments on the effect of the removal of trees on noise levels, vegetation has almost no effect on noise levels. Trees, or other vegetation, must be at least 100 feet thick before there is any change in the noise levels. For noise levels to be reduced, there must be a solid material between the source and receiver, and vegetation and trees do not qualify without being at least 100 feet thick. See FTA's <i>Transit Noise and Vibration Impact Assessment</i> guidance manual (2006), Table 6-10.</p> <p>Multiple commenters expressed concern that the elimination of noise impacts will be replaced by vibration impacts, please refer to the vibration mitigation measures response below.</p> <p>Vibration</p> <p>Refer to Section 3.13 of the Final EIS for an updated vibration analysis, including an assessment of potential vibration impacts and mitigation measures. FTA guidance on vibration does not look at existing vibration levels like the noise assessment does, except in locations where there are existing freight operations, such as the Kenilworth Corridor. The presence of freight operations can change the assessment methodology for the Project, depending on the number of freight operations. For corridors with high volumes of freight traffic, the vibration levels from the LRT would be much lower than the freight, and would not require an assessment of LRT vibration. In the case of the Kenilworth Corridor, due to the limited number of freight trains in the corridor, per FTA guidance, a standard vibration assessment is conducted for LRT operations in the shared corridor. The only case where existing vibration is assessed is when the tracks will be moved due to the Project. At these locations, a conservative estimate of vibration levels from freight trains was used to screen out the potential for vibration impacts from shifted freight operations. The primary reason for no vibration impacts is the very low speeds of the freight trains.</p> <p>The Project will result in no long-term vibration impacts for residential land uses (Exhibit 3.13-2), therefore no mitigation measures are warranted for long-term direct or indirect impacts from vibration. The methods for minimizing short-term impacts from construction vibration include limiting high-vibration activities, such as impact pile driving and vibratory rolling, and including vibration limits in the construction specifications, as applicable. Short-term vibration related to construction activities (see Section 2.1.1.2) will result from the operation of heavy equipment (pile driving, hoe rams, vibratory compaction, and loaded trucks) needed to construct bridges, retaining walls, roads, park-and-ride facilities, and transit centers. Please see <i>Master Response 7: Concerns related to vibration impacts of LRT tunnel construction</i>, for more information on construction impacts, and avoidance, minimization, and mitigation measures. There are ground</p>	

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		<p>borne noise impacts without mitigation, however there will be no residual impacts with mitigation, which will include highly resilient fasteners.</p> <p>The Council had discussions with the Trammel Crow Company, the developer of the Tryg site which is near the Calhoun Isles apartment building, in late 2015. The developer indicated that the contractor encountered large debris during pile installation, which prohibited advancement of the work. The Council has added requirements to expose the Calhoun Isles apartment building and parking ramp foundations prior to sheet pile installation. This will remove any surface debris and locate the foundations properly in relation to the existing foundations.</p> <p>Regarding the damage to homes in the area caused by a recent Council sewer project, the Council works diligently to minimize impact to surrounding properties. For this reason, many projects involve efforts that help determine site conditions in and around the project prior to construction activities, as well as ongoing vibration monitoring during construction. When claims were made by homeowners in the CIDNA neighborhood in regards to damage caused by the sewer project, the Council became involved with its contractor and the contractor's insurance carrier to ensure that claims were investigated properly. At the request of homeowners, the Council's Risk Management department hired an independent adjuster to investigate the claims and a structural engineer to determine whether any damage might be related to the project.</p> <p>In terms of a specific liability plan during the construction of the Southwest LRT line, there will be a process in place to fully investigate any claim that the construction activities caused damage or injury. This process will also include insurance to respond to such claims. The Council will have a combination of insurance and self-insurance to respond to claims for incidents related to LRT, like the Council currently has for other LRT lines in the region. During the construction of the Southwest LRT line, the cost of this insurance is included in the cost estimate for the Project. Freight rail operators will continue to respond to claims, as they do now, to claims unrelated to LRT operations.</p> <p>With the exception of impact pile driving, the potential for damage from vibration is limited to within 20 feet of construction activities. The distance for the potential for damage from impact pile driving is up to 40 feet. Please see <i>Master Response 7: Concerns related to vibration impacts of LRT tunnel construction, for more information.</i></p> <p>Multiple commenters expressed concern that vibration impacts were not measured for residences that are within 45 feet of the light rail tracks. The distances for vibration receptors for the Project were less than 40 feet to 350 feet. Vibration-sensitive land uses for the Final EIS were identified based on aerial photography, Project drawings, and a site survey. The distance between the source (LRT) and the receptor (residence) is one factor affecting the vibration impact results.</p>	

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		<p>Other factors are the speed of the vehicle, obstructions between the source and receptor, special track work, etc. The actual distance between the tracks and every receptor in the Kenilworth Corridor was used in the assessment. Refer to Section 3.13 for more information on the vibration impact analysis methodology and mitigation.</p> <p>Commenters asked about noise and vibration impacts to upper floors of high rise buildings, including comments that noise and vibration will increase at higher elevations. Noise and vibration levels are highest closest to the source, which is the ground floor of buildings. Noise and vibration levels will be lower as noise moves further from the source, which would be at higher levels of high rise buildings, because energy (such as noise and vibration) does not increase with increasing distance from its source.</p> <p>Hazardous and Contaminated Materials As described in Section 3.14.2, Phase II Environmental Site Assessments have been completed for the full Project corridor, including the Kenilworth Corridor, since publication of the Supplemental Draft EIS. This assessment verified the extent and magnitude of hazardous materials in the Kenilworth Corridor. All Phase II ESA assessments completed for the Project are available for public review (see Appendix C for instructions on how to access these documents). Costs associated with remediation of contaminated materials is include in the Project budget.</p> <p>The Project will complete Response Action Plans (RAPs), Construction Contingency Plan (CCP), and Hazardous Building Material Surveys (see section 3.14.4 for more information).</p> <ul style="list-style-type: none"> • Response Action Plans (RAPs). RAPs are being developed by the Council and approved by MPCA to address the risks identified in the Phase II environmental site assessments. Upon MPCA approval of the RAPs, cleanup of identified contamination will begin prior to, or at the same time as, project excavation and/or drilling activities. All cleanup activities will be conducted with prior MPCA approval and in accordance with the approved Site Health and Safety Plans (HASPs).³ Qualified inspectors will monitor cleanup activities. A final report will be prepared and submitted to the MPCA documenting all removal and disposal activity. • Construction Contingency Plan (CCP). It is reasonable to expect that previously undocumented soil or groundwater contamination may be encountered during construction. The Council has prepared a Construction Contingency Plan (CCP) to address the discovery of unknown contamination (refer to Appendix C for instructions on how to access this document). The CCP was approved by MPCA and includes outlines of procedures for initial 	

³ Health and Safety Plans (HASPs) will be developed by the individual contractors as a requirement of the Project’s contract specifications. Contractors will also be responsible for implementation of HASPs.

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		<p>contaminant screening; soil and groundwater sampling; laboratory testing; and removal, transport, and disposal of contaminated materials at licensed facilities. Contaminated material removal and disposal will be in accordance with this plan, monitored by qualified inspectors, and documented in final reports for submittal to MPCA.</p> <ul style="list-style-type: none"> Hazardous Building Material Surveys. In addition to contaminated soil and groundwater, the potential exists for structures on acquired land to contain asbestos, lead paint, or other hazardous materials. Any existing structures on acquired land will be surveyed for the presence of hazardous/regulated materials prior to their demolition or modification. Potentially hazardous materials will be handled and managed in compliance with all applicable regulatory standards and will be disposed in accordance with all Hazardous Materials Abatement Plans for in-place hazardous/regulated materials, and the RAP/CCP for hazardous/regulated materials in the site soils. <p>Please see <i>Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor</i>. For responses to concerns regarding LRT operating in close proximity to Freight Rail, please see <i>Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor</i>.</p> <p>Economic Impacts Please see <i>Master Response 9: Concern over potential damages to property values within the vicinity of the Project</i>. Please also see <i>Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor</i>.</p> <p>The Project could lead to indirect impacts related to “spillover” parking in neighborhoods adjacent to proposed light rail stations. Spillover parking is unwanted parking by light rail riders in off-street parking lots or at on-street parking spaces adjacent to a light rail station. Spillover parking can result from a lack of park-and-ride lot capacity relative to demand for park-and-ride lot spaces, and can affect both businesses and residences by limiting available parking spaces for residents, visitors, customers, and employees. The Council will complete a Regional Park-and-Ride System Report on an annual basis to attenuate the impacts related to spillover parking. As part of this effort, the Council and Metro Transit will collaborate with regional transit partners, local governments, and the Minnesota Department of Transportation to conduct an annual regional park-and-ride survey, which tracks facility use and emerging travel patterns by park-and-ride users across the region to identify the appropriate mitigation. The results of this survey are published in the annual report. Spillover parking impacts can also be curbed by the local</p>	

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		<p>jurisdictions and residents by implementing a “residents parking” permit program, which would allow unlimited time parking for residents and visitors of residents.</p> <p>Studies have shown that investments in fixed route transitways can influence increased residential property values, even in affluent, upper middle class neighborhoods. As an example, in 1996, New Jersey Transit introduced “Midtown Direct” service, a one-seat ride to New York Penn Station on the Morris & Essex Lines. The expanded service led directly to an increase in property values of homes within walking distance of stations on the Morris & Essex line by \$90,000 more than homes farther away, after direct service to Midtown Manhattan was inaugurated in 1996 (Michaelson, 2004). Houses immediately adjacent to San Francisco’s BART (south and northeast of San Francisco) sold for nearly 38 % more than identical houses in areas not served by BART (Landis and Cervero, 1995). Residential rents decreased by 2.4% for every one-tenth mile further from Washington DC Metro stations (Benjamin and Sirmans, 1996). Single-family homes in communities served by Boston’s commuter rail were worth 6.7% more than similar homes in other communities (Armstrong, 1994). In Chicago, the prices of single-family houses located within 1,000 feet of stations were 20% higher than comparable houses located a mile away (Gruen, 1997). Median home prices in the Philadelphia region were 10% higher in census tracts served by PATCO rail line, and 4% higher in tracts served by SEPTA rail line (Voith, 1991). Light rail construction has the potential to cause environmental impacts including disruptive noise levels; visual impacts; and reductions in vehicular access and parking. The rate and timing of such impacts would depend on the location of the property relative to the new station, changes in business activity during construction and operation of the system, business visibility, and local land use plans and development standards. As described in Section 3.2, potential mitigation measures for construction impacts visual quality, noise, vibration, and traffic impacts are discussed in Sections 3.7, 3.12, 3.13, and 4.2 respectively. In order to minimize short-term impacts to business, the Council has developed a Construction Communication Plan. The purpose of the Construction Communication Plan is to prepare project-area residents, businesses, and commuters for construction; listen to their concerns; and develop plans to minimize harmful or disruptive effects.</p> <p>Regarding concerns over potential impacts to the Kenwood Elementary School, as described in Appendix K, noise and vibration impacts from LRT are greatly reduced beyond a distance of 350 feet from the tracks (see Appendix K). The Kenwood Elementary School is approximately 1,770 feet from the LRT alignment and noise and vibration impacts are not expected for this location.</p> <p>The Project will perform pre-construction surveys to document the existing conditions in the vicinity of construction activities. Photo documentation of construction staging sites, haul routes, and existing buildings and streetscape existing conditions will be conducted prior to beginning the</p>	

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		<p>work. Photo documentation shall include the following existing features of the site: paving, curb and gutter, water valves, hydrants, storm drainage and sanitary sewer inlets and manhole rings, plumbing, ceilings, roofs, walls, windows, masonry, foundations, signage, traffic signal equipment, lighting, overhead utilities and skyways, fences and walls, driveways, sidewalk, building fronts, and above-ground utilities.</p> <p>Construction vehicle routes will be determined prior to construction and the contractor will be required to maintain corridor access points and haul routes and clean them at least once per day. Cleaning shall consist of removal and disposal of dust, dirt, mud, snow, and other material associated with construction activities. Accumulated snow and ice will be removed within 24 hours of the snowfall from access areas and any areas under the control of the contractor which are subject to use by pedestrian and vehicular traffic by the public.</p> <p>Regarding comments on additional Project related costs (e.g., dewatering of contaminated soil, removing contaminated soil, and relocation of existing sewers), these costs are considered in the Project's cost estimate. In the case of lost property tax revenue, this is assessed in Section 3.2.2.2 of the Final EIS. Regarding damage during construction, see <i>Master Response 7: Concerns related to vibration impacts of LRT tunnel construction</i>.</p> <p>Regarding concerns that the Project will have an adverse economic impact on the City of Minneapolis and tourism in the area, the economic impacts to the park area is not a likely impact from the Project, and therefore decreases in tourism were not assessed. As noted in Section 3.6 of the Final EIS, proximity impacts on park properties will not substantially impair those properties. Instead, increased access to portions of the Minneapolis Regional Chain of Lakes is likely to result from the Project, due to improved transit access provided by the proposed light rail line. The Final EIS Section 3.2.3.2 of the Final EIS assesses long-term indirect economic impacts of the Project.</p> <p>Roadway and Traffic</p> <p>In locations where there will be at-grade light rail crossings of roadways, such as West 21st Street (which provides access to East Cedar Lake Beach and the residences on Upton Avenue South), the potential exists for increases in emergency response time as a result of delay to emergency vehicles while LRVs are in the crossing. For information on emergency response times, see <i>Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor</i>.</p> <p>Construction activities could result in short term impacts to neighborhoods, such as increased roadway congestion, temporary closures of roadways, and roadway detours, all of which may increase both automobile and truck traffic through residential neighborhoods. Construction</p>	

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		<p>activities could also result in temporary increases in vehicle traffic on local roadways where relatively little vehicle traffic exists today.</p> <p>Specific mitigation measures for short-term impacts related to temporary construction activities, such as allowable work hours, will be identified in the Construction Mitigation Plan and Construction Communication Plan, which will be implemented by the Council prior to and during construction. Any damages to local roadways related to construction activities will be repaired prior to the completion of construction. The cost of these repair activities are included in the capital costs estimates for the Project as shown in Section 7.1. The purpose of the Construction Communication Plan is to prepare Project-vicinity residents, businesses, and commuters for construction; to listen to their concerns; and to develop plans to minimize harmful or disruptive effects. Strategies may include:</p> <ul style="list-style-type: none"> • Issue construction updates and post them on the Project website • Provide advance notice of roadway closures, driveway closures, and utility shutoffs • Conduct public meetings • Establish a 24-hour construction hotline • Prepare materials with applicable construction information • Address property access issues • Assign staff to serve as liaisons between the public and contractors during construction <p>In addition, the Council will develop and implement a construction staging plan (staging plan), which will be reviewed with the appropriate jurisdictions and railroads, and the contractor will be required to secure the necessary permits and follow the staging plan, unless otherwise approved. Components of a staging plan include traffic management plans and a detailed construction timeline.</p> <p>The Council will require that construction equipment used by contractors be properly muffled and in proper working order and maintenance of construction sites are adhered to.</p> <p>Parking The Project will not result in direct impacts to on-street parking in the area of the proposed 21st Street Station as no on-street parking spaces will be eliminated as a result of station construction. The Project does not include any park and ride lots within the City of Minneapolis, including 21st Street Station.</p> <p>While spillover parking could occur at stations where there are no park-and-ride lots planned, spillover parking is not expected to occur at 21st Street Station as the cumulative (e.g., project wide) supply of park-and-ride lot spaces will meet and exceed the forecasted demand for park-</p>	

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		<p>and-ride lot parking spaces in the Project's opening year (2020). The travel demand forecasts show a deficit of approximately 650 park-and-ride spaces in the Project's forecast year (2040), but this forecast deficit is predominantly concentrated at the proposed SouthWest and Beltline Stations, and is not anticipated to affect 21st Street Station (see Section 4.3.3.1 of the Final EIS for more information on the travel demand forecasts for park-and-ride lots and Section 4.3.3.2 for more information on spillover parking). Spillover parking impacts can also be curbed by the local jurisdictions and residents by implementing a "residents parking" permit program, which would allow unlimited time parking for residents and visitors of residents.</p> <p>In order to mitigate potential unauthorized use of on-street and/or off-street parking, the Council will complete a Regional Park-and-Ride System Report on an annual basis. As part of this effort, the Council and Metro Transit will collaborate with regional transit partners, local governments, and the Minnesota Department of Transportation to conduct an annual regional park-and-ride survey, which tracks facility use and emerging travel patterns by park-and-ride users across the region to identify the appropriate mitigation, as needed and where feasible. The results of this survey are published in the annual report.</p> <p>Freight Rail As described in Section 1.1, the need to maintain a balanced and economically competitive multimodal freight system was identified as one of four primary need factors included in the Project's Purpose and Need Statement dating back to the Draft EIS. This need statement is included due to the various alternatives in the Draft EIS that would impact freight rail in different ways (i.e., freight rail co-location or relocation).</p> <p>Regarding comments on the evaluation of freight rail, the Draft EIS evaluated two ways in which freight rail modifications could be incorporated into the LPA. Under freight rail relocation (included in LRT 3A), TC&W freight trains currently operating along the Bass Lake Spur and Kenilworth Corridor would be rerouted to the MN&S Spur and Wayzata Subdivisions; or, under freight rail co-location (included in LRT 3A-1), the TC&W freight trains would continue to operate along the Bass Lake Spur and Kenilworth Corridor. The Draft EIS refers to LRT 3A and LRT 3A-1 as "relocation" and "co-location," respectively. As noted in the Draft EIS and Supplemental Draft EIS, LRT 3A and LRT 3A-1 are identical in the transit service they would provide, and the LPA is a subset of both LRT 3A and LRT 3A 1. The change from LRT 3A to LRT 3A-1 as the environmentally preferred alternative was one of the primary reasons for completing further analysis in the Supplemental Draft EIS. In October 2013, as directed by the Chair of the Metropolitan Council, in coordination with Governor Dayton, the Council commissioned an independent study to conduct a review of existing and potential freight rail relocation alternatives. The scope of the analysis generally covered the following: identification of operational cost drivers; identification of</p>	

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		<p>community and other impacts; and assessment of possible operational adjustments (refer to Appendix F for additional information). See <i>Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data</i> and <i>Master Response 10: Rationale for incorporating freight rail co-location into the Project</i>.</p> <p>The Kenilworth Corridor complies with Class 2 standards, as specified in the USDOT FRA Code of Federal Regulations (CFR) 49, Track Safety Standards, Part 213. CFR 49, Part 213.9 identifies “The maximum allowable operating speed for freight trains” as 25 mph for Class 2 track. However, based on discussions with TC&W, the Council understands that TC&W will continue to operate at a maximum speed of 10 mph in the Kenilworth Corridor.</p> <p>Freight rail operations within the Kenilworth Corridor are subject to many factors, including Surface Transportation Board regulations that govern freight rail commerce and local, regional, and national market forces that effect freight rail operations and facility development, both of which are outside of the scope of influence of the Project.</p> <p>In terms of a specific liability plan during the construction of the Southwest LRT line, there will be a process in place to fully investigate any claim that the construction activities caused damage or injury. This process will also include insurance to respond to such claims. The Council will have a combination of insurance and self-insurance to respond to claims for incidents related to LRT, like the Council currently has for other LRT lines in the region. During the construction of the Southwest LRT line, the cost of this insurance is included in the cost estimate for the Project. Freight rail operators will continue to respond to claims, as they do now, to claims unrelated to LRT operations.</p> <p>Currently TC&W operates approximately 2-5 trains per day, carrying agri-goods, coal and ethanol (See Table 4.4-1 of the Final EIS). Please see Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor.</p> <p>Regarding the Pipeline Hazardous Materials Safety Administration (PHMSA), the Secretary of Transportation has authority over all areas of railroad transportation safety (Federal railroad safety laws, principally 49 U.S.C. chapters 201–213), and delegates this authority to the Federal Railroad Administration (FRA) under 49 CFR 1.89. Under authority delegated to FRA by the Secretary of Transportation, the Hazardous Materials Division of FRA administers a safety program that oversees the movement of hazardous materials (including dangerous goods), such as petroleum, chemical, and nuclear products, throughout the nation’s rail transportation system (49 CFR 171-180). FRA inspects and audits railroads, tank car facilities, and offerors for compliance with both FRA and PHMSA regulations. See Section 4.4.2.1 for additional information on the FRA.</p>	

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		<p>Federal hazardous materials transportation law (49 U.S.C. 5101-5128) authorizes the Secretary of Transportation (Secretary) to “prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce.” The Secretary delegated this authority to Pipeline and Hazardous Materials Safety Administration (PHMSA) under 49 CFR § 1.97(b). PHMSA is responsible for overseeing a hazardous materials safety program that minimizes the risks to life and property inherent in transportation in commerce.</p> <p>As a result of the delegations by the Secretary of Transportation, FRA and PHMSA have a shared role in the safe and secure transportation of hazardous materials by rail. In particular, on May 1, 2015, the USDOT announced its Final Rule to Strengthen Safe Transportation of Flammable Liquids by Rail. The final rule, developed by 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 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 the TC&W) to perform a variety of tasks with respect to its management of trains carrying HHFTs. 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 (e.g., a train with more than 25 tanker railcars carrying oil or hazardous substance cargo).</p> <p>In regards to the comment expressing concern over the FRA waiver or abdication of jurisdiction, the FRA has provided a preliminary jurisdiction determination for the Project on its regulatory role in the implementation of the proposed light rail at-grade crossings of roadways in the vicinity of existing freight rail at-grade crossings (see Appendix F). In that preliminary determination, FRA tentatively concluded that the proposed Southwest LRT Project will be an urban rapid transit (URT) operation and, therefore, FRA will not exercise its safety jurisdiction over the Project, except to the extent that it is necessary to ensure railroad safety at any limited shared connections between the Project and other railroad carriers that operate on the general railroad system of transportation. The Council will work with the FRA on a final jurisdiction determination for the Project during Engineering. Regulation over the safety of freight rail operations are outside of the jurisdiction of the Council and FTA. For more information, see <i>Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor</i>. Regarding concerns about AREMA safety guidelines regarding track separation, it is not uncommon practice for electrified railroads to be aligned adjacent to freight rail corridors and Council staff have surveyed several transit properties that operate in those conditions, highlighting safeguards that they have implemented as best management practices. Safeguards that are consistent with</p>	

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		<p>nation-wide best management practices identified in that survey will be implemented by the Council to ensure that the Project is designed and operated safely adjacent to freight rail alignments. For more information, see Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.</p> <p>Regarding comments about the safety of freight rail, commuter rail (Northstar) and LRT operating near the Target Field Station and Twins Stadium, LRT does not currently, nor will it under the Project, operate under Target Field.</p> <p>Public safety and security within the study area is provided by the city, MPRB and Metro Transit police departments, fire departments, and emergency response units of the Cities of Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis. Emergency medical services are located in each city. Through the municipal police and fire departments, each community within the affected area has developed an Emergency Operations Plan for all types of emergencies. For information on emergency response times, see <i>Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor</i>.</p> <p>When in operation, the light rail alignment will not cross any arterial streets at-grade in Minneapolis, southwest of Downtown. The light rail alignment will cross one neighborhood street at-grade that provides access to six homes and a public beach. This street crossing will be a shared crossing with freight and light rail trains and will be controlled with flashing lights, bells and gate arms.</p> <p>For responses to other comments on freight rail, refer to the following master responses:</p> <ul style="list-style-type: none"> • <i>Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail co-location.</i> • <i>Master Response 2: Project sought municipal consent prior to the publication of the Supplemental Draft EIS</i> • <i>Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor</i> • <i>Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.</i> • <i>Master Response 10: Rationale for incorporating freight rail co-location into the Project</i> 	

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		<ul style="list-style-type: none"> • <i>Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor</i> <p>Bicycle and Pedestrian There are no long-term impacts on the Kenilworth Trail, specifically because the trail will be maintained in its current location after construction of the Project. Further, the trail is not a noise sensitive land-use due to the active recreation that occurs on the trail, per FTA noise assessment criteria. Refer to Section 4.6.3.1, At-Grade LRT Crossings, for information on safety measures for at-grade crossings. Refer to <i>Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor</i>, for additional information on safety measures included in the Project.</p> <p>In addition, the Council, City of Minneapolis, MPRB, and Hennepin County undertook the West Lake Multimodal Transportation Study, completed in February 2016. The goal of the study was to identify opportunities to address non-motorized and motorized travel within the West Lake LRT Station area with projects that can be implemented as a part of the construction of the Southwest LRT or as part of other capital initiatives. The study report includes Green Line Design Recommendations that will be constructed as part of the Project, including enhanced crosswalk markings at specific intersections, and wayfinding signage.</p> <p>Safety and Security For instances where the roadway crossings will include crossings for sidewalks and trails, such as 21st Street in the Kenilworth Corridor, crossings and controls will be designed to promote pedestrian and bicycle safety and will include space between the freight tracks and the light rail tracks to allow sidewalk and trail users to have refuge space in the event of a freight and light rail train passing simultaneously. In addition, these crossings will be equipped with detectable warnings and fences lining the crossing paths to bring attention to the freight or light rail crossing locations. The design details of pedestrian and bicycle safety features will be made during Engineering and finalized prior to construction.</p> <p><i>See Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor. Also see Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor.</i></p> <p>Metro Transit Police currently provide roving security for the bus transit facilities within the Metro Transit service area (i.e., area with existing Metro Transit bus service). Transit police routinely patrol bus routes, bus stops, and transit centers. Transit police officers currently travel along the METRO Blue Line and METRO Green Line LRT lines to provide security at stations and on rail</p>	

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		<p>cars and will provide similar services for the Project and will patrol the area surrounding 21st Street Station with the Project. In addition, the Project will coordinate with MPRB Police regarding safety and security issues, particularly at 21st Street Station. This coordination will occur through the FLSSC, as described in the Project’s SSMP (Council, 2014).</p> <p>Under the Project, LRT service will operate from 4:00 a.m. to 2:00 a.m. with 10 minute headways during daytime operating hours. While service to 21st Street Station will not cease at 10:00 p.m., service headways will be reduced to 20 minutes from 9:00 p.m. to 10:15 p.m., 30 minutes from 10:15 p.m. to 12:15 a.m., and 60 minutes from 12:15 a.m. to 2:00 a.m.</p> <p>As described in Section 4.2, the Project will result in temporary lane closures or shifts at Cedar Lake Parkway during Project construction, however, at least one lane in each direction will remain open during construction. Construction sequencing will be further refined prior to construction, during the Engineering phase of the Project.</p> <p>Mitigation measures for short-term (construction) impacts to roadways and traffic will be implemented by the Council prior to and during construction through the Construction Mitigation Plan, which includes a Construction Communication Plan and a construction staging plan. MnDOT, Hennepin County, and all municipalities affected by construction activities related to the Project will require compliance with applicable state and local regulations related to the closing of roadways and the effects of construction activities. Contractors will be required to comply with all guidelines established in the Minnesota Manual on Uniform Traffic Control Devices (2015). Construction staging and mitigation documents will be reviewed by appropriate jurisdictions, and required permits will be secured. Traffic control plans will be developed by the contractor based on information identified in the construction documents and the Construction Mitigation Plan. Traffic control plans will be reviewed by appropriate jurisdictions and the Council prior to the initiation of construction activities</p> <p>Section 4(f) Evaluation The Draft Section 4(f) Evaluation Update in Section 3.5 of the Supplemental Draft EIS included a preliminary Section 4(f) <i>de minimis</i> impact determination for the Kenilworth Channel/Lagoon, as part of the Minneapolis Chain of Lakes Regional Park. It also included a preliminary non-<i>de minimis</i> use determination for the Kenilworth Lagoon, which is a contributing element to the Grand Rounds Historic District. As noted in the Supplemental Draft EIS and in the Final EIS, the Kenilworth Channel/Lagoon and the Kenilworth Lagoon are distinct Section 4(f) properties, with different boundaries and different characteristics that qualify them for Section 4(f) protection – most importantly the Kenilworth Channel/Lagoon is a qualifying park/recreation property and the</p>	

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		<p>Kenilworth Lagoon is a qualifying historic property. The Section 4(f) analysis in the Supplemental Draft EIS and Final EIS reflects those two different properties and their differing characteristics.</p> <p>Chapter 6 of the Final EIS contains the Project's Final Section 4(f) Evaluation and those <i>de minimis</i> and non-<i>de minimis</i> determinations, respectively. Regarding the <i>de minimis</i> impact determination for the Kenilworth Channel/Lagoon, although the Project would incorporate 0.3 acres from this recreational resource and there would be changes to both visual and noise conditions, the Project would not adversely affect the features, attributes or activities that make the Kenilworth Channel/Lagoon a significant recreation resource as summarized below:</p> <ul style="list-style-type: none"> • Removal of the existing bridges and construction of the new bridges will allow for the continuation of park uses and recreational activities within the easement – recreational watercraft will be able to utilize the channel connection between Cedar Lake and Lake of the Isles in the same manner they do currently. • Per visual analysis contained in Section 3.7 of the Final EIS, the overall level of visual impact at the Kenilworth Channel/Lagoon will be “low”. • As mitigation, the Project will install a two-foot-high noise barrier (i.e., parapet wall) above the top of the rail on both sides of the LRT bridge, along with rail dampers on both tracks, extending 150 feet in each direction from the center of the LRT bridge (300 feet total). This mitigation measure will reduce noise levels at the channel/lagoon from a moderate impact to no impact. • Mitigation measures have been developed to offset the temporary closure/s of the lagoon for safety purposes during construction (these measures were developed with MPRB consultation and are included in the Project's Section 106 Memorandum of Agreement (see Final EIS Appendix H). <p>The non-<i>de minimis</i> use determination for the historic Kenilworth Lagoon in the Final EIS is based on the FTA's and the Minnesota Historic Preservation Office's final determination of adverse effect on the historic property. In accordance with Section 4(f) regulations, the non-<i>de minimis</i> use determination for the Kenilworth Lagoon included a full evaluation of all potential feasible and prudent avoidance alternatives to the use of the Kenilworth Lagoon, all possible planning to minimize harm to the historic site, and an assessment of least overall harm. As described in Section 3.5.4.2 of the Supplemental Draft EIS and Section 6.7.2 of the Final EIS, only the No Build Alternative and Enhanced Bus Alternative would not have a use of the Kenilworth Lagoon/Channel, but both alternatives were found to not be prudent per 23 CFR 774.17(3)(i) because neither alternative addresses nor corrects the transportation purpose and need that</p>	

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		<p>prompted the proposed Project. As part of the least overall harm assessment, both a Shallow LRT Tunnel – Under Kenilworth Lagoon Option and a Shallow LRT Tunnel – Jacked Box Tunnel Under Kenilworth Lagoon Option were considered, with FTA and the Council determining that, compared to the Shallow LRT Tunnel – Jacked Box Tunnel Under Kenilworth Lagoon Option, the Shallow LRT Tunnel – Over Kenilworth Lagoon Option would result in the least overall harm to the Kenilworth Lagoon/Grand Rounds Historic District because the two tunnel options would leave little (if any) of the contributing elements of the Grand Rounds Historic District in place, thus limiting the ability to effectively mitigate adverse effects to the property (please see Section 3.5 of the Supplemental Draft EIS and Chapter 5 of the Final EIS for additional information). Further, the two options would cost up to \$125 and \$145 million more, respectively, and would delay projected benefits by up to one year, compared to the Project. In particular, the MPRB, which had proposed the study of the Shallow LRT Tunnel – Jacked Box Tunnel Under Kenilworth Lagoon Option, concluded in an independent study that the option would “not be prudent.”</p> <p>As noted in Section of 2.3.3.2 of the Supplemental Draft EIS, a deep bore tunnel option under the Kenilworth Channel/Lagoon was dismissed within Step 2 of the St. Louis Park/Minneapolis Segment Design Adjustment process because, among other reasons, it had the highest capital costs of all options, which was determined economically infeasible at the regional level; this tunnel option is not an avoidance alternative because it would have resulted (like all other tunnel and bridge options) in a use of the Kenilworth Channel/Lagoon and because it would have an associated Section 106 adverse effect on the existing historic bridge structure.</p> <p>The Council’s and FTA’s measures to minimize harm to protected Section 4(f) properties that are historic, including mitigation measures associated with the Kenilworth Lagoon and other historic properties affected by the Project, are addressed in the Project’s Section 106 Memorandum of Agreement, which is included in Appendix H of the Final EIS, and in the appropriate sections of Chapter 6 of the Final EIS. Since publication of the Supplemental Draft EIS and after the close of the public comment period on the Supplemental Draft EIS, the MPRB has concurred in writing with FTA’s Section 4(f) <i>de minimis</i> impact determination for the Kenilworth Lagoon.</p> <p>The impact analysis for the assessment of visual impacts to both properties was prepared based on FHWA’s Visual Impact Assessment of Highway Projects (FHWA, 1988). That methodology and the results of the analysis are documented in Section 3.7 of the Final EIS. As described in Section 3.7, the commenter is correct that the Project will affect the view within the Kenilworth Channel/Lagoon (Viewpoints 15, 16, and 17 – see Exhibits J-20, J-21, and J-22 in Appendix J of the Final EIS); the assessment concludes that the overall level of visual impact at viewpoints 15, 16, and 17 will be moderate, low, and substantial, respectively. The existing and immediately adjacent trail vegetation within this corridor, as seen in this view, will be removed. The vegetation</p>	

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		<p>removal is necessary to accommodate the aboveground segment of the light rail alignment as it approaches the lagoon crossing. The freight line will also be shifted to the north. Fencing will be installed on both sides of the bike/pedestrian trail corridor. Reduction in the tree masses, again immediately adjacent to the trail, and elimination of the existing split rail fencing along the trail, will reduce the vividness of the view. There will be a slight reduction in visual intactness and a limited reduction in visual unity. The reduction in the visual quality of this view will be moderate (refer to the visual quality and aesthetics section of this response for additional information). As in other areas along the Kenilworth Corridor, the level of visual sensitivity is high. Because the visual sensitivity of this view is high and the change in the level of visual quality will be moderate, the level of visual impact will be moderate. Note that the reference to clearances within the channel under the Project as being adequate to accommodate recreational activities within the channel pertain to recreational activities, such as boating or cross country skiing, not to the visual and aesthetic impacts to the properties.</p> <p>The Project's noise analysis for the Kenilworth Channel/Lagoon is based on FTA's <i>Transit Noise and Vibration Impact Assessment</i> guidance manual (FTA, 2006). Section 3.12 summarizes the impact analysis and mitigation measures related to the noise sensitive areas of the channel, which include a parapet wall and rail damper on the LRT bridge over the waterway to mitigate moderate noise impacts to the Channel. The Section 106 MOA also specifies the related noise mitigation measures that will be implemented with the Project due to the channel being a historic property.</p> <p>The Project's vibration analysis for the Kenilworth Channel/Lagoon is also based on FTA's <i>Transit Noise and Vibration Impact Assessment</i> guidance manual (FTA, 2006). Vibration-sensitive land uses for the Final EIS were identified based on aerial photography, Project drawings, Project outreach to businesses to identify sensitive uses within buildings, and a site survey. Based on the FTA guidance, the channel is not considered a vibration sensitive receptor. See Section 3.13 and Appendix K of the Final EIS for further information.</p> <p>Concerning coordination with MPRB, FTA and the Council have coordinated with the MPRB extensively since January 2015, especially regarding park properties over which the MPRB has jurisdiction. The Final EIS includes the Project's Final Section 4(f) Evaluation (see Chapter 6), which considers if the Project has a temporary or permanent use of qualifying publicly owned and publicly accessible parks and recreation areas, historic resources (independent of ownership), and publicly owned wildlife and waterfowl refuges protected under Section 4(f). In the Final Section 4(f) Evaluation, FTA has also assessed proximity impacts to parks not used by the Project and determined that there would be no proximity impacts that would substantially impair the activities, features and attributes that qualify the parks for 4(f) protection. In March 2015, MPRB</p>	

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		<p>stated its understanding of the Project's effects on the Kenilworth Channel/Lagoon as an element of the Minneapolis Chain of Lakes Regional Park (see Appendix I). The Council and FTA continued Section 4(f) coordination activities with MPRB as the official with jurisdiction for several Section 4(f) properties through the completion of the Project's Final Section 4(f) Evaluation. That coordination included receipt of the MPRB's written concurrence with following: FTA's Section 4(f) <i>de minimis</i> impact determination for the Kenilworth Channel/Lagoon, an element of the Minneapolis Chain of Lakes Regional Park; FTA's Section 4(f) <i>de minimis</i> impact determination for the Bryn Mawr Meadows Park; and FTA's temporary occupancy exemption determination for Cedar Lake Park (see Appendix I of the Final EIS). These Section 4(f) coordination activities were coordinated with the execution of a Section 106 Memorandum of Agreement (MOA) for historic resources, including the Kenilworth Lagoon/Grand Rounds Historic District (see Appendix H). MPRB is an invited signatory to the Section 106 MOA specifying mitigation measures for both the Kenilworth Lagoon/Grand Rounds Historic District and the Kenilworth Channel/Lagoon as an element of the Minneapolis Chain of Lakes Regional Park; mitigation measures specified in the MOA are as follows:</p> <ul style="list-style-type: none"> • Install a parapet wall and rail damper on the LRT bridge over the waterway to mitigate the moderate noise impact at the Kenilworth Lagoon. • Rehabilitate/Reconstruct WPA Rustic Style Retaining walls to minimize and mitigate adverse effects. • Design Project elements within and adjacent to the Grand Rounds Historic District in accordance with the <i>SOI's Standards</i> (36 CFR 68), to be reviewed by the MnHPO and consulting parties, to further minimize adverse effects. • Develop a Construction Protection Plan detailing the measures to be implemented during Project construction to avoid adverse effects. • Prepare guidance for future preservation activities within the portion of the Grand Rounds Historic District: Canal System, including adjacent parkland, extending from the north end of Lake Calhoun to the east end of Cedar Lake, and including the entirety of the Lake of the Isles Park and Kenilworth Lagoon elements (Attachment D). The plans shall be prepared in accordance with the <i>SOI's Standards</i> (36 CFR 68); the <i>SOI's Standards for Preservation Planning</i>; the NPS's <i>Guidelines for the Treatment of Cultural Landscapes</i>, Preservation Briefs and Tech Notes. <p>The No Build Alternative and the Enhanced Bus Alternative are included within the Project's No Prudent and Feasible Alternatives Analysis in Chapter 6 of the Final EIS because of the</p>	

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		<p>alternatives identified they are the only alternatives that would fully avoid the use of any Section 4(f) protected property. All other alternatives would have some non-<i>de minimis</i> or <i>de minimis</i> impact to at least one Section 4(f) property, as documented in the Final EIS, Supplemental Draft EIS or Draft EIS. Within the Project's No Prudent and Feasible Alternatives Analysis in Chapter 6 of the Final EIS, FTA has determined that neither the No Build Alternative nor the Enhanced Bus Alternative would meet the Project's Purpose and Need and, therefore, they do not constitute a prudent alternative under Section 4(f). Please see Chapter 6 of the Final EIS for additional detail.</p> <p>The US Department of the Interior comments on the Draft Section 4(f) Evaluation Update note that it does not have authority to agree to <i>de minimis</i> findings but states that determinations appear to have been applied correctly.</p>	
16	Concerns related to 21st Street Station and related impacts	<p>There were multiple related comments concerning the proposed 21st Street Station. Comments generally either expressed support for the inclusion of the 21st Street Station in the Project or expressed concerns over impacts related to the 21st Street Station. The following is a list of specific comments related to the 21st Street Station, followed by responses to these comments.</p> <ul style="list-style-type: none"> • Support for the inclusion of the 21st Street Station in the Project • Lack of transit ridership at 21st Street Station • Concern over delays to emergency response vehicles related to the at-grade LRT crossing at 21st Street • Concern over safety of roadway, trail, and sidewalk crossings of the LRT and freight rail corridor at 21st Street • Concern over visual impacts at 21st Street Station • Concern over noise impacts at 21st Street Station • Potential development near 21st Street Station • Concern over traffic impacts related to 21st Street Station <p>Support for the inclusion of the 21st Street Station in the Project As described in Section 2.1 and illustrated in Appendix E, the 21st Street Station will be included in the Project. As described in Section 2.2.5, a range of design adjustments were evaluated after publication of the Supplemental Draft EIS. In particular, changes to the Project design were identified to better avoid impacts, integrate mitigation measures, and allow for cost reductions associated with the Project. The Council, in coordination with the CMC and local jurisdictions (including the City of Minneapolis which supports the inclusion of the 21st Street Station in the Project), evaluated the option of eliminating or deferring stations in July 2015 based on evaluation of several factors including ridership. During this time period, public testimony was received</p>	7, 37, 67, 101, 126, 143, 171, 204, 211, 214, 223

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		<p>(including that from the Native American Community Development Institute), noting that the 21st Street Station will provide members of the Native American community living in the vicinity of Franklin Avenue with the most direct connection to employment centers in the Southwest Corridor (versus any of the other Southwest LRT stations in Minneapolis). That testimony was provided at the April 2, 2014, Corridor Management Committee (CMC) meeting (see Section 5.3.2). Based on the evaluation of a ranges of potential design adjustments and recommendations received, the proposed 21st Street Station was retained by the Council as part of the Project.</p> <p>Lack of transit ridership at 21st Street Station As described in Section 4.1 of the Final EIS, Transit, a 14 percent increase (13,000 new trips) is forecast in average weekday transit trips under the Project, compared to the No Build Alternative (2040). These new transit trips include a projected combined total of over 2,000 daily boardings and alightings (ons and offs) at the proposed 21st Street Station on an average weekday. The 21st Street Station will not be as frequently used as West Lake Station, but is expected to see more frequent use than several other stations. The Council evaluated eliminating or deferring stations between May and July 2015 based on evaluation of several factors, including forecast transit ridership.</p> <p>Forecast transit ridership at proposed light rail stations in 2040 (average weekday) is provided in Section 4.1 of the Final EIS. The Council's regional travel demand model results, which have been reviewed and approved by the FTA, served as the primary data source for this analysis. Refer to the <i>Draft Travel Demand Methodology & Forecast, Revision 3, Southwest LRT Technical Report</i> listed in Appendix C for a more detailed description of the travel demand forecasting methodology and related forecasts. In summary, the Council's travel demand forecasting model has been calibrated based on existing transit ridership data and various other survey data. Further, the model is based on regionally and locally adopted land use plans and population and employment forecasts for 2040. The model forecasts are also based on the existing and proposed transportation networks in 2040, based on the Council's adopted 2040 Transportation Policy Plan. Finally, the model forecasts are based on the current definition of the Project, summarized in Chapter 2 of the Final EIS and illustrated in Appendix E of the Final EIS.</p> <p>In addition, bus service in the Southwest Corridor will be modified as appropriate to meet demand and provide connections to the proposed Southwest LRT stations (see Section 4.1). Exhibit 4.1-5 in the Final EIS illustrates the Project bus operation Plan; Exhibit 4.1-4 shows the bus operations plan under the No Build Alternative. Metro Transit currently provides bus service to the vicinity of the proposed 21st Street Station via bus route 25. This service is proposed to continue under both</p>	

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		<p>the No Build and the Build Alternative (service will be provided directly to the proposed 21st Street Station). Currently, no additional bus service to this area is proposed under the Project.</p> <p>Concern over delays to emergency response vehicles related to the at-grade LRT crossing at 21st Street In locations where there will be at-grade light rail crossings of roadways, such as West 21st Street, the potential exists for increases in emergency response time as a result of delay to emergency vehicles while LRVs are in the crossing.</p> <p>As described in Section 4.6, access for emergency response vehicles to cross the Kenilworth Corridor will be maintained at all times during construction and operation of the Project in accordance with all relevant laws and standards</p> <p>For more information on safety, including information on emergency response times, refer to <i>Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.</i></p> <p>Concern over safety of roadway, trail, and sidewalk crossings of the LRT and freight rail corridor at 21st Street The design of the proposed 21st Street Station includes appropriate safety features and treatments, including flashing lights and vehicle gates on West 21st Street. In addition, for instances where the roadway crossings will be designed to promote pedestrian and bicycle safety and will include space between the freight tracks and the light rail tracks to allow sidewalk and trail users to have refuge space in the event of a freight and light rail train passing simultaneously. In addition, these crossings will be equipped with detectable warnings and fences lining the crossing paths to bring attention to the freight or light rail crossing locations. The design details of pedestrian and bicycle safety features will be made during Engineering and finalized prior to construction. See Section 4.6 of the Final EIS for the Project's assessment of safety and security. See Appendix E of the Final EIS for an illustration of the pedestrian facilities proposed at 21st Street Station.</p> <p>Concern over visual impacts at 21st Street Station The visual quality evaluation for the area surrounding 21st Street station concluded that the level of visual impact at the 21st Street Station will be low. As documented in Section 3.7 and Appendix J, the visual quality evaluation analyzed a representative view for the 21st Street Station area looking toward the Kenilworth Corridor Crossing of West 21st Street (viewpoint 18). The elements of the visual environment at this location include the intersection of a two lane roadway with the rail/trail corridor which is bordered by tall thick trees.</p>	

MR ID ^a	Topic	Master Response	Original Comment Number
		<p>The visual quality evaluation considered the change in overall visual quality from existing conditions to the Project, based on the vividness, intactness, and the unity of the view. Ratings were assigned based on a scale of 1-7, with 7 being very high quality and 1 being very low. The overall visual quality rating for the 21st Street Station area (viewpoint 18) under existing conditions is medium (4.5), based on the following:</p> <ul style="list-style-type: none"> • Existing vividness rating - 4. There is no topographic variation and the human-made elements include the paved streets, the bike trail, and rail lines as they cross the streets. The tree masses that border the streets, and the glimpse of the cleared rail/trail corridor through the thick trees create a medium degree of memorability • Existing intactness rating – 5. View is relatively free of visual encroachment • Existing unity rating – 4.5. The view up the tree-bordered road provides a focal point for the view, and the hint of the rail/trail corridor cut through the forest provides a point of visual interest. <p>The visual quality evaluation found that the overall level of visual quality change for the 21st Street Station area (viewpoint 18) will be low, based on the following:</p> <ul style="list-style-type: none"> • Project vividness rating – 4. Removal of trees on left side of view will slightly decrease the vividness of the view, but the addition of the street trees depicted in the simulation, the widened sidewalk and the plantings in the area along the tracks will make a positive contribution so the overall level of vividness will remain the same • Project intactness rating – 5. The level of intactness of the view will be similar to existing conditions • Project unity rating – 5. The LRT facilities will be consistent with the alignment of the existing trail and freight rail tracks and the removal of the utility pole and the addition of the sidewalks along the west side of 21st Street will enhance the composition of the view, leading to a slight increase in visual unity <p>The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. Furthermore, the Council retained a landscape design consultant</p>	

MR ID ^a	Topic	Master Response	Original Comment Number
		<p>to prepare a landscape design study for the Kenilworth Corridor, which will be implemented into the Project. See Section 9.2 of the Final EIS for additional detail on this committee.</p> <p>Concern over noise impacts at 21st Street Station As shown in Table 3.12-5, from Lake Citihomes to South Upton Avenue there will be 18 buildings with moderate noise impacts and one building with a severe noise impact without mitigation; with mitigation, there will be residual noise impacts (moderate) at five buildings (seven units at Lake Citihomes and four residences at Burnham Road North). The residences with residual moderate noise impacts do not meet the threshold for mitigation (e.g., impact does not meet 3-dB increase threshold) as defined by Council's Regional Transitway Guidelines (see Appendix D).</p> <p>Some of the noise impacts near 21st Street Station will be mitigated by the use of wayside bells instead of the routine sounding of train horns. For the residences not mitigated by the use of a wayside bell (one severe and four moderate impacts identified along Thomas Avenue South and Burnham Road North), interior noise testing will be conducted to determine if the residences meet the interior noise level criteria (defined in Appendix K). Based on the results, the Council will identify the noise mitigation to be implemented for the residences. If the interior noise level exceeds the criteria set in the Council's Regional Transitway Guidelines (Appendix D), the Council will work with property owners on applicable mitigation. This could include implementation of sound insulation, which would require approval by the property owner(s).</p> <p>In addition, the Project is being designed to maintain the existing train horn quiet zone in the area of the proposed 21st Street Station. The at-grade 21st Street railroad crossing will include the use of a Wayside bell in order to minimize noise impacts.</p> <p>Potential development and redevelopment near 21st Street Station Development and redevelopment is regulated by the cities and is predominantly driven by regional and local economic conditions. However, light rail lines can advance the timing and increase the intensity of development, especially in areas near proposed stations, within the limits allowed by local comprehensive plans.</p> <p>No development or redevelopment is anticipated at the 21st Street Station located within the Kenilworth Corridor because the surrounding station area is already developed as single-family residential (see Section 3.1.3.3). Redevelopment typical occurs where the existing development is lower in intensity than what is allowable under local zoning requirements (e.g., existing is low density residential and high density residential is allowed). The 21st Street Station area does not meet this condition as this neighborhood consists of single family homes at a density consistent with what is allowable under existing zoning requirements.</p>	

MR ID ^a	Topic	Master Response	Original Comment Number
		<p>West Lake and Penn Stations, at the western and eastern end of the Kenilworth Corridor are likely to experience some level of development. Future development will be subject to the limits allowed by local comprehensive plans and policies. Therefore, there will be no adverse effects related to station area development. See Chapters 3 and 4 of the Final EIS for discussion of long-term indirect impacts. Specifically, indirect impacts related to environmental resource categories are listed in Table 3.0-1 and additional indirect impacts related to transportation resource categories are listed in Table 4.0-1. These tables also summarize specific mitigation measures for adverse effects associated with each environmental and transportation resource category.</p> <p>Concern over traffic impacts related to 21st Street Station The Project will not cause adverse impacts to traffic operations in the area around the proposed 21st Street Station. Traffic operations can be characterized by intersection level of service (LOS) based on delay and available capacity. LOS for an intersection is classified into ratings that range from “A” to “F,” where “A” represents the least congested operations and “F” represents the most congested operations. Intersections that operate between LOS A and LOS D meet applicable state and local standards. No intersections that would operate at a LOS A to D under the no build alternative are forecasted to operate at a LOS E to F with the Project. The 21st Street rail crossing currently operates at a LOS A and is expected to continue to operate at a LOS A with the Project. See Section 4.2.1.3 and 4.2.2.2 of the Final EIS for more information about the traffic analysis.</p>	
17	Concern over impacts to groundwater and surface water in the Kenilworth Corridor.	<p>Since publication of the Draft EIS, the Council has conducted additional work to understand potential impacts to groundwater and surface water, including further testing of soils and groundwater. This included an evaluation of the effect of the proposed light rail shallow tunnel on the area’s water system, completion of wetland delineations, completion of Phase II environmental site investigations, and continued coordination with USACE through the Section 404 permit process and state and local agencies on their regulatory requirements. Additionally, incorporation of locally approved floodplain models into the design of Project, continued design of the stormwater management facilities and groundwater pumping activities, and identifying approaches to avoid, minimize and mitigate impacts have progressed.</p> <p>Groundwater Resources Section 3.8 of the Final EIS includes an updated analysis of geology and groundwater resources and associated applicable best management practices and mitigation measures that will be included in the Project. Within the Kenilworth Corridor, a shallow light rail tunnel will be constructed between West Lake Street and just south of the Kenilworth Lagoon. The Council commissioned an independent review of the design and potential impacts from the shallow tunnel. A reference to Southwest Light Rail Transit: Kenilworth Shallow LRT Tunnels Water Resources</p>	7, 39, 41, 50, 75, 100, 101, 124, 143, 149, 171, 197, 203

MR ID ^a	Topic	Master Response	Original Comment Number
		<p>Evaluation (Burns and McDonnell, 2014) is located in Appendix D of the Final EIS. The report notes that “Cedar Lake and Lake of the Isles are connected by an open channel that equalizes water levels in Cedar Lake, the channel and Lake of the Isles. The data in this report indicate that the lake level elevation in the channel is higher than most of the groundwater elevations. This suggests that groundwater in the corridor does not discharge to the channel and lakes in the corridor and that the lakes may be recharging the aquifer. This is counter to a more typical groundwater-surface water relationship in this climate where groundwater flows toward and discharges to surface water.”</p> <p>As described in Section 3.14.3 of the Final EIS, the proposed light rail tunnel in the Kenilworth Corridor will pass through an area of high groundwater due to shallow groundwater depth in combination with the highly permeable nature of the soils. Despite these conditions, the potential for contamination to groundwater from operation of the light rail tunnel would be low, because the light rail trains would be electric and there would generally be no activities in the tunnel that would generate pollutants that could contaminate groundwater (refer to Southwest Light Rail Transit: Kenilworth Shallow LRT Tunnels Water Resources Evaluation; see Appendix D for instructions on how to access the report). In the unlikely event of a spill of hazardous or contaminated materials in the tunnel, the proposed tunnel designs include measures to prevent infiltration through the tunnel bottom and would allow contaminated materials to be collected and routed to a sanitary sewer, preventing hazardous materials or contaminated stormwater in the tunnel from released into the groundwater.</p> <p>The tunnel has been designed to minimize the infiltration of groundwater into the tunnel through use of a waterproofing system. Any water entering the tunnel will be either groundwater entering via small cracks or joints in the concrete walls, floors, and ceilings or water brought into the tunnel by light rail trains (e.g., dripping, melting ice). The amount of water that could be collected by the tunnel’s internal water control system is expected to be a small percentage of the water budget for the lakes. Groundwater that leaks into the tunnel may have come into contact with contaminated soils prior to entering the tunnel. Water collected in the tunnel will be treated, if required, and pumped to the adjacent sanitary sewer systems owned by either the City of Minneapolis or Metropolitan Council Environmental Services. Refer to Section 3.8.3 for more information.</p> <p>The tunnel will be constructed “cell by cell.” A description of this construction technique is found in Kenilworth Shallow LRT Tunnel Basis of Design Report (November 2014) (see Appendix C of the Final EIS for instructions on how to obtain a copy of the report). In summary, construction of each cell of the tunnel begins by installing the four segments of sheet piling that define the cell. Soil above the groundwater level will then be removed from the cell and bracing installed. Further excavation will then occur below the groundwater line and additional temporary bracing would be</p>	

MR ID ^a	Topic	Master Response	Original Comment Number
		<p>installed. Piles would then be installed and a concrete seal cast at the base of the excavation. Once hardened, the groundwater within the sheet pile cell would be removed. By constructing the tunnel in small segments and isolating the work area with sheet piling and a concrete seal at the bottom of the excavation, the Council will have the ability to remove and properly dispose of contaminated soil and groundwater when it is encountered. See Sections 3.8 and 3.9 in the Final EIS for more information.</p> <p>As described in Section 3.8 of the Final EIS, the Project will not result in adverse impacts to groundwater or surface water resources within the Kenilworth Corridor. To help avoid those types of impacts, a groundwater management plan will be prepared by the Council, and approved by MnDNR and applicable local jurisdictions before construction. That plan will address long-term and short-term collection, storage, and disposal of surface water runoff and pumped groundwater following construction of the Project. Particularly within the Kenilworth Corridor, the groundwater management plan will include monitoring, which will be used to assess excessive groundwater infiltration and to prioritize any potential repairs to the waterproofing systems. The Project's plan will be based on an appropriate safety factor, to be determined in consultation with the City of Minneapolis, MCWD and the MnDNR, which will be applied to pumping rates and yearly pumping volumes in calculating maximum inflow amounts. Section 3.8 of the Final EIS includes an updated analysis of geology and groundwater resources, and includes associated applicable best management practices and mitigation measures that will be included in the Project.</p> <p>The Council has investigated the entire Project corridor for hazardous and contaminated materials, including the Kenilworth Corridor, as evidenced by the MPCA-approved Phase II ESA work plan and completion of the Phase II ESA in 2015 (see Appendix C for instructions on how to access these documents). As described in Section 3.14.2, the Kenilworth Corridor area is aligned within the vicinity of multiple former rail yards that have since been redeveloped with industrial/commercial properties and recreational parks and trails. The ESA investigation characterized soil and groundwater conditions throughout the corridor so that development of a Response Action Plan (RAP) was possible. The MPCA approved the RAP that includes the Kenilworth Corridor in January 2016, further indicating that soil and groundwater conditions were satisfactorily evaluated. As described in Section 3.14.4, in cases where the disturbance of hazardous and contaminated material cannot be avoided, the Council will conduct site remediation in accordance with the approved RAPs for the Project. Further, the cost to mitigate contaminated soils impacted by the Project is included in the Project budget. See Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor for more information about contamination within the Kenilworth Corridor.</p>	

MR ID ^a	Topic	Master Response	Original Comment Number
		<p>Surface Water Resources</p> <p>Aquatic resources located within the Kenilworth Corridor have been identified and wetland delineations have been completed for the full alignment, including the Kenilworth Channel. The Council has coordinated with the USACE and other local, state, and federal water resource agencies to determine mitigation requirements for surface water impacts. The USACE has indicated that the Project will not be required to mitigate for permanent impacts that do not alter the cross-section or hydrological characteristics, or obstruct flow patterns within channels that are regulated under Section 404 of the CWA. The Project will not alter the cross-section of hydrological characteristics of the Kenilworth Channel. Additionally, the Project will be required to obtain CWA Section 401 water quality certification from the Minnesota Pollution Control Agency to ensure that discharge of pollutants into waters of the United States remains in compliance with the State of Minnesota's water quality standards. Additional work has also been completed on the design and placement of stormwater management facilities. Stormwater runoff will be directed into stormwater management facilities created as part of the Project and as approved by local jurisdictions and through final permitting. There will be no increase in permanent fill of wetlands within the Kenilworth Corridor and stormwater runoff will be directed into stormwater management facilities created as part of the Project, as approved by local jurisdictions and through final permitting. These facilities will be designed to provide stormwater treatment in compliance with NPDES requirements. See Section 3.9 for more information on the evaluation of surface water resources.</p> <p>Impacts to groundwater and surface water resources have been avoided or minimized to the maximum extent practicable. See sections 3.8, Geology and Groundwater Resources; Section 3.9, Surface Water Resources; and Section 3.14, Hazardous and Contaminated Materials for the analysis of short-term and long-term impacts and applicable mitigation measures. The Final EIS also includes Preliminary Engineering Plans for the Project in Appendix E and the Project's compensatory mitigation plan for wetland impacts is included in the CWA Section 404 Permit Application found in Appendix C of the Final EIS.</p>	

^a Note that the *Master Response ID* numbers correspond to master response references within Appendix M, Attachment 3.

^b The *Topic* column is a summary of the general nature of the master response and does not fully represent the original comment. Refer to Appendix M, Attachment 2 to view original comments in their entirety.

^c The original comment number corresponds to the unique identification number assigned to each of the comments received, as listed in Appendix M, Attachment 1 and shown in Appendix M, Attachment 2.

Attachment 4: Responses to Comments Received on the Supplemental Draft EIS

Comment #	#1
Commenter	George Puzak
Commenter Organization	None

Response

Thank you for your comment on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Invalid National Environmental Policy Act (NEPA) scoping process because freight rail colocation was not studied
- Project sought municipal consent prior to Supplemental Draft EIS publication
- Concern over safety and security impacts related to LRT operation in close vicinity to freight rail

Invalid NEPA scoping process because freight rail co-location was not studied

See *Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation.*

Project sought municipal consent prior to Supplemental Draft EIS publication

See *Master Response 2: Project sought municipal consent prior to the publication of the Supplemental Draft EIS.*

Concern over safety and security impacts related to LRT operation in close vicinity to freight rail

See *Master Response 3: General concerns related to safety and security for LRT operating within close vicinity to freight in the Kenilworth Corridor.*

Comment #	#7
Commenter	Arthur Higinbotham
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include responses to these comments.

- Supplemental Draft EIS executive summary detail regarding resource categories and co-location
- The Supplemental Draft EIS executive summary did not include an environmental justice analysis. Parcels slated for acquisition are not identified
- Property tax revenues and reductions not included for the City of Minneapolis
- Concern over delays to emergency response vehicles related to the at-grade LRT crossing at 21st Street
- Concern over safety of the at-grade LRT crossing at 21st Street
- Cost of long-term water pumping and effect on water table has not been determined
- Wetlands anticipated to be permanently filled should be identified
- Grand Rounds Historic District and Kenilworth Lagoon cultural resource findings
- Concern over long-term visual impact related to the removal of trees and vegetation
- Surface runoff and groundwater pumping in the Kenilworth Corridor light rail tunnel may result in water contamination
- Concern over impact to user access to the parks system in Minneapolis
- Trail users will be impacted by light rail noise in the Kenilworth Corridor
- Concern over vibration impacts to residential structure in the Kenilworth Corridor
- Concern about freight rail collapse into the Kenilworth light rail tunnel during tunnel construction
- Concern over traffic impacts related to closure of Cedar Lake Parkway
- Operating cost impacts of temporary freight rail track relocation during construction
- Safety of Grand Rounds trail system detours

Supplemental Draft EIS executive summary detail regarding resource categories and co-location

The purpose of the Executive Summary is not to replicate the information found in the body of the document. Rather, it provides highlights of the discussion. The complete discussion is properly located in the body of the Supplemental Draft EIS.

The Supplemental Draft EIS executive summary did not include an environmental justice analysis.

Environmental Justice (EJ) compliance was addressed in Sections 3.2.5, 3.3.5, and 3.4.5 of the Supplemental Draft EIS, which provided an update since publication of the Draft EIS. In those sections, the Supplemental Draft EIS noted that changes in the three Supplemental Draft EIS study areas (i.e. Eden Prairie Segment, Hopkins Operations and Maintenance Facility, and St. Louis Park/Minneapolis Segment), changes to the environmental impacts in those areas since publication of the Draft EIS would not change the preliminary environmental justice finding for the LPA that was included in the Draft EIS. Chapter 5 of the Final EIS updates the Project's EJ analysis. Further, Chapter 5 documents the final Project-wide compliance with EJ requirements and FTA's and the Council's EJ finding.

Parcels slated for acquisition are not identified

The Project acquisitions that are documented in Section 3.4 of the Supplemental Draft EIS are only for the St. Louis Park/Minneapolis Segment and those estimates were based on the conceptual engineering design at that time, which was documented in Appendix G of the Supplemental Draft EIS. Table ES-1 summarizes the environmental impacts identified in the body of the Supplemental Draft EIS. Section 3.4 of the Final EIS provides an updated corridor-wide estimate of the property that will be acquired for the Project based on the Project's Preliminary Engineering Plan (see Appendix E of the Final EIS).

Property tax revenues and reductions not included for the City of Minneapolis

Final EIS Table 3.2-3 lists the number of parcels potentially fully and partially acquired under the Project, by municipality. Table 3.2-4 lists the estimated effects of right-of-way property acquisition on local property tax revenues.

Concern over delays to emergency response vehicles related to the at-grade LRT crossing at 21st Street

See *Master Response 16: Concerns related to 21st Street Station and related impacts*. Also see *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Concern over safety of the at-grade LRT crossing at 21st Street

See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Cost of long-term water pumping and effect on water table has not been determined

As noted in Section 3.4 of the Supplemental Draft EIS and in the *Kenilworth Shallow LRT Tunnel Basis of Design Report* (November 2014), the Council evaluated water control systems in the proposed Kenilworth Corridor light rail tunnel portals (the entrance and exit to the tunnel) and the internal tunnel (see Appendix C of the Supplemental Draft EIS for instructions on how to obtain a copy of the report). As noted in the Supplemental Draft EIS and the report and in Section 3.8 of the Final EIS, the tunnel will be designed to minimize the infiltration of groundwater into the tunnel through use of a waterproofing system and the permanent use of the steel sheet pile retaining wall system connected to the concrete seal that will be used for the cut-and-cover tunnel construction. Water collected in the tunnel will be collected and pumped to the adjacent sanitary sewer systems owned by either the City of Minneapolis or the Met Council Environmental Services, which will be determined during advanced design. The cost of the internal tunnel water control system is included in the Project costs that are discussed in Section 2.3 and Chapter 7 of the Final EIS.

Wetlands anticipated to be permanently filled should be identified

The Project has fully delineated all wetlands anticipated to be impacted by the Project. Refer to Section 3.9 of the Final EIS for more information on wetland impacts that will result from the Project and mitigation measures that will be implemented with the Project.

Grand Rounds Historic District and Kenilworth Lagoon cultural resource findings

See *Master Response 4: Concern about inadequate evaluation of potential impacts to the Grand Rounds Historic district*.

Concern over long-term visual impact related to the removal of trees and vegetation

The conclusions made about the Project's visual impacts, as described in the Supplemental Draft EIS and Final EIS, are based on a standardized approach developed by the FHWA for visual impact assessments, which uses a standard visual impact assessment method that includes use of drawings and photo simulations and employs a systematic evaluation protocol. As a result, the visual impact conclusions are factual and systematic. The application of the FHWA methodology in conducting the visual analysis is described in Section 3.1.2.5 of the Supplemental Draft EIS, and a copy of the FHWA Visual Impact Assessment Manual is provided in Supplemental Draft EIS Appendix J2. The visual analysis documented in the Final EIS includes an assessment of the change in vegetation due to the Project, which is also reflected in the various simulations of visual conditions at locations throughout the Project area (see Appendix J). Additionally, within the Kenilworth Corridor, the Council developed a landscape design that preserves and builds upon the natural character of the corridor, where applicable and appropriate.

The visual impact analysis for the Project was updated for the entire corridor since the publication of the Supplemental Draft EIS. The update caused a renumbering of the viewpoints from the Supplemental Draft EIS to the Final EIS. The updated visual quality assessment can be found in Section 3.7 of the Final EIS. Six viewpoints were studied within the Kenilworth Corridor for the visual assessment completed for the Final EIS. Section 3.7.4 of the Final EIS documents level of visual impact anticipated for each viewpoint. For the viewpoints within the Kenilworth Corridor, these impacts ranged from low to substantial. Viewpoints 5 and 6, included in the Supplemental Draft EIS, are renumbered to 16 and 18, respectively,

in the Final EIS. Further, an additional viewpoint from the Burnham Road Bridge looking southeast down the channel toward the Kenilworth Corridor Bridges was added to the analysis—viewpoint 17. The level of impact remains the same for viewpoints 16 and 18 (low level of impact), however, there will be a substantial level of impact at viewpoint 17 as construction of the new bridges will require noticeable clearing of trees and other vegetation on the west side of the right-of-way.

The visual quality evaluation for the area north of the Kenilworth Channel (viewpoint 18 – looking toward the 21st Street Station) concluded that the level of visual impact will be low. Removal of trees is a contributing factor in the visual assessment for this area. The visual evaluation found that the removal of trees will slightly decrease the vividness of the view. However, the addition of the street trees, the widened sidewalk, and the plantings in the 21st Street Station area will make a positive contribution. For a more detailed explanation of the rationale for this conclusion, refer to the “Concern over visual impacts at 21st Street Station” in *Master Response 16: Concerns related to 21st Street Station and related impacts*.

These findings are based on FHWA’s Visual Impact Assessment of Highway Projects (FHWA, 1988). The method was designed to provide a systematic and objective approach to evaluation of the visual changes. The FHWA methodology is well established and widely accepted for the assessment of visual impacts and is well suited to assess the visual impacts of linear transportation facilities in urban areas. The assessment for the Project was based on visual assessment of the Project corridor, completed through site visits, analysis of existing conditions, and an evaluation of visual change. All viewpoint sites were visited and the corresponding views were photographed to document the existing views. This field work, review of the photographs, and the subsequent coordination/consultation process with the Project team provided a basis for understanding the typical visual issues for each visual assessment area. Computer modeling and rendering techniques were then used to produce simulated images of the with-Project conditions for the viewpoints evaluation (see Appendix J). These visual simulations provided the bases for the assessment of visual change.

The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. Furthermore, the Council retained a landscape design consultant to prepare a landscape design study for the Kenilworth Corridor, which will be implemented into the Project. See Section 9.2 of the Final EIS for additional detail on this committee.

Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the “Kenilworth Corridor” is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway).

Surface runoff and groundwater pumping in the Kenilworth Corridor light rail tunnel may result in water contamination

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

Concern over impact to user access to the parks system in Minneapolis

As discussed in Section 3.6.4 of the Final EIS, there will be no long-term change to visitor/user access to Minneapolis parks.

Trail users will be impacted by light rail noise in the Kenilworth Corridor

Section 3.12 of the Final EIS provides a description of land use categories and metrics used to identify noise sensitive receptors according to FTA criteria (see Table 3.12-2). Active use areas like bike and running trails are generally not categorized as noise sensitive receptors because these are areas where quiet is not an essential element and quiet and solitude are not the intended purpose. As such, trail users were not categorized and evaluated for noise impacts.

Concern over vibration impacts to residential structure in the Kenilworth Corridor

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Concern about freight rail collapse into the Kenilworth light rail tunnel during tunnel construction

As shown in the *Kenilworth Shallow LRT Tunnel Basis of Design Report*, appropriate sheet piling, bracing, and other construction methods will be used as soil is excavated for the proposed tunnel. The use of appropriate sheet piling, bracing, and other construction methods will prevent the movement of the freight rail tracks and they will prevent freight rail tracks from collapsing into the construction area.

The Council will develop and implement a freight rail operations coordination plan. The plan will facilitate coordination between the Project and the affected freight railroad owners and operators throughout the construction period, to help ensure the Project does not create unreasonable constraints during construction. During construction activities, flaggers will be used to allow freight rail operations to continue without interruption, except for the proposed activities and durations described in under short-term impacts in Final EIS Section 4.4.4.1. See Section 4.4.5.2.A for additional information on mitigation measures for short-term (construction) impacts to freight rail.

Concern over traffic impacts related to closure of Cedar Lake Parkway

As described in Table 4.2-9 the Project will result in temporary traffic impacts such as temporary roadway closures (i.e., roadway closures in the vicinity of Cedar Lake Parkway), temporary lane closures, or lane shifts in the area of the existing at-grade freight railroad crossing for construction activities. All existing roadway access and connections in this area will generally be maintained, however in the event of a closure, appropriate detour routes will be provided. Section 4.2.4 includes additional information on mitigation measures for short-term impacts to roadways and traffic.

Operating cost impacts of temporary freight rail track relocation during construction

As described in Sections 2.1, 3.2, and 4.4 of the Final EIS, the Project will allow continued freight rail operations within the Bass Lake Spur and Kenilworth corridor during and after construction, including the continuation of existing operating rights for TC&W. The Project will result in relatively minor adjustments to the alignment of and reconstruction of existing freight tracks to accommodate the light rail alignment, but the Project will not result in substantial changes to freight rail operations and will not change access to existing freight rail markets or open access to new freight rail markets.

In order to mitigate short-term impacts to freight rail operations related to construction activities, the Council will develop and implement freight rail operation coordination plans. The purpose of these plans is to facilitate coordination between the Project and the affected freight railroads during construction activities affecting freight rail operations. As part of this effort, Council staff will also work with affected freight rail owners and operators to provide provisions in the construction contract to identify how the contractor will interact with the railroads. Final EIS Section 4.4 includes information regarding short-term impacts to freight rail operations and mitigation for those impacts.

Safety of Grand Rounds trail system detours

Final EIS Section 4.5.3.3 describes the Project's short-term (construction) impacts. As noted in that section, during the normal course of construction, some existing trails and sidewalks will be obstructed by construction activity, in which case a detour route or facility will be provided prior to construction activity. Mitigation measures for short-term (construction) impacts to roadways and traffic will be implemented by the Council prior to and during construction through the Construction Mitigation Plan, which includes strategies to maintain safety.

Mitigation strategies to be taken in the event of temporary closures will be identified in the Construction Mitigation Plan, which will include a Construction Communications Plan and staging plan for implementation by the Council prior to and during construction. The purpose of the Construction Communication Plan is to prepare project-area residents, businesses, and commuters for construction; listen to their concerns; and develop plans to minimize disruptive effects. Strategies may include:

- Issuing and distributing regular construction updates
- Providing advance notice of roadway closures, driveway closures, and utility shutoffs
- Conducting public meetings
- Establishing a 24-hour construction hotline
- Preparing materials with information about construction

- Addressing property access issues
- Assigning staff to serve as liaisons between the public and contractors during construction

In addition, Contractors will be required to comply with all guidelines established in the Minnesota Manual on Uniform Traffic Control Devices (2015), which conforms to industry standards for the design and operations of pedestrian and bicycle facilities.

Comment #	#21
Commenter	Steve Smith
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your opposition to the Project has been noted.

Comment #	#26
Commenter	Pat MulQueeney
Commenter Organization	Eden Prairie Chamber of Commerce

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your comments regarding Project financing have been noted. Refer to Chapter 7 of the Final EIS for the Project's financial analysis, including a summary of year-of-expenditure capital and operating costs.

Comment #	#27
Commenter	Richard Adair
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of issues concerning the potential for the Project to eliminate the proposed Penn Station.

See *Master Response 5: Concern over the potential for the Project to eliminate the proposed Penn Station*.

Comment #	#28
Commenter	Jim Herbert
Commenter Organization	Bassett Creek Watershed Management Commission

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your comments on the Project's compliance with the Bassett Creek Watershed Management Plan have been noted.

Comment #	#29
Commenter	Roger Clarke
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of issues concerning the potential for the Project to eliminate the proposed Penn Station.

See *Master Response 5: Concern over the potential for the Project to eliminate the proposed Penn Station*.

Comment #	#30
Commenter	Karen Rosar
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your support for the findings of the Supplemental Draft EIS has been noted.

Comment #	#31
Commenter	Matthew Pawlowski
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your comments on the Project's cost effectiveness have been noted.

Comment #	#32
Commenter	David Hester
Commenter Organization	None

Response

Thank you for your comment on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your statement that you have no comment on the Environmental Impact Statement (EIS).

Comment #	#33
Commenter	Bob
Commenter Organization	Bobagain.com

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your comments on the capital financing plan for the Project have been noted.

Comment #	#34
Commenter	Nancy Arieta
Commenter Organization	Not Provided

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your opposition to the Southwest LRT Project in Eden Prairie has been noted.

Comment #	#35
Commenter	Joseph Lampe
Commenter Organization	PRT Minnesota, Inc

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

The *Southwest Transitway Alternatives Analysis Final Report* included personal rapid transit as an alternative but as it did not meet any four of the technology review criteria (i.e. compatibility with travel demand, proven technology, compatibility with existing infrastructure, identified in regional transportation plan), the analysis recommended to not retain personal rapid transit as an alternative (refer to Appendix C of the Final EIS for instructions on how to access this document). Section 2.2 of the Final EIS provides a description of the Project's Alternatives Analysis, Scoping, and Draft EIS phases within which various alternatives were developed and evaluated.

Section 2.2 also documents the rationale for selection of the Project's Locally Preferred Alternative. Under the National Environmental Policy Act, alternatives evaluated in an EIS must meet the Project's Purpose and Need. The Purpose and Need for the Southwest LRT (METRO Green Line Extension) can be found in Chapter 1 of the Final EIS. As described and proposed in your letter, a personal rapid transit utilizing a range extender system would not meet the Project's Purpose and Need, including the following reasons: personal rapid transit would likely not be feasible to provide access to jobs and activity centers throughout activity centers of Minneapolis, St. Louis Park, Hopkins, Minnetonka, and Eden Prairie; given the speed limitations of a personal rapid transit system, it would be unlikely to provide a competitive, cost-effective travel option; and it would likely not have the capacity to become integrated into the region's system of transitways nor to support regional transportation efficiency. In addition, the technology for a personal rapid transit that would meet the Project's Purpose and Need is not available and could not be implemented.

Comment #	#36
Commenter	Not Provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your comments on the need for public involvement opportunities have been noted.

Comment #	#37
Commenter	Mike Marrou, Marron Collins
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Noise impacts and train horn quiet zone concerns related to the 21st Street Station
- Safety concerns related to freight rail transport of hazardous materials under co-location

Noise impacts and train horn quiet zone concerns related to the 21st Street Station

See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Safety concerns related to freight rail transport of hazardous materials under co-location

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#38
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comment on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Request for more information regarding construction safety plans

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#39
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Project. The sections that follow include responses to these comments.

- Hazardous and contaminated materials
- Groundwater mitigation
- Concern over how design could impact maintenance costs

Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor

See *Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor*.

Concern over groundwater mitigation plans and costs to cover these mitigations

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*. The costs to address groundwater-related issues and mitigations are included in the Project costs that are discussed in Section 2.3 of the Final EIS.

Concern over how design could impact maintenance costs

The design of the Project in will be developed in accordance with the Metro Light Rail Transit Design Criteria (Council, 2015), which includes design standards and specifications developed in accordance with industry standards and best practices to maintain operational efficiency.

Annual operations and maintenance costs for the Project are described in Chapter 2 and Chapter 7 of the Final EIS, respectively. All cost estimates for the Project reflect design adjustments that have occurred since publication of the Draft EIS in October 2012.

Comment #	#40
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your opposition to the Southwest LRT Project has been noted.

Forecast transit ridership at proposed stations in 2040 (average weekday) is provided in Section 4.1 of the Final EIS. The Council's regional travel demand model results, which have been reviewed and approved by the FTA, served as the primary data source for this analysis. The Council's regional travel demand model served as the primary data source for this analysis. *Refer to the Draft Travel Demand Methodology & Forecast, Revision 4, Southwest LRT Technical Report* listed in Appendix C for a more detailed description of the travel demand forecasting methodology. In summary, the Council's travel demand forecasting model has been calibrated based on existing transit ridership data and various other survey data. Further, the model is based on regionally and locally-adopted land use plans and population and employment forecasts for 2040. The model forecasts are also based on the existing and proposed transportation networks in 2040, based on the Council's adopted TPP. Finally, the model forecasts are based on the current definition of the Project, summarized in Chapter 2 of the Final EIS and illustrated in Appendix E of the Final EIS. The Council has coordinated closely with the FTA on the methodology used to forecast transit travel demand for the Project. As such, the methodology and model used and the resulting travel demand forecasts, including forecast transit use at proposed light rail stations, are the most appropriate and available methodology, model, and forecasting results available for this Final EIS.

Comment #	#41
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Recommendation of alternative Project alignments along Highway 100, West End, North/Northeast, and Brownie Lake
- Concern over impacts on groundwater related to Project construction activities

Recommendation of alternative Project alignments along Highway 100, West End, North/Northeast, and Brownie Lake

Regarding your comment Highway 100, West End, North/Northeast, and Brownie Lake options be explored: The alternative light rail alignments suggested would not meet the Project's Purpose and Need, because they would not provide high-capacity transit connections between downtown Minneapolis and the key employment, commercial, and residential activity centers in the corridor, as described and illustrated in Chapter 1 of the Final EIS.

The option of placing the proposed light rail alignment along generally north-south Highway 100 corridor would not meet the Project Purpose identified in Section 1.1 of the Final EIS. The Project Purpose notes that "The Southwest LRT Project will provide a competitive, cost-effective travel option that will attract choice riders to the transit system. The competitive and reliable travel time for the Southwest LRT Project is attributed to the diagonal nature of the line compared to the north-south/east-west orientation of the roadway network and to the increasing levels of congestion of the roadway network."

The additional length an alignment that used generally north-south or east-west orientation such as Highway 100 and I-394 (past Brownie Lake), respectively, would increase LRT travel times for trips between west of Highway 100 and downtown Minneapolis (including connecting trips), compared to the generally diagonal southwest to northeast light rail alignment included in the Project.

Additionally, the existing rights-of-way for Highway 100 would not be adequate to accommodate the introduction of a light rail alignment due to geographic and existing transportation infrastructure constraints. As a result, the use of those alignments for light rail would likely lead to property acquisitions and the displacement of adjacent land uses, including residences and commercial properties.

The Southwest Rail Transit Study, completed by HCRRA in October 2003 (available at: http://old.swlrtccommunityworks.org/technical-documents/cat_view/57-archive/60-rail-feasibility-study.html), considered a light rail alignment that would have utilized Highway 100 between I-394 and Highway 7. This alternative (E-2 within the Study) was not recommended for further study because:

- No excess right-of-way in the Highway 100 corridor
- Would have significant right-of-way impacts along Highway 100 due to multiple property owners
- Reduced service to population and employment concentrations in St. Louis Park (Source: Figure 5.3: Screen 1 Recommendation)

Concern over impacts on groundwater related to Project construction activities

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*. Section 3.8 of the Final EIS describes an updated analysis of impacts on geology and groundwater resources and applicable mitigation measures. Section 3.9 of the Final EIS describes an updated analysis of impacts on surface water resources and applicable mitigation measures. The cost of all mitigation measures to be implemented are included in the capital cost estimates for the Project (see Chapter 7).

Comment #	#42
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Concerns over the range of alternatives included in the Supplemental Draft EIS

Section 2.1 describes the LPA for the Project and the alternatives that were considered during the Project's alternatives analysis and NEPA scoping processes. In total, more than 25 route and mode alternatives or sub-alternatives have been evaluated as part of the project development process for the Project. Detailed information on the Project's alternatives analysis, scoping, and LPA identification process is presented in the following documents: Southwest Transitway Alternatives Analysis Final Report (Hennepin County, 2007), Southwest Transitway Scoping Summary Report (Hennepin County, 2009), and the Draft EIS.

In 2007, the HCRRA completed a federally required study called an Alternatives Analysis, which was a continuation of the Southwest Rail Transit Study, 2003. The Southwest Transitway Alternatives Analysis (AA) compared the benefits, costs and impacts of a range of transit alternatives (modes and routes) to identify which alternative would best serve the needs of the communities as expressed in the Purpose and Need Statement.

In the AA, the alternatives for detailed evaluation included one bus alternative called the Enhanced Bus, two bus rapid transit (BRT) alternatives, and eight light rail transit (LRT) alternatives. It was concluded that three of the eight LRT routes could meet the established project goals. In addition, the enhanced bus alternative was retained to continue to evaluate the possibility of addressing the increasing mobility needs of the area through improved bus service rather than LRT. The Draft EIS includes a detailed description of the alternatives evaluation process (see Section 2.1).

The AA was the starting point for the Draft EIS and formed the basis for the Scoping Process. Based upon the AA, three LRT alternatives and the Enhanced Bus alternative were proposed for inclusion in the Draft EIS. During the NEPA/MEPA Scoping Period from September 8, 2008 through November 7, 2008 for the Southwest Transitway Project (the Project) Draft EIS, two new alignments were proposed. The alternatives were labeled LRT 3C (11th/12th Sub-Alternative) and LRT 3E and were evaluated for their feasibility with regard to the project's goals identified in the Purpose and Need Statement and it was determined that they warranted inclusion in the Draft EIS.

The Draft EIS examined seven alternatives, including the No Build Alternative, the Enhanced Bus Alternative, and five light rail transit (LRT) alternatives (LRT 1A, LRT 3A, LRT 3A-1, LRT 3C-1, and LRT 3C-2). These seven alternatives are described in Section 2.3 of the Draft EIS which provides a description of the alternatives that were considered within the Project selection process. Chapter 11 of the Draft EIS provides a description of how the alternatives were evaluated and the rationale for the identification of the Project. On May 26, 2010, prior to the completion of the Draft EIS and based on an extensive alternatives analysis and public involvement process, the Metropolitan Council adopted the Project's Locally Preferred Alternative (LPA) as recommended by the Hennepin County Regional Railroad Authority (HCRRA) and included it as part of the 2030 Transportation Policy Plan.

While the Draft EIS notes that LRT 3A-1 is identical to LRT 3A in the transit service it would provide (see Chapter 2 of the Draft EIS), it only identifies LRT 3A as the LPA (see pages 2-31 and 2-41 of the Draft EIS for examples). The LPA is a subset of both LRT 3A and LRT 3A-1 of the Draft EIS; therefore, the Project's LPA is included within both LRT 3A and LRT 3A-1. The LPA was identified based on an assessment of four evaluation categories: planning compatibility; performance; implementation factors; and critical environmental resources.

The HCRRA and Council found that LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life and supporting economic development.

See Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation.

See Master Response 10: Rationale for incorporating freight rail co-location into the Project.

Comment #	#43
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Concern over safety and security related to LRT and freight operations in the Kenilworth Corridor

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor* and *Master Response 15, Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right.*

Comment #	#44
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Safety concerns related to freight rail transport of hazardous materials in Kenilworth Corridor

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#45
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Freight rail in the Kenilworth Corridor should not be included in the No Build Alternative

See *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.*

Comment #	#46
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Concern over fire safety equipment access to Kenilworth Corridor during Project operations and during construction

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*

Comment #	#47
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Original scoping report excluded freight rail colocation

See *Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation.*

Comment #	#48
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Current condition of freight rail infrastructure within the Kenilworth Corridor is poor

Freight rail operations within the Kenilworth Corridor will continue, with minor adjustments to freight rail facilities to maintain safe operations through construction and operations of the Project. The Project will include reconstruction of the existing freight rail tracks within portions of the Bass Lake Spur and Kenilworth Corridor, providing new track and roadbed to maintain safe freight rail operations. See Chapter 2 of the Final EIS for more information. However, railroad infrastructure upgrades are outside the scope of this Project, and railroad owners and operators are responsible for keeping the infrastructure in a state of good repair.

In addition, the Council will develop and implement freight rail operation coordination plans to facilitate coordination between the Project and the affected freight railroads during construction activities affecting freight rail operations. As part of this effort, Council staff will also work with affected freight rail owners and operators to provide provisions in the construction contract to identify how the contractor will interact with the railroads. Further, Council staff will work with affected freight rail owners and operators to sequence construction to minimize effects on freight movements and to identify optimal periods for closing the rail service and reducing speeds. Dates and times for all stoppages will be determined through coordination with the railroad owners and operators.

Comment #	#49
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your opposition to the Southwest LRT Project has been noted.

Forecast transit ridership at proposed stations in 2040 (average weekday) is provided in Section 4.1 of the Final EIS. The Council's regional travel demand model results, which have been reviewed and approved by the FTA, served as the primary data source for this analysis. The Council's regional travel demand model served as the primary data source for this analysis. *Refer to the Draft Travel Demand Methodology & Forecast, Revision 4, Southwest LRT Technical Report* listed in Appendix C for a more detailed description of the travel demand forecasting methodology. In summary, the Council's travel demand forecasting model has been calibrated based on existing transit ridership data and various other survey data. Further, the model is based on regionally and locally-adopted land use plans and population and employment forecasts for 2040. The model forecasts are also based on the existing and proposed transportation networks in 2040, based on the Council's adopted TPP. Finally, the model forecasts are based on the current definition of the Project, summarized in Chapter 2 of the Final EIS and illustrated in Appendix E of the Final EIS. The Council has coordinated closely with the FTA on the methodology used to forecast transit travel demand for the Project. As such, the methodology and model used and the resulting travel demand forecasts, including forecast transit use at proposed light rail stations, are the most appropriate and available methodology, model, and forecasting results available for this Final EIS.

Comment #	#50
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern over impacts to the water table in the Kenilworth Corridor
- Concern regarding noise and vibration impacts due to construction
- Concern that the Project does not include adequate parking
- Concern that the Project will damage property damage and property values
- Concern over freight rail hazardous materials safety

Concern over impacts to the water table

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

Concern regarding noise and vibration impacts due to construction

The Final EIS contains a detailed assessment of both noise and vibration during construction. The assessment considered mitigation measures that will be incorporated into the construction plans at locations throughout the corridor, including a Noise Control Plan (Section 3.12.4.2), which will help minimize noise from construction activities. Alternative construction methods have been recommended at locations where construction would be very close to buildings and where there is the potential for damage. Pre-construction surveys and vibration monitoring will be conducted at locations identified during the preparation of construction documents (see Final EIS Section 3.13.4.3).

Construction noise varies greatly depending on the type of construction activities (see Section 2.1.1.3), equipment used, staging of the construction process, the layout of the construction site and the distance to sensitive receptors. Elevated noise levels are, to a degree, unavoidable for this type of project.

To mitigate construction noise, a detailed Noise Control Plan will be prepared for the Project's construction duration. A noise control engineer or acoustician will work with the contractor(s) to prepare the plan in conjunction with the contractor's specific equipment and methods of construction. Key elements of this plan will include:

- Contractor's specific equipment types
- Schedule and methods of construction
- Maximum noise limits for each piece of equipment with certification testing
- Prohibitions on certain types of equipment and processes during the nighttime hours without local agency coordination and approved variances
- Identification of specific sensitive sites where near construction sites
- Methods for determining construction noise levels
- Implementation of noise control measures where appropriate
- Include a 24-hour construction hotline

Concern that the Project does not include adequate parking

Under the Project, there will be some changes to on-street and off-street parking. Changes to off-street parking will be related to land acquisitions, and changes to on-street parking will occur in some areas where changes to existing roadways are needed to accommodate the Project. Overall, the Project will reduce the supply of off-street parking (i.e., off-street parking lots, typically associated with privately owned businesses) by eliminating 692 spaces and will reduce the supply of on-street parking by eliminating 57 spaces. In addition, the Project will include new park-and-ride lots at nine light rail stations, for a combined addition of approximately 2,487 new park-and-ride spaces. Refer to Section 4.3 of the Final EIS for more information on impacts to parking.

In addition to long-term reductions in the supply of parking, temporary removal of on-street parking spaces may occur at locations to facilitate construction of the Project (e.g., to facilitate truck movement or to provide a temporary truck loading zone). These potential temporary removals of on-street parking spaces will be identified prior to the start of construction as part of a construction staging plan.

The Project could lead to indirect impacts related to “spillover” parking in neighborhoods adjacent to proposed light rail stations. Spillover parking is unwanted parking by light rail riders in off-street parking lots or at on-street parking spaces adjacent to a light rail station. Spillover parking can result from a lack of park-and-ride lot capacity relative to demand for park-and-ride lot spaces, and can affect both businesses and residences by limiting available parking spaces for residents, visitors, customers, and employees. Spillover parking impacts can also be curbed by the local jurisdictions and residents by implementing a “residents parking” permit program, which would allow unlimited time parking for residents and visitors of residents.

The Council will complete a Regional Park-and-Ride System Report on an annual basis. As part of this effort, the Council and Metro Transit will collaborate with regional transit partners, local governments, and the Minnesota Department of Transportation to conduct an annual regional park-and-ride survey, which tracks facility use and emerging travel patterns by park-and-ride users across the region to identify the appropriate mitigation, as needed and where feasible. The results of this survey are published in the annual report. See Section 4.3 of the Final EIS for more information on parking impacts and mitigation measures.

Concern that the Project will damage property and property values

See *Master Response 9: Concern over potential damages to property values within the vicinity of the Project*. Please also see *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Concern over freight rail hazardous materials safety

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor* and *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Comment #	#51
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Safety concerns related to co-location of freight rail and light rail

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#52
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern regarding cost and effectiveness of groundborne noise and vibration mitigation in the Kenilworth Corridor
- Concern regarding tunnel construction impacts to residences in the Kenilworth Corridor

Concern regarding cost and effectiveness of groundborne noise and vibration mitigation in the Kenilworth Corridor

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

The project will result in no vibration impacts for residential land uses (See Section 3.13 in Final EIS) resulting from the design of the tunnel slab. The tunnel slab in the Kenilworth Corridor eliminates the vibration impacts relative to an LRT tunnel system with no slab in the same segment of the corridor. As described in Section 3.13, the Project is not expected to result in any long-term vibration impacts and highly resilient rail fasteners will be used where appropriate (i.e., generally in the tunnel section) to eliminate ground-borne noise impacts. The vibration assessment presented in Section 3.13 of the Final EIS takes into account the long-term effects of the Kenilworth Corridor light rail tunnel on vibration.

Concern regarding tunnel construction impacts to residences in the Kenilworth Corridor

Light rail construction in the Kenilworth Corridor has the potential to cause environmental impacts including disruptive noise levels and visual impacts (the construction of the new bridges will require noticeable clearing of trees and other vegetation). Potential impacts during construction include temporary detours of trails and roadways, as well as reductions in vehicular access and parking affecting community cohesion, groundwater management impacts (collection, storage, and disposal), and vibration impacts resulting from the operation of heavy equipment (pile driving, hoe rams, vibratory compaction, and loaded trucks). There will be utility impacts as sewer and water mains, power, gas, and communication lines are relocated. It is reasonable to expect that previously undocumented soil or groundwater contamination may be encountered during construction. Short-term construction impacts to park uses and recreational activities include closures, detours, and temporary facilities built around obstructions. To provide and maintain safety and security related to construction and operation of the Project, the Council will implement the Project's Safety and Security Management Plan. Impacts to identified architecture/history and archaeological properties from construction have been identified as part of the Section 106 process. As documented in the Project's Section 106 MOA (Appendix H), the Kenilworth Channel/Lagoon will be temporarily closed and detoured during construction. Best Management Practices (BMPs) will be developed and implemented during removal of the existing bridges and construction of the new bridges across the Kenilworth Channel/Lagoon, which is both a Section 106 and Section 4(f) protected property (see Section 3.5 and Chapter 6 of the Final EIS for more information on the Project's Section 106 and Section 4(f) analyses and determinations)

Mitigation measures for temporary construction related impacts will be identified in the Construction Mitigation Plan, which will include a Construction Communications Plan and a construction staging plan. The purpose of the Construction Communication Plan is to prepare Project-area residents, businesses, and commuters for construction, listen to their concerns, and develop plans to minimize harmful or disruptive effects. Specific mitigation measures included in the Construction Communication Plan will be location-specific and are listed in Section 3.0 and 4.0 of the Final EIS.

Comment #	#53
Commenter	Robert Brockway
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Mitigation of short-term vibration impacts to condos in the Kenilworth Corridor
- Concern that noise impacts become amplified at higher elevations

Mitigation of short-term vibration impacts to condos in the Kenilworth Corridor

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

As described in Section 3.13, the Project is not expected to result in any long-term vibration impacts and highly resilient rail fasteners will be used as appropriate (i.e., generally in the tunnel section) to eliminate ground-borne noise impacts. The foundational slab of the proposed light rail tunnel in the Kenilworth Corridor has been designed to reduce the vibration levels relative to a location without such a slab. The vibration assessment presented in Section 3.13 of the Final EIS takes into account the long-term effects of the Kenilworth Corridor light rail tunnel on vibration levels.

Concern that noise impacts become amplified at higher elevations

Noise assessments were conducted for all sensitive locations along the Southwest LRT corridor segments including noise from operations, stations and grade crossings. Noise and vibration levels are highest closest to the source, which is the ground floor of buildings. Noise and vibration levels will be lower as noise moves further from the source, which would be at higher levels of high rise buildings, because energy (such as noise and vibration) does not increase with increasing distance from its source. Section 3.12 of the Final EIS summarizes the findings of this analysis.

Comment #	#54
Commenter	Jan Search
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern over vibration impacts to residences in the Kenilworth Corridor
- Concern regarding construction impacts to residences in the Kenilworth Corridor
- Concern regarding lowered property value in the Kenilworth Corridor
- Concern regarding habitat destruction in the Kenilworth Corridor
- Concern regarding recreational bicycle and walking path amenities in the Kenilworth Corridor
- Concern regarding contamination of wetlands in the Kenilworth Corridor
- Concern regarding contamination of lakes and water resources in the Kenilworth Corridor

Concern over vibration impacts to residences in the Kenilworth Corridor

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Concern regarding construction impacts to residences in the Kenilworth Corridor

Construction activities are described in Chapter 2 of the Final EIS. Major construction is expected to span approximately three years. The Council will develop a Construction Mitigation Plan and construction communication plan, which will be implemented prior to and during construction. The purpose of the Construction Communication Plan is to prepare Project-area residents, businesses, and commuters for construction; listen to concerns; and develop plans to minimize harmful or disruptive effects.

Concern regarding lowered property value in the Kenilworth Corridor

See *Master Response 9: Concern over potential damages to property values within the vicinity of the Project*

Concern regarding habitat destruction in the Kenilworth Corridor

The Council has utilized multiple MnDNR data sources to perform a more thorough analysis on the existing conditions related to the presence of habitat and wildlife within the Project area. See Section 3.10, Ecosystems, of the Final EIS for the analysis. The Council has also coordinated with the U.S. Fish and Wildlife Service and MnDNR to determine: 1) the presence of federal and state listed threatened and endangered species and associated habitat within the Project area, 2) the Project's likelihood to affect those species and habitat, and 3) the mitigation/commitments that will be required in order for the Project to remain in compliance with the applicable rules and regulations. The Council has determined that the Project will not result in impacts to wildlife and/or habitat that are regulated at the federal or state level because appropriate avoidance measures will be implemented where needed (see Section 3.10 of the Final EIS for additional details). The Project will result in short-term and long-term impacts to habitat that is regulated by local tree ordinances. The Council has performed tree surveys in select areas and has and will continue to coordinate with local permitting authorities to meet the ordinance requirements when feasible.

The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. Furthermore, the Council retained a landscape design consultant to prepare a landscape design study for the Kenilworth Corridor, which will be implemented into the Project. See Section 9.2 of the Final EIS for additional detail on this committee. Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the "Kenilworth Corridor" is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains

portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway).

Regarding concerns over the Project's increase in light, noise, and activity, and the associated effects on wildlife species that occur in this area, Section 3.10.3 of the Final EIS concludes that wildlife in the project area are not expected to be affected by the Project on a long-term basis.

Regarding requests to preserve or enhance existing habitat, native landscaping has been incorporated into the design along the entire alignment, where applicable and appropriate. The Council will establish native vegetated wetland buffers, where possible, within the Project's permanent acquired right-of-way, as required by local permitting authorities and discussed in Section 3.9 of the Final EIS.

The Project has avoided habitat fragmentation at identified Regionally Significant Ecological Corridors, except for one located near the proposed Penn Station. The Project's design at that location will incorporate appropriately sized and spaced openings in the permanent safety/security barriers to maintain habitat connectivity and allow for movement of terrestrial species, as discussed in Section 3.10.3 of the Final EIS.

The Project will not have a long-term direct impact on migratory birds. It is likely that the regulated migratory bird species present in the migratory bird study area have adapted to survive in urban areas and tolerate high levels of human activity given the limited forest or woodland areas present.

Regarding construction impacts to sensitive aquatic habitats, the Project has minimized short-term impacts on wetlands to the maximum extent practicable. See Section 3.9.5 of the Final EIS for examples of BMPs that will be implemented during construction, where applicable and appropriate, and see Appendix D in the Final EIS for a link to the Section 404 Clean Water Act permit application that includes all relevant details regarding wetland impact avoidance and minimization.

Regarding requests for additional analysis on regulated bird species, a more thorough analysis has been performed since the publication of the Supplemental Draft EIS. As discussed in Section 3.10.1 of the Final EIS, the Council has identified the regulated species that have been observed and confirmed to nest in Hennepin County. In addition, the Council has utilized MnDNR data sources to identify occurrences of bald eagle and golden eagle nesting sites as well as Migratory and Waterfowl Feeding and Resting Areas. The Project is not expected to affect migratory birds on a long-term basis, and will implement measures to avoid short-term impacts.

Concern regarding recreational bicycle and walking path amenities in the Kenilworth Corridor

The Project will result in changes to the pedestrian and bicycle facilities. Direct changes may include intersection modifications, new station area platform access points, new at-grade sidewalk and trail crossings of LRT tracks, and modifications to trail widths. All existing public regional and local trails that will be relocated by the Project will be replaced with similar facilities that will provide the same transportation connectivity. The Project will not result in long-term adverse impacts to pedestrian and bicycle transportation as a result of public trail relocation. Final EIS Section 4.5 describes the Project's potential impacts on pedestrian and bicycle transportation in the corridor.

The Council, City of Minneapolis, MPRB, and Hennepin County undertook the West Lake Multimodal Transportation Study, completed in February 2016. The goal of the study was to identify opportunities to address non-motorized and motorized travel within the West Lake LRT Station area with projects that can be implemented as a part of the construction of the Southwest LRT or as part of other capital initiatives. The study report includes Green Line Design Recommendations that will be constructed as part of the Project, including enhanced crosswalk markings at specific intersections, and wayfinding signage.

Concern regarding contamination of wetlands in the Kenilworth Corridor

The Project will avoid and minimize impacts to wetlands through design solutions. In addition, the implementation of appropriate construction best management practices will help to avoid or minimize erosion and sedimentation impacts and protect wetland water quality. Example surface water resource BMPs include the following:

- Minimizing the amount of cleared area at a construction site
- Stabilizing construction entrances and haul roads

- Washing truck tires at construction entrances, as necessary
- Building silt fences downslope from exposed soil
- Protecting catch basins from sediment
- Containing and controlling concrete and hazardous materials onsite
- Installing temporary ditches to route runoff around or through construction sites, with straw bales or rock check dams strategically located to slow and settle runoff
- Providing temporary plastic or mulch to cover soil stockpiles and exposed soil
- Using straw wattles to reduce the length of unbroken slopes and minimize runoff concentration
- Using temporary erosion control blankets or mulch on exposed steep slopes to minimize erosion before vegetation is established
- Building temporary sedimentation ponds to remove solids from concentrated runoff and groundwater pumping before being discharged
- Conducting vehicle fueling and maintenance activities no closer than 100 feet from a wetland

Final EIS Section 3.9 describes the Project's potential impacts on surface water resources, including wetlands. Section 3.9.5.1 describes potential wetland impacts. The USACE has granted preliminary concurrence that the Project's wetland impact avoidance and minimization efforts are sufficient to satisfy Clean Water Act requirements, as documented in the USACE's NEPA/404 merger process concurrence letter dated October 14, 2015 (included in Appendix N of the Final EIS).

Concern over increased impervious surface and contamination of lakes and water resources in the Kenilworth Corridor

The new impervious surfaces related to the Project will represent a small overall increase in the total impervious surface area in each watershed. The amount of new impervious surface added is low relative to the overall size of the watersheds, and because the Project will adhere to applicable stormwater management regulations, adverse impacts to public waters and surface water quality resulting from new impervious surfaces are unlikely to occur. Final EIS Section 3.9 describes the Project's impacts on surface water resources, including public waters and surface water quality. Section 3.14 of the Final EIS describes an updated analysis of hazardous and contaminated materials.

Comment #	#55
Commenter	Russel Palma
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Vibration impacts on residential structures
- Noise and vibration mitigation cost and plans regarding long-term noise effects

Vibration impacts on residential structures

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Noise and vibration mitigation cost and plans regarding long-term noise effects

The Final EIS identifies noise impacts and mitigation (Sections 3.12.4 and 3.13.4 and Appendix K of the Final EIS). For noise, mitigation measures include quiet zones, wayside bells, noise barriers, and testing of residences for interior noise levels. Mitigation for ground borne noise impacts was also identified and includes use of rubber pads or springs to isolate impacts at an audiologist office located in Hopkins and highly resilient rail fasteners in the shallow tunnel in the Kenilworth Corridor (approximately 2,200 feet) to eliminate ground-borne noise impacts by providing vibration isolation (see Theme E.4, Concerns about LRT in the Kenilworth Corridor, in Appendix L of the Final EIS). No mitigation measures are warranted for long-term direct or indirect impacts from vibration due to the absence of any corresponding impacts.

In the more developed areas of the Project corridor, there isn't enough space for berms to be an effective mitigation measure because berms are required to be approximately twice as wide as they are high. Vegetation, regardless of type, is not effective as noise mitigation, unless it is at least 100 feet thick, which would not be possible in this corridor due to spatial constraints.

The cost of mitigation is included in the Project cost estimate, which are discussed in Section 2.3 and Chapter 7 of the Final EIS. The FTA will include mitigation measures identified in the Final EIS (see Tables 3.0-1 and 4.0-1 and the mitigation sections of specific environmental and transportation categories in Chapters 3 and 4 of the Final EIS, respectively) and in the Project's Record of Decision (ROD). FTA will stipulate within the ROD that mitigation measures included in the ROD must be incorporated into the Project by the Council as a condition for receipt of federal funds for the proposed Project, and cannot be reduced or removed without proper reevaluation in the form of an additional environmental review.

Comment #	#56
Commenter	Frank Hornstein
Commenter Organization	District 61A and Minnesota House of Representatives

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Safety concerns related to freight rail transport of hazardous materials under colocation

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#57
Commenter	Sarah Brenner
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Safety concerns related to freight rail transport of hazardous materials during LRT construction and under colocation

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#58
Commenter	Shawn Smith
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern over the accuracy of Project costs estimates within Supplemental Draft EIS
- Safety concerns related to freight rail transport of hazardous materials under co-location

Concern over the accuracy of Project costs estimates within Supplemental Draft EIS

Capital cost estimates for the Project in the Final EIS (see Chapters 2 and 7) are presented in the format of FTA's Standard Cost Category (SCC) workbook, which is a template developed by FTA to provide a consistent format for reporting and estimating capital costs across projects seeking Capital Investment Grant Program funds. The workbook summarizes the Council's estimated capital costs of specific components of the Project into ten common cost categories and the Project's overall capital cost. The SCC workbook is also used to help translate current base-year dollars (i.e., 2016) into year-of-expenditure dollars. Year-of-expenditure dollars represent future-year dollars based on when those dollars would actually be spent by the project, a projected future inflation rate per year, and projected finance costs.

The capital cost estimate for the Project in year-of-expenditure dollars is \$1.791 billion (without Locally Requested Capital Investments [LRCIs], which are estimated to cost \$29.3 million), as shown in Chapter 7 of the Final EIS (see Table 7.1-1, which includes line item costs based on the SCC workbook). The SCC workbook is described in the FTA web page "Standard Cost Categories (SCC) for Capital Projects" (see <https://www.fta.dot.gov/funding/grant-programs/capital-investments/standard-cost-categories-scc-capital-projects>), which is cited in Chapter 7 of the Final EIS. The Project's capital cost estimates will continue to be refined as the Council advances the Project toward a Full Funding Grant Agreement. Methods to help avoid capital cost overruns during construction include: use of risk assessments in reviewing capital cost estimates; strategic allocation of line-item and non-allocated contingency based on factors such as the level of design; identification of specific uncertainties or risks for line items; multiple layers of review; setting unit costs based on recent similar local projects and other applicable experience.

Annual base-year and year-of-expenditure systemwide operations and maintenance costs for the No Build Alternative and the Project are also included in Chapters 2 and 7, respectively, of the Final EIS. The updated O&M cost estimates for the Project reflect adjustments to the proposed transit operation plan in 2040, updated unit costs, and design adjustments that have occurred since publication of the Draft EIS. The methodology used for preparing the Project's O&M cost estimates is described in detail in the Southwest Light Rail Transit (LRT) Service Plan Updates and Operations and Maintenance Cost Results for the Final EIS (July 2015), which is cited in Chapter 7 of the Final EIS. Combined annual systemwide operating costs for Metro Transit/Metropolitan Transportation Services and SouthWest Transit are estimated to be approximately \$1.392 billion in 2040 under the Project, compared to \$1.309 billion under the No Build Alternative.

Safety concerns related to the co-location of freight rail and light rail

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#59
Commenter	Art Higinbotham
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Supplemental Draft EIS executive summary does not include adequate detail
- Concern regarding the potential for derailment under colocation

Supplemental Draft EIS executive summary does not include adequate detail

The Executive Summaries to the Draft EIS, Supplemental Draft EIS, and Final EIS are intended to provide a brief summary of the detailed analysis and documentation included within the body of these documents. The Draft EIS, Supplemental Draft EIS, and Final EIS are all available for public review (see Appendix C of the Final EIS for instructions on how to obtain copies of the Draft EIS and Supplemental Draft EIS) and see the Executive Summary of the Final EIS includes for instructions on how to obtain a copy of the Final EIS.

Concern regarding the potential for derailment under colocation

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#60
Commenter	Bob Brockway
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Mitigation of short-term vibration impacts to condos in the Kenilworth Corridor
- Concern that noise impacts become amplified at higher elevations

Mitigation of short-term vibration impacts to condos in the Kenilworth Corridor

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Concern that noise impacts become amplified at higher elevations

Noise assessments were conducted for all sensitive locations along the Southwest LRT corridor segments including noise from operations, stations and grade crossings. Noise and vibration levels are highest closest to the source, which is the ground floor of buildings. Noise and vibration levels will be lower as noise moves further from the source, which would be at higher levels of high rise buildings, because energy (such as noise and vibration) does not increase with increasing distance from its source. Section 3.12 of the Final EIS summarizes the findings of this analysis.

Comment #	#61
Commenter	John Shorrock
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Safety concerns related to freight rail transport of hazardous materials and under colocation

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Also see *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Comment #	#62
Commenter	Angela Erdrich
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your interest in Cedar Lake Park has been noted.

See *Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor*.

Comment #	#63
Commenter	Richard Adair
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for transit.

Comment #	#64
Commenter	Amity Foster
Commenter Organization	ISAIAH

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the Penn Station. See *Master Response 5: Concern over the potential for the Project to eliminate the proposed Penn Station*.

Comment #	#65
Commenter	Mary Pattock
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Supplemental Draft EIS should assume a basis of no freight for the noise and vibration impact analyses
- Impact of Kenilworth Corridor light rail tunnel construction pile driving

The Supplemental Draft EIS should assume a basis of no freight for the noise and vibration impact analyses

See *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.*

Concern regarding vibration impact of Kenilworth Corridor light rail tunnel construction to residences

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction.*

Comment #	#66
Commenter	George Putzak
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Invalid National Environmental Policy Act (NEPA) scoping process because freight rail colocation was not studied
- Project sought municipal consent prior to Supplemental Draft EIS publication
- Limited choice of alternatives and alignments
- Concern over safety and security impacts related to LRT operation in close vicinity to freight rail

Invalid NEPA scoping process because freight rail colocation was not studied

See *Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation.*

Project sought municipal consent prior to Supplemental Draft publication

See *Master Response 2: Project sought municipal consent prior to the publication of the Supplemental Draft EIS.*

Limited choice of alternatives and alignments

Regarding your comment that Council limited the choice of reasonable alternatives and alignments by advancing the colocation alternative as the locally preferred alternative in the Supplemental Draft EIS, in total, more than 25 route and mode alternatives or sub-alternatives have been evaluated as part of the project development process for the Project. Detailed information on the Project's alternatives analysis, scoping, and LPA identification process is presented in the following documents: Southwest Transitway Alternatives Analysis Final Report (Hennepin County, 2007), Southwest Transitway Scoping Summary Report (Hennepin County, 2009), and the Draft EIS.

In 2007, the HCRRA completed a federally required study called an Alternatives Analysis, which was a continuation of the Southwest Rail Transit Study, 2003. The Southwest Transitway Alternatives Analysis (AA) compared the benefits, costs and impacts of a range of transit alternatives (modes and routes) to identify which alternative would best serve the needs of the communities as expressed in the Purpose and Need Statement.

In the AA, the alternatives for detailed evaluation included one bus alternative called the Enhanced Bus, two bus rapid transit (BRT) alternatives, and eight light rail transit (LRT) alternatives. It was concluded that three of the eight LRT routes could meet the established project goals. In addition, the enhanced bus alternative was retained to continue to evaluate the possibility of addressing the increasing mobility needs of the area through improved bus service rather than LRT. The Draft EIS includes a detailed description of the alternatives evaluation process (see Section 2.1).

The AA was the starting point for the Draft EIS and formed the basis for the Scoping Process. Based upon the AA, three LRT alternatives and the Enhanced Bus alternative were proposed for inclusion in the Draft EIS. During the NEPA/MEPA Scoping Period from September 8, 2008 through November 7, 2008 for the Southwest Transitway Project (the Project) Draft EIS, two new alignments were proposed. The alternatives were labeled LRT 3C (11th/12th Sub-Alternative) and LRT 3E and were evaluated for their feasibility with regard to the project's goals identified in the Purpose and Need Statement and it was determined that they warranted inclusion in the Draft EIS.

The Draft EIS examined seven alternatives, including the No Build Alternative, the Enhanced Bus Alternative, and five light rail transit (LRT) alternatives (LRT 1A, LRT 3A, LRT 3A-1, LRT 3C-1, and LRT 3C-2). These seven alternatives are described in Section 2.3 of the Draft EIS which provides a

description of the alternatives that were considered within the Project selection process. Chapter 11 of the Draft EIS provides a description of how the alternatives were evaluated and the rationale for the identification of the Project. On May 26, 2010, prior to the completion of the Draft EIS and based on an extensive alternatives analysis and public involvement process, the Metropolitan Council adopted the Project's Locally Preferred Alternative (LPA) as recommended by the Hennepin County Regional Railroad Authority (HCRRA) and included it as part of the 2030 Transportation Policy Plan.

While the Draft EIS notes that LRT 3A-1 is identical to LRT 3A in the transit service it would provide (see Chapter 2 of the Draft EIS), it only identifies LRT 3A as the LPA (see pages 2-31 and 2-41 of the Draft EIS for examples). The LPA is a subset of both LRT 3A and LRT 3A-1 of the Draft EIS; therefore, the Project's LPA is included within both LRT 3A and LRT 3A-1. The LPA was identified based on an assessment of four evaluation categories: planning compatibility; performance; implementation factors; and critical environmental resources.

The HCRRA and Metropolitan Council found that LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life and supporting economic development.

NEPA implementing regulations allow FTA to move forward a preferred alternative for further study by supplementing a draft EIS. For example, 40 C.F.R. S 1502.14(e) requires FTA to "identify the agency's preferred alternative if one of more exists, in the draft statement and identify such alternative in the final statement..." In accordance with NEPA regulations, therefore, FTA routinely develops NEPA draft documents that note the agency's preferred alternative.

Concern over safety and security impacts related to LRT operation in close vicinity to freight rail

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.*

Comment #	#67
Commenter	Susu Jeffrey
Commenter Organization	Friends of Coldwater

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Security around 21st Street Station and Penn Station areas
- Kenilworth Corridor light rail tunnel impacts to water resources and lakes
- Suggest alternative route through Uptown (LRT 3C)

Security around 21st Street Station and Penn Station areas

See *Master Response 5: Concern over the potential for the Project to eliminate the proposed Penn Station*.

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Concern regarding potential impacts of the Kenilworth Corridor shallow tunnel to water quality in Cedar Lake

The Project is not expected to have any impact on water quality in Cedar Lake. Based on evaluations conducted as part of the Kenilworth Tunnel preliminary design, it was determined that the groundwater and lake levels in the area surrounding Cedar Lake, Lake of the Isles, and Lake Calhoun are similar, with little change in elevation across the system and no evidence of significant groundwater flow from one water body to another. The Council also conducted an independent review of the design of the tunnel to be located within the Kenilworth Corridor. A reference to Southwest Light Rail Transit: Kenilworth Shallow LRT Tunnels Water Resources Evaluation (Burns and McDonnell, 2014) is located in Appendix D of the Final EIS. The report notes that “Cedar Lake and Lake of the Isles are connected by an open channel that equalizes water levels in Cedar Lake, the channel and Lake of the Isles. The data in this report indicate that the lake level elevation in the channel is higher than most of the groundwater elevations. This suggests that groundwater in the corridor does not discharge to the channel and lakes in the corridor and that the lakes may be recharging the aquifer. This is counter to a more typical groundwater-surface water relationship in this climate where groundwater flows toward and discharges to surface water.”

Precipitation and evaporation are the dominant factors in lake level fluctuation for this area. Groundwater modeling studies to evaluate the impacts of the proposed Kenilworth Tunnel on water levels in the vicinity of the tunnel show that, because of the sandy soil conditions and lack of groundwater flow in the vicinity of the tunnel, groundwater will rise and fall equally around the tunnel. See Section 3.8, Geology and Groundwater Resources, and Section 3.9, Water Resources, of the Final EIS for more information.

The Council has conducted work, which addressed data needs, advanced the design of the project, and identified approaches to avoid and minimize impacts. This work included: additional testing of soils and groundwater, an evaluation of the effect of tunnels on the area’s water system; completion of wetland delineations; coordination with USACE through the Section 404 permit process; coordination with local jurisdictions; incorporation of locally approved floodplain models into design of Project; and continued design of the Project including stormwater and groundwater pumping activities.

As described in Section 3.8 of the Final EIS, the Project will not result in adverse impacts to groundwater or surface water resources within the Kenilworth Corridor. To help avoid those types of impacts, a groundwater management plan will be prepared by the Council, and approved by MnDNR and applicable local jurisdictions before construction. That plan will address long-term and short-term collection, storage, and disposal of surface water runoff and pumped groundwater following construction of the Project. Particularly within the Kenilworth Corridor, the groundwater management plan will include monitoring, which will be used to assess excessive groundwater infiltration and to prioritize any potential repairs to

the waterproofing systems. The Project's plan will be based on an appropriate safety factor, to be determined in consultation with the City of Minneapolis, MCWD and the MnDNR, which will be applied to pumping rates and yearly pumping volumes in calculating maximum inflow amounts. Section 3.8 of the Final EIS includes an updated analysis of geology and groundwater resources, and includes associated applicable best management practices and mitigation measures that will be included in the Project.

There will be no increase in permanent fill of wetlands within the Kenilworth Corridor and stormwater runoff will be directed into stormwater management facilities created as part of the Project, as approved by local jurisdictions and through final permitting. These facilities will be designed to provide stormwater treatment in compliance with NPDES requirements. See Section 3.9 for more information on the evaluation of surface water resources.

See the following sections in the Final EIS for additional information: Section 3.8, Geology and Groundwater Resources and Section 3.9, Surface Water Resources. The Final EIS also includes updated preliminary engineering plans in Appendix E.

Suggest alternative route through Uptown (LRT 3C)

The option of routing the Project through Uptown and south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

The alternative suggested by the commenter would perform very similarly to the 3C-1 and 3C-2 alternatives. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

In summary, HCRRA and the Metropolitan Council, as well as the Project's Corridor Management Committee (CMC) found that the light rail alignment that is part of LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life, and supporting economic development.

Comment #	#68
Commenter	Nancy Green
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Noise and vibration analysis did not include Calhoun Isles condominiums
- Concern over safety and security impacts related to LRT operation in close vicinity to freight rail

Noise and vibration analysis did not include Calhoun Isles condominiums

The Council has completed an extensive geotechnical exploration along the Calhoun Isles condo building and parking ramp. The condo's foundation closest to the corridor and each of the ramp's footings were exposed and located by survey for use in the design of the tunnel support systems. The Council began meeting directly with representatives of the Calhoun Isles Condominium Association in 2013 and have had numerous meetings, as well as follow-up communication, to coordinate investigating building foundation locations, discussing findings, project details, and anticipated construction methods adjacent to the condo and parking buildings.

Detailed noise and vibration assessments were conducted for all sensitive locations along the Southwest LRT corridor segments as presented in Sections 3.12 and 3.13 of the Final EIS, respectively. Based on these analyses, the Project will not result in adverse noise or vibration impacts to the Calhoun Isles condominiums, based on FTA impact criteria.

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Concern over safety and security impacts related to LRT operation in close vicinity to freight rail

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Comment #	#69
Commenter	Claire Ruebeck
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Justification for including the need for a robust freight system in the Purpose and Need Statement
- Safety concerns related to freight rail transport of hazardous materials under co-location
- Concern over potential Federal Railroad Administration abdication of jurisdiction over shared freight and LRT corridor

Justification for including the need for a robust freight system in the Purpose and Need Statement

As described in Section 1.1 of the Final EIS, the need to maintain a balanced and economically competitive freight system for the Project was identified as one of four statements of need included in the Project's Purpose and Need Statement. Justification for this statement includes the following (refer to Section 1.6 of the Final EIS for additional information):

- The Minneapolis-St. Paul Metropolitan Area is a focal point of the freight railroad system in the state and north central United States. Four of the country's seven Class I railroads provide service to the Twin Cities and Minnesota has the eighth highest rail miles in the nation. Rail accounts for 25 percent of freight tonnage moving in the state, compared to trucks that move 63 percent of the freight tonnage.
- Freight rail takes pressure off the state's highway network and provides environmental benefits through fuel efficiency and moving goods by freight rail rather than by truck can also have a positive effect on the region's mobility. Twin Cities and Western Railway Company (TC&W) reports that an average train load equates to 40 trucks on the roadway system. As congestion increases on the roadway system, moving commodities by freight rail will become more competitive.

Safety concerns related to freight rail transport of hazardous materials under colocation

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Also See *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Concern over Federal Railroad Administration abdication of jurisdiction over shared freight/LRT corridor

The Federal Railroad Administration (FRA) is the federal agency with jurisdictional authority over railroad safety. In October 2014, FRA provided a preliminary jurisdiction determination for the proposed Project which concluded that the proposed Southwest LRT Project will be an urban rapid transit (URT) operation,⁴ and therefore, FRA will not exercise its safety jurisdiction over the Southwest LRT Project, except to the extent that it is necessary to ensure railroad safety at any limited shared connections between the Southwest LRT Project and other railroad carriers that operate on the general railroad system of transportation. This applies to the five shared at-grade light rail/freight rail roadway crossings included in the Project (see Table 4.4-2). The Project will be subject to FRA regulations, including 49 C.F.R. Parts 214, 219, 220, 222, 225, 228, 233, 234, 235, and 236, and 49 CFR 229.125, as well as the hours of service laws, at the points of connection between the Southwest LRT Project and the general railroad system. See to Appendix N for a copy of correspondence between the Council and FRA regarding FRA's jurisdictional determination.

⁴ Under FRA laws (49 U.S.C. 20102), URT systems are passenger rail operations that do not connect to the general railroad system of transportation.

Comment #	#70
Commenter	Bob Carney
Commenter Organization	We the People

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Concern over accuracy of Project cost estimates

Capital cost estimates for the Project in the Final EIS (see Chapters 2 and 7) are presented in the format of FTA's Standard Cost Category (SCC) workbook, which is a template developed by FTA to provide a consistent format for reporting and estimating capital costs across projects seeking Capital Investment Grant Program funds. The workbook summarizes the Council's estimated capital costs of specific components of the Project into ten common cost categories and the Project's overall capital cost. The SCC workbook is also used to help translate current base-year dollars (i.e., 2016) into year-of-expenditure dollars. Year-of-expenditure dollars represent future-year dollars based on when those dollars would actually be spent by the project, a projected future inflation rate per year, and projected finance costs.

The capital cost estimate for the Project in year-of-expenditure dollars is \$1.791 billion (without Locally Requested Capital Investments [LRCIs], which are estimated to cost \$29.3 million), as shown in Chapter 7 of the Final EIS (see Table 7.1-1, which includes line item costs based on the SCC workbook). The SCC workbook is described in the FTA web page "Standard Cost Categories (SCC) for Capital Projects" (see <https://www.fta.dot.gov/funding/grant-programs/capital-investments/standard-cost-categories-scc-capital-projects>), which is cited in Chapter 7 of the Final EIS. The Project's capital cost estimates will continue to be refined as the Council advances the Project toward a Full Funding Grant Agreement. Methods to help avoid capital cost overruns during construction include: use of risk assessments in reviewing capital cost estimates; strategic allocation of line-item and non-allocated contingency based on factors such as the level of design; identification of specific uncertainties or risks for line items; multiple layers of review; setting unit costs based on recent similar local projects and other applicable experience.

Annual base-year and year-of-expenditure system-wide operations and maintenance costs for the No Build Alternative and the Project are also included in Chapters 2 and 7, respectively, of the Final EIS. The updated O&M cost estimates for the Project reflect adjustments to the proposed transit operation plan in 2040, updated unit costs, and design adjustments that have occurred since publication of the Draft EIS. The methodology used for preparing the Project's O&M cost estimates is described in detail in the Southwest Light Rail Transit (LRT) Service Plan Updates and Operations and Maintenance Cost Results for the Final EIS (July 2015), which is cited in Chapter 7 of the Final EIS. Combined annual systemwide operating costs for Metro Transit/Metropolitan Transportation Services and SouthWest Transit are estimated to be approximately \$1.392 billion in 2040 under the Project, compared to \$1.309 billion under the No Build Alternative.

Comment #	#71
Commenter	Sandi Larson
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

The Supplemental Draft EIS does not address existing sewer and relocation in the Kenilworth Corridor

Regarding comments on the recently installed sewer mains between Depot Street and W. 28th Street, the design and configuration of the sewer connection has been coordinated and reviewed by Metropolitan Council Environmental Services, the designer of the force main construction in 2013. During construction of the LRT tunnels, the force main will be temporarily connected around the construction area, allowing the force main to remain operational during tunnel construction. The permanent reconnection of the force main will occur over the tunnel, retaining the current depth of the tunnel (see the Project Engineering Plans as referenced in Appendix C). The cost of removing and relocating the force sewer main, and associated street restoration, are included in the Project's budget. Lift stations will not be required.

All conflicting utilities affected by the Project will be relocated and services maintained, in accordance with the Southwest LRT Utility Relocation and Management Plan (refer to Appendix C for instructions on how to access this document). Site-specific conflicts will be addressed by design measures such as relocating utilities, as appropriate.

Areas that are altered or disturbed as the result of construction activities will be restored and the costs of these activities are included in the overall cost estimates for the Project

Comment #	#72
Commenter	Cathy Deikman
Commenter Organization	Not Provided

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Kenilworth Channel inaccurately designated as Category 3 instead of as Category 1 for the noise analysis; redesignation requires additional noise mitigation

The Council, in consultation with the MPRB and MnHPO, reached agreement on designation of land use categories for the parks within the Kenilworth Corridor, including high-sensitivity sites near the Kenilworth Lagoon/Channel. The northern bank of the Kenilworth Lagoon, generally between West Lake of the Isles Parkway and South Upton Avenue, is classified as category 1 land use and the lagoon itself is classified as category 3. Residences are classified as category 2. Section 3.12 of the Final EIS provides a description of land use categories and metrics used to identify noise sensitive receptors according to FTA criteria (see Table 3.12-2). Active use areas like bike and running trails are generally not categorized as noise sensitive receptors because these are areas where quiet is not an essential element and the intended purpose. The channel itself supports primarily active uses (e.g., kayaking, skiing), while the lagoon bank is used for more contemplative uses. Noise assessments were conducted using these land use classifications. The assessment at the Channel indicated noise impacts to the Channel but not to the banks of the lagoon, which are located significantly further from the tracks. Mitigation has been recommended at this location, including low height noise barriers on the bridge and rail dampers on the tracks to minimize the noise. While the banks of the lagoon were not identified as impacts, the mitigation for the channel on the bridge would reduce the noise levels at the banks as well. The methodology used to determine these classifications is based on FTA guidance and is provided in Section 3.12 of the Final EIS. Refer to Section 3.12.4 of the Final EIS for more information on impacts and mitigation measures that have been incorporated into the Project.

Comment #	#73
Commenter	Stuart Chazin
Commenter Organization	Kenilworth Preservation Group

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concerns over Project costs and LRT ridership considering the potential elimination of Mitchell Station and cuts
- Suggest an alternative alignment through Uptown

Concerns over Project costs and LRT ridership considering the potential elimination of Mitchell Station and cuts

As described in Section 2.2.5 of the Final EIS, the Project scope has been adjusted since the publication of the Supplemental Draft EIS to remove Mitchell Station in Eden Prairie and defer construction of the proposed Eden Prairie Town Center Station. With the scope reductions, Eden Prairie will still be served by LRT at the proposed SouthWest Station, Golden Triangle Station and City West Station. There are no plans to eliminate proposed LRT stations in Minneapolis.

The elimination of Mitchell Station and deferral of Eden Prairie Town Center Station does not affect the viability of the Project and as described in Section 4.1, the Project will have adequate ridership to support its purpose and need. In order to receive funding from the FTA, the Project must meet the FTA program evaluation metrics, including the metric for ridership. Refer to Chapter 1 for a description of the Project's purpose and need and Chapter 7 for an updated financial analysis for the Project.

Suggest an alternative alignment through Uptown

The option of routing the Project through Uptown and south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

The alternative suggested by the commenter would perform very similarly to the 3C-1 and 3C-2 alternatives. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

In summary, HCRRA and the Metropolitan Council, as well as the Project's Corridor Management Committee (CMC) found that the light rail alignment that is part of LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life, and supporting economic development.

Comment #	#74
Commenter	Jeanette Colby
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Invalid National Environmental Policy Act (NEPA) scoping process because freight rail colocation was not studied
- Freight rail in the Kenilworth Corridor should not be included in the No Build Alternative

Invalid NEPA scoping process because freight rail colocation was not studied

See *Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation.*

See *Master Response 10: Rationale for incorporating freight rail co-location into the Project.*

Freight rail in the Kenilworth Corridor should not be included in the No Build Alternative

See *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.*

Comment #	#75
Commenter	Camille Burke
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern over the proximity of the new Kenilworth Channel bridge to existing homes
- Questions about the extent of hazardous and contaminated materials in the Kenilworth Corridor
- Concern regarding Kenilworth Corridor light rail tunnel construction impacts to groundwater and surface water
- Concern over the operating costs and revenues of the Project

Concern over the proximity of the new Kenilworth Channel bridge to existing homes

The Project will require demolition of the existing wood trestle bridges that carry the existing freight rail line and the trail across the Kenilworth Channel and construction of three new concrete bridges for freight rail, LRT and the trail, generally in the same location as the existing bridge. As described in Section 3.4, construction of the new bridges will not require acquisition of any residential property within the area and the new bridges are approximately 120 feet away from an existing home. LRT operation has the potential to cause environmental impacts such as increased noise levels and changes in visual quality; refer to Section 3.7 and 3.12 for more information on visual quality and noise impacts and related mitigation measures, respectively.

For more information, refer to *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Refer to Section 3.7 of the Final EIS for detailed information on mitigation pertaining to change in visual quality, Section 3.12 for noise mitigation, and Section 3.13 for vibration mitigation. Section 3.2 of the Final EIS discusses the economic impacts of the Project, including potential changes to property values.

Questions about the extent of hazardous and contaminated materials in the Kenilworth Corridor

See *Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor*.

Concern regarding Kenilworth Corridor light rail tunnel construction impacts to groundwater and surface water

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

Concern over the operating costs and revenues of the Project

Refer to Chapter 7.2 for a description of the operating funding strategy for the Project. The transit operating revenues for the Project will include fare revenues, state general funding, and CTIB funding. The funding for the O&M costs for the Project comes first from the fare revenues, the remaining costs are split 50 percent state general funds and 50 percent CTIB. Minnesota Sessions Laws (2008) Section 473.4051 subd. 2 states that after operating revenue and federal money have been used to pay for light rail operations, 50 percent of the remaining balance must be paid by the State of Minnesota (Minnesota Session Laws, 2008, Regular Session, Chapter 365 – House File No. 4072). State funding for transit operations is derived from general fund appropriations, and is appropriated by the state legislature on a biennial basis.

Comment #	#76
Commenter	Kathy Low
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your opposition to the Project has been noted.

In response to your comment on a 2011 Hennepin County report stating that there was understanding that freight would be removed from the Kenilworth corridor regardless of LRT of any other Project, see the following:

- *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.*
- *Master Response 10: Rationale for incorporating freight rail co-location into the Project.*
- *Master Response 13: Rationale for dismissal of the Brunswick Central” freight rail relocation alternative.*

Regarding your comment that fitting light rail and freight rail into the same corridor will require “massive tunnel portals, crash walls, large cement structures and bridges, and removal of vegetation, please see Section 2.1, Definition of Alternatives, in the Final EIS. This section describes elements that are included in the Project and also notes that construction of the LPA will be a major undertaking that will require changes along the proposed light rail alignment for the duration of the construction period, expected to span approximately three years. The description of construction activities for the LPA in this section is based on the Preliminary Engineering Plans (see Appendix E).

Regarding your comment on the adverse effect on the Kenilworth Lagoon and the Grand Rounds Historic District, See *Master Response 4: Concern about inadequate evaluation of potential impacts to the Grand Rounds Historic district.*

Regarding your comment on the legal obligation to avoid or minimize harm under Section 4(f), please refer to Section 6.3, Final Section 4(f) Evaluation Summary, in the Final EIS, which notes that, “...FTA’s determination within this Final Section 4(f) Evaluation is that as a result of the Project there will be a Section 4(f) use (non-*de minimis*) of the Kenilworth Lagoon/Grand Rounds Historic District, based on a Section 106 adverse effect finding. This determination was also made as preliminary for Alternative 3A-1 in the Draft Section 4(f) Evaluation and for the LPA in the Draft Section 4(f) Evaluation Update. Further, FTA determines that there is no prudent and feasible alternative to the Section 4(f) use of the Kenilworth Lagoon/Grand Rounds Historic District and that the Project would cause the least overall harm to protected Section 4(f) resources.” For additional information, please see Chapter 6.0 of the Final EIS, Final Section 4(f) Evaluation, and Appendix I, Section 4(f) Supporting Documentation.

Comment #	#77
Commenter	Michael Wilson
Commenter Organization	Cedar Lake Shores Townhome Association

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Additional analysis and specificity regarding hazardous and contaminated materials
- Concern over the potential elimination of pedestrian accessibility improvements from the West Lake Station
- Concern regarding impact of Kenilworth Corridor light rail tunnel construction to residences
- Long-term noise impacts of Kenilworth Corridor light rail tunnel during operation

Additional analysis and specificity regarding hazardous and contaminated materials

See *Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor*.

Concern over the potential elimination of pedestrian accessibility improvements from the West Lake Station

As described in Section 4.5.3.1, the proposed West Lake vertical separation and steep grades inhibit direct pedestrian and bicycle access to the station from West Lake Street. In order to provide access to the West Lake Station, vertical circulation consisting of stairs, ramps, and elevators will be provided to make pedestrian and bicycle connections possible.

In addition, the Council, City of Minneapolis, MPRB, and Hennepin County undertook the West Lake Multimodal Transportation Study, completed in February 2016. The goal of the study was to identify opportunities to address non-motorized and motorized travel within the West Lake LRT Station area with projects that can be implemented as a part of the construction of the Southwest LRT or as part of other capital initiatives. The study report includes Green Line Design Recommendations that will be constructed as part of the Project, including enhanced crosswalk markings at specific intersections, and wayfinding signage.

Concern regarding impact of Kenilworth Corridor light rail tunnel construction to residences

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Long-term noise impacts of Kenilworth Corridor light rail tunnel during operation

As described in Section 3.12.3, the Project is not anticipated to have long-term moderate or severe noise impacts on the Cedar Lake Shores Townhomes. The noise analysis for the Project was conducted in accordance with FTA guidelines. Refer to Section 3.12 for additional information.

Comment #	#78
Commenter	Eric Larsson
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Safety concerns related to freight rail transport of hazardous materials under co-location

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*, and *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

See *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data*.

Comment #	#79
Commenter	Doug Peterson
Commenter Organization	CIDNA

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- The Supplemental Draft EIS does not address existing sewer at 28th Avenue in regards to Kenilworth Corridor light rail tunnel engineering
- Vibration impacts of pile driving on residential buildings

The Supplemental Draft EIS does not address existing sewer at 28th Avenue in regards to Kenilworth Corridor light rail tunnel engineering

Regarding comments on the recently installed sewer mains between Depot Street and W. 28th Street, the design and configuration of the sewer connection has been coordinated and reviewed by Metropolitan Council Environmental Services, the designer of the force main construction in 2013. During construction of the LRT tunnels, the force main will be temporarily connected around the construction area, allowing the force main to remain operational during tunnel construction. The permanent reconnection of the force main will occur over the tunnel, retaining the current depth of the tunnel (see the Project Engineering Plans as referenced in Appendix C of the Final EIS). The cost of removing and relocating the force sewer main, and associated street restoration, are included in the Project's budget. Lift stations will not be required.

All conflicting utilities affected by the Project will be relocated and services maintained, in accordance with the Southwest LRT Utility Relocation and Management Plan (refer to Appendix C of the Final EIS for instructions on how to access this document). Site-specific conflicts will be addressed by design measures such as relocating utilities, as appropriate.

Areas that are altered or disturbed as the result of construction activities will be restored and the costs of these activities are included in the overall cost estimates for the Project.

Concern regarding impact of Kenilworth Corridor light rail tunnel construction to residences

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Comment #	#80
Commenter	Arlene Fried
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Concern regarding impact of dewatering on Cedar Lake

The Project is not expected to conduct dewatering activities or have impacts from this on Cedar Lake. Based on evaluations conducted as part of the Kenilworth Tunnel preliminary design, it was determined that the groundwater and lake levels in the area surrounding Cedar Lake, Lake of the Isles, and Lake Calhoun groundwater and lake levels are similar, with little change in elevation across the system and no evidence of significant groundwater flow from one water body to another. Precipitation and evaporation are the dominant factors in lake level fluctuation for this area. Groundwater modeling studies to evaluate the impacts of the proposed Kenilworth Tunnel on water levels in the vicinity of the tunnel show that, because of the sandy soil conditions and lack of groundwater flow in the vicinity of the tunnel, groundwater will rise and fall equally around the tunnel. Groundwater removed from the tunnel cells during construction will be returned to the groundwater system. Groundwater that leaks into the Kenilworth Tunnel will be a relatively small quantity of water. See Section 3.8, Geology and Groundwater Resources, and Section 3.9, Water Resources, in the Final EIS for more information.

Comment #	#81
Commenter	Matthews Hollinshead
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your support for the Project has been noted.

Safety concerns related to freight rail transport of hazardous materials under co-location

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.*

See *Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor.* Also see *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor.*

Comment #	#82
Commenter	Captain Jack Sparrow
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Supplemental Draft EIS flawed due to elimination of stations after publication
- Safety concerns related to freight rail transport of hazardous materials under co-location
- Ridership on Green Line

Supplemental Draft EIS flawed due to elimination of stations after publication

Since the completion of the Supplemental Draft EIS in 2015, the Council advanced the level of design detail for the Project. This additional level of design resulted in a better understanding of the Project design, impacts, and avoidance, minimization, and mitigation measures. Adjustments to the design were made to better avoid impacts, integrate mitigation measures, and allow for cost reductions. On April 27, 2015, the Council released a revised Project cost estimate of approximately \$1.994 billion. The additional costs were primarily related to poor ground conditions along the proposed Project, soil contamination in St. Louis Park and Hopkins, Project delays due to additional studies, and property acquisitions and relocations.

To address the revised Project cost estimate, the Council's CMC and Project staff developed and evaluated a variety of options, in consultation with the Project's local participating jurisdictions. The evaluation of options focused on three key criteria: cost savings incurred; Project ridership; and local jurisdiction consensus. CMC meetings held on May 20, June 3, June 24, and July 1, 2015, included review, discussion, and evaluation of the various options developed, which resulted in a recommendation by the CMC to the Council on July 1, 2015. Related recommendations to the Council were also adopted by the BAC and CAC on June 17 and June 30, 2015, respectively.

On July 8, 2015, the Council adopted design adjustments to address the increased cost estimates. In doing so, the Council considered recommendations from the CMC, BAC, and CAC. In summary, the Council identified \$250 million in reductions to the Project's scope and budget. The reductions in the Project's scope included the elimination of the Mitchell Station (which was identified as an option in the Supplemental Draft EIS) and deferral of the Eden Prairie Town Center Station (not anticipated by Project opening, but before 2040); the reduction of five new light rail vehicles; the reduction of park-and-ride capacity from 3,834 spaces to 2,487 spaces; the reduction in the size of the proposed Hopkins OMF (with future expansion capacity on-site); elimination of station artwork; and reductions in landscaping and off-platform station furnishings. The identified cost savings measures were identified, developed, and analyzed in consultation with the Project's local participating agencies. In addition to the reductions in scope and budget, the Council committed to seek approximately \$90 million in additional funds to cover the remaining shortfall. Section 2.3 of the Final EIS includes the current base-year capital cost estimates for the LPA, LRCs, and the Project; similar year-of-expenditure capital costs are summarized in Chapter 7 of the Final EIS, including the Project's revised capital finance plan.

Safety concerns related to freight rail transport of hazardous materials under co-location

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*. Also see *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Ridership on Green Line

Ridership on the existing Green Line has exceeded ridership projections (<http://www.metrotransit.org/green-line-sets-monthly-ridership-record>). Regarding ridership on the Project (Green Line Extension) the regional travel demand model provides detailed information on transit ridership demand, estimates of passenger boardings, and other critical and relevant information used to evaluate the performance of the Project in relation to the No Build Alternative. See the Technical Report

listed in Appendix C of the Final EIS for a detailed description of the forecasting methodology. See also Chapter 1, Purpose and Need.

Comment #	#83
Commenter	Sally Rousse
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to colocation and the shallow light rail tunnel in the Kenilworth Corridor. The sections that follow include responses to these specific comments:

- Consider alternative alignment options previously studied
- Safety concerns related to freight rail transport of hazardous materials under co-location
- Kenilworth Trail is used for more than recreation uses

Consider alternative alignment options previously studied

In total, more than 25 route and mode alternatives or sub-alternatives have been evaluated as part of the project development process for the Project. Detailed information on the Project's alternatives analysis, scoping, and LPA identification process is presented in the following documents: Southwest Transitway Alternatives Analysis Final Report (Hennepin County, 2007), Southwest Transitway Scoping Summary Report (Hennepin County, 2009), and the Draft EIS.

In 2007, the HCRRA completed a federally required study called an Alternatives Analysis, which was a continuation of the Southwest Rail Transit Study, 2003. The Southwest Transitway Alternatives Analysis (AA) compared the benefits, costs and impacts of a range of transit alternatives (modes and routes) to identify which alternative would best serve the needs of the communities as expressed in the Purpose and Need Statement.

In the AA, the alternatives for detailed evaluation included one bus alternative called the Enhanced Bus, two bus rapid transit (BRT) alternatives, and eight light rail transit (LRT) alternatives. It was concluded that three of the eight LRT routes could meet the established project goals. In addition, the enhanced bus alternative was retained to continue to evaluate the possibility of addressing the increasing mobility needs of the area through improved bus service rather than LRT. The Draft EIS includes a detailed description of the alternatives evaluation process (see Section 2.1).

The AA was the starting point for the Draft EIS and formed the basis for the Scoping Process. Based upon the AA, three LRT alternatives and the Enhanced Bus alternative were proposed for inclusion in the Draft EIS. During the NEPA/MEPA Scoping Period from September 8, 2008 through November 7, 2008 for the Southwest Transitway Project (the Project) Draft EIS, two new alignments were proposed. The alternatives were labeled LRT 3C (11th/12th Sub-Alternative) and LRT 3E and were evaluated for their feasibility with regard to the project's goals identified in the Purpose and Need Statement and it was determined that they warranted inclusion in the Draft EIS.

The Draft EIS examined seven alternatives, including the No Build Alternative, the Enhanced Bus Alternative, and five light rail transit (LRT) alternatives (LRT 1A, LRT 3A, LRT 3A-1, LRT 3C-1, and LRT 3C-2). These seven alternatives are described in Section 2.3 of the Draft EIS which provides a description of the alternatives that were considered within the Project selection process. Chapter 11 of the Draft EIS provides a description of how the alternatives were evaluated and the rationale for the identification of the Project. On May 26, 2010, prior to the completion of the Draft EIS and based on an extensive alternatives analysis and public involvement process, the Metropolitan Council adopted the Project's Locally Preferred Alternative (LPA) as recommended by the Hennepin County Regional Railroad Authority (HCRRA) and included it as part of the 2030 Transportation Policy Plan.

While the Draft EIS notes that LRT 3A-1 is identical to LRT 3A in the transit service it would provide (see Chapter 2 of the Draft EIS), it only identifies LRT 3A as the LPA (see pages 2-31 and 2-41 of the Draft EIS for examples). The LPA is a subset of both LRT 3A and LRT 3A-1 of the Draft EIS; therefore, the Project's LPA is included within both LRT 3A and LRT 3A-1. The LPA was identified based on an

assessment of four evaluation categories: planning compatibility; performance; implementation factors; and critical environmental resources.

The HCRRA and Metropolitan Council found that LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life and supporting economic development.

See *Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation.*

Safety concerns related to freight rail transport of hazardous materials under co-location

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.*

See *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor.*

Kenilworth Trail is used for more than recreation uses

Both HCRRA and MPRB consider the Kenilworth Trail a valuable transportation resource and the transportation function of this and other trails within the Project area was considered in the analysis of pedestrian and bicycle facilities as presented in Section 4.5. As shown in Table 4.5-1, the Kenilworth Trail was observed to have approximately 420 bicycle and 70 pedestrian users during a 2-hour period, which is among the highest in the Project area. Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the "Kenilworth Corridor" is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway).

Comment #	#84
Commenter	Peter Wagenius
Commenter Organization	City of Minneapolis

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Regarding your comments on the federal direction to incorporate the freight rail issue into the Project, see *Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation*.

Comment #	#85
Commenter	Bob Carney
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Southwest LRT Project. We've addressed your comments in the response to comment 70.

Comment #	#86
Commenter	Melitta Mayer
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Southwest LRT Project.

Comment #	#87
Commenter	Nancy Arieta
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Southwest LRT Project.

Comment #	#88
Commenter	Ellen Hoerle
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the Southwest LRT Project.

Comment #	#89
Commenter	Joseph Lampe
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS) and for your submission of material related to Personal Rapid Transit. Your comments are addressed in the response to comment 35.

Comment #	#90
Commenter	Frank Lorenz
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Project. The sections that follow include responses to these specific comments.

- The Supplemental Draft EIS does not include the cost of land acquisition and related litigation
- Concern over the need to provide access to jobs in Eden Prairie for north Minneapolis residents

The Supplemental Draft EIS does not include the cost of land acquisition and related litigation

The financial evaluation for the Project includes the estimated cost of land acquisitions needed for new right-of-way (approx. \$207.3 million). As part of the Project, the Council will identify and compensate affected property owners for long-term and short-term (construction) takings according to the provisions of the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Code of Federal Regulations [CFR] Title 49, Part 24), as amended (49 CFR, Part 24). The Project will not displace any residences, however, small amounts (generally less than 0.5 acres, but up to 2.5 acres) will be acquired from residential properties and compensated in accordance with Uniform Relocation Act standards.

As shown in Chapter 7, the capital costs estimate for the Project include anticipated costs needed for right-of-way, land acquisition, and existing improvements (approx. \$211,785,000), which includes typical legal proceedings. Additional costs not covered by the right-of-way line item are covered under contingency. Litigation associated with NEPA process for this project is a burden shared by the lead agency, FTA and the Council.

Concern over the need to provide access to jobs in Eden Prairie for north Minneapolis residents

The transportation issues facing the Southwest LRT Project Corridor illustrate the need for improved mobility, accessibility, and system linkages to key activity centers (Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and downtown Minneapolis) through high-capacity transit service. The Southwest LRT Project is one of several transit corridors identified in the Council's 2040 Transportation Policy Plan as being in need of enhanced transit service. The Southwest LRT Project Corridor continues to experience increases in population and employment with limited additional traffic capacity on existing streets and highways, resulting in increased travel time, delays, and air pollution.

As described in Chapter 1, employment in the Project Corridor is forecast to increase from 314,904 jobs in 2010 to 427,950 jobs in 2040, a 36 percent increase. The west edge of the Project Corridor near the Hennepin County/Carver County line is the largest area in the Project Corridor that is expected to experience a 50 percent increase in population and employment. Forecast (2040) employment in Eden Prairie, Minnetonka, Hopkins, Edina, St. Louis Park, and Minneapolis is expected increase from 15 percent in St. Louis Park to 47 percent in Hopkins. Minneapolis is and will continue to be the employment center in the region. It is home to 19 percent of the region's jobs, and suburban Hennepin County has another 34 percent of the region's jobs, for a total of approximately 850,000 jobs (Callaghan, 2015). Existing employment density (i.e., jobs per acre) in the vicinity of the existing METRO Green Line and METRO Blue Line and the proposed Project (METRO Green Line Extension) is illustrated in Exhibit 1.4-5 in Chapter 1.

Comment #	#91
Commenter	Bob Carney
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Southwest LRT Project.

Comment #	#92
Commenter	Stuart Nolan
Commenter Organization	Stuart Companies

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Recommendation of alternative alignment along Excelsior Boulevard that turns south at 11th Street

Routing the proposed light rail alignment via 11th Avenue South, generally between Excelsior Boulevard and Bren Road West, would not be feasible or reasonable due to the constrained right-of-way and existing residential and commercial development along 11th Avenue South; 11th Avenue South is generally a two-lane arterial, with many cross streets and driveway entrances and exits intersecting it. A light rail alignment via 11th Avenue South would likely require residential displacements, which will be avoided under the Project. In addition, an in-street light rail alignment would operate at a lower speed than the proposed alignment under the Project, which would increase light rail travel times and reduce the competitiveness of transit to attract new riders. In addition, the alignment connection between Smetana Road and Bren Road West would traverse through a high-quality wetland and would increase the required wetland displacements compared to the Project. Section 2.1 of the Final EIS describes the LPA for the Project and the alternatives that were considered during the Project's alternatives analysis and NEPA scoping processes. More detailed information on the Project's alternatives analysis, scoping, and LPA identification process may be found in the following documents: Southwest Transitway Alternatives Analysis Final Report; Southwest Transitway Scoping Summary Report; Southwest LRT Locally Preferred Alternative Report.

Comment #	#93
Commenter	Not Provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your comment regarding total expenditure on the Southwest LRT Project planning process. As stated during the public hearing on June 16, 2015, the total Project expenditure at that date was approximately \$62 million.

Comment #	#94
Commenter	Not provided
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Question regarding the inclusion of a Kenilworth Corridor light rail tunnel in the Project

The Project includes a shallow tunnel in the Kenilworth Corridor, generally between West Lake Street and the Kenilworth Lagoon. See Section 2.1 of the Final EIS for more information.

Comment #	#95
Commenter	John Shorrock
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Concerns over the selection of LRT for the LPA considering that enhanced bus service cost less

In total, more than 25 route and mode alternatives or sub-alternatives have been evaluated as part of the project development process for the Project. Detailed information on the Project's alternatives analysis, scoping, and LPA identification process is presented in the following documents: *Southwest Transitway Alternatives Analysis Final Report* (Hennepin County, 2007) and *Southwest Transitway Scoping Summary Report* (Hennepin County, 2009), and the Draft EIS.

In 2007, the HCRRA completed a federally required study called an Alternatives Analysis, which was a continuation of the Southwest Rail Transit Study, 2003. The Southwest Transitway Alternatives Analysis (AA) compared the benefits, costs and impacts of a range of transit alternatives (modes and routes) to identify which alternative would best serve the needs of the communities as expressed in the Purpose and Need Statement.

In the AA, the alternatives for detailed evaluation included one bus alternative called the Enhanced Bus, two bus rapid transit (BRT) alternatives, and eight light rail transit (LRT) alternatives. It was concluded that three of the eight LRT routes could meet the established project goals. In addition, the enhanced bus alternative was retained to continue to evaluate the possibility of addressing the increasing mobility needs of the area through improved bus service rather than LRT. The Draft EIS includes a detailed description of the alternatives evaluation process (see Section 2.1).

The AA was the starting point for the Draft EIS and formed the basis for the Scoping Process. Based upon the AA, three LRT alternatives and the Enhanced Bus alternative were proposed for inclusion in the Draft EIS. During the NEPA/MEPA Scoping Period from September 8, 2008 through November 7, 2008 for the Southwest Transitway Project (the Project) Draft EIS, two new alignments were proposed. The alternatives were labeled LRT 3C (11th/12th Sub-Alternative) and LRT 3E and were evaluated for their feasibility with regard to the project's goals identified in the Purpose and Need Statement and it was determined that they warranted inclusion in the Draft EIS.

The Draft EIS examined seven alternatives, including an Enhanced Bus Alternative. The alternatives considered are described in Section 2.3 of the Draft EIS. Chapter 11 of the Draft EIS provides a description of how the alternatives were evaluated and the rationale for the identification of the Project. On May 26, 2010, prior to the completion of the Draft EIS and based on an extensive alternatives analysis and public involvement process, the Metropolitan Council adopted the Project's Locally Preferred Alternative (LPA) as recommended by the Hennepin County Regional Railroad Authority (HCRRA) and included it as part of the 2030 Transportation Policy Plan. The Enhanced Bus Alternative not recommended as the Locally Preferred Alternative because it would not adequately support the goals and objectives of the Project (see Chapter 11 of the Draft EIS for more information).

While the Draft EIS notes that LRT 3A-1 is identical to LRT 3A in the transit service it would provide (see Chapter 2 of the Draft EIS), it only identifies LRT 3A as the LPA (see pages 2-31 and 2-41 of the Draft EIS for examples). The LPA is a subset of both LRT 3A and LRT 3A-1 of the Draft EIS; therefore, the Project's LPA is included within both LRT 3A and LRT 3A-1. The LPA was identified based on an assessment of four evaluation categories: planning compatibility; performance; implementation factors; and critical environmental resources.

The HCRRA and Council found that LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life and supporting economic development.

Comment #	#96
Commenter	Scott Blumhoefer
Commenter Organization	Heartland Corn Products

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

TC&W route changes will have economic impacts on farmers and south central MN residents

The Project will maintain existing freight rail operations within the Bass Lake Spur and Kenilworth Corridor, including maintaining existing TC&W operations. The Project will result in relatively minor modification to the infrastructure and reconstruction of the freight tracks, but will not result in changes to freight rail operations and will not change access to existing freight rail markets or open access to new freight rail markets.

A number of short-term impacts to freight rail operations will result from construction activities. In order to minimize these impacts, the Council will develop and implement a freight rail operations coordination plan. The plan will facilitate coordination between the Project and the affected freight railroad owners and operators throughout the construction period, to help ensure the Project does not create unreasonable constraints during construction. See Sections 2.1 and 4.4 of the Final EIS for more information.

Comment #	#97
Commenter	Matthew Pawlowski
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your comments on the Project's cost effectiveness are noted.

Comment #	#98
Commenter	Mark McGree
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Recommendation of alternative route from West Lake Station, along Cedar Lake Parkway to I-394

Based on this recommendation, the Council reviewed a proposed light rail alignment along Cedar Lake Parkway, between West Lake Street and south of I-394. Based on the development and evaluation of that proposed light rail alignment, FTA and the Council and have determined that this alternative route would substantially increase some adverse environmental impacts, compared to the Project. Those impacts would include adverse effects to and the use of portions of Cedar Lake Park and Cedar Lake Parkway, both of which are federally-protected Section 106 historic and Section 4(f) park properties. In addition, the proposed alignment would result in the displacement of multiple residences on the west side of Cedar Lake Parkway, compared to the Project, which would result in no displacement of residences. Further, because the proposed light rail alignment would both increase the length of the light rail alignment and because it would involve several tighter radius curves than under the Project, light rail travel time in this segment would increase under the proposed alignment change, compared to the Project. The increased light rail travel time would tend to reduce Project ridership. See the *Cedar Lake Parkway/I-394 Light Rail Alignment Assessment Technical Memorandum* for additional information (Council, 2016 – see Appendix C for instructions on how to access the technical memorandum). Because the proposed light rail alignment alternative would increase the noted adverse environmental impacts, increase light rail travel times, and tend to reduce Project ridership, compared to the Project, the Council and FTA dismissed the proposed alternative light rail alignment along Cedar Lake Parkway/ I-394 from further study.

In total, more than 25 route and mode alternatives or sub-alternatives have been evaluated as part of the project development process for the Project. Detailed information on the Project's alternatives analysis, scoping, and LPA identification process is presented in the following documents: *Southwest Transitway Alternatives Analysis Final Report* (Hennepin County, 2007) and *Southwest Transitway Scoping Summary Report* (Hennepin County, 2009), and the Draft EIS.

In 2007, the HCRRA completed a federally required study called an Alternatives Analysis, which was a continuation of the Southwest Rail Transit Study, 2003. The Southwest Transitway Alternatives Analysis (AA) compared the benefits, costs and impacts of a range of transit alternatives (modes and routes) to identify which alternative would best serve the needs of the communities as expressed in the Purpose and Need Statement.

In the AA, the alternatives for detailed evaluation included one bus alternative called the Enhanced Bus, two bus rapid transit (BRT) alternatives, and eight light rail transit (LRT) alternatives. It was concluded that three of the eight LRT routes could meet the established project goals. In addition, the enhanced bus alternative was retained to continue to evaluate the possibility of addressing the increasing mobility needs of the area through improved bus service rather than LRT. The Draft EIS includes a detailed description of the alternatives evaluation process (see Section 2.1).

The AA was the starting point for the Draft EIS and formed the basis for the Scoping Process. Based upon the AA, three LRT alternatives and the Enhanced Bus alternative were proposed for inclusion in the Draft EIS. During the NEPA/MEPA Scoping Period from September 8, 2008 through November 7, 2008 for the Southwest Transitway Project (the Project) Draft EIS, two new alignments were proposed. The alternatives were labeled LRT 3C (11th/12th Sub-Alternative) and LRT 3E and were evaluated for their feasibility with regard to the project's goals identified in the Purpose and Need Statement and it was determined that they warranted inclusion in the Draft EIS.

The Draft EIS examined seven alternatives, including the No Build Alternative, the Enhanced Bus Alternative, and five light rail transit (LRT) alternatives (LRT 1A, LRT 3A, LRT 3A-1, LRT 3C-1, and LRT

3C-2). These seven alternatives are described in Section 2.3 of the Draft EIS which provides a description of the alternatives that were considered within the Project selection process. Chapter 11 of the Draft EIS provides a description of how the alternatives were evaluated and the rationale for the identification of the Project. On May 26, 2010, prior to the completion of the Draft EIS and based on an extensive alternatives analysis and public involvement process, the Metropolitan Council adopted the Project's Locally Preferred Alternative (LPA) as recommended by the Hennepin County Regional Railroad Authority (HCRRRA) and included it as part of the 2030 Transportation Policy Plan.

While the Draft EIS notes that LRT 3A-1 is identical to LRT 3A in the transit service it would provide (see Chapter 2 of the Draft EIS), it only identifies LRT 3A as the LPA (see pages 2-31 and 2-41 of the Draft EIS for examples). The LPA is a subset of both LRT 3A and LRT 3A-1 of the Draft EIS; therefore, the Project's LPA is included within both LRT 3A and LRT 3A-1. The LPA was identified based on an assessment of four evaluation categories: planning compatibility; performance; implementation factors; and critical environmental resources.

The HCRRRA and Metropolitan Council found that LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life and supporting economic development.

Comment #	#99
Commenter	Chris Polston
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Recommendation of alternative alignment along Hennepin Avenue

The option of routing the Project through uptown and south Minneapolis along Hennepin Avenue was previously evaluated during the Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

The alternative suggested by the commenter would perform very similarly to the 3C-1 and 3C-2 alternatives. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

Comment #	#100
Commenter	Marion Spirn
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern regarding Kenilworth Corridor light rail tunnel construction and train operation impacts to residences
- Pumping in the Kenilworth Corridor light rail tunnel may disturb the water table and lakes
- Safety concerns related to freight rail transport of hazardous materials under co-location
- Concern that noise impacts become amplified at higher elevations
- Concern over impacts to the “natural sanctuary” in the Kenilworth Corridor from train operation
- Concern over spillover parking

Vibration during Construction (of Shallow Tunnel) and Operation

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*. As described in Section 3.13, the Project is not expected to result in any long-term vibration impacts and highly resilient rail fasteners will be used as appropriate (i.e., generally in the tunnel section) to eliminate ground-borne noise impacts. The foundational slab of the proposed light rail tunnel in the Kenilworth Corridor has been designed to reduce the vibration levels relative to a location without such a slab. The vibration assessment presented in Section 3.13 of the Final EIS takes into account the long-term effects of the Kenilworth Corridor light rail tunnel on vibration levels.

Kenilworth Corridor light rail tunnel pumping system and impacts to water resources and lakes

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

Relative to your comment concerning dewatering, Section 3.8 of the Final EIS notes that dewatering, which is lowering of the water table, would not occur under the Project and anticipated short-term and long-term groundwater pumping would not result in a lowering of the water table. Temporary pumping of groundwater will comply with permits related to groundwater pumping. A Minnesota Department of Natural Resources groundwater pumping permit is required during construction if a threshold of 1.0 million gallons per year or 10,000 gallons per day is expected/ reached. The discharge from temporary groundwater pumping is regulated under a National Pollution Discharge Elimination System permit that is required for construction activities. During the Engineering phase, the Council will determine the full range of locations where temporary groundwater pumping will be required, the volume of groundwater to be pumped, and the design of the temporary drainage systems to accommodate the groundwater.

Where temporary groundwater pumping may be needed during construction, the Project will adhere to permit requirements related to groundwater pumping and discharge from groundwater pumping, thereby minimizing the potential of adverse groundwater quality impacts. Tunnel construction will encounter groundwater, however the method of constructing the tunnel and the tunnel design will limit the impact of the tunnel on groundwater and the groundwater table. The tunnel will be constructed “cell by cell.” A description of this construction technique is found in Kenilworth Shallow LRT Tunnel Basis of Design (November 2014). See Appendix C of the Supplemental Draft EIS for instructions on how to obtain a copy of the report. The internal tunnel water control system is designed to be part of the closed system that prevents groundwater from entering the tunnel. If any water were to enter the LRT tunnel and be collected by the internal tunnel water control system, it would likely be either groundwater entering via small cracks or joints in the concrete walls, floors, and ceilings or water brought into the tunnel by light rail trains (e.g., dripping, melting ice), either of which are expected to be very small quantities. Water collected in the

tunnel will be treated, if required, and pumped to the adjacent sanitary sewer systems owned by either the City of Minneapolis or Metropolitan Council Environmental Services.

Coordination with private well owners will occur as part of MnDOT Field Title meetings and subsequent acquisition negotiations if there is an acquisition from a parcel with such a well. Impacts caused by temporary groundwater pumping during construction of the tunnel in the Kenilworth Corridor will be minimized as described in the Kenilworth Shallow LRT Tunnel Basis of Design Technical Report located in Southwest LRT Project Geology and Groundwater Evaluation Supporting Documentation (see Appendix C for instructions on how to access supporting documentation).

Safety concerns related to freight rail transport of hazardous materials under co-location

Regarding your concerns about oil tank cars travelling on freight tracks, See *Master Response 3: General concerns related to safety and security for LRT operating within close vicinity to freight in the Kenilworth Corridor*, and *Master Response 11, Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Concern that noise impacts become amplified at higher elevations

Noise assessments were conducted for all sensitive locations along the Southwest LRT corridor segments including noise from operations, stations and grade crossings. Noise and vibration levels are highest closest to the source, which is the ground floor of buildings. Noise and vibration levels will be lower as noise moves further from the source, which would be at higher levels of high rise buildings, because energy (such as noise and vibration) does not increase with increasing distance from its source. Section 3.12 of the Final EIS summarizes the findings of this analysis.

Concern over impacts to the “natural sanctuary” in the Kenilworth Corridor from train operation

Light rail construction in the Kenilworth Corridor has the potential to cause environmental impacts including disruptive noise levels and visual impacts (the construction of the new bridges will require noticeable clearing of trees and other vegetation). Potential impacts during construction include temporary detours of trails and roadways, as well as reductions in vehicular access and parking affecting community cohesion, groundwater management impacts (collection, storage, and disposal), and vibration impacts resulting from the operation of heavy equipment (pile driving, hoe rams, vibratory compaction, and loaded trucks). There will be utility impacts as sewer and water mains, power, gas, and communication lines are relocated. It is reasonable to expect that previously undocumented soil or groundwater contamination may be encountered during construction. Short-term construction impacts to park uses and recreational activities include closures, detours, and temporary facilities built around obstructions. Impacts to identified architecture/history and archaeological properties from construction have been identified as part of the Section 106 process. As documented in the Project's Section 106 MOA (Appendix H), the Kenilworth Channel/Lagoon will be temporarily closed and detoured during construction. Best Management Practices (BMPs) will be developed and implemented during removal of the existing bridges and construction of the new bridges across the Kenilworth Channel/Lagoon, which is both a Section 106 and Section 4(f) protected property (see Section 3.5 and Chapter 6 of the Final EIS for more information on the Project's Section 106 and Section 4(f) analyses and determinations). Table ES-2 in the Executive Summary of the Final EIS summarizes the mitigation measures for each environmental and transportation category that will be implemented in the Kenilworth Corridor to address the operational and construction impacts (see the corresponding sections of Chapters 3 and 4 for a more detailed description of the mitigation measures).

Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the “Kenilworth Corridor” is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway).

Regarding your comment on disturbance of a “natural sanctuary” by trains, please see Section 3.10 of the Final EIS that documents effects the Project will have on ecosystems. This section considers impacts of the Project on threatened and endangered species, habitat, and migratory birds. The USFWS concurred that the Project will have “no effect” on the Higgins eye (pearly mussel) and Snuffbox mussel, or their associated critical habitats, and the Project “may affect but not likely to adversely affect” the northern long-eared bat. There are no element occurrences of the Blanding's turtle within 0.9 mile of the Project's alignment. However, there is an element occurrence of the Blanding's turtle within the MnDNR study

area, so the MnDNR has indicated that this species may be adversely affected by the Project. The following MnDNR recommendations are part of the Project's design to avoid long-term direct impacts to the Blanding's turtle (see Appendix N of the Final EIS for agency coordination letters): (1) roads have been designed using the minimum standard for widths and lanes when practicable (which reduces road kills by slowing traffic and reducing the distance turtles need to cross); (2) wetland crossings have been elevated where practicable; (3) utility access and maintenance roads have been kept to a minimum where practicable (this reduces road-kill potential); and (4) terrain disturbed by the Project will be left with as much natural contour as practicable.

In addition, to avoid habitat fragmentation, appropriately sized and spaced openings will be provided in the permanent safety/security barriers (fences) in the area located approximately between 21st Street Station and Penn Station to maintain connectivity of terrestrial habitat and allow movement of terrestrial species, primarily small mammals. Within the Kenilworth Corridor specifically, the Council developed a landscape design that preserves and builds upon the natural character of the corridor, where applicable and appropriate.

Concern over spillover parking

Under the Project, there will be some changes to on-street and off-street parking. Changes to off-street parking will be related to land acquisitions, and changes to on-street parking will occur in some areas where changes to existing roadways are needed to accommodate the Project. Overall, the Project will reduce the supply of off-street parking (i.e., off-street parking lots, typically associated with privately owned businesses) by eliminating 692 spaces and will reduce the supply of on-street parking by eliminating 57 spaces. In addition, the Project will include new park-and-ride lots at nine light rail stations, for a combined addition of approximately 2,487 new park-and-ride spaces. Refer to Section 4.3 of the Final EIS for more information on impacts to parking.

In addition to long-term reductions in the supply of parking, temporary removal of on-street parking spaces may occur at locations to facilitate construction of the Project (e.g., to facilitate truck movement or to provide a temporary truck loading zone). These potential temporary removals of on-street parking spaces will be identified prior to the start of construction as part of the Construction Staging Plan.

The Project could lead to indirect impacts related to "spillover" parking in neighborhoods adjacent to proposed light rail stations. Spillover parking is unwanted parking by light rail riders in off-street parking lots or at on-street parking spaces adjacent to a light rail station. Spillover parking can result from a lack of park-and-ride lot capacity relative to demand for park-and-ride lot spaces, and can affect both businesses and residences by limiting available parking spaces for residents, visitors, customers, and employees. Spillover parking impacts can also be curbed by the local jurisdictions and residents by implementing a "residents parking" permit program, which would allow unlimited time parking for residents and visitors of residents.

The Council will complete a Regional Park-and-Ride System Report on an annual basis. As part of this effort, the Council and Metro Transit will collaborate with regional transit partners, local governments, and the Minnesota Department of Transportation to conduct an annual regional park-and-ride survey, which tracks facility use and emerging travel patterns by park-and-ride users across the region to identify the appropriate mitigation, as needed and where feasible. The results of this survey are published in the annual report. See Section 4.3 of the Final EIS for more information on parking impacts and mitigation measures.

Comment #	#101
Commenter	Marion Collins
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern over impact to water resources in the Kenilworth Corridor
- Concern over disturbance of contaminated soils in the Kenilworth Corridor
- Concern over vibration impacts in the Kenilworth Corridor
- Concern over noise impacts in the Kenilworth Corridor
- Concern over destruction of trees and parkland in the Kenilworth Corridor
- Safety concerns related to residential areas under colocation
- No anticipated economic development in the Kenilworth Corridor
- Concern over bus operations in the Kenilworth Corridor
- Recommendation of alternative alignment along Hennepin Avenue

Concern over impact to water resources in the Kenilworth Corridor

The Project's potential impacts on a wide range of natural resources and socioeconomic factors are discussed in Sections 3 and 4 of the Final EIS. The Project's potential impacts on surface water quality are discussed in Final EIS Section 3.9.5.2. The Project's potential impacts on drinking water quality are discussed in Section 3.8.3.2.

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

During construction of the tunnel, it is likely that the Project will encounter groundwater. The method of constructing the tunnel and the tunnel design will limit the impact of the tunnel on groundwater and the groundwater table. The tunnel will be constructed "cell by cell." A description of this construction technique is found in Kenilworth Shallow LRT Tunnel Basis of Design (November 2014). See Appendix C of the Supplemental Draft EIS for instructions on how to obtain a copy of the report. The internal tunnel water control system is designed to be part of the closed system that prevents groundwater from entering the tunnel. If any water were to enter the LRT tunnel and be collected by the internal tunnel water control system, it would likely be either groundwater entering via small cracks or joints in the concrete walls, floors, and ceilings or water brought into the tunnel by light rail trains (e.g., dripping, melting ice), either of which are expected to be very small quantities. Water collected in the tunnel will be treated, if required, and pumped to the adjacent sanitary sewer systems owned by either the City of Minneapolis or Metropolitan Council Environmental Services.

Concern over disturbance of contaminated soils in the Kenilworth Corridor

See *Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor*.

Concern over vibration impacts in the Kenilworth Corridor

Sections 3.12 and 3.13 of the Final EIS (Noise and Vibration, respectively) document severe and moderate noise impacts and vibration impacts, as well as mitigations for the Project, including in the Kenilworth Corridor.

As described in Section 3.13.3 of the Final EIS, the Project will result in ground-borne noise impacts at 54 units (in five buildings) for residential land uses in the tunnel section south of the Kenilworth Channel (see Exhibit 3.13-2), without mitigation. The tunnel slab, a Project feature for the Kenilworth Corridor light rail tunnel, significantly reduces the number and magnitude of ground-borne noise impacts relative to a tunnel without a slab within the same segment of the corridor. The Council will also implement highly resilient rail fasteners in the Kenilworth Corridor tunnel section (approximately 2,200 feet) to eliminate ground-borne

noise impacts. Please also see *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Concern over noise impacts in the Kenilworth Corridor

Section 3.12, Noise, of the Final EIS provides results of the noise analysis, and identifies mitigation measures that the Project will implement to address adverse noise impacts. The majority of Project noise impacts will be related to LRT horns sounding at FRA shared grade crossings in the corridor. The proposed shallow tunnel in the Kenilworth Corridor will avoid most noise impacts compared to an at-grade light rail alignment within the same segment of the corridor. Without the tunnel, the number of noise impacts, shown in Table 3.12-5 of the Final EIS, would be much greater.

Section 3.12, Noise, of the Final EIS provides the noise analysis for the Project. The section documents severe and moderate noise impacts caused by the Project and identifies mitigation measures for the impacts, including noise impacts in the Kenilworth Corridor. The primary avoidance measure for noise impacts within the Kenilworth Corridor is the proposed shallow LRT tunnel. Implementation of the tunnel will avoid most noise impacts compared to an at-grade LRT alignment within the same segment of the corridor. Without the tunnel, the number of noise impacts would be greater.

From Lake Citihomes to South Upton Avenue there will be 18 buildings with moderate noise impacts and one building with a severe noise impact without mitigation; with mitigation, there will be residual noise impacts (moderate) at five buildings (seven units at Lake Citihomes and four residences at Burnham Road North). The residences with residual moderate noise impacts do not meet the threshold for mitigation (e.g., impact does not meet 3-dB increase threshold) as defined by Council's Regional Transitway Guidelines (see Appendix D of the Final EIS).

Some of the noise impacts near 21st Street Station will be mitigated by the use of wayside bells instead of the routine sounding of train horns. For the residences not mitigated by the use of a wayside bell (one severe and four moderate impacts identified along Thomas Avenue South and Burnham Road North), interior noise testing will be conducted to determine if the residences meet the interior noise level criteria (defined in Appendix K). Based on the results, the Council will identify the noise mitigation to be implemented for the residences. If the interior noise level exceeds the criteria set in the Council's Regional Transitway Guidelines (Appendix D), the Council will work with property owners on applicable mitigation. This could include implementation of sound insulation, which would require approval by the property owner(s).

Concern over destruction of trees and parkland in the Kenilworth Corridor

Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the "Kenilworth Corridor" is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway). The Kenilworth Trail, a transportation corridor, is located on property owned by the Hennepin County Regional Railroad Authority (HCRRRA) and maintained by the Minneapolis Park and Recreation Board. The trail was built under a temporary permit agreement that recognizes that the primary purpose of the property owned by HCRRRA is designated for construction of light rail and other transportation purposes. Under the Project, the Kenilworth Trail will maintain its current functionality as a trail. See Section 4.5.3 of the Final EIS for additional information on evaluation of trails. Refer to Section 3.6 for a detailed evaluation of parks, recreation areas, and open space.

For the viewpoints within the Kenilworth Corridor, these impacts ranged from low to substantial. Viewpoints 5 and 6, included in the Supplemental Draft EIS, are renumbered to 16 and 18, respectively, in the Final EIS. Further, an additional viewpoint from the Burnham Road Bridge looking southeast down the channel toward the Kenilworth Corridor Bridges was added to the analysis—viewpoint 17. The level of impact remains the same for viewpoints 16 and 18 (low level of impact), however, there will be a substantial level of impact at viewpoint 17 as construction of the new bridges will require noticeable clearing of trees and other vegetation on the west side of the right-of-way.

The visual quality evaluation for the area north of the Kenilworth Channel (viewpoint 18 – looking toward the 21st Street Station) concluded that the level of visual impact will be low. Removal of trees is a contributing factor in the visual assessment for this area. The visual evaluation found that the removal of

trees will slightly decrease the vividness of the view. However, the addition of the street trees, the widened sidewalk, and the plantings in the 21st Street Station area will make a positive contribution. For a more detailed explanation of the rationale for this conclusion, refer to the “Concern over visual impacts at 21st Street Station” in *Master Response 16: Concerns related to 21st Street Station and related impacts*.

These findings are based on FHWA’s Visual Impact Assessment of Highway Projects (FHWA, 1988). The method was designed to provide a systematic and objective approach to evaluation of the visual changes. The FHWA methodology is well established and widely accepted for the assessment of visual impacts and is well suited to assess the visual impacts of linear transportation facilities in urban areas. The assessment for the Project was based on visual assessment of the Project corridor, completed through site visits, analysis of existing conditions, and an evaluation of visual change. All viewpoint sites were visited and the corresponding views were photographed to document the existing views. This field work, review of the photographs, and the subsequent coordination/consultation process with the Project team provided a basis for understanding the typical visual issues for each visual assessment area. Computer modeling and rendering techniques were then used to produce simulated images of the with-Project conditions for the viewpoints evaluation (see Appendix J of the Final EIS). These visual simulations provided the bases for the assessment of visual change.

The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. See Section 9.2 of the Final EIS for additional detail on this committee.

Safety concerns related to residential areas under colocation

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*, and *Master Response 11, Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

No anticipated economic development in the Kenilworth Corridor

See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Concern over bus operations in the Kenilworth Corridor

Regarding your concerns over providing bus service in the Kenilworth Corridor, as described in Section 4.1.3 of the Final EIS bus service will be modified as appropriate to meet demand and provide connections to the proposed Project stations, including the 21st Street Station. Exhibit 4.1-4 shows the bus operations plan under the No Build Alternative and Exhibit 4.1-5 illustrates the Project bus operation plan. Metro Transit currently provides bus service to the vicinity of the proposed 21st Street Station via bus route 25. This service is proposed to continue under both the No Build and the Build Alternative (service will be provided directly to the 21st Street Station). Currently, no additional bus service to this area is proposed under the Project. For more information, see *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Recommendation of alternative alignment along Hennepin Avenue

The option of routing the Project through uptown and south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to

extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

The alternative suggested by the commenter would perform very similarly to the 3C-1 and 3C-2 alternatives. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

Comment #	#102
Commenter	Jami LaPray, Thom Miller
Commenter Organization	Safety in the Park!

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Metropolitan Council’s Decision Making Process in St. Louis Park/Minneapolis Segment
- Freight rail and LRT Co-location in the Kenilworth Corridor
- Retain moving the bike trail in the Kenilworth Corridor as a co-location option that does not involve tunnels
- Freight and Light Rail Swap; Southerly Connector

Metropolitan Council’s Decision Making Process in St. Louis Park/Minneapolis Segment

Regarding your comments on the Metropolitan Council’s decision making process relative to the selection of freight and light rail co-location, the process used by the Council was consistent with NEPA/MEPA. Section 2.2 of the Final EIS, along with Appendix F document details of this process, which included evaluation and comparison of refined relocation and co-location options. Brunswick Central was a product of the design refinement process, typical of similar transit capital projects. Operating costs relative to the relocation of freight rail were not addressed in the Supplemental Draft EIS; these costs could not be accurately or reliably estimated at the time of the analysis, therefore, including them would be speculative.

Freight rail and LRT Co-location in the Kenilworth Corridor

Regarding your comments on co-location of freight and LRT in the Kenilworth Corridor, See *Master Response 10: Rationale for incorporating freight rail co-location into the Project*. Also refer to *Master Response 13: Rationale for dismissal of the “Brunswick Central” freight rail relocation alternative*.

Retain moving the bike trail in the Kenilworth Corridor as a co-location option that does not involve tunnels

Regarding your comment that at least one co-location option that does not involve tunnels should be retained, and that moving the bike trail when the Kenilworth Corridor is needed for transit is the most likely option to retain, please see *Master Response 14: Relocate the Kenilworth Trail instead of co-locating freight rail and light rail within the Kenilworth Corridor*.

Freight and Light Rail Swap; Southerly Connector

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*. Regarding comments on probable change in TC&W railroad’s business plan, future freight rail operations are subject to a range of market forces and are dependent on the business plans of freight railroad operators, both of which are outside of the jurisdiction of the FTA and the Council (see Section 4.4.4.2 of the Final EIS for additional information). Regarding your comment on the lack of public meetings about the freight rail “Swap” and the “Southerly Connector,” these Project design elements were addressed in the Supplemental Draft EIS, available for review at the Supplemental Draft EIS Open Houses, and for comment during the Supplemental Draft EIS public hearings, both, held June 16, 17, and 18 of 2015 in Hopkins, Eden Prairie, and Minneapolis, respectively.

The Council incorporated the freight rail and light rail “Swap” design modification into the proposed Project in April 2014 because the potential land use and economic development benefits and improved transit access to existing activity centers (e.g., to support future transit oriented development) outweighed its additional cost.

Section 3.2.3 of the Final EIS addresses impacts on economic activity under the Project, including on freight rail owners and operators. This section documents that overall, the Project will not adversely affect

freight rail owners and operators because there will be no adverse, long-term impacts. Specific to the Southerly Connector/Skunk Hollow switching wye, the Project will change the geometry of the freight rail, however the action will not result in any change to access—existing freight rail markets and customers will be served, while new freight rail markets cannot be serviced without STB approval. Because future freight rail operations are subject to a range of market forces and are dependent on the business plans of freight railroad operators, both of which are outside of the jurisdiction of the FTA and the Council, the Supplemental Draft EIS and the Final EIS do not assess impacts that might result from such changes (see Section 4.4.4.2 of the Final EIS for additional information) because FTA and the Council are not privy to freight rail owners/operators business plans and operational objectives.

Comment #	#103
Commenter	Irene Elkins
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern regarding safety impacts of increased freight rail on planned and existing infrastructure in St. Louis Park
- Recommendation of light rail bridge over switching wye alternative to a freight rail bridge
- Concern regarding potential impacts to neighborhood livability surrounding Wooddale and Louisiana Stations

Concern regarding safety impacts of increased freight rail on planned and existing infrastructure in St. Louis Park

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*. The construction and operations of freight rail co-located with LRT in St. Louis Park will be handled in a similar manner.

Recommendation of light rail bridge over switching wye alternative to a freight rail bridge

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*

Concern regarding potential impacts to neighborhood livability surrounding Wooddale and Louisiana Stations

As described in Section 2.2, it has been a priority for the Council to minimize residential and neighborhood impacts in the area of the proposed Wooddale and Louisiana stations and other parts of the Project. The Project's potential land use impacts, which could affect neighborhoods along the Project, and acquisition and displacement impacts are discussed in Final EIS Sections 3.1 and 3.4, respectively.

Comment #	#104
Commenter	Fritz Vandover
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Concern regarding impacts related to the proposed Southerly Connector

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*

Comment #	#105
Commenter	Elise Durbin
Commenter Organization	City of Minnetonka

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement (EIS)*. The sections that follow include response(s) to these comments.

- Recommendation to develop operating procedures according to city noise ordinances, including minimizing outdoor use of the OMF
- Potential for long-term pumping of groundwater and potential risk for contamination related to the OMF
- Correction needed for evaluation of wetland impacts and appropriate permitting will need to occur
- Request to confirm water resource and stormwater management plan details with city engineer
- City Review of Final Plans: Storm Water Management and Erosion and Sediment Control
- Expand Traffic Operations Analysis Study Area; Request for further information regarding traffic operations analysis and Level of Service (LOS) impacts

Recommendation to develop operating procedures according to city noise ordinances, including minimizing outdoor use of the OMF

Noise levels, including those resulting from maintenance both inside and outside the OMF, are subject to local noise ordinances and noise rules administered by the MPCA (Minnesota Rules Chapter 7030). Local units of governments and MPCA administer these noise rules to establish maximum allowable noise levels; where applicable, local government and MPCA procedures allow for the issuance of noise variances.

The anticipated outdoor use of the proposed operations and maintenance facility (OMF) will be limited to the movement of light rail vehicles (LRVs), and vehicle movements at the proposed OMF are anticipated to be 10 mph or less. Noise-sensitive land uses in Minnetonka were determined to include the Sunrise International Montessori School, the Claremont Apartments, and the Deer Ridge Apartments. The proposed Hopkins OMF would be within an existing office/warehouse and light manufacturing development. Based on the FTA screening procedure, the residential areas in the vicinity of the OMF are far enough from the site of the proposed facility that no noise impacts are anticipated. As a result, a time of day limitation on outdoor movement of LRVs within the proposed Hopkins OMF site is not warranted. Section 3.12 of the Final EIS summarizes the noise analysis performed for the Project.

Potential for long-term pumping of groundwater and potential risk for contamination related to the OMF

The likelihood of releases of hazardous and contaminated materials into groundwater from routine maintenance activities at the proposed Hopkins OMF will be low because of design features that address containment of hazardous and contaminated materials used at the OMF and as a result of implementation of best management practices required for the storage and handling of hazardous and contaminated materials. Maintenance activities outside of the OMF, which could include raising the track profile in areas that have settled, replacing rail and ties, and grinding to reshape the rails, are not expected to affect areas of high groundwater pollution sensitivity (See Exhibit 3.8-4) or groundwater in general. Overall, 171 high- or medium-risk sites within the hazardous and contaminated materials study area were investigated through Phase II Environmental Site Assessments (ESAs), including six either at the OMF site or within close proximity (see Exhibits 3.14-1 and 3.14-2).

A groundwater management plan will be prepared by the Council, and approved by Minnesota Department of Natural Resources and applicable local jurisdictions, before construction. That plan will address collection, storage, and disposal of surface water runoff and pumped groundwater following construction of the Project. The Project does not include substantial long-term groundwater pumping at

the Hopkins OMF site. During construction, temporary groundwater pumping will be required in the area of the proposed Hopkins OMF. Appropriate remediation for pumping of groundwater in areas with contaminated groundwater will be determined in response action plans (RAPs), which will be developed and approved by MPCA prior to construction. See Final EIS Section 3.14.3 for more information about potential long-term pumping at the proposed OMF and RAPs.

As stated in Section 3.8 of the Final EIS, temporary pumping of groundwater will comply with permits required for groundwater pumping. A Minnesota Department of Natural Resources groundwater pumping permit is required during construction if a threshold of 1.0 million gallons per year or 10,000 gallons per day is expected/ reached. The discharge from temporary groundwater pumping is regulated under a National Pollution Discharge Elimination System permit that is required for construction activities. During the Engineering phase, the Council will determine the full range of locations where temporary groundwater pumping will be required, the volume of groundwater to be pumped, and the design of the temporary drainage systems to accommodate the groundwater.

Correction needed for evaluation of wetland impacts and appropriate permitting will need to occur

Wetland NM-HOP-13 does straddle the municipal boundary between the City of Minnetonka and City of Hopkins as stated in the comment. The Supplemental Draft EIS incorrectly listed this wetland as solely within the jurisdiction of the City of Hopkins. This error has been corrected in the Final EIS (see Section 3.9). The Council has coordinated with local regulatory agencies to discuss and determine local jurisdiction prior to developing wetland and stormwater permits, including the City of Minnetonka. Impacts to wetland NM-HOP-13 have been reduced since the publication of the Supplemental Draft EIS, as indicated in Section 3.9.5.1 of the Final EIS. The City of Minnetonka will have the opportunity to review and comment on the wetland sequencing associated with this proposed impact prior to issuing a Wetlands Conservation Act Notice of Decision.

Request to confirm water resource and stormwater management plan details with city engineer

The Council has coordinated with the City of Minnetonka and Nine Mile Creek Watershed District to discuss and confirm applicable regulatory requirements including locally designated floodplain areas, wetland impact and buffer requirements, stormwater requirements related to rate control, water quality treatment and volume control, erosion and sediment control requirements, and storm sewer design criteria. Section 3.9.5.3, Exhibit 3.9-4, and Table 3.9-7 in the Final EIS show long-term flood impacts resulting from the Project. Within the City of Minnetonka, the Project will have long-term impacts on five regulated floodplains. Impacts to locally regulated floodplains will be mitigated by appropriate compensatory storage within or adjacent to the affected water body, as summarized in Table 3.9-8 of the Final EIS. The Project will utilize the following methods to create compensatory storage: excavation of upland adjacent to existing floodplain, excavation of existing floodplain, and construction of stormwater BMPs with the capacity for storage. Final design will include the appropriate compensatory storage required by applicable local agencies. Where it is not feasible to meet this requirement, a variance will be requested and the appropriate documentation provided to justify the variance.

Various construction activities will incur some short-term impacts on floodplains. Temporary workspaces and access roads will require temporary fill within floodplains. Some construction activities will result in the loss or disturbance of soils and vegetation, which will increase the likelihood of temporary erosion and sedimentation in floodplains. The Project will develop appropriate plans and obtain applicable permits for floodplains, as well as implement appropriate wildlife-friendly BMPs to avoid erosion and sedimentation impacts to floodplains during construction. Short-term floodplain fill placed during construction will be removed and elevations restored to existing conditions resulting in a no net-loss of flood storage volume.

City Review of Final Plans: Storm Water Management and Erosion and Sediment Control

The erosion and sediment control and stormwater management plans for the proposed Hopkins OMF will include best management practices that address wastes associated with the long-term management of a rail line including grease and hydraulic fluid; spill prevention and mitigation; and management techniques and strategies that address common pollutants such as de-icing salt, phosphorous, and suspended solids. The City of Minnetonka will have the opportunity to review the final plans to ensure compliance with the City's regulations.

Expand Traffic Operations Analysis Study Area; Request for further information regarding traffic operations analysis and Level of Service (LOS) impacts

The Supplemental Draft EIS included a limited traffic analysis for the three areas—including the Hopkins OMF area—included for study in that document. The Final EIS includes a detailed traffic analysis for the entire Project corridor, including the OMF, to determine if the Project would create any traffic impacts. Specifically, the city's letter references a 35 second delay on K-Tel Drive and asks how this delay will impact Shady Oak Road, Excelsior Boulevard, 17th Avenue, and 11th Avenue. The City also requested information on the LOS for K-Tel and these roadways.

The table below is an excerpt from Table 4.2-2, Peak-hour Traffic Operations Analysis for Existing Conditions (2014), No Build Alternative (2040), and the Project (2040) in the Final EIS; roadways referenced in the City's letter are included in the table. The table summarizes intersection LOS for average weekday a.m. and p.m. peak hours, under existing conditions and year 2040 conditions for the No Build Alternative and the Project. For a detailed description of the traffic operations analysis for the Project, including a description of the location of traffic movements with queuing issues, refer to the PEC-West Traffic Memorandum (2015) and PEC-East Traffic Memorandum (2015). In summary, all of the intersection mentioned in your letter that would operate at LOS A to D under the No Build Alternative will also operate at a LOS A to D under the Project. One intersection would operate at a LOS E in the No Build Alternative, but will improve to a LOS C with the Project. One intersection which will operate at a LOS F with the No Build Alternative will also operate at a LOS F with the Project.

Map ID ^a	Intersection or LRT Crossing	Existing Conditions (2014) ^a		No Build Alternative (2040) ^a		Project (2040) ^a	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
22	Shady Oak Rd/Valley View Rd	A	A	B	E	B	C
23	Shady Oak Rd/70th St	A	A	B	F	B	F
24	Proposed 70th St LRT Grade Crossing ^c	N/A	N/A	N/A	N/A	A	A
25	Shady Oak Rd/WB Hwy 62 Ramp	B	B	C	C	C	C
26	Shady Oak Rd/EB Hwy 62 Ramps/W 62nd St	B	A	D	D	D	D
27	Shady Oak Rd/City West Pkwy	C	C	C	C	C	C
33	K-Tel Dr/5th St S Crossing ^c	N/A	N/A	N/A	N/A	A	A
34	Excelsior Blvd/Shady Oak Rd	C	C	D	D	D	D
35	Excelsior Blvd/17th Ave S	A	B	A	B	B	B
36	Excelsior Blvd/11th Ave S	B	C	C	C	B	C
37	Proposed 11th Ave S LRT Grade Crossing ^c	N/A	N/A	N/A	N/A	A	A
38	11th Ave S/5th St S	A	B	A	B	A	B
39	Excelsior Blvd/8th Ave S	B	C	B	C	C	C
40	Excelsior Blvd/5th Ave S	B	C	C	C	C	C
41	Excelsior Blvd/Hwy 169 Southbound Ramps	C	B	C	B	C	B
42	Excelsior Blvd/Hwy 169 Northbound Ramps	D	C	D	C	D	C
43	Excelsior Blvd/Jackson Ave/Milwaukee St	D	C	D	C	D	D
44	Excelsior Blvd/Pierce Ave	A	A	A	A	B	B
45	Excelsior Blvd/Blake Rd	D	D	D	D	D	D

The proposed at-grade light rail crossing of 5th Avenue is expected to operate at LOS A under Project conditions. Section 4.2.3.1 also states that the proposed Hopkins OMF will not substantially impact any

arterial roadways and will not result in changes to any signalized intersections. In addition, the OMF will not substantially change traffic patterns in the area, as it will have similar characteristics to the industrial uses currently in place and as it is expected to decrease trip generation over the current use. Therefore, the OMF will not generate long-term direct or indirect traffic impacts.

No mitigation measures are warranted for long-term impacts to roadways and traffic because there will be no adverse impacts, due to the effectiveness of identified avoidance measures. The Project includes a variety of roadway modifications that will avoid any new congested intersections, and the Project will not worsen conditions at intersections that would be congested under the No Build Alternative in 2040 (see Appendix E for a listing of those roadway modifications).

Comment #	#106
Commenter	Shea Koch
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Regarding your suggestion to move the bike trail, please refer to *Master Response 14: Relocate the Kenilworth Trail instead of co-locating freight rail and light rail within the Kenilworth Corridor*.

Comment #	#107
Commenter	Susanne Wollman
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Recommendation to relocate Kenilworth Trail as an alternative to freight rail relocation

Please refer to *Master Response 14: Relocate the Kenilworth Trail instead of co-locating freight rail and light rail within the Kenilworth Corridor*.

Comment #	#108
Commenter	Neil Baker
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Recommendation to relocate Kenilworth Trail as an alternative to freight rail relocation

Please refer to *Master Response 14: Relocate the Kenilworth Trail instead of co-locating freight rail and light rail within the Kenilworth Corridor*.

Comment #	#109
Commenter	Richard Weiblen
Commenter Organization	Liberty Property Trust

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement (EIS)*. Your letter presents several comments concerning the proposed Hopkins Operation and Maintenance Facility's (OMF's) impact on two of the Trust's industrial investment properties. The sections that follow include response(s) to these comments.

- Supplemental Draft EIS did not fully evaluate the selected OMF site against comparable sites
- Current owner is not interested in purchasing remnant parcels
- Concern regarding relocation cost and compensation for tenants

Supplemental Draft EIS did not fully evaluate the selected OMF site against comparable sites

Following publication of the Draft EIS, the Council determined that selecting the proposed Project's OMF site—one that accommodates its functional and spatial needs and is compatible with surrounding uses—would require additional site identification and evaluation to build upon and complement the studies conducted during the Draft EIS phase. The Project team used a four-step process to identify and evaluate the expanded range of OMF sites.

- **First-Step Evaluation.** Included a preliminary site evaluation, narrowing potential sites from approximately 30 to 18. The criteria used during the first-step evaluation were similar to those used for the Draft EIS, as follows:
 - Site of 10 to 15 acres
 - Regular geometric parcel shape and flat
 - Efficient light rail train movement to and from the site
 - Good roadway access to the site
 - Compatible with adjacent land use
- **Second-Step Evaluation.** To further evaluate the 18 second-step candidate sites, more detailed evaluation criteria than those used on the Draft EIS were developed addressing four operational characteristics and nine site characteristics (see Appendix F). The Step Evaluation narrowed potential sites from 18 to seven. As part of the second step of evaluation, the Project team visited each site; reviewed community comprehensive plans, zoning codes, and county property records; and obtained information about onsite soils and subsurface conditions. Based on this research, the Project team and Metro Transit staff used the criteria to qualitatively rate the second-step candidate sites. The evaluation of the sites was reviewed with corridor jurisdictions through the TPAC, CAC, BAC, and CMC.
- **Third-Step Evaluation.** The Project team prepared conceptual layout plans for each of the seven third-step OMF sites. The conceptual plans examined the relationship to adjacent edges, setbacks, environmentally sensitive areas, and remnant space within the OMF site available for redevelopment. The Project team presented the seven OMF sites at three public open houses on May 13 (Eden Prairie), May 15 (St. Louis Park), and May 22, 2013 (Hopkins/Minnetonka). The third step evaluation carried forward two potential OMF sites. In summary, these two potential OMF sites had the least conflict with either existing or adjacent land uses and planned development.
- **Forth-Step Evaluation.** The Project's fourth step of evaluation of potential OMF sites focused on two potential sites: Site 3/4 in Eden Prairie and Site 9A in Hopkins

Based on the four step evaluation described above, the Council identified the Hopkins OMF 9A as the OMF to be incorporated into the Project's LPA. A key advantage of the Hopkins OMF is the improved out-of-service operations and operating cost savings due to its relatively central location on the proposed light

rail line (about midway between downtown Minneapolis and Eden Prairie). Because of the central location of the Hopkins OMF on the proposed Project alignment, trains will travel less distance from the termini of the Project to reach the OMF. This will result in lower operating costs.

Current owner is not interested in purchasing remnant parcels

The Council acknowledges Liberty Property Trust's current lack of interest in buying back a potential remnant piece of your industrial properties. As noted in Section 3.4.3.3 of the Final EIS, until construction of the Project is complete, the Council will not know whether any portion of property would be considered as a remnant parcel.

Concern regarding relocation cost and compensation for tenants

The acquisition of property and displacement of businesses as a result of property acquisitions will be mitigated in accordance with Uniform Relocation Act and Minnesota Statute 117. Relocation benefits will be available, under the provisions of the Uniform Relocation Act and MN Stat. 117, for displaced businesses and non-profit organizations including moving costs, tangible personal property loss as a result of relocation or discontinuance of operations, reestablishment expenses, and costs incurred in finding a replacement site.

Refer to Section 3.4 of the Final EIS for more information. Section 3.4 also identifies and illustrates the properties to be acquired and the Council's determination of the number of businesses that will be displaced, current at the time of publication of the Final EIS. Ultimately, the number of business displacements will be determined through the property acquisition process.

Comment #	#110
Commenter	Mark Wegner
Commenter Organization	Twin Cities & Western Railroad Company

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of issues concerning changes to the Project's scope from the Draft EIS to the Supplemental Draft EIS. The sections that follow include response(s) to these comments.

- Shippers and customers have made previous investments based on information that freight rail service will remain at current level
- Freight route – service disruption during construction
- Freight route – safety and public perception
- Freight alignment change – cost cutting options affecting TC&W

Shippers and customers have made previous investments based on information that freight rail service will remain at current level

As described in Section 4.4.4.1, the Project will result in changes to existing freight rail infrastructure within the Bass Lake Spur, Kenilworth Corridor, and the Wayzata Subdivision. Table 4.4-2 summarizes the proposed freight rail modifications. The Project will not adversely affect freight rail owners and operators because there will be no adverse, long-term impacts. The Project will change the geometry of the freight rail, however the action will result in no changes to access to existing freight rail markets and customers, or access to new freight rail markets not currently served. Under the Project, freight rail service within the Kenilworth Corridor will be maintained at its current level.

Freight route – service disruption during construction

Short-term impacts to freight rail operations will result from construction activities along the three freight rail corridors adjacent to the Project. These impacts are described in Section 4.4.4.3. Freight rail stoppage locations and durations may be refined based on consultation with freight rail operators, as appropriate.

Other construction activities will include shifting the existing track into a temporary location (two to three feet to the north/west) to allow for construction of the proposed light rail tunnel. This shift will be gradual, and is estimated to take approximately a week to shift the tracks and another week to shift the tracks back after the light rail tunnel is complete. Coordination between the contractor and the railroads will assist in minimizing disruptions and planning for the expected shutdowns to occur at times that will cause the least impact on freight rail operations.

In order to minimize these impacts, the Council will develop and implement a freight rail operations coordination plan. The plan will facilitate coordination between the Project and the affected freight railroad owners and operators throughout the construction period, to help ensure the Project does not create unreasonable constraints during construction. Section 4.4.4.3 discusses short-term (construction) impacts on freight rail and Section 4.4.5.2 discusses mitigation measures for those impacts.

Freight route – safety and public perception

The 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. For information on the safety and security, including construction communications, see *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Freight alignment change – cost cutting options affecting TC&W

As described in Section 2.2.5 of the Final EIS, the Council identified \$250 million in reductions to the Project's scope and budget. The reductions in the Project's scope included: the elimination of the Mitchell Station and deferral of the Eden Prairie Town Center Station (until after 2020 and before 2040); the reduction of five new light rail vehicles; the reduction of park-and-ride capacity from 3,834 spaces to 2,487 spaces; the reduction in the size of the proposed Hopkins OMF (with future expansion capacity on-site); elimination of station artwork; and reductions in landscaping and off-platform station furnishings. The identified cost savings measures were identified, developed, and analyzed in consultation with the Project's local participating agencies. These design changes are not anticipated to have an effect on freight rail operations within the Bass Lake Spur or the Kenilworth Corridor.

The Project will result in the removal of approximately 13,600 feet of freight rail siding track along the Bass Lake Spur, which will effect freight rail operations by eliminating the bi-directional maneuvering and parking of TC&W freight trains in siding areas at the Wooddale Ave and Bass Lake Spur freight rail crossing that occurs under existing conditions. The removal of the siding tracks will be addressed with CP (owner) and TC&W (operator) under the purchase agreement for the Bass Lake Spur which will include compensation for the removal of the siding tracks. The purchase agreement between the Council and CP Railway for the acquisition of the Bass Lake Spur will be negotiated and executed after the publication of this Final EIS.

Comment #	#111
Commenter	John Erickson
Commenter Organization	Cedar Lake Shores Townhome Association (CLSTA)

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern over construction impacts for residents immediately adjacent to Kenilworth Corridor light rail tunnel entrance
- Support for temporary shift in freight rail and reduced freight operating speeds
- Request for more detail regarding ground borne noise and vehicle source input characteristics
- Noise and vibration mitigation for residents immediately adjacent to Kenilworth Corridor light rail tunnel and West Lake Station
- Visual mitigation to preserve nighttime ambience and reduce impacts of Kenilworth Corridor light rail tunnel entrance lighting

Concern over construction impacts for residents immediately adjacent to Kenilworth Corridor light rail tunnel entrance

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Support for temporary shift in freight rail and reduced freight operating speeds during construction

Regarding your comment in support of the plan to temporarily move freight trails closer to the Cedar Lake Shores Townhomes and reduce freight rail operating speeds during construction, please see Section 2.1 of the Final EIS for an updated description of construction activities, including those related to freight rail infrastructure.

Request for more detail regarding ground borne noise and “vehicle source input characteristics”

Section 3.13, addresses vibration and ground borne noise under the Project. As documented in this section, the Council completed a detailed vibration analysis which included an assessment of potential ground-borne noise impacts in the vicinity of the proposed Kenilworth Corridor shallow tunnel. As shown in Table 3.13-7, the Project will result in ground-borne noise impacts at 54 units (five buildings) for residential land uses in the tunnel section south of the Kenilworth Channel, without mitigation. As mitigation for these impacts, the Project will include highly resilient rail fasteners in the tunnel section (approximately 2,200 feet) to eliminate ground-borne noise impacts at all of the 54 units effected.

Noise mitigation for residents immediately adjacent to Kenilworth Corridor light rail tunnel and West Lake Station

As described in Section 3.12.3, the Project will not result in any moderate or severe noise impacts in the area of the Cedar Lake Shores Townhomes (St. Paul Avenue). Regarding your comments on general noise impacts related to the proposed West Lake Station, the Project will employ features to minimize noise project-wide, including using wheel skirts (panels over the wheels) to reduce wheel/rail noise and continuously welded rail to eliminate gaps in the tracks that generate additional noise. Throughout the design process noise generating elements (e.g., crossovers) have been located, where possible, away from sensitive locations. Finally, the quiet zones identified below would also have the added benefit of eliminating horn blowing from the existing freight trains in the corridor.

The Final EIS identifies noise impacts and mitigation (Sections 3.12.4 and 3.13.4 and Appendix K). For noise, mitigation measures include quiet zones, wayside bells, noise barriers, and testing of residences for interior noise levels. Mitigation for ground borne noise impacts was also identified and includes use of rubber pads or springs to isolate impacts at an audiologist office located in Hopkins and highly resilient rail fasteners in the shallow tunnel in the Kenilworth Corridor (approximately 2,200 feet) to eliminate ground-borne noise impacts by providing vibration isolation (see Theme E.4 , Concerns about LRT in the

Kenilworth Corridor, in Appendix L of the Final EIS). No mitigation measures are warranted for long-term direct or indirect impacts from vibration due to the absence of any corresponding impacts.

In the more developed areas of the Project corridor, berms (which are required to be approximately twice as wide as they are high) could not be implemented. Vegetation, regardless of type, is not effective as noise mitigation, unless it is at least 100 feet thick, which would not be possible in this corridor due to spatial constraints.

Visual mitigation to preserve nighttime ambience and reduce impacts of Kenilworth Corridor light rail tunnel entrance lighting

Regarding your concern that LRT track curvature between the West Lake Station into the tunnel entrance could result in light pollution at certain homes, the project will include features such as directional lighting and light shielding, where appropriate to avoid light pollution affecting residences. While light from light rail vehicles will be visible, because of directional lighting, it will not shine directly at nearby residences.

As shown in Section 3.7, the Project will have a substantial visual quality impact for the representative viewpoint in the area of the south tunnel portal. In order to mitigate visual quality impacts, the Council has prepared design guidelines for key structures throughout the proposed light rail alignment, focusing on bridges and retaining walls. Those guidelines are included within the Visual Quality Guidelines for Key Structures (Council, 2015 – refer to Appendix C to access the Guidelines). These guidelines were developed by the Council, reflecting various coordinating efforts with affected local jurisdictions. The guidelines have been used by the Council in the advancement of the Project's design and development of final design plans. The guidelines have and will help to ensure a consistent aesthetic element for key structures throughout the proposed light rail alignment, while allowing for some flexibility in wall treatments. Refer to Section 3.7.4 for more information.

Section 3.7.4 in the Final EIS describes the mitigation measures the Council will implement to mitigate the Project's visual quality and aesthetic impacts. The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. See Section 9.2 of the Final EIS for additional detail on this committee.

Comment #	#112
Commenter	Tom Cremons
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Freight rail (relocation and colocation) were not openly addressed in the selection process
- Brunswick Central alternative should have been discarded.
- Recommendation to relocate Kenilworth Trail as an alternative to freight rail relocation
- Lack of study and citizen input regarding Southerly Connector

Freight rail (relocation and colocation) were not openly addressed in the selection process

Regarding your comment on description of the process for selecting option 3A, *See Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation.*

Colocation and relocation alternatives were evaluated in the Draft EIS. Public comments on the Draft EIS resulted in the colocation alternative being further evaluated in the Supplemental Draft EIS, which was also available for public review and comment. The process used to evaluate this alternative was as open to public and agency input as other alternatives evaluated in the environmental process.

Brunswick Central alternative should have been discarded

Regarding your comment concerning retention of the “Brunswick Central” plan as an option, as described in Chapter 2 and Appendix F, the Freight Rail Relocation Brunswick Central design adjustment has been dismissed from further study. For more information, refer to *Master Response 13: Rationale for dismissal of the “Brunswick Central” freight rail relocation alternative.*

Recommendation to relocate Kenilworth Trail as an alternative to freight rail relocation

Please refer to *Master Response 14: Relocate the Kenilworth Trail instead of collocating freight rail and light rail within the Kenilworth Corridor.*

Lack of study and public input regarding Southerly Connector

Regarding your comment on the lack of study and citizen input regarding the Southerly Connector, it is included in the design of the Project (see Section 2.1), and related environmental consequences were evaluated as part of this Final EIS. This includes the evaluation of potential impacts related to neighborhoods and communities (see Section 3.3), visual quality (see Section 3.7), noise (see Section 3.12), vibration (see Section 3.13), and safety and security (see Section 4.6), among others. Because it is part of the overall Southwest LRT Project, this topic was included in the Supplemental Draft EIS and available for comment during the public comment period held from May 22 through July 21, 2015. Additionally, because this is a Project design element, it was addressed in the Supplemental Draft EIS, available for review at the Supplemental Draft EIS Open Houses, and for comment during the Supplemental Draft public hearings. The open houses and public hearings were held on June 16, 17, and 18 of 2015 in Hopkins, Eden Prairie, and Minneapolis, respectively.

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur.*

Section 3.2.3 of the Final EIS addresses impacts on economic activity under the Project, including on freight rail. Though the geometry of the freight rail alignment will change, the action will result in no changes to access to existing freight rail markets and customers, or access to new freight rail markets not currently served. Because future freight rail operations are subject to a range of market forces and are dependent on the business plans of freight railroad operators, both of which are outside of the jurisdiction of the FTA and the Council, the Supplemental Draft EIS and the Final EIS do not assess impacts that might result from such changes.

Comment #	#113
Commenter	Dale Bachman
Commenter Organization	Bachman's Inc

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Support light rail alignment along Technology Drive between SouthWest Station and Prairie Center Drive
- Impacts of grading on stormwater pond and wetlands
- Request for more information regarding impact of temporary construction easement on property

Support light rail alignment along Technology Drive between SouthWest Station and Prairie Center Drive

During the Draft EIS public comment period, the City of Eden Prairie asked the Council to investigate the feasibility of a more centrally located and walkable Eden Prairie Town Center Station and associated light rail alignment that would provide better opportunities for transit-oriented development and redevelopment. The City noted that a light rail station within walking distance of the Eden Prairie Town Center (a regional shopping mall) would help meet the City's long-term economic development goals and provide higher ridership due to its proximity to concentrations of existing and future employment and commercial activity centers. Section 2.2 and Appendix F of the Final EIS describe the options evaluated through the design adjustment process and how those options were evaluated and screened. Based on design adjustments resulting from that process, which were identified by the Council in April 2014, the proposed light rail alignment in Eden Prairie (starting at SouthWest Station) will run on a new bridge over Technology Drive and Prairie Center Drive, then pass south of Lake Idlewild, generally via Eden Road, and follow the north side of Flying Cloud Drive over I 494. As described in Section 2.2.5 of the Final EIS, in July 2015, the Council identified approximately \$250 million in scope and budget reductions for the Project, which included the deferral of the Eden Prairie Town Center Station and related roadway improvements (until after 2020 but before 2040). Theme F in Appendix L of the Final EIS includes additional information on the design adjustment process within Eden Prairie that occurred after publication of the Draft EIS.

Impacts of grading on stormwater pond and wetlands

The impacts on grading will continue to be evaluated as the design of the Project advances. The Southwest LRT Project Office will continue to coordinate the design with the City and Bachman's, as the design is advanced, as appropriate.

Impact of temporary construction easement

A temporary construction easement is necessary at the Bachman's property and short-term impacts to Bachman's related to the temporary construction easement and other construction activities will continue to be evaluated as the Project advances. Temporary construction easement needs will be minimized to the extent feasible. As defined in Chapter 2 of the Final EIS, the LPA has been adjusted to minimize impacts in the vicinity of Technology Drive and will not require the relocation of any businesses or parking areas.

The Council will develop a Construction Mitigation Plan and Construction Communication Plan, which will be implemented prior to and during construction. The purpose of the Construction Communication Plan is to prepare Project-area residents, businesses, and commuters for construction; listen to concerns; and develop plans to minimize harmful or disruptive effects; including coordination with Bachman's regarding access to the loading dock. Periodic communication by means of the Council's outreach program will be important to keep the public and impacted property owners aware of progress and construction expectations.

Comment #	#114
Commenter	Diane Hedges
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Concerned about impacts of a freight rail bridge through St. Louis Park and the light rail bridge over switching wye design alternative

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*.

Comment #	#115
Commenter	Anna Mulfinger
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Multi-level bicycle and pedestrian path design alternative

After publication of the Draft EIS the Council developed and evaluated a range of design adjustments to LRT 3A-1 (co-location), including an elevated bicycle and pedestrian trail through a portion of the Kenilworth Corridor. In summary, the *Elevate the Kenilworth Trail* design adjustment was dismissed from further study because visual impacts due to structure height and connecting ramps, impacts the visual quality and setting of the trail (e.g., separation from ground vegetation) and the addition of grade changes to the trail, and potential visual impacts on Kenilworth Lagoon. This evaluation was presented to the public, stakeholders and participating agencies for review and comment, including the Project's Corridor Management Committee. See Appendix F of the Final EIS for additional information.

Comment #	#116
Commenter	Angela Erdrich
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Southwest LRT Project. The sections that follow include responses to these specific comments:

- The environmental analysis should assume a basis of no freight
- Safety concerns related to freight rail transport of hazardous materials under co-location

The environmental analysis should assume a basis of no freight

See *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.*

Safety concerns related to freight rail transport of hazardous materials under co-location

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.* Also see *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor.*

Comment #	#117
Commenter	Jeanette Colby
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement (EIS)*. The sections that follow include response(s) to these comments.

- Colocation in the Kenilworth Corridor makes freight a permanent condition
- Inadequate visual impacts assessment for the Kenilworth Corridor
- Concern over noise evaluation methodology and noise impacts in the Kenilworth Corridor
- General safety concerns related to station area design and emergency responders

Colocation in the Kenilworth Corridor makes freight a permanent condition

See *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.*

Inadequate visual impacts assessment for the Kenilworth Corridor

For a response to your comments on the visual impact assessment for the Kenilworth Corridor, see Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right.

Concern over noise evaluation methodology and noise impacts in the Kenilworth Corridor

For a response to your comments on the noise evaluation for the Kenilworth corridor, see Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right.

General safety concerns related to station area design and emergency responders

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.*

Comment #	#118
Commenter	Kristina Patterson
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Light rail bridge over switching wye design alternative

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*.

Comment #	#119
Commenter	Arlene Fried
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to colocation of LRT and freight rail in the Kenilworth Corridor.

Safety concerns related to freight rail transport of hazardous materials under co-location

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*. Also see *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Comment #	#120
Commenter	Doug Jones
Commenter Organization	Pointe West Commons Homeowner Association

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Recommendation to relocate Kenilworth Trail as an alternative to freight rail relocation
- Light rail bridge over switching wye design alternative

Recommendation to relocate Kenilworth Trail as an alternative to freight rail relocation

Please refer to *Master Response 14: Relocate the Kenilworth Trail instead of co-locating freight rail and light rail within the Kenilworth Corridor*.

Light rail bridge over switching wye design alternative

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*

Comment #	#121
Commenter	Paul Petzschke
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents several issues concerning potential impacts associated with driving sheet piling during construction of the shallow tunnel in the Kenilworth Corridor.

Concerns regarding Kenilworth Corridor light rail tunnel construction impacts to residences

See *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

Comment #	#122
Commenter	Doug Seitz
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

No studies justifying need for or identifying impacts of proposed Southerly Connector

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*

Comment #	#123
Commenter	Jeanette Colby
Commenter Organization	Kenwood Isles Area Association (KIAA)

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right.*

Comment #	#124
Commenter	Kim Ramey
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concerns regarding the municipal consent processes
- Inadequate evaluation of alternative routes
- Protective groundwater measures during construction
- Studies, protective measures, and expert consultation for subterranean and endangered species
- Property acquisition, impact, displacement and compensation

Concerns regarding the municipal consent processes

Section 2.1 describes the LPA for the Project and the alternatives that were considered during the Project's alternatives analysis and NEPA scoping processes. More detailed information on the Project's alternatives analysis, scoping, and LPA identification process may be found in the following documents: Southwest Transitway Alternatives Analysis Final Report; Southwest Transitway Scoping Summary Report; Southwest LRT Locally Preferred Alternative Report.

The HCRRA and Metropolitan Council found that LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life and supporting economic development.

See *Master Response 2: Project sought municipal consent prior to the publication of the Supplemental Draft EIS*, for more information.

Inadequate evaluation or alternative routes

As described in Section 2.2, a range of alternative alignments (including those suggested) were considered during Project planning. In total, more than 25 route and mode alternatives or sub-alternatives have been evaluated as part of the project development process for the Project. Detailed information on the Project's alternatives analysis, scoping, and LPA identification process is presented in the following documents: *Southwest Transitway Alternatives Analysis Final Report* (Hennepin County, 2007) and *Southwest Transitway Scoping Summary Report* (Hennepin County, 2009), and the Draft EIS.

In 2007, the HCRRA completed a federally required study called an Alternatives Analysis, which was a continuation of the Southwest Rail Transit Study, 2003. The Southwest Transitway Alternatives Analysis (AA) compared the benefits, costs and impacts of a range of transit alternatives (modes and routes) to identify which alternative would best serve the needs of the communities as expressed in the Purpose and Need Statement.

In the AA, the alternatives for detailed evaluation included one bus alternative called the Enhanced Bus, two bus rapid transit (BRT) alternatives, and eight light rail transit (LRT) alternatives. It was concluded that three of the eight LRT routes could meet the established project goals. In addition, the enhanced bus alternative was retained to continue to evaluate the possibility of addressing the increasing mobility needs of the area through improved bus service rather than LRT. The Draft EIS includes a detailed description of the alternatives evaluation process (see Section 2.1).

The AA was the starting point for the Draft EIS and formed the basis for the Scoping Process. Based upon the AA, three LRT alternatives and the Enhanced Bus alternative were proposed for inclusion in the Draft EIS. During the NEPA/MEPA Scoping Period from September 8, 2008 through November 7, 2008, for the Southwest Transitway Project (the Project) Draft EIS, two new alignments were proposed. The alternatives were labeled LRT 3C (11th/12th Sub-Alternative) and LRT 3E and were evaluated for their feasibility with regard to the project's goals identified in the Purpose and Need Statement and it was determined that they warranted inclusion in the Draft EIS.

The Draft EIS examined seven alternatives, including the No Build Alternative, the Enhanced Bus Alternative, and five light rail transit (LRT) alternatives (LRT 1A, LRT 3A, LRT 3A-1, LRT 3C-1, and LRT 3C-2). These seven alternatives are described in Section 2.3 of the Draft EIS which provides a description of the alternatives that were considered within the Project selection process. Chapter 11 of the Draft EIS provides a description of how the alternatives were evaluated and the rationale for the identification of the Project. On May 26, 2010, prior to the completion of the Draft EIS and based on an extensive alternatives analysis and public involvement process, the Metropolitan Council adopted the Project's Locally Preferred Alternative (LPA) as recommended by the Hennepin County Regional Railroad Authority (HCRRA) and included it as part of the 2030 Transportation Policy Plan.

While the Draft EIS notes that LRT 3A-1 is identical to LRT 3A in the transit service it would provide (see Chapter 2 of the Draft EIS), it only identifies LRT 3A as the LPA (see pages 2-31 and 2-41 of the Draft EIS for examples). The LPA is a subset of both LRT 3A and LRT 3A-1 of the Draft EIS; therefore, the Project's LPA is included within both LRT 3A and LRT 3A-1. The LPA was identified based on an assessment of four evaluation categories: planning compatibility; performance; implementation factors; and critical environmental resources.

The HCRRA and Metropolitan Council found that LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life and supporting economic development.

In 2015 a Supplemental Draft EIS was prepared in order to evaluate design adjustments made to the LPA following publication of the Draft EIS had the potential to result in new adverse impacts as described below and needed to be evaluated in a Supplemental Draft EIS.

The alternative light rail alignments suggested were considered throughout the process described above and dismissed because they would not meet the Project's Purpose and Need. This determination was made because they would not provide high-capacity transit connections between downtown Minneapolis and the key employment, commercial, and residential activity centers in the corridor, as described and illustrated in Chapter 1 of the Final EIS. Further, connections to points within the corridor would tend to have increased light rail travel times due to the additional length of the alignment, compared to the generally diagonal southwest to northeast light rail alignment that will be provided by the Project. In addition, the existing rights-of-way for other alignments (e.g., Highway 100 and I-394) would not be adequate to accommodate the introduction of a light rail alignment due to geographic and existing transportation infrastructure constraints. As a result, the use of those alignments for light rail would likely lead to the displacement of adjacent land uses, including residences and commercial properties. Section 2.2 of the Final EIS provides a description of the Project's Alternatives Analysis, Scoping, and Draft EIS phases within which various alternatives were developed and evaluated. Responses to specific alternative Southwest LRT routes you suggest in your letter are provided below:

- **Midtown Greenway**—Regarding your comment that the Project should be routed along the Midtown Greenway: The option of routing the Project through Uptown and south Minneapolis via the Midtown Greenway was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2. In general, that alignment alternative was dismissed from further study because it would be less cost effective and less efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the Locally Preferred Alternative (LPA). Hennepin Avenue is also a busy urban arterial, with a very constrained street right-of-way, many cross streets and driveway entrances and exits along its alignment. This alternative would perform very similarly to the 3C-1 and 3C-2 alternatives. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA. In summary, HCRRA and the Metropolitan Council, as well as the Project's Corridor Management Committee (CMC) found that the light rail alignment that is part of LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life, and supporting economic development.

- Lake Street—This alignment, which largely parallels that of the Midtown Greenway, discussed above, would perform very similarly to the 3C-1 and 3C-2 alternatives.
- Lagoon Avenue, 31st Street, 28th Street and 26th Street—Use of local streets in the eastern most portion of the Project area was studied in the Draft EIS under Alternatives LRT 3C-1 and LRT 3C-2. These alternatives were dismissed from further evaluation in the Draft EIS for not supporting Project Goals. Please see Section 2.2 of the Final EIS for a summary of this evaluation. Though not the same specific streets as those identified in your letter, use of the local streets suggested in your letter would also not support identified Project goals.
- Cedar Lake Trail—As described in Section 2.1.1, in the Final EIS, the Project does utilize a portion of the Cedar Lake Trail corridor, beginning at the 21st Street Station and into downtown Minneapolis.
- Highway 55—This route has not been studied for the Southwest LRT corridor as its east-west orientation does not address the need for transit in the southwest portion of the Twin Cities.
- Highway 394 and Highway 100— Regarding your comment that Southwest LRT should be routed via TH 100 and I-394, rather than the Kenilworth Corridor: the option of placing the proposed light rail alignment along generally north-south or east-west freeway corridors would not meet the Project Purpose identified in Section 1.1 of the Final EIS. The Project Purpose notes that “The Southwest LRT Project will provide a competitive, cost-effective travel option that will attract choice riders to the transit system. The competitive and reliable travel time for the Southwest LRT Project is attributed to the diagonal nature of the line compared to the north-south/east-west orientation of the roadway network and to the increasing levels of congestion of the roadway network.”

The additional length an alignment that used generally north-south or east-west orientation of existing freeways such as Highway 100 and I-394 (past Brownie Lake), respectively, would increase LRT travel times for trips between west of Highway 100 and downtown Minneapolis (including connecting trips), compared to the generally diagonal southwest to northeast light rail alignment included in the Project.

Additionally, the existing rights-of-way for Highway 100 and I-394 would not be adequate to accommodate the introduction of a light rail alignment due to geographic and existing transportation infrastructure constraints. As a result, the use of those alignments for light rail would likely lead to property acquisitions and the displacement of adjacent land uses, including residences and commercial properties.

The *Southwest Rail Transit Study* (HCRRA, 2003), considered a light rail alignment that would have utilized Highway 100 between I-394 and Highway 7 (refer to Appendix C for instructions on how to access this document). This alternative (E-2 within the Study) was not recommended for further study because:

- No excess right-of-way in the Highway 100 corridor
- Would have significant right-of-way impacts along Highway 100 due to multiple property owners
- Reduced service to population and employment concentrations in St. Louis Park (Source: Figure 5.3: Screen 1 Recommendation)

The Project Purpose also indicates that the Project will improve access and mobility to the jobs and activity centers in the Minneapolis central business district, as well as along the entire length of the corridor for reverse-commute trips to the expanding suburban employment centers. These employment centers, shown on Exhibit 1.4-5 of the Final EIS, demonstrate that the Project alignment will more effectively provide access to these employment centers: Golden Triangle Business Park, Optum Corporate Headquarters and Business Park, Downtown Hopkins, and Park Nicollet Methodist Hospital compared to an alignment along I-394 and Highway 100. Also, an I-394/Highway 100 alignment would not provide direct service to stations projected to experience the highest average weekday station usage, including the Beltline Station or the West Lake Station, which are projected to have the highest level of ridership under the Project (See Section 4.1, Transit, of the Final EIS, including Table 4.1-5, Average Weekday Station Usage by Mode of Access, Year 2040, for additional information).

Protective groundwater measures during construction

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

What endangered species, flora, fauna have been found and studied? Were experts in the specific areas of these individual species consulted? How will these species be protected?

Endangered species flora and fauna within the study area for threatened and endangered species is included in Section 3.10 of the Final EIS. The primary federal law protecting threatened and endangered species is the Endangered Species Act (ESA) of 1973 (16 U.S.C. §§ 1531-1544). This law requires that all federal agencies consider and avoid, if possible, adverse impacts to federally listed rare, threatened and endangered species or their critical habitats, which may result from their direct, regulatory, or funding actions. Under 16 U.S.C. §§ 1536 Section 7 of the ESA, federal agencies are required to consult with the USFWS and/or the National Marine Fisheries Service (NMFS) (jointly referred to as the Services⁵), to ensure that FTA is not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat.

The USFWS concurred that the Project will have “no effect” on the Higgins eye (pearly mussel) and Snuffbox mussel, or their associated critical habitats, and the Project “may affect but not likely to adversely affect” the northern long-eared bat. There are no element occurrences of the Blanding’s turtle within 0.9 mile of the Project’s alignment. However, there is an element occurrence of the Blanding’s turtle within the MnDNR study area, so the MnDNR has indicated that this species may be adversely affected by the Project. The following MnDNR recommendations are part of the Project’s design to avoid long-term direct impacts to the Blanding’s turtle (see Appendix N of the Final EIS for agency coordination letters): (1) roads have been designed using the minimum standard for widths and lanes when practicable (which reduces road kills by slowing traffic and reducing the distance turtles need to cross); (2) wetland crossings have been elevated where practicable; (3) utility access and maintenance roads have been kept to a minimum where practicable (this reduces road-kill potential); and (4) terrain disturbed by the Project will be left with as much natural contour as practicable.

Property acquisition, impact, displacement and compensation

The Project will impact homeowners in the form of long-term and short-term (i.e., temporary easements) property acquisitions. As part of the Project, the Metropolitan Council will identify and compensate affected property owners for long-term and short-term (construction) takings according to the provisions of the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Code of Federal Regulations [CFR] Title 49, Part 24), as amended (49 CFR, Part 24), and MN Stat. 117 which sets forth requirements for acquisition of land, compensation, and uniform relocation benefits. The Project will not displace any residences, however, small amounts (generally less than 0.5 acres, but up to 2.5 acres) will be acquired from residential properties and compensated in accordance with Uniform Relocation Act standards. Refer to Section 3.4 for more information on acquisitions and displacements.

Light rail also has the potential to cause environmental impacts (“nuisance effects”) that could reduce the value of an area for some properties. These potential nuisance effects include disruptive noise levels; vibration, visual impacts; and reductions in vehicular access and parking. The rate and timing of such impacts would depend on the location of the property relative to construction activities. Refer to Sections 3.12, 3.13, 3.7, and 4.2 for more information on short-term impacts related to noise, vibration, visual quality, and roadways, respectively.

In terms of a specific liability plan during the construction of the Southwest LRT line, there will be a process in place to fully investigate any claim that the construction activities caused damage or injury. This process will also include insurance to respond to such claims. The Council will have a combination of insurance and self-insurance to respond to claims for incidents related to LRT, like the Council currently has for other LRT lines in the region. The cost of this insurance is included in the cost estimate for the Project. Freight rail operators will continue to respond to claims, as they do now, to claims unrelated to LRT operations.

⁵ The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of the NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon.

For additional detail on construction impacts related to tunnel construction See *Master Response 7: Concerns related to adverse vibration impacts of LRT tunnel construction*, and for additional information on impacts to property values see *Master Response 9: Concern over potential damages to property values within the vicinity of the Project*.

As shown in Chapter 7, the capital costs estimate for the Project includes anticipated costs needed for right-of-way, land acquisition, and existing improvements (approx. \$211,785,000), which includes compensation for homeowners in accordance with the Uniform Relocation Act. Additional costs not covered by the right-of-way line item are covered under contingency. FTA and the Council are the lead agencies for the Project and are responsible for the administration of the Uniform Relocation Act and for mitigation measures for construction activities.

Comment #	#125
Commenter	Kim and Kenneth Ramey
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of questions concerning the Project's potential impacts to water resources. The questions from your letter are listed below. The sections that follow include responses to these questions.

- Will Cedar Lake, Minnehaha Creek, Lake Minnetonka, Lake of the Isles water levels be monitored and measured during the construction process?
- Has there been baseline water levels measured in the Minneapolis city lakes and Lake Minnetonka? If not when will the baseline measurements be completed before construction begins?
- How often and at what specific locations will lake water measurements be calculated during construction? And how long after construction is complete?
- What is the depth of the groundwater at Cedar Lake in the affected area where Southwest LRT preferred plan is being constructed?
- How many feet apart around Cedar Lake were groundwater depths calculated?
- During the construction process of Southwest LRT explain in depth what studies have been completed regarding pile driving around Cedar Lake?
- How many piles will be used around Cedar Lake and at what depth?
- How have the incidents surrounding other lakes around the world of water disappearances or water diversion been studied? What lakes were used to study this phenomenon?
- What studies have been done regarding the issues surrounding broken lakes seals causing the lake water levels to be diverted or disappear?
- In the case of a catastrophic environmental event of diverted or disappearing lake water which direction and where would this water go?
- Is there an emergency plan in place to deal with an unforeseen catastrophic environmental events? If so, is the emergency plan in the current budget?
- Have the subterranean soils identified around Cedar Lake been studied for the viability to withstand the harsh environmental intrusion of construction process?
- How will the soil around the lake area be altered?
- What will soil correction cost?
- What matter will be used to stabilize soil around the lake area and will this matter be environmentally safe to use around lake water?
- How will altering soil conditions around Cedar Lake effect/protect subterranean species?
- What studies have been done on the effect of hydrostatic pressure during the construction process and after when the trains are fully operational around Cedar Lake?
- What will be the effect of hydrostatic pressure caused by the weight and vibration of the frequently passing trains on Cedar Lake and surrounding areas?
- Are there endangered species, fauna, flora in the Southwest LRT preferred plan construction route?

- What studies were done by Cedar Lake to assess the effect of changing the landscape of this environmentally sensitive urban forest on migratory birds, butterflies, bees?

Will Cedar Lake, Minnehaha Creek, Lake Minnetonka, Lake of the Isles water levels be monitored and measured during the construction process? Has there been baseline water levels measured in the Minneapolis city lakes and Lake Minnetonka? If not, when will the baseline measurements be completed before construction begins? How often and at what specific locations will lake water measurements be calculated during construction? And how long after construction is complete?

Based on evaluations conducted as part of the Kenilworth Tunnel preliminary design, the Council determined that monitoring of water levels of water bodies adjacent to the proposed LRT alignment during construction are not needed and there have not been baseline water level measurements in the Minneapolis lakes or Lake Minnetonka.

The groundwater and lake level evaluation found that in the area surrounding Cedar Lake, Lake of the Isles, and Lake Calhoun, groundwater and lake levels are similar, with little change in elevation across the system. The Council conducted an independent review of the design of the tunnel to be located within the Kenilworth Corridor. A reference to *Southwest Light Rail Transit: Kenilworth Shallow LRT Tunnels Water Resources Evaluation* (Burns and McDonnell, 2014) is located in Appendix D of the Final EIS. The report notes that “Cedar Lake and Lake of the Isles are connected by an open channel that equalizes water levels in Cedar Lake, the channel and Lake of the Isles. The data in this report indicate that the lake level elevation in the channel is higher than most of the groundwater elevations. This suggests that groundwater in the corridor does not discharge to the channel and lakes in the corridor and that the lakes may be recharging the aquifer. This is counter to a more typical groundwater-surface water relationship in this climate where groundwater flows toward and discharges to surface water.” Based on the evaluation documented in the *Southwest Light Rail Transit: Kenilworth Shallow LRT Tunnels Water Resources Evaluation* (Burns and McDonnell, 2014), the Council has determined that construction of the Project will not change water levels in Cedar Lake, Minnehaha Creek, Lake Minnetonka, or Lake of the Isles. Therefore, the Project will not conduct baseline measurements of water levels before or after construction.

What is the depth of the groundwater at Cedar Lake in the affected area where Southwest LRT preferred plan is being constructed?

Within the Kenilworth Corridor (approximately between West Lake Station and Penn Station), groundwater was generally observed 15 to 25 feet from the surface, with some areas near West Lake Station where groundwater was observed approximately 10 feet from the surface. More detailed information about groundwater elevations can be found in Southwest LRT Project Geology and Groundwater Evaluation Supporting Documentation (see Appendix C for instructions on how to access supporting documentation) and in *Burns and McDonnell, 2014* (Appendix D).

How many feet apart around Cedar Lake were groundwater depths calculated?

Groundwater depths were measured based on soil borings and cone penetrometer test (CPT). While the distances between soil boring and CPT locations vary, the Council has performed 37 soil borings and 8 cone penetrometer test (CPT) soundings in the Kenilworth Corridor between the proposed West Lake Station and Penn Station. Detailed information on the methodology for measuring groundwater depths, including testing locations, are included in the subterranean evaluation reports within the Southwest LRT Project Geology and Groundwater Evaluation Supporting Documentation (see Appendix C of the Final EIS for instructions on how to access supporting documentation).

During the construction process of Southwest LRT explain in depth what studies have been completed regarding pile driving around Cedar Lake? How many piles will be used around Cedar Lake and at what depth?

An evaluation of construction techniques for the Kenilworth Corridor, including potential pile driving locations, is included in the *Kenilworth Shallow LRT Tunnel, Basis of Design Report* (see Appendix C of the Final EIS for instructions on how to access supporting documentation). The closest pile driving that would occur in the vicinity of Cedar Lake will be for bridge piers across Kenilworth Channel. No pile driving will occur directly adjacent to Cedar Lake.

How have the incidents surrounding other lakes around the world of water disappearances or water diversion been studied? What lakes were used to study this phenomenon? What studies

have been done regarding the issues surrounding broken lake seals causing the lake water levels to be diverted or disappear? In the case of a catastrophic environmental event of diverted or disappearing lake water, which direction and where would this water go?

The council has not inventoried studies regarding incidents instances of water disappearances, water diversions, or broken lake seals outside the study area. Based on the hydrologic studies completed for the Project, these issues are not likely to occur as a result of the Project.

Is there an emergency plan in place to deal with an unforeseen catastrophic environmental events? If so, is the emergency plan in the current budget?

The Council will implement the Project's Safety and Security Management Plan (SSMP) (Council, 2014) 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 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. The Council has also prepared and will implement a construction contingency plan (CCP) in order to handle previously undocumented soil or groundwater issues that may be encountered during construction (refer to Appendix C for instructions on how to access this document). This plan outlines procedures for initial contaminant screening; soil and groundwater sampling; laboratory testing; and removal, transport, and disposal of contaminated materials at licensed facilities. Contaminated material removal and disposal will be in accordance with this plan, monitored by qualified inspectors, and documented in final reports for submittal to MPCA. Refer to Section 3.14 for more information. The development of the SSMP and the CCP are included in the current cost estimates for the Project (see Section 7.1 for the Project's Capital Funding Strategy). In addition, a groundwater management plan will be prepared by the Council, and approved by MnDNR and applicable local jurisdictions before construction. That plan will include required groundwater monitoring and management practices during construction. The Project will also adhere to permit requirements related to groundwater pumping and discharge from groundwater pumping.

Have the subterranean soils identified around Cedar Lake been studied for the viability to withstand the harsh environmental intrusion of construction process? How will the soil around the lake area be altered? What will soil correction cost be? What matter will be used to stabilize soil around the lake area and will this matter be environmentally safe to use around lake water?

Throughout the proposed light rail alignment, including the area between Cedar Lake and Lake of the Isles, there are areas of compressible soils, which are illustrated in Exhibit 3.8-2 in the Final EIS. Areas of compressible soils along the Project will be addressed with appropriate design and construction techniques to avoid the potential for uneven ground settlement and bearing failure of the building foundations for the light rail alignment, stations, structures, and surface parking lots/parking structures.

Methods of addressing compressible soils include removing the soft soils and replacing them with fill suitable for use around lakes, deep foundations, driven piles, drilled shaft-supported foundations, or lightweight fill. The Council will continue to evaluate compressible soils during the Engineering phase and will obtain additional soil data where necessary to assist in making the decision about where to excavate and replace soft soils. See Section 3.8.3.1 of the Final EIS. Regardless of the construction techniques used, soils outside the limits of the Project's groundwater and geology study area, including the soils surrounding Cedar Lake, would not be affected by the Project.

As described in Section 7.1.3, the capital cost estimates for the Project include funds for sitework and special conditions, which include soil correction, based on geotechnical studies of the corridor rather than estimates of soil correction at specific locations.

How will altering soil conditions around Cedar Lake effect/protect subterranean species?

Subterranean species located in areas of soil disturbance will be directly affected by the Project, however, none of these species have been identified as federally or state protected species, nor has that habitat been identified as state or federally protected. See Section 3.10 of the Final EIS includes an analysis of threatened and endangered species as well as commitments and mitigation measures to address potential impacts.

What studies have been done on the effect of hydrostatic pressure during the construction process and after when the trains are fully operational around Cedar Lake? What will be the effect

of hydrostatic pressure caused by the weight and vibration of the frequently passing trains on Cedar Lake and surrounding areas?

The *Kenilworth Shallow LRT Tunnels Water Resources Evaluation* (Burns and McDonnell, 2014) addressed this issue and considered hydrostatic pressure during construction. Due to the existing soil conditions, the shallow depth of the tunnel with respect to the depth of the homogeneous sandy soil conditions, and the horizontal distance from the lake, there are no anticipated effects on Cedar Lake. No impact from hydrostatic pressure is expected to occur, based on an independent water resources study in 2013-2014.

Are there endangered species, fauna, flora in the Southwest LRT preferred plan construction route?

Endangered species flora and fauna within the study area for threatened and endangered species is included in Section 3.10 of the Final EIS. The USFWS concurred that the Project will have “no effect” on the Higgins eye (pearly mussel) and Snuffbox mussel, or their associated critical habitats, and the Project “may affect but not likely to adversely affect” the northern long-eared bat. There are no element occurrences of the Blanding’s turtle within 0.9 mile of the Project’s alignment. However, there is an element occurrence of the Blanding’s turtle within the MnDNR study area, so the MnDNR has indicated that this species may be adversely affected by the Project. The following MnDNR recommendations are part of the Project’s design to avoid long-term direct impacts to the Blanding’s turtle (see Appendix N of the Final EIS for agency coordination letters): (1) roads have been designed using the minimum standard for widths and lanes when practicable (which reduces road kills by slowing traffic and reducing the distance turtles need to cross); (2) wetland crossings have been elevated where practicable; (3) utility access and maintenance roads have been kept to a minimum where practicable (this reduces road-kill potential); and (4) terrain disturbed by the Project will be left with as much natural contour as practicable.

What studies were done by Cedar Lake to assess the effect of changing the landscape of this environmentally sensitive urban forest on migratory birds, butterflies, bees?

As described in Section 3.10.3, long-term impacts from the Project to habitat include removal, conversion, degradation, and splitting of existing habitat within the areas where the Project’s permanent civil improvements will be located. The Project will result in a loss and/or degradation of vegetated areas associated with five natural land cover types, which could result in a decrease in wildlife foraging areas, breeding habitats, and nesting areas. In order to mitigate long-term impacts to habitat, native landscaping will be incorporated into the Project’s design during Engineering, where applicable and appropriate. Within the Kenilworth Corridor specifically, the Council developed a landscape design that preserves and builds upon the natural character of the corridor, where applicable and appropriate.

The Project will not have a long-term direct impact on migratory birds. It is likely that the regulated migratory bird species present in the migratory bird study area have adapted to survive in urban areas and tolerate high levels of human activity given the limited forest or woodland areas present. Therefore, the Project is not expected to result in long-term impacts on migratory bird populations.

The proposed light rail alignment and associated improvements will be located in a predominantly urban area. In general, species occurring in an urban setting are adapted to functioning within a highly variable and altered environment. The Project will result in a short-term loss of vegetated areas associated with five natural land cover types, which could result in short-term loss of habitat within the areas that will be temporarily disturbed by the Project’s construction activities. This loss of habitat is considered short-term because these areas will be revegetated upon the completion of the Project.

The Project is implementing design features to avoid or minimize construction impacts by placing fencing to isolate areas of construction disturbance, developing a plan prior to construction to minimize the amount of trees and vegetation that will be removed as part of the Project, and protecting aquatic habitat. Aiding the spread of invasive species or noxious weeds will be avoided by implementing BMPs. An invasive species and noxious weeds management plan will be identified in the Project’s construction specifications. The Council will monitor plan compliance during construction. To avoid habitat fragmentation of a Regional Ecological Corridor (as defined by the Minnesota Land Cover Classification System – see Section 3.10.1.2) located near Penn Station, appropriately sized and spaced openings will be provided in the permanent safety/security barriers (fences) in the area located approximately between 21st Street Station and Penn Station to maintain connectivity of terrestrial habitat and allow movement of

terrestrial species, primarily small mammals. Other Regional Ecological Corridors will not be bisected because the LRT alignment will be elevated over them. Habitat that is temporarily disturbed during construction will be re-seeded and restored, where appropriate, upon construction completion.

Comment #	#126
Commenter	Lynn Levine
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see response to comment #124 which addresses most of your comments. Comments in your letter that are not responded to in comment #124 are responded to below.

Regarding your comment that the plan was driven by money being available and not the other way around, the planning for this Project began at the local level approximately 15 years ago with the Southwest Rail Transit Study (HCRRA, 2003). On May 26, 2010, prior to the completion of the Draft EIS and based on an extensive alternatives analysis and public involvement process, the Metropolitan Council adopted the Project's Locally Preferred Alternative (LPA) as recommended by the Hennepin County Regional Railroad Authority (HCRRA) and included it as part of the 2030 Transportation Policy Plan. In 2011, FTA approved the Project's entry into the FTA's New Starts program. The Project has been developed within the framework of FTA's New Starts criteria, in hopes of receiving funding. The New Starts program is discretionary funding source that is competitive. There is no guarantee that Project will receive federal funding under this program. Therefore, as evidenced by the Project's local planning history, the Project has not been prejudiced by funding considerations.

Regarding your comment about the cumulative effect on wetlands, the Final EIS does not reference the Ewing wetland in the Bryn Mawr neighborhood or other specific wetland actions that have occurred in the past because the cumulative impacts analysis does not discuss specific wetlands impacts, rather the cumulative impact assessment discusses past actions on wetlands, such as historic wetland filing, on a broader regional basis as opposed to a project specific description of individual wetlands (see 3.17.1 for more information on the cumulative impact methodology). Regarding your comment on the acceptable starting point for assessing impacts to the lakes within the Project area under NEPA, the baseline for assessing impacts is the existing condition of the affected environmental resources.

Regarding your comment about whether there are penalties if impacts are greater than predicted, NEPA does not mandate a threshold of significance in the analysis for impacts. For this reason, permits and required approvals for certain resources establish acceptable thresholds for impacts. The Council will seek permits and approvals from applicable agencies, such as the USACE and the Minnesota Pollution Control Agency (see Table 9.5 of the Final EIS for a complete listing). For federal permits such as Section 404 Wetland Permit, the Project will need to meet the standards set in the permit or approval. Where applicable, variances can be issued for local or regional permits that exceed allowable thresholds, at the discretion of the permitting agency. For instances where a new adverse impact is created by the Project, the Project will need to reevaluate the NEPA process for that impact.

Regarding your comment on low ridership in the Kenilworth Corridor, as described in Section 4.1 of the Final EIS, a 14 percent increase (13,000 new trips) is forecast in average weekday transit trips under the Project, compared to the No Build Alternative (2040). Two of the planned stations are located in the Kenilworth Corridor, West Lake Station and 21st Street Station. The West Lake Station is expected to be the most frequently used station, accounting for 13 percent of Project boardings. The Council evaluated eliminating or deferring stations in July 2015 based on evaluation of several factors including ridership and decided to keep the 21st Street Station as part of the Project. See Table 4.1-5 in Section 4.1 of the Final EIS. See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

The ridership projections for this Project were developed based on the Council's regional travel demand model (see Section 4.1), which was approved by FTA. Refer to Chapter 1 for a description of the Project's Purpose and Need and Chapter 7 for an updated financial analysis for the Project. Chapter 8 of the Final EIS assesses Project costs relative to the Project's benefits.

Comment #	#127
Commenter	Gail Freedman
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Southwest LRT Project.

Comment #	#128
Commenter	Bill McGaughey
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the Southwest LRT Project.

Comment #	#129
Commenter	Erin Cosgrove
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Kenilworth Trail relocation not listed as alternative in Supplemental Draft EIS

Please refer to *Master Response 14: Relocate the Kenilworth Trail instead of co-locating freight rail and light rail within the Kenilworth Corridor*.

Comment #	#130
Commenter	Pat Bursaw
Commenter Organization	Minnesota Department of Transportation (MnDOT)

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Request for ongoing plan review
- Commuter and Passenger Rail
- Noise
- Water Resources
- Design
- Right-of-Way and permits

Request for ongoing plan review

The Council coordinates regularly with MnDOT on the advancement of Project plans and will continue this coordination through the design and construction phases.

Commuter and Passenger Rail

Your comment regarding the potential future need for an extension of the tail track that currently exists between Target Field and Royalston Avenue to ensure sufficient capacity and to maintain operational flexibility at Target Field Station has been noted. Also noted is your comment that any future design changes between Royalston Avenue and I-94 should continue to allow the opportunity to construct a single track between Royalston Avenue and the I-94 overpass for future use managing train movements within Target Field Station. As described in Section 2.1.1 of the Final EIS, the Project does not include any plans for track extensions in this area, at this time. However, the Project will not preclude such expansions in the future.

Noise

Your letter notes that it is MnDOT's understanding that further determinations need to be made regarding which roadways are exempt under Minnesota Statute 116.07 for the Final EIS. The statement regarding exempt vs. non-exempt roadways was removed from the discussion in the Final EIS. The Final EIS assesses the Project's noise levels in the context of Minnesota's noise rule, which is administered by MPCA. The Council coordinated with MPCA staff in developing this assessment. MPCA has an established set of Noise Standards (Minnesota Rules, Chapter 7030), which provide limits on environmental noise using the L10 and L50 descriptors, which represent the noise level exceeded 10 percent (6 minutes) and 50 percent (30 minutes) of the time during an hour, respectively. The standards include both daytime and nighttime limits for three different categories of land use or noise area classification, with residential land uses included in noise area classification 1. Classifications 2 and 3 are generally for commercial and industrial land uses, respectively. Because of the time limit component of the MPCA noise standards, the Project will not exceed the standards under the proposed operating conditions. Light rail vehicles will pass by a location for approximately 10 seconds 12 times an hour (based on the operating assumptions of 10 minute headways in each direction) for a total of 120 seconds, or two minutes. Because the duration of exposure to LRT noise does not exceed the L10 (six minutes) and L50 (30 minutes) time components, there is no potential for the Project to exceed MPCA thresholds. Because the Project does not exceed the MPCA thresholds, the FTA noise impact criteria are more protective than the MPCA standards and have been used to assess and mitigate noise impacts identified within this Final EIS. See Section 3.12.1.2 of the Final EIS.

In addition to operational noise levels, construction noise levels also are subject to noise rules administered by MPCA as well as local noise ordinances. MPCA administers these noise rules to establish maximum allowable noise levels; where applicable, MPCA procedures allow for the issuance of noise variances. To address both the applicable local noise ordinances and the MPCA noise rules, the Council will develop a Noise Control Plan as described in Section 3.12.4.2. Key elements of this plan will include:

- Contractor's specific equipment types
- Schedule and methods of construction
- Maximum noise limits for each piece of equipment with certification testing
- Prohibitions on certain types of equipment and processes during the nighttime hours without local agency coordination and approved variances
- Identification of specific sensitive sites where near construction sites
- Methods for determining construction noise levels
- Implementation of noise control measures where appropriate
- Include a 24-hour construction hotline

Water Resources

The Council continues to coordinate with MnDOT through ongoing design reviews, which include review of design drainage and the proposed Project design does not increase discharge into MnDOT right-of-way. The Council will continue coordination with MnDOT on the review of design plans, including final design plans, which may determine the need for a drainage permit if the Project increases discharge into MnDOT right-of-way.

Design

As noted in your comment, all trunk highway impacts will be reviewed and approved through the layout approval process (i.e., design review process). The Council notes that permit forms are available on MnDOT's utility website.

Right-of-Way (ROW) and Permits

The Council will obtain necessary permits required to construct in MnDOT right-of-way. See Table 9.5-1 for a current list of permits and approvals needed for the Project.

Comment #	#131
Commenter	Bob Carney Jr.
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). In addition to expressing opposition to the Project, your letter includes several comments proposing improvements to Project and recommendations for the larger Twin Cities transit and transportation system. The comments related to the Southwest LRT Supplemental Draft EIS from your letter are summarized below and responses to those comments follow.

- Other preferable alternatives and co-location not in LPA when chosen
- No Build Option is a Reasonable Alternative
- Focus on Transit/Transportation System, Not Corridor Planning
- State Funding for Southwest LRT Project
- Additional Concerns
 - Concern about Using Park Land for Project
 - Proposed Project Changes
- Non-Project Proposed Changes

Other preferable alternatives and co-location not in LPA when chosen

See *Master Response 1: Invalid NEPA/MEPA Scoping Process because original scoping report did not include freight rail colocation*, in response to your comment regarding sending the Southwest LRT Project back to the scoping phase.

See *Master Response 10: Rational for design adjustments incorporated into the LPA based on co-location in the Kenilworth Corridor*, in response to your comment that the initially identified LPA did not include freight rail.

Relative to your comment that other alternative alignments are available that are preferable to the Project, please see the response below under the heading Proposed Project Alignment Alternatives.

No Build Option is a Reasonable Alternative

Section 2.1 of the Final EIS describes that the No Build Alternative represents the existing transportation system with all planned transportation improvements included in the Current Revenue Scenarios (i.e., financially constrained) of the 2040 TPP (adopted January 2015), except for the Southwest LRT Project LPA. The No Build Alternative represents both a possible outcome of this Final EIS process, and is a reference point to gauge the benefits, costs, and impacts of the Project. NEPA/MEPA processes require consideration of the No Build Alternative. The No Build Alternative is evaluated in this Final EIS (see Sections 3.0 and 4.0) and in previous Project phases. Please also see Chapter 8 of the Final EIS for a summary comparison of the Project to the No Build Alternative based upon metrics related to the Project's purpose statement. In summary, FTA and the Council have found that the No Build Alternative would not meet the Project's Purpose and Need.

Focus on Transit/Transportation System, Not Corridor Planning

The Project has been developed within the FTA's New Starts Project Development Process, including the development, evaluation, and identification of design adjustments based on comments received on the Draft EIS. Under FTA's process, alternatives are developed and reviewed, the LPA is identified and then adopted into the region's fiscally constrained long range transportation plan, and environmental documentation is completed. As previously noted, the LPA for the Southwest transit corridor was adopted into the regional Transportation Policy Plan, reflecting that it is a product of both a regional and corridor planning process.

Relative to your comment that "we need to view transportation, and Transit, as a system," Chapter 1, Purpose and Need, of the Final EIS notes that the Project will connect southwest Minneapolis and the region's southwest suburbs with the region's system of transitways, including existing light rail transit, bus

rapid transit, commuter rail, and express bus routes. Further, the transit and regional roadway traffic analysis for the Project, summarized in Sections 4.1 and 4.2 of the Final EIS, reflect the analysis and travel demand forecasts of the regional transit and roadway network, regional land use plans, and regional adopted population and employment forecasts.

State Funding for Southwest LRT Project

The state's legislative and budgeting process is used to determine the state's transportation priorities. The Project's proposed capital finance plan, which includes a proposed state funding share is described in Chapter 7 of the Final EIS. The state legislative and budgeting process will be used to determine whether or not to participate in Project funding.

Additional Concerns

Concern about Using Park Land for Project

Section 4.5.2.2 of the Final EIS, discusses that the Kenilworth Trail is located on property owned by the Hennepin County Rail Road Authority (HCRRA) and maintained by the Minneapolis Park and Recreation Board. These trails were built under permit agreements between HCRRA and the applicable jurisdictions that recognized the potentially temporary term of the agreements and specified that the primary purpose of the right-of-way was for construction of light rail and other transportation purposes. Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the "Kenilworth Corridor" is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway). Under the Project, the Kenilworth Trail will maintain its current functionality as a trail. See Section 4.5.3 of the Final EIS for additional information on evaluation of trails.

The Council has and will continue to coordinate with the City of Minneapolis to implement the memorandum of understanding (MOU) between the Council and the City of Minneapolis, which was approved by the Council on July 9, 2014. The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015, to, in part, help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail.

Proposed Project Alternative Alignments

- **Stop Line at Shady Oak or Downtown Hopkins; Shopper and Commuter Bus Service from Hopkins to Eden Prairie (Part A: Items 1-3)**—Your letter suggests stopping the line at either the Shady Oak Station or the Downtown Hopkins Station and including a system of shopping of extended stay traveler routes from the last Hopkins LRT station to Eden Prairie.

Bus connections to the SouthWest Station, Eden Prairie Center transit hub, and Golden Triangle employment centers to the LRT alignment were considered as an option at the Southwest LRT Corridor Management Committee (CMC) on May 20, 2015, but were dismissed. It was concluded that this option would not effectively address the Project Purpose and Need (see Chapter 1 of the Final EIS), as the Project that would provide light rail transit service from Hopkins to Minnetonka and Eden Prairie.

Many of the proposed Southwest LRT stations will have bus connections. The Project also includes feeder routes and improved headways on existing bus routes that will connect to LRT stations. As part of the Project, bus feeder headways have been equilibrated to meet future demand. Section 2.1.1.1 of the Final EIS describes passenger drop off, bus, bicycle and pedestrian related improvements at each of the stations.

- **Use Modified Version of 3C Alignment from West Lake to Downtown (Part A, Item 12 and Part C)**—The comment letter notes that this alignment was considered earlier in the Southwest LRT process but was dropped in part because "a tunnel under Nicollet would be too expensive." The modified "3C" route that is shown and described in the comment letter. The option of routing the Project through uptown and south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2. The suggested modified 3C would perform very similarly to the 3C-1 and 3C-2 alternatives. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the

rationale for the identification of the LPA. In general, that alignment alternative was dismissed from further study because it would be less cost effective and efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the LPA. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

Proposed Project Changes

- **Provide Better Reverse Commuter Service to Southwest Quadrant, with Improved Links to Low Income Neighborhoods (Part A: Item 5)**—Section 1.6 of the Final EIS Purpose and Need chapter documents the need to provide competitive, reliable transit options for transit dependent populations, including reverse commuters, as well as for choice transit riders. The Project will assist in creating more efficient links between the proposed light rail alignment and low income neighborhoods than currently exist (see Section 5.2 of the Final EIS describes the locations of minority and low-income populations along the proposed light rail alignment). The Council, Metro Transit, and SouthWest Transit collaborated to develop the 2040 bus operations plan associated with the Project. The plan, which includes new or restructured local bus routes connecting stations to regional and local destinations, will increase the hours and miles of bus service provided (see Section 2.1.1.3 of the Final EIS for more information). The increased transit service is expected to improve access between low income neighborhoods and the proposed light rail alignment. The transit operations included in the bus operations plan are those that are anticipated at this time. The actual service plans will be adopted prior to opening in 2020 and will be a result of a service planning process that complies with the Council's and SouthWest Transit's service planning policies, with federal requirements (e.g., Title VI), and a variety of external factors (e.g., transit demand, funding availability, public and agency comment).
- **Build Transit Hubs Linking Highways 100 and 169 to the LRT (Part A, Items 6 and 7)**—Links from Highway 100 to the LRT will be provided at the Beltline Station, which will include a park-and-ride lot. Links from Highway 169 to the LRT alignment will be provided at both the Downtown Hopkins and the Blake Station, both of which will provide park-and-ride lots.

Non-Project Proposed Changes

Your comment includes a number of proposals that do not meet the Project's purpose and need (described in Section 1.0 of the Final EIS) or fall outside of the Southwest transit corridor. In summary, the purpose of the Project is to improve transit travel to/from the Cities of Minneapolis, St Louis Park, Hopkins, Minnetonka, and Eden Prairie. Examples of your non-Project proposals include:

- Transit hubs, including Uptown, North, Convention, Greenway, and I-35 W, all linked by elevated bus-only transit ways and freeways and include park-and-ride ramps (Part A, Item 9; Part B, Item 14)
- High-frequency Service on West Broadway in North Minneapolis and one-stop freeway service from West Broadway and I-94 to Greenway and I-35W Hub (Part A, Item 8)
- High-frequency Service on Greenway (Part B, Item 15)
- High-frequency transit service on Lake Street, Franklin and Nicollet bus routes and other North-South routes (Part B, Item 17)
- Specially designed and equipped shopping buses with scheduled runs planned around LRT corridors to expand shopping opportunities, especially for transit-dependent communities in North and South Minneapolis (Part A, Item 10)
- Elevated, all season bicycle "sky-bi" system, connected to elevated bus transit ways (Part A, Item 11)
- Cancel the proposed Bottineau LRT (Part A, Item 13)
- Freeway-speed express bus service on I-35W (Part A, Item 16)
- Grid system of high-frequency bus service throughout I-494/I-694 beltway (Part B, Item 19)
- Subsidized Car2Go Service (Part A, Item 4)

Comment #	#132
Commenter	Becca Vargo Daggett
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for a light rail bridge over the existing switching wye.

Recommendation for light rail bridge over switching wye as alternative to a freight rail bridge

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*.

Comment #	#133
Commenter	George Puzak
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please refer to the response to comment 66.

Comment #	#134
Commenter	Craig Oberlander, Michael O'Leary
Commenter Organization	Idlewild Properties, LLC and Redstone American Grill, Inc.

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Chapter 2: Alternative Considered
- Chapter 3: Affected Environment, Impacts and Mitigation
- Eden Prairie Segment

Chapter 2: Alternative Considered

Your comments regarding Chapter 2 of the Supplemental Draft EIS state that Technology Drive is the best alignment for efficient operation, as recommended in the Draft EIS. During the Draft EIS public comment period, the City of Eden Prairie asked the Council to investigate the feasibility of a more centrally located and walkable Eden Prairie Town Center Station and associated light rail alignment that would provide better opportunities for transit-oriented development and redevelopment. The City noted that a light rail station within walking distance of the Eden Prairie Town Center (a regional shopping mall) would help meet the City's long-term economic development goals and provide higher ridership due to its proximity to concentrations of existing and future employment and commercial activity centers. Section 2.2 and Appendix F of the Final EIS describe the options evaluated through the design adjustment process and how those options were evaluated and screened. Based on design adjustments resulting from that process, which were identified by the Council in April 2014, the proposed light rail alignment in Eden Prairie (starting at SouthWest Station) will run on a new bridge over Technology Drive and Prairie Center Drive, then pass south of Lake Idlewild, generally via Eden Road, and follow the north side of Flying Cloud Drive over I 494. This design adjustment is consistent with the light rail alignment shown in the City of Eden Prairie's officially adopted Major Center Area Study (2006) (shown as LRT Alternative B) and Comprehensive Guide Plan (2009) and is the City of Eden Prairie's adopted route. As described in Section 2.2.5 of the Final EIS, in July 2015, the Council identified approximately \$250 million in scope and budget reductions for the Project, which included the deferral of the Eden Prairie Town Center Station and related roadway improvements (until after 2020 but before 2040). Theme F in Appendix L of the Final EIS includes additional information on the design adjustment process within Eden Prairie that occurred after publication of the Draft EIS.

Although deferred, the Eden Prairie Town Center Station is still planned to be in place by 2040 and is considered an element of the Project. In addition, it is considered a reasonably foreseeable future action as it is included in multiple locally adopted plans and policies (see Section 3.1). Therefore, the deferral of Eden Prairie Town Center Station does not warrant a reevaluation of the Technology Drive Alignment. Further, the Technology Drive alignment would not be compatible with the City of Eden Prairie's Comprehensive Guide Plan which is the locally adopted land use plan for the city.

Chapter 3: Affected Environment, Impacts and Mitigation

Land Use

Regarding the comment that the proposed alignment will acquire at least six more businesses than would be acquired by the Technology Drive alignment, both alignments impact a similar number of properties, although the Project alignment will result in a higher number of displaced businesses. Based on the level of design included in the Draft EIS, four privately owned parcels would have been impacted by the Technology Drive alignment between Prairie Center Drive and Flying Cloud Drive and there likely would not have been any displaced businesses. Under the Project alignment, approximately 10 businesses will be impacted in this area with eight businesses being acquired.

The design adjustment process the Council used to identify the Project's LRT alignment included considerations to avoid or minimize the Project's adverse environmental impacts and both land use and acquisition impacts were considered. While the nature of the businesses may be different, the land uses

between the Technology Drive alignment and the current Project alignment are similar in that both are primarily commercial use. Both alignments also impact a similar number of properties, although the current Project alignment will result in a higher number of displaced businesses.

Regarding your comment about there being more development opportunity along the Technology Drive alignment, the Project did consider indirect impacts related to potential station area development. While development and redevelopment in the land use study area is regulated by the affected local jurisdictions and is driven by regional and local economic conditions, light rail lines can advance the timing and increase the intensity of development, within the limits allowed by local comprehensive plans, particularly in areas surrounding a proposed station. Typically, indirect impacts related to redevelopment occur in the area within one-half mile of an LRT station as this is the generally accepted distance potential LRT riders are willing to walk to access a station. While there may be more vacant land along the Technology Drive alignment than the Project alignment, the land surrounding both areas would be within the station area for either alignment and therefore the Technology Drive alignment does not offer substantially higher redevelopment opportunity than the Project alignment.

Regarding your comments on potential future city projects within the vicinity of the Proposed Southwest LRT Project, the evaluation of environmental impacts for the Project includes reasonably foreseeable future actions (i.e., included in an approved local budget, plan, or policy) in the evaluation of cumulative impacts for the Project (see Section 3.17). The improvements to city roads and parks noted in your letter are generally not included in the evaluation of environmental impacts because they are not included in an approved local budget, plan, or policy, and, therefore, are outside of the scope of this Project and outside of the jurisdiction of the Council and FTA.

Parklands, Recreation Areas and Open Spaces

All parks, recreation areas, and open spaces within 350 feet of the Project have been documented in the Final EIS. While portions of Lake Idlewild are within 350 feet of the Project, these areas are not officially designated or planned by the City of Eden Prairie as park, recreation area, or open space which was the criteria used for inclusion of properties in the Supplemental Draft EIS (see Section 3.1.2.4) or the Final EIS (see Section 3.6.1). Lake Idlewild is not identified as a park or recreation area in the city's Comprehensive Guide Plan (locally approved land use plan) and is not included in the roster of community facilities listed in Comprehensive Guide Plan. The Comprehensive Guide Plan identifies this area as "Town Center" land use for the 2030 land use plan which is a designation for a future redevelopment area. Lake Idlewild is not shown in the Park and Open Space System Plan as an existing parkland or other (includes private recreation) and is not included in the city's official parks and trail map. FTA also evaluated Lake Idlewild as a potential Section 4(f) property. However, because Lake Idlewild is not officially designated or planned by the City of Eden Prairie (the official with jurisdiction for that property) as a public park or recreation area, nor is it officially designated as a publicly owned wildlife or waterfowl refuge or identified as a Section 106 historic resource, FTA has determined that Lake Idlewild is not a protected property under Section 4(f) (see 23 CFR 7744.1 and the Section 4(f) Policy Paper [FHWA]; July 2012 – pages 5-6, 23-24, and 57-58). See Chapter 6 of the Final EIS for additional information on Section 4(f).

The City of Eden Prairie's 2013 trail map shows the trail around Lake Idlewild as a "general trail," but does not specify the ownership of the trail (i.e., public or private). According to the Hennepin County property tax information database, the trail around Lake Idlewild is located on multiple private properties. Further, the LPA will not directly affect the trail around Lake Idlewild and there would be no change to connectivity for trail users. It is not anticipated that the Project would have noise or visual impacts to the trail around Lake Idlewild. The future Town Center Park would be located on land owned by Emerson Process Management Education Services, and is privately owned. It is not considered a Section 4(f) property. These areas would not be evaluated in the same manner as other publicly owned, publicly accessible parks, such as Purgatory Park. Impacts to planned/future resources, such as Town Center Park, are addressed in the Cumulative Impacts section (3.17) of the Final EIS which found no adverse impacts to this area. The City of Eden Prairie's *Strategic Plan for Housing and Economic Development* (October 2012) notes that implementation of zoning for the proposed park is awaiting the outcome of the Town Center LRT station alternatives analysis. The Official Map may be implemented when the light rail alignment is finalized, and land dedication is contingent on potential future development of the Emerson Rosemont property. The potential impact on the potential future park will not prompt the Council to

consider a revised alignment in Eden Prairie. Additional information on trails and the Project's potential impacts on them is found in Sections 3.6 and 4.5 of the Final EIS.

Eden Prairie Segment

Roadways and Traffic

Under the Project, signalized at-grade LRT crossings of roadways will operate with "traffic signal preemption" with active warning such as lights and gates, and not "traffic signal priority." Traffic signal priority means that traffic signals are coordinated to synchronize with light rail train movements to improve transit travel times; however, the trains may have to stop at the crossing for a short period when their traffic signal is red. Trains generally move at the same time as adjacent with traffic in a priority system.

Traffic signal preemption means that intersection traffic movements are controlled to allow the train to pass through without stopping. Signal preemption with automatic gates provides a higher level of control and safety at the at-grade crossings (i.e., gates block vehicles from entering the crossing). However, signal preemption can have a greater effect on roadway traffic operations. Traffic signal preemption was chosen for the Project based on requirements of the Manual of Uniform Traffic Control Devices (Section 8C.5), which states Highway-LRT grade crossings in semi-exclusive alignments should be equipped with automatic gates and flashing-light signals where LRT speeds exceed 35 mph. The Project will generally result in LRT speeds exceeding this threshold, and therefore the Project will include flashing-light signals, automatic gates, and traffic signal preemption at signalized at-grade LRT crossings of roadways. For consistency in crossing treatments and for safety, gated crossings are also included in this Project for crossings where LRT speeds are anticipated to be less than 35 mph. The traffic analysis performed for the Final EIS included preemption at crossings to understand the necessary roadway and traffic signal modifications to provide acceptable traffic levels of service in the build condition. The analysis and proposed roadway and traffic signal design advancement has been coordinated with the agencies for each crossing location, including MnDOT and the City of Eden Prairie.

Traffic operations for the Project in 2040 (average weekday) were evaluated based on overall intersection level of service (LOS) and traffic queues. The threshold for acceptable level of intersection operation is between LOS D and LOS E, with LOS A-D being considered acceptable, and LOS E-F unacceptable, during the peak hour. A Project impact related to traffic was identified if: (1) the overall intersection LOS will be E or F for the Project (2040) but would be LOS D or better for the No Build Alternative (2040); or (2) if an approach or movement for the Project (2040) will experience a queuing issue, but there would be no queuing issue at that location under the No Build Alternative (2040). In 2040, the proposed Eden Road/Eden extension, the main entrance to the Redstone property, will have a LOS C (20-35 seconds of delay) in the morning peak travel period and a D (35-55 seconds of delay) in the evening peak travel. See Final EIS Table 4-2.8.

Because the 2040 LOS at the main entrance to the Redstone property under both the No Build Alternative and under the Project is forecasted to be better than LOS E or F, the Project is not considered to have a traffic impact on that intersection. The Eden Road/Glen Road intersection, which is proposed to be converted to a T-intersection with the closure of the existing driveway to the Redstone property, is forecasted to have a LOS A in 2040 under the Project, like the existing LOS. See Appendix E in the Final EIS for the current design of the proposed light rail alignment and associated roadway improvements at the Redstone property, including a new driveway aligned with the restaurant entrance to replace the driveway that will be closed at the Glen Road intersection. Given that the Project will maintain driveway access to the property and that the property's main entrance will be at a signalized intersection with an acceptable LOS, the Project's traffic operations are not anticipated to create substantial adverse impacts on Redstone's ability to operate its restaurant at the property.

Regarding your comment on air quality impacts related to increased emissions from traffic delays, as described in Section 3.11 of the Final EIS, the air quality and greenhouse gases evaluation completed for the Project measured air quality at a regional level, based on the results of the travel demand forecasting completed for the Project. While the air quality analysis does not evaluate site specific air quality impacts, it does factor in increased vehicle delay as this delay is represented in the regional travel demand forecasts.

Parking

Since publication of the Supplemental Draft EIS, the light rail alignment within the vicinity of the proposed Eden Prairie Town Center Station has been refined to minimize impacts to the Redstone property. Refer to Final EIS Appendix E for engineering drawings showing the proposed changes in this area. With the design changes, the estimated number of off-street parking spaces lost has been reduced from 36 in the Supplemental Draft EIS to 10 (see Table 4.3-1 in the Final EIS). The owners of all property acquired by the Project, including parking spaces, will be compensated in accordance with federal state law (Uniform Relocation Act and MN Stat. 117).

FTA and the Council acknowledge the restaurant's desire not to lose any parking stalls, however currently no parking is allowed on either side of Eden Road. With the Project, 38 on-street spaces will be available in front of the restaurant and more on-street spaces will be available just east and west of the restaurant. Restaurant patrons parking on Eden Road could use the new sidewalk, cross the tracks, and enter the parking lot at the signalized Eden Road/Eden extension intersection.

To ensure the safety of restaurant patrons and employees entering and exiting the main parking lot entrance, there will be gates on both sides of the proposed tracks. The signalized intersection will prevent confusion about how to cross the tracks from the parking lot and enter Eden Road, and the gates will prevent train-car conflicts. In addition, the Project will include construction of an approximately 170-foot retaining wall for a portion of space between the Project alignment and the Redstone parking lot to account for differences in grade and to provide a barrier between the parking lot and the LRT alignment. The Project will also install fencing between the Project alignment and the Redstone parking lot. Refer to the section above in this response (Roadways and Traffic) for responses to your concerns regarding potential impacts to the Redstone driveways. The travel speed of LRT in this area is approximately 35 mph (see Section 3.12.3.1 of the Final EIS). Impacts to the Redstone property will continue to be evaluated as part of the final design process.

Noise Analysis

The existing noise levels measured at locations such as N24 and N25 are the actual noise levels in the area without the Project. The Project noise level is just for the Project, not the future noise with the existing and Project noise combined. The Project noise level takes into account all noise sources from LRT operations, including bells at crossings and stations. It also includes the speed and distance to any sensitive receptors. The FTA noise impact criteria levels are based on the existing noise levels and the Project noise (not total future noise) is compared to the criteria to determine impact. The Final EIS includes information regarding the change in noise levels from the existing to the future, due to the introduction of the Project.

The noise levels shown in the fact sheets are maximum noise levels for an event. This information is used to calculate the Ldn (day night sound level), which is what is included in the assessment. The Ldn is a cumulative noise level that takes into account how loud events are, how often they occur, how long they occur, and when they occur (day vs night, with a penalty for nighttime noise). Maximum noise levels cannot be compared to an Ldn; they are different descriptors.

The Final EIS noise analysis took into account noise from horn and bell operations at all at-grade crossings near sensitive land uses based on operational use of horns and bells at each at-grade crossing (see Appendix K for additional information).

The dominant noise source on a LRT vehicle is the wheel rail noise. The noise from the steel wheels rolling on the steel rail changes with speed and was accounted for in the impact assessment. Acceleration and braking are also considered in the impact assessment; however, they are not the dominant noise sources. The noise from pedestrian signals would not change the noise analysis results, as these noise levels are much lower than other sources, such as LRT pass-bys, and would not add to the overall noise levels.

The FTA does not consider commercial land uses to be noise sensitive unless the use is specifically noise sensitive, such as a recording studio or audiologist. Because commercial land uses are not considered noise sensitive, the Council has not conducted a noise impact assessment of the Redstone property.

Visual Quality and Aesthetics

In the Final EIS, Supplemental Draft EIS Viewpoint 9 is Viewpoint 4. In analyzing the impacts for this viewshed, a simulation was prepared to depict the Project's design, including removal of trees along Eden Road and the opening up of the views from the road toward the restaurant and the surrounding parking lot. Based on review of the simulation, the Council and FTA determined in the Final EIS that for this viewshed, the Project would create a moderate level of visual change, and that taking the moderate level of visual sensitivity in account, the overall level of visual impact would be Moderate. See Final EIS Section 3.7.4.1 for more information.

The Viewpoint 4 simulation shows that the most important visual effects of the Project in this view will be to eliminate the heavy tree cover along the street and to introduce the proposed LRT tracks, fencing, and catenaries into the area adjacent to the street's north side. Because of the proposed LRT's distance from Lake Idlewild, and because the Project will not remove trees or add infrastructure near the lake, its impacts on views toward the lake will be limited.

Safety and Security

Design changes after publication of the Supplemental Draft EIS address the safety concerns raised in your letter. Specifically, the proposed signalized Eden Road/Eden Road extension intersection, which will serve the restaurant's relocated west entrance, will have gates on both sides of the track to prevent conflicts among trains, vehicles, and pedestrians. See Final EIS Appendix E for the design of the proposed light rail alignment and associated roadway improvements in the area of the restaurant. Further, the Eden Road/Glen Road intersection has been redesigned to be a T intersection and will no longer serve the restaurant's parking lot thus eliminating a potential conflict point with the proposed LRT alignment. There will be a sidewalk on both sides of Eden Road adjacent to the restaurant's parking lot. The sidewalks will provide access to the signalized Eden Road/Eden extension intersection providing safe access to the restaurant parking lot.

Summary

The FTA and the Council determined that design adjustments made to the LPA following publication of the Draft EIS had the potential to result in new adverse impacts as described below and needed to be evaluated in a Supplemental Draft EIS.

These design adjustments to LRT 3A and LRT 3A-1 were screened by FTA and the Council to determine whether they individually or collectively warranted evaluation in terms of social, environmental, economic, and transportation impacts under NEPA. The Project team, in coordination with FTA staff, reviewed each of the design adjustments to identify any substantive changes to LRT 3A and LRT 3A-1 not addressed in the Draft EIS. The review was based on NEPA and MEPA environmental review procedures to determine whether Project adjustments were substantial enough to warrant detailed study in the Supplemental Draft EIS (40 CFR 1502.9l and Minn. R. 4410.3000, subparts 3 and 5, respectively). During this process, the design adjustments were reviewed and screened based on the following questions:

- Do the design adjustments under evaluation introduce new alternatives not identified in the Draft EIS that meet the Project's purpose and need?
- Would the design adjustments likely cause new significant adverse impacts not disclosed in the Draft EIS?

Based on this assessment of adjustments made to LRT 3A and LRT 3A-1 since publication of the Draft EIS, FTA and the Council determined that there were no new reasonable alternatives identified through the design adjustment process that would meet the Project's Purpose and Need (see Chapter 1 of the Supplemental Draft EIS). However, because of the potential for new significant adverse impacts in the Eden Prairie Segment, the Hopkins OMF, and the St. Louis Park/Minneapolis Segment that were not addressed in the Draft EIS, FTA and the Council also determined that the proposed adjustments in these areas should be evaluated in a Supplemental Draft EIS. See Section 2.2 of the Final EIS for a description of these design changes

Wetland South of Costco

In the area south of the Costco Property, the Project will include a structure that will avoid impacts to the existing drainage pond within area.

Comment #	#135
Commenter	Kevin Kuemmel
Commenter Organization	None

Response

Thank you for your comment on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Project.

See *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*

Comment #	#136
Commenter	Angie Erdrich
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization in addition to the comments you have previously submitted. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right* and the response to comment 116 for a response to your previously submitted comment.

Comment #	#137
Commenter	Richard Weiblen
Commenter Organization	Liberty Property Trust

Response

Duplicate comment – please see the response to comment 109.

Comment #	#138
Commenter	Joan Vanhala
Commenter Organization	Alliance for Metropolitan Stability (AMS)

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents several comments concerning the alignment of the Project through Eden Prairie and equitable development.

As noted in your letter, residents and employees in the Eden Prairie Town Center Station area will benefit from increased access to transit service; improved access to employment, educational, recreational, shopping, and cultural opportunities; and increased employment opportunities due to a greater number of commercial and residential businesses that are planned within the study area, which will result in positive economic gains in the form of increased wages and spending. Your letter also notes that the area surrounding the Eden Prairie Town Center Station has a concentration of environmental justice populations. These populations are shown in the Environmental Justice analysis of the Final EIS (see Chapter 5).

In regard to your concern regarding the planned deferral of the Eden Prairie Town Center Station, as described in Section 2.1.1, the Eden Prairie Town Center Station and associated roadway improvements are deferred and are not expected to be in place when the Project opens in 2020, however the station and associated roadway improvements are planned to be in place by 2040.

The overall process used to identify stations to be deferred or eliminated from the Project that occurred after publication of the Supplemental Draft EIS and that process is described in Section 2.2.5, Design Adjustments after Publication of the Supplemental Draft EIS, of the Final EIS. In particular, changes to the design were identified to better avoid impacts, integrate mitigation measures, and allow for cost reductions associated with the Project. On April 27, 2015, the Council released a revised Project cost estimate of approximately \$1.994 billion – an approximately \$341 million increase over the year-of-expenditure budget prior to that time. To address the revised Project cost estimate, the Council's CMC and Project staff developed and evaluated a variety of options to, in consultation with the Project's local participating jurisdictions. The evaluation of options focused on three key criteria: cost savings incurred; Project ridership; local jurisdiction consensus. CMC meetings held on May 20, June 3, June 24, and July 1, 2015, included review, discussion, and evaluation of the various options developed, which resulted in a recommendation by the CMC to the Council on July 1, 2015. Related recommendations to the Council were also adopted by the BAC and CAC on June 17 and June 30, 2015, respectively. On July 8, 2015, the Metropolitan Council adopted design adjustments to address the increased cost estimates. In doing so, the Council considered recommendations from the CMC, BAC, and CAC. In summary, the Council identified \$250 million in reductions to the Project's scope and budget. The reductions in the Project's scope included: the elimination of the Mitchell Station (which was identified as an option in the Supplemental Draft EIS) and deferral of the Eden Prairie Town Center Station (until after 2020 and before 2040); the reduction of five new light rail vehicles; the reduction of park-and-ride capacity from 3,834 spaces to 2,487 spaces; the reduction in the size of the proposed Hopkins OMF (with future expansion capacity on-site); elimination of station artwork; and reductions in landscaping and off-platform station furnishings. The identified cost savings measures were identified, developed, and analyzed in consultation with the Project's local participating agencies. In addition to the reductions in scope and budget, the Council committed to seek approximately \$90 million in additional funds to cover the remaining short-fall.

That process and the outcome represent a thorough and measured approach to determining changes to the Project's scope, including the evaluation and identification of changes to the Project's proposed light rail stations. The question of eliminated or deferred stations was deliberated by the CMC at each of its four meetings during this process. During that process, the following stations, from southwest to northeast, were identified for potential deferral or deletion: Mitchell; Eden Prairie Town Center Station; Royalston; Penn; ²1st Street. The process also evaluated a variety of changes at a variety of proposed light rail stations, some station-specific and some corridor-wide. For example, the following adjustments to

stations were considered within the process of scope modifications to reduce costs: delete joint development at the proposed Blake Station; project-wide reduction of station furnishing; project-wide reduction or elimination of station art-work; removal or reduction in the capacity of associated park-and-ride lots; alternate locations for the Eden Prairie Town Center Station, including for scenarios that would terminate the line at that station.

The scope of the elements to be developed and evaluated was initiated and overseen by the Project Stakeholders (i.e., the City and County representatives). Within the context of the overall process to consider a wide range of design changes, including changes to proposed stations, the evaluation process used three criteria previously mentioned: cost savings incurred; Project ridership; local jurisdiction consensus. Additional metrics used specifically to evaluate station deletions and deferrals included the following: change to the Project's New Starts cost-effectiveness rating (which could affect the ability of the Project to compete for Federal funds under the FTA's Capital Investment Grant program); and for the half-mile station area, transit dependent riders, developable acreage, access to jobs and population served as a percent retained. The potential design adjustments to the Project and the metrics, process, and schedule to be used to identify those to be incorporated into the Project were first described at the May 20, 2015, CMC meeting. Initial draft metrics on some of those design adjustments was also presented to the CMC at that meeting. At the June 3, 2015, CMC meeting, in addition to updated metrics on the various design adjustments under consideration, the City of Eden Prairie also provided additional information about the demographic and other characteristics of the SouthWest and Eden Prairie Town Center station areas that were considered in the evaluation. Metrics comparing all of the Project's proposed stations were provided at the June 24, 2015, meeting of the CMC (including metrics relevant to environmental justice populations). Those metrics included the following: total population; minority population; people in poverty; jobs; and developable acres. The Eden Prairie Town Center Station was identified as having the seventh highest minority population and the second to last lowest number of people in poverty. The assessment of impacts of deferring the station also considered overlapping station areas, including the overlap between the SouthWest and Eden Prairie Town Center Stations.

While the environmental justice populations within close proximity will not receive the benefits of the Eden Prairie Town Center station when the Project opens in 2020, the station is planned to be in place by 2040. Further, many of the residents that would use the Eden Prairie Town Center Station will also have access to the proposed SouthWest Station, which is approximately one half mile to the west of the Eden Prairie Town Center Station. For example, the walk distance (using public trails and sidewalks) between the northern area of Broadmore Apartments at the intersection of Columbine Road and Prairie Center Drive to the SouthWest Station would be approximately 200 feet (or less than one block) longer than it would be to the Eden Prairie Town Center Station. This broad array of options and criteria/metrics, as well as recommendations from the BAC and CAC, was used by the CMC and Council in identifying the design adjustments that would meet the Project's cost reduction needs, balancing both reductions in scope and identifying new revenue sources.

Regarding your comments on development guidelines for Eden Prairie Town Center area, development and development guidelines are regulated by the affected local jurisdictions and are driven by regional and local economic conditions and are therefore outside of the jurisdiction of the Council and FTA. However, to fully leverage development potential and to support local land use goals, Hennepin County, in partnership with the Council, and the Cities of Eden Prairie, Minnetonka, Hopkins, St. Louis Park, Edina and Minneapolis, undertook a station area planning effort, which includes development guidelines for each station.

Comment #	#139
Commenter	Mark Wegner
Commenter Organization	Twin Cities & Western Railroad Company

Response

Duplicate comment – please see the response to comment 110.

Comment #	#140
Commenter	Cherie Hamilton
Commenter Organization	Calhoun Isles Condominium Association

Response

Duplicate comment – please see the response to comment 121.

Comment #	#141
Commenter	Dale Bachman
Commenter Organization	Bachman's Inc

Response

Duplicate comment - please see the response to comment 113.

Comment #	#142
Commenter	Rick Getschow
Commenter Organization	City of Eden Prairie

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (Supplemental Draft EIS). The sections that follow include response(s) to these comments.

- Support for the Supplemental Draft EIS LRT alignment which includes a Mitchell Station and an Eden Prairie Town Center Station
- Coordination of services with SouthWest Transit
- Bridge design and visual impacts and aesthetics
- Minimization or elimination of impacts to Purgatory Creek Park
- Grade separated crossing of Valley View Road at Flying Cloud Drive
- Modification of Project elements after publication of the Supplemental Draft EIS
- Location and Placement of TPSS and other equipment
- Minimize Impacts to Businesses, Residences, and Properties
- Land Use
- Evaluation of remaining sites of archeological potential
- Updated Wellhead Protection Plan (WPP)
- Water resources
- Noise
- Roadway and traffic impacts
- Parking impacts
- Bicycle and pedestrian facilities
- Interruption of water and sanitary sewer services

Support for the Supplemental Draft EIS LRT alignment which includes a Mitchell Station and an Eden Prairie Town Center Station

During the Draft EIS public comment period, the City of Eden Prairie asked the Council to investigate the feasibility of a more centrally located and walkable Eden Prairie Town Center Station and associated light rail alignment that would provide better opportunities for transit-oriented development and redevelopment. The City noted that a light rail station within walking distance of the Eden Prairie Town Center (a regional shopping mall) would help meet the City's long-term economic development goals and provide higher ridership due to its proximity to concentrations of existing and future employment and commercial activity centers. For similar reasons, the City also asked the Council to evaluate a location for the Mitchell Station south along Technology Drive, somewhere between Mitchell and Wallace Roads, additionally noting that this location for a park-and-ride lot may be better positioned to intercept automobile traffic coming from the west.

The design adjustment process also resulted in a change to the proposed light rail alignment in Eden Prairie along Flying Cloud Drive, northeast of I-494. Within the Draft EIS, the light rail alignment would have crossed over Flying Cloud Drive on a new bridge, immediately north of I-494. Section 2.2 and Appendix F of the Final EIS describe the options evaluated through the design adjustment process and how those options were evaluated and screened.

Based on design adjustments resulting from that process, which were identified by the Council in April 2014, the proposed light rail alignment in Eden Prairie will run on a new bridge over Technology Drive and Prairie Center Drive, then pass south of Lake Idlewild, and follow the north side of Flying Cloud Drive over I-494. Running on the south side of Highway 212, the light rail tracks will go over Flying Cloud Drive and Valley View Road on new bridge. The light rail alignment west of SouthWest Station was adjusted south to Technology Drive, to a proposed Mitchell Station on the south side of Technology Drive, west of Mitchell Road. The Project's Supplemental Draft EIS, published in May 2015, was based on the design

adjustments identified by the Council in 2014 (including a potential southwest terminus at SouthWest Station, rather than Mitchell Road).

On April 27, 2015, the Council released a revised and increased Project cost estimate. To address the increased Project cost estimate, the Council's Southwest LRT Corridor Management Committee (CMC) and Project staff developed and evaluated a variety of options aimed at lowering Project costs, in consultation with the Project's local participating jurisdictions. The evaluation of options focused on three key criteria: cost savings incurred; Project ridership; and local jurisdiction consensus. CMC meetings held on May 20, June 3, June 24, and July 1, 2015 included review, discussion, and evaluation of the various options developed, which resulted in a recommendation by the CMC to the Council on July 1, 2015. On July 8, 2015, the Metropolitan Council adopted design adjustments to address the increased cost estimates. In doing so, the Council considered recommendations from the CMC, the Southwest LRT Business Advisory Committee (BAC), and the Southwest LRT Community Advisory Committee (CAC). In summary, the Council identified \$250 million in reductions to the Project's scope and budget. The reductions in the Project's scope included: the elimination of Mitchell Station and deferral of the Eden Prairie Town Center Station and related roadway improvements (until after 2020 but before 2040); the elimination of five new light rail vehicles from the Southwest LRT fleet; a reduction in the Project-wide park-and-ride lot capacity (including elimination of the proposed park-and-ride lot at the proposed Eden Prairie Town Center Station); the reduction in the size of the proposed Hopkins OMF (with future expansion capacity on-site); elimination of station artwork; and reductions in landscaping and off-platform station furnishings. The cost savings measures were identified, developed, and analyzed in consultation with the Project's local participating agencies, including the City of Eden Prairie.

The Final EIS is based on the definition of the Project included in Section 2.1 and illustrated in Appendix E of the Final EIS, which reflects the design adjustments within the City of Eden Prairie identified by the Council in April 2014 and July 2015. Appendix E of the Final EIS illustrates the Project with and without the Eden Prairie Town Center Station and associated roadway improvements. See Section 2.1.1 of the Final EIS.

Coordination of services with SouthWest Transit

Regarding your comment that design of the Project must complement and be coordinated with the services offered by SouthWest Transit, the Council has and will continue to coordinate with SouthWest Transit regarding future SouthWest Transit service, relative to the Project. The conceptual bus service plan for SouthWest Transit with the implementation of the Project includes the provision of new local bus routes to provide enhanced access to the proposed SouthWest and Golden Triangle Stations. Existing SouthWest Transit routes will generally remain unchanged with the Project. The final service plan for SouthWest Transit is subject to change as the design of the Project advances (refer to Section 4.1.3 for more information on corridor bus routes with the Project).

In addition, the design for the SouthWest Station and to minimize short-term construction impacts. A Construction Communication Plan will be developed to prepare Metro Transit and SouthWest Transit riders, and Project-area residents, businesses, and commuters for construction; listen to their concerns; and develop plans to minimize disruptive effects.

The Council further notes your comment to include the City of Eden Prairie as a partner to communicate with businesses, residents, and property owners along the Project corridor during construction to minimize and mitigate design and construction impacts. As noted above, the Construction Communication Plan, in addition to a construction staging plan, will be implemented by the Council prior to and during construction. Refer to Section 3.3 of the Final EIS for more detail.

Bridge Design and visual impacts and aesthetics

There were a number of comments relating to visual and aesthetic impacts. The Final EIS includes an updated assessment of potential impacts to visual quality and aesthetics related to the Project. Refer to Section 3.7 of the Final EIS for more information. The following responses to specific comments related to visual and aesthetic impacts:

- **Light rail bridge adjacent to Purgatory Creek Park.** The Council notes your comment that the light rail bridge will be a primary visual component of the park once constructed and therefore must be included in the Project costs and designed with appropriate context to complement the park setting

and experience. As noted in Section 3.7, the change to the level of visual quality will be high in this area. Given the high degree of change to the visual quality of this view and the moderate sensitivity of the roadway users in this area, the overall level of impact is moderate. The Council has prepared design guidelines for key structures throughout the proposed light rail alignment, focusing on bridges and retaining walls. Those guidelines are included within the Visual Quality Guidelines for Key Structures (Council, 2015 – see Appendix C for instructions on how to access the report). These guidelines were developed by the Council, reflecting various site contexts and conditions along the corridor. These Guidelines were reviewed and commented on by affected local jurisdictions, including the City of Eden Prairie. The guidelines have been used by the Council in preparing design plans to date. The process leading to the guidelines included vetting of a range of concepts with effected local jurisdictions. The guidelines have and will help to ensure a consistent aesthetic element for key structures throughout the proposed light rail alignment, while allowing for some flexibility in wall treatments. In addition, the Project includes a locally requested capital investment (LRCI), as requested by the City of Eden Prairie, to upgrade the level of aesthetic treatment of this bridge beyond the bridge elements typically included in the base project.

The Council further notes your comment that the aesthetic treatment of the bridge should be included in the base Project costs and existing impacted amenities, such as the park's entry area and signage board, must be restored to a similar or better condition. Bridge will be designed in accordance with the Visual Quality Guidelines for Key Structures, and are included in the cost estimate for the Project. Additional aesthetic treatment for the bridge would be considered a Locally Requested Capital Investment (LRCI). As shown in Section 7.1.3, the capital cost estimates include year of expenditure costs for both the Locally Preferred Alternative (LPA) and LRCIs. As described in Section 7.1.4 funding for LRCIs are the responsibility of the LRCI sponsors and not included in the base costs for the LPA.

- **Coordination of aesthetics and design.** As described above, the process leading to the development of the Visual Quality Guidelines for Key Structures (Council, 2015 – see Appendix C for instructions on how to access the report) included coordination with local jurisdictions. In addition, in April 2015 the Council held a series of open houses in communities along the Southwest LRT route (including in Eden Prairie) to share station architecture concepts and get public input on station design issues. The Council will continue to coordinate with Eden Prairie on final design options for stations within the City's jurisdiction.
- **Disagree with level of visual and aesthetic impact.** The visual resources analysis was prepared using the standardized approach for visual impact assessment documented in the FHWA's Visual Impact Assessment of Highway Projects (FHWA, 1988). The FHWA developed this method in response to NEPA requirements that consideration be given to the impacts that proposed federal actions or Projects are likely to have on the environment's visual quality and it was designed to assess visual quality impacts using a systematic and objective approach. The FHWA analysis method was selected to evaluate this Project's visual effects because the FTA does not have a visual impact assessment methodology of its own. The FHWA methodology is well established and widely accepted for the assessment of visual impacts and is well suited to assess the visual impacts of linear transportation facilities located in urban areas.

In addition, since the publication of the Supplemental Draft EIS, the Council has coordinated with the City of Eden Prairie to revise the overall level of impact from low to moderate for three viewpoints within Eden Prairie, to better represent key visual analysis units for the visual quality and aesthetics evaluation included in the Final EIS. This includes revisions to viewpoints 2, 3, and 4 as described in Section 3.7.3 of the Final EIS (viewpoints 5, 7, and 9, respectively from the Supplemental Draft EIS).

As described in Section 3.7.4 of the Final EIS, a total of five viewpoints within the City of Eden Prairie were assessed. Of these, two will have a low level of impact, two will have a moderate impact, and one will have a substantial impact. Section 3.7.5 describes mitigation measures that will be implemented with the Project. As described above, to mitigate visual quality impacts, the Council has prepared design guidelines for key structures throughout the proposed light rail alignment.

Minimization or elimination of impacts to Purgatory Creek Park

Purgatory Creek Park is a designated 4(f) property. As described in Section 3.6, the Project will result in no long-term direct impacts to Purgatory Creek Park. Long-term indirect impacts include changes to visual setting due to installation of elevated LRT line adjacent to park with no related long-term adverse effects to the park. Short-term construction impacts will include acquisition of temporary construction easement; temporary changes to access, noise, and visual setting conditions during construction.

As documented in the Final Section 4(f) Evaluation, FTA and the Council have determined that a temporary occupancy of Purgatory Creek Park will occur during construction; the City of Eden Prairie has concurred with this finding. FTA, the City of Eden Prairie, and the Council have initiated efforts to help avoid, minimize, and mitigate impacts to Purgatory Creek Park, including participation in coordination meetings. A Construction Communication Plan will be developed that will include coordination with the park owners, advance notice of construction activities, and highlighting road, sidewalk, and trail closures and detour routes. Areas and features of parks and recreation areas that are altered or disturbed as the result of construction activities will be restored to conditions that are in accordance with direction received from the jurisdictional owner.

Grade-separated crossing of Valley View Road at Flying Cloud Drive

While the curve in this location cannot be completely eliminated, the Project has been designed to minimize impacts by reducing curves to the greatest extent possible (see Sheet 3 in Appendix E of the Final EIS for drawing of the grade separated alignment at Valley View Road). The Project has been designed for conformity with engineering standards and industry practices, including the Metro Light Rail Transit Design Criteria (Council, 2015). Excess right-of-way has been preserved to the extent possible. Right-of-way acquired for the Project that is needed after construction of the Project is complete would be considered as remnant parcel(s). Remnant parcels could be sold in compliance with FTA Circular 5010.1D (FTA, 2008a) and applicable state regulations and could be available for future development, at the discretion of the property owner, and within the limits allowed by local land use controls.

Modification of Project elements after publication of the Supplemental Draft EIS

Section 2.2.5 of the Final EIS addresses design adjustments made to the Project after publication of the Supplemental Draft EIS. These include Project changes made as the Council advanced the level of design detail for the Project, which provided a better understanding of design, impacts, and avoidance, minimization, and mitigation measures. Changes to the design were made to better avoid impacts, integrate mitigation measures, and allow for cost reductions to the Project. During the spring and summer of 2015, the Council's Corridor Management Committee and Project staff developed and evaluated a variety of options to, in consultation with the Project's local participation jurisdiction, to address three key criteria: cost savings incurred; Project ridership; local jurisdiction consensus. On July 8, 2015, the Council adopted design adjustments to address Project costs. Within the City of Eden Prairie, these adjustments included: the elimination of the Mitchell Station (which was identified as an option in the Supplemental Draft EIS) and deferral of the Eden Prairie Town Center Station (until after 2020 and before 2040).

Also included in this action were: the reduction of five new light rail vehicles; the reduction of park-and-ride capacity from 3,834 spaces to 2,487 spaces; the reduction in the size of the proposed Hopkins OMF (with future expansion capacity on-site); elimination of station artwork; and reductions in landscaping and off-platform station furnishings. The identified cost savings measures were identified, developed, and analyzed in consultation with the Project's local participating agencies.

Major changes to the Project that resulted from ongoing design advancement are subject to additional analyses. The changes identified above are included in the environmental analyses conducted for the Final EIS. Specifically, the sections below address the analyses for traffic patterns and parking demand in light of the revised Project since completion of the Supplemental Draft EIS:

- Section 4.2 addresses roadway and traffic issues;
- Section 4.3 addresses parking;
- Section 4.5 addresses pedestrian and bicycle issues, including trails.

Location and Placement of Traction Power Sub-Stations (TPSS), Signal Bungalows, and Other LRT Accessories and Equipment Sites

The Project has met with the city to discuss the Project alignment and the placement of LRT facilities, including TPSS sites. TPSS and other LRT accessory locations, which are subject to change during Engineering, were selected for operational reasons and to minimize impacts to sensitive receptors. Efforts were made to select sites that are on underutilized land, such as surface parking lots.

Minimize Impacts to Businesses, Residences, and Properties

The Project has been designed to minimize impacts to private property to the greatest extent possible. While there are no displacements of residential properties related to the Project, the Project will result in some acquisition of private property within the City of Eden Prairie, including some acquisition of off-street parking spaces for businesses. The Council has, and will continue to, coordinate with the City on these impacts.

Property owners will be compensated for any property acquired for the Project, including the loss of off-street parking, in accordance with the Uniform Relocation and Real Property Acquisitions Policies Act. The objective of the Uniform Relocation Act and MN Stat. 117 which sets forth requirements for acquisition of land, compensation, and uniform relocation benefits. See Final EIS Section 3.4 for more information.

Mitigation measures for short-term impacts related to construction activities will be identified in the Construction Mitigation Plan and Construction Communication Plan which will be implemented by the Council prior to and during construction. The purpose of the Construction Communication Plan is to prepare project-area residents, businesses, and commuters for construction; listen to their concerns; and develop plans to minimize harmful or disruptive effects. Mitigation measures may include:

- Issue and distribute regular construction updates;
- Provide advance notice of roadway closures, driveway closures, and utility shutoffs;
- Conduct public construction meetings;
- Establish a 24-hour construction hotline;
- Prepare communication materials with applicable construction information
- Address property access issues; and
- Assign staff to serve as liaisons between the public and contractors during construction (Source: Council, 2015a. *Communications and Public Involvement Plan (CPIP)*. See Final EIS Appendix C for instructions on how to access this document).

Land Use

The comments on the land use section in the Supplemental Draft EIS have been addressed in the Final EIS, as appropriate. As shown in Section 3.1.2.1, the description of planned land uses in the Final EIS includes a general, corridor-wide description and doesn't include specific text for each city (such as the planned land uses for the eastern portion of Eden Prairie and a description of local zoning ordinances). As described in previous section of this response, the design of the Project has been advanced since the publication of the Supplemental Draft EIS, and Mitchell Station is no longer included. As such, a detailed description of the land uses surrounding Mitchell Station (including the revisions from your comment) is not included in the Final EIS.

Evaluation of remaining sites of archeological potential

A Phase I field investigation of Areas A and B was completed and the survey report submitted to the Minnesota Historic Preservation Office (MnHPO) in May 2015, which precluded its inclusion in the May 2015 Supplemental Draft EIS. The report is included in the *Cultural Resources Evaluation Supporting Documentation Technical Memorandum* (see Appendix C in the Final EIS for instructions on how to access the technical memorandum). The Phase I investigation identified no archaeological resources within the areas in Eden Prairie.

Based on design adjustments made to the Project after publication of the Supplemental Draft EIS, including the elimination of the Mitchell Station, the archaeological APE for the Project was revised. The

Archaeological Areas of Potential Effect used for the City of Eden Prairie is shown on Exhibit 3.5-4 in the Final EIS. No NRHP-eligible archaeological sites were identified within the Project's archaeological APE within the City of Eden Prairie.

Updated Wellhead Protection Plan (WPP)

The evaluation of groundwater resources documented in Section 3.8 of the Final EIS was developed based on the most recent WPP for the City of Eden Prairie as suggested in your comment letter.

Water resources

There were a number of comments related to water resources. The Final EIS includes an updated assessment of potential impacts to water resources related to the Project. Refer to Section 3.9 for more information. The following are responses to specific comments related to water resources:

- **Incorporation of watershed district modeling findings.** Section 3.9 of the Final EIS documents that locally approved methods, including from Nine Mile Creek and Riley Purgatory Bluff Creek Watershed Districts, were used for the Final EISs to quantify and map locally regulated floodplains that are located within the floodplains study area. The Southwest LRT Project Office is coordinating the Riley Purgatory Bluff Creek Watershed District and Nine Mile Creek Watershed District to utilize their most current hydraulic/hydrologic models to estimate the floodplain elevation and floodplain fill volume

Section 3.9.5.3 in the Final EIS notes that, “the Project has been designed in compliance with EOs 11988 and 13690; therefore, floodplain impacts have been minimized to the greatest practicable extent and tracks and structures associated with the Project will be built above the applicable FFRMS elevations. Details regarding impact minimization measures and the specific Project design elevations and associated FFRMS elevations are included in the *Executive Order 13690 Summary and Recommendations* and *Executive Order 11988 Summary and Recommendations* (located in the *Surface Water Resources Evaluation Supporting Documentation Technical Memorandum* [see Appendix C in Final EIS for instructions on how to access supporting documentation]).”
- **Clarification regarding definition of public watercourses.** The Supplemental Draft EIS did not include the term “watercourses” as stated in the comment. The Supplemental Draft EIS and Final EIS do include an evaluation of water resources. As described in Section 3.9, the evaluation of surface water resources includes separate analyses for wetlands, and public waters and surface waters. These terms are defined in Sections 3.9.2.1 and 3.9.2.2, respectively. Table 3.9-1 in the Final EIS includes a summary of regulatory agencies with jurisdiction of surface water resources, including MnDNR.
- **Clarification regarding partial and full wetland fill.** Table 3.9-4 in Section 3.9 of the Final EIS provides information regarding the size of each impacted wetland, as well as how many square feet of each wetland will be directly impacted or filled. In addition, the Council notes your comments on the need for the distinction between the two wetlands (northern and southern) related to Purgatory Creek. The description of wetlands has been updated and is accurately described in Table 3.9-4.
- **Map error regarding DIG-EP-EP-04.** This error has been corrected for the Final EIS (see Exhibit 3.9-2).
- **Floodplain Impact Calculations.** The Supplemental Draft EIS calculated floodplain impacts based on FEMA floodplain maps. The Final EIS used locally approved methods to quantify and map locally regulated floodplains that are located within the floodplains study area. Section 3.9.1.3 of the Final EIS documents that locally approved methods, including from Nine Mile Creek and Riley Purgatory Bluff Creek Watershed Districts, were used for the Final EIS to quantify and map locally regulated floodplains that are located within the floodplains study area. The Southwest LRT Project Office is coordinating with the Riley Purgatory Bluff Creek Watershed District and Nine Mile Creek Watershed District to utilize their most current hydraulic/hydrologic models to estimate the floodplain elevation and floodplain fill volume.
- **Descriptive error regarding Purgatory Creek and EP-EP 15 and EP-EP-17.** This has been updated in the Final EIS (see Table 3.9-2).

- **Clarification regarding separate regulations and programs for the city and Riley Purgatory Bluff Creek Watershed District.** This has been corrected in the Final EIS (see Table 3.9-1)
- **MnDNR-certified erosion and sediment control specialist.** The Council notes your comment that such a control specialist should be a University of Minnesota-certified and/or MPCA-approved erosion and sediment specialist. The technical analyst responsible for this task will have all required certifications.
- **Compensatory mitigation plan submittal to local governments units.** The Council will follow the appropriate review and permitting requirements. See Section 3.9.6 in the Final EIS for additional information regarding mitigation measures.

Noise

Since the publication of the Supplemental Draft EIS, the design of the Project has advanced and the proposed LRT operating assumptions updated. The revised operating assumptions, as well as an updated noise impact assessment and applicable mitigation measures, are included in Section 3.12 of the Final EIS.

Roadway and traffic impacts

There were a number of comments related to roadway and traffic impacts. The Final EIS includes an updated assessment of potential impacts to roadways and traffic related to the Project. Refer to Section 4.2 for more information. The following are responses to specific comments related to roadway and traffic impacts:

- **Mitigation measures regarding intersection level-of-service.** The City's letter indicates that several intersections are expected to operate at unacceptable LOS (E or F) in the build condition without mitigation. Since the publication of the Supplemental Draft EIS, the design of the Project has advanced to include a more detailed traffic operations analysis.

As described in Section 4.2, the Project includes roadway and intersection improvements to avoid new or worsened congested intersections (defined as LOS E and F), compared to the No Build Alternative in 2040, and the proposed improvements are reflected in the traffic operations analysis. Table 4.2-2 in the Final EIS summarizes intersection LOS for average weekday a.m. and p.m. peak hours, under existing conditions and year 2040 conditions for the No Build Alternative and the Project.

In summary, of the 25 intersections analyzed within the City of Eden Prairie, no intersections that would operate at LOS A to D under the No Build Alternative will operate at LOS E or F under the Project. Five intersections within the Project area would operate at LOS E or F under the No Build Alternative will continue to operate at LOS E or F under the Project.

No mitigation measures are warranted for long-term impacts to roadways and traffic because there will be no adverse impacts, due to the effectiveness of identified avoidance measures.

For a detailed description of the traffic operations analysis for the Project, including a description of the location of traffic movements with queuing issues, refer to the *PEC-West Traffic Memorandum (2015)* and *PEC-East Traffic Memorandum (2015)*.

- **Technology Drive conversion.** As previously described, the Council has implemented a design adjustment process which changed the westernmost terminus of the Project from Mitchell Station to SouthWest Station. As a result of this design adjustment, the modifications to Technology Drive noted in your letter are no longer included in the Project. Section 4.2 and Appendix E includes an updated list of roadway modifications reflecting this change.
- **Acknowledgment of potential future crossings.** The Project will not preclude a north-south roadway to the west of the proposed north-south main street or an east-west roadway south of West 7⁰th Street. The proposed track alignment and profile for the Project do preclude an east-west roadway north of West 7⁰th Street. These crossings are included in the description of future roadway improvements, where applicable. Note that as a result of the Project design adjustments, the Project alignment will no longer extend beyond the proposed SouthWest Station and therefore the modification to the access for the UHG complex are no longer needed.

- **Potential roadway closures during construction.** Section 4.2.3.3, Short-term Impacts on Roadways and Traffic, in the Final EIS documents that construction of the Project will result in temporary partial, and full closures of existing streets, as well as temporary, partial, and full closures of driveways while construction is occurring at specific locations. Table 4.2-3 documents the Short-term Roadway and Traffic Impacts that are anticipated to occur during Project construction.

Section 4.2.4.2 of the Final EIS provides the mitigation measures that will be implemented in response to closures of existing streets, as well as material and equipment deliveries, worker arrivals and departures, and hauling of excavation and borrow materials. These construction related impacts and traffic will be implemented by the Council prior to and during construction through the Construction Mitigation Plan, which includes a Construction Communication Plan and a construction staging plan.

MnDOT, Hennepin County, and all municipalities affected by construction activities related to the Project will require compliance with applicable state and local regulations related to the closing of roadways and the effects of construction activities. Contractors will be required to comply with all guidelines established in the Minnesota Manual on Uniform Traffic Control Devices (2015). Construction staging and mitigation documents will be reviewed by appropriate jurisdictions, and required permits will be secured. Traffic control plans will be developed by the contractor based on information identified in the construction documents and the Construction Mitigation Plan. Traffic control plans will be reviewed by appropriate jurisdictions and the Council prior to the initiation of construction activities.

Mitigation measures for short-term impacts related to construction activities will be identified in the Construction Mitigation Plan and Construction Communication Plan as described earlier in this response.

Parking impacts

In response to your comments on the size of the proposed structured park-and-ride lot at Southwest Station if Mitchell Station is eliminated (as described in footnote 20, pg. 3-82 of the Supplemental Draft EIS), since the publication of the Supplemental Draft EIS, Mitchell Station is no longer included in the Project, based on design adjustments described in an earlier section of this Response. Table 4.3-2 in the Final EIS provides the number of new spaces that will be provided at each planned park-and-ride lot in the Project. The Final EIS notes that a total of 450 new parking spaces will be provided at the SouthWest Station. These parking spaces are new and not intended to replace any of the parking at this location. Section 4.3 of the Final EIS includes an updated analysis regarding on-street, off-street, and park-and-ride lot impacts and mitigation measures, and reflects the elimination of Mitchell Station.

The difference between the number of new spots created at the SouthWest Station as a result of removal of the Mitchell Station park-and-ride – from 600 reported in the Supplemental Draft EIS, to 450 reported in the Final EIS – is the result of design adjustments that occurred after publication of the Supplemental Draft EIS, that are intended to address parking demand at the SouthWest Station.

Based on the travel demand forecasts completed for the Project (see Section 4.1 for more detail), the cumulative supply of park-and-ride lot spaces will meet and exceed the forecasted demand for park-and-ride lot parking spaces in the Project's opening year (2020). However, the travel demand forecasts show a deficit of approximately 650 park-and-ride spaces in the Project's forecast year (2040). This forecast deficit is predominantly concentrated at the proposed SouthWest and Bellline Stations, with most (about two-thirds) of the deficit occurring at the SouthWest Station.

The Council further notes your comment that the Supplemental Draft EIS does not identify the short- and long-term parking impacts to the Eden Prairie City Center building located at 8080 Mitchell Road that require mitigation. There are no impacts at this location as a result of the elimination of the proposed Mitchell Station.

Bicycle and Pedestrian Facilities

Purgatory Creek Loop Trail

Section 4.5 of the Final EIS provides an updated assessment of bicycle and pedestrian facilities impacts and mitigation measures. As described in Section 4.5, there will be no adverse long-term or short-term impacts to the Purgatory Creek trail as a result of the Project.

Future Direct Trail Connection between Prairie Center Drive/Technology Drive Intersection and SouthWest Station Platform

The Project, which includes the LPA and LRCIs has been designed to include a direct connection between the Prairie Center Drive/Technology Drive intersection and the SouthWest Station platform, as suggested in the comment. This trail connection is included in the Project as a LRCI, at the request of the City of Eden Prairie.

Interruption of water and sanitary sewer services

The following actions will be conducted to facilitate coordination and communication during construction activities. Prior to construction, affected area utility companies and utility agencies will be contacted and requested to provide line relocation measures and approval of the proposed alteration of utility lines. In addition, utility location excavations and preconstruction surveys in general accordance with the MnDOT Utility Accommodation Policy (see Appendix D) will help minimize unintended utility service disruptions.

Through construction specifications, the Council will require the appropriate construction contractor(s) to notify affected businesses and residences of planned disruption of service due to construction activities. Utility locations that are uncertain or misidentified can be unintentionally damaged during construction. The large number of utilities present within the utilities study area increases the likelihood of encountering previously unidentified utilities. Should utilities be discovered during construction that were not identified in the contract documents the appropriate utility companies and agencies will be contacted to identify the line(s). The discovered line(s) will not be disturbed until businesses and residences are notified and the utility owner approves the proposed alteration.

Coordination with local and state agencies may be required to relocate specific utilities outside the Project corridor. Utilities that are located within rights-of-way owned by cities and county may be subject to an individual franchise agreement as authorized by Minnesota Statue 216B, Public Utilities, which provides the terms for which the utility companies may operate in the public right-of-way. Public and private utilities must conform to MnDOT Utility Accommodation Policy (see Appendix D), which require owners to obtain a permit in order to place utility facilities on trunk highway right-of-way. Utility installations on, over, or under railroad property will require review and approval by the railroad, shall conform to requirements contained within the BNSF Utility Accommodation Policy (see Appendix D) and comparable policies for Canadian Pacific Railway, and may require a Utility License Agreement issued by the railroad. See Section 3.15 of the Final EIS provides an updated description of impacts to utilities.

Locally Requested Capital Improvements (LRCI) Exhibit

The Council notes your comment that LRCIs 5 and 7 should be shown along Eden Road in the corresponding exhibit. Exhibit 2.1-6 in Section 2.1 of the Final EIS does not show LRCIs 5 and 7 because both are streetscape/landscape/aesthetic improvements, which are not illustrated on an exhibit. LRCIs 5 and 7 are described in Section 2.1.1.4.

Comment #	#143
Commenter	Liz Wielinski
Commenter Organization	Minneapolis Park and Recreation Board

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Continuation of freight rail operations in the Kenilworth Corridor
- Cultural resources
- Impacts on parks, recreation areas, and open space
- Visual quality and aesthetics
- Environmental Effects
- Draft Section 4(f) Impacts

Continuation of freight rail operations in the Kenilworth Corridor

Under NEPA, the basis for the evaluation of impacts related to the Project is the current conditions of the affected environment. For the Kenilworth Corridor, the current condition includes freight rail. For more information, see *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data*.

Cultural resources

There were a number of comments relating to cultural resources. Regarding comments on the ongoing process to minimize impacts to the Grand Rounds Historic District (GRHD), additional consultation and design has been conducted since publication of the Supplemental Draft EIS. The Final EIS includes FTA's final findings of effects on historic properties, to which the Minnesota Historic Preservation Office (MnHPO) has concurred. This process involved assessing Project effects on historic properties in consultation with the MnHPO, Minneapolis Park and Recreation Board (MPRB) and other consulting parties, and making findings of effects, including a final determination of effect, and developing a Section 106 Memorandum of Agreement (MOA) that outlines measures to avoid, minimize, and mitigate adverse effects to historic resources. Stipulations in the executed Section 106 MOA will guide the Project's implementation. The following are the responses related to cultural resources:

- **Concern over potential effects to the Grand Rounds Historic District, particularly visual quality.** As described in Section 3.5.4, FTA and the Council, in consultation with the MnHPO, the Minneapolis Park and Recreation Board (MPRB), and other consulting parties, reviewed Project elements under Section 106 and applied the criteria of adverse effect per 36 CFR 800.5(a)(1) to determine if the Project would result in adverse effects to NRHP listed and eligible historic properties within the Project's APEs. This consultation considered anticipated long-term and short-term direct and indirect effects on historic properties from construction and operation of the Project. As shown in Table 3.5-2, the Kenilworth Lagoon and the Grand Rounds Historic District will be adversely affected by the Project and the MnHPO has concurred. Measures to avoid, minimize, and mitigate the adverse effect on the Lagoon and the historic district were concurred with by consulting parties (including MPRB) and are included in the Section 106 MOA (Appendix H) and summarized below.
 - Install a parapet wall and rail damper on the LRT bridge over the waterway to mitigate the moderate noise impact at the Kenilworth Lagoon.
 - Rehabilitate/Reconstruct WPA Rustic Style Retaining walls to minimize and mitigate adverse effects.
 - Design Project elements within and adjacent to the Grand Rounds Historic District in accordance with the 'Ol's Standards (36 CRF 68), to be reviewed by the MnHPO and consulting parties, to further minimize adverse effects.
 - Develop a Construction Protection Plan detailing the measures to be implemented during Project construction to avoid adverse effects.

- Prepare guidance for future preservation activities within the portion of the GRHD: Canal System, including adjacent parkland, extending from the north end of Lake Calhoun to the east end of Cedar Lake, and including the entirety of the Lake of the Isles Park and Kenilworth Lagoon elements (Attachment D). The plans shall be prepared in accordance with the SOI's Standards (36 CFR 68); the SOI's Standards for Preservation Planning; the NPS's Guidelines for the Treatment of Cultural Landscapes, Preservation Briefs and Tech Notes.
- **Request for evaluation of visual quality impacts on viewsheds of the Grand Rounds.** The Final EIS includes an evaluation of potential impacts parks, recreation areas, and open space which includes the Grand Rounds. Refer to Section 3.6 of the Final EIS for more information about the Section 106 assessment of the Grand Rounds Historic District and Section 3.7 of the Final EIS for the visual assessment, which includes areas including the Grand Rounds.
- **Concern over potential effects to the Kenilworth Lagoon.** The Council notes your concern over minimization of impacts to the Kenilworth Lagoon and your comment regarding the memorandum of understanding (MOU) between MPRB and the Council to cooperate on the design of the bridge crossings of the Kenilworth Channel. As is summarized in Table 3.5-2, and described in more detail in the technical report *Section 106 Assessment of Effects for Historic Properties: Southwest LRT Project Technical Report* (November 2015), construction of the Project will result in an adverse effect on the Kenilworth Lagoon that cannot be avoided. Therefore, as is documented in Section 3.5.2 of the Final EIS, FTA and the Council consulted extensively with the MnHPO, MPRB, and other consulting parties to explore a number of alternatives for this crossing. The goal of this consultation was to identify an alternative that best minimizes the overall adverse effect on the Kenilworth Lagoon and the Grand Rounds Historic District, of which the Kenilworth Lagoon is a contributing element, and which also met the requirements of the referenced MOU. As a result of this consultation process, an alternative was identified that best meets all of these goals. The selected alternative, for which the MnHPO and MPRB have indicated support, consists of a three-bridge configuration (trail, LRT and freight rail), with concrete arch clear span bridges for LRT and the trail, and a five-span, concrete slab bridge with piers in the water for freight rail. The bridges will be designed in accordance with the SOI's Standards to minimize the adverse effect on the Lagoon and historic district. In addition, the crossing will incorporate noise mitigation into the LRT bridge in the form of approximately two-foot tall noise walls and rail dampers.
- **Inadequate evaluation of effects to Cedar Lake Parkway, particularly visual quality.** The Project will reconstruct an approximately 320-foot long segment of Cedar Lake Parkway in its existing alignment with a slight increase in elevation (less than 8 inches) to accommodate construction of the light rail tunnel underneath, and reconstructing the at-grade trail and freight-rail crossings. The introduction of LRT infrastructure to the Kenilworth Corridor, including a TPSS, signal bungalow, and equipment house, as well as an LRT tunnel portal north of the parkway and some corresponding vegetation removal in the Corridor, will change a small portion of the setting of the parkway, which is an approximately 1.65-mile-long linear resource.

During a Section 106 consultation meeting held on April 12, 2012, MPRB stated its approach to the Cedar Lake Parkway intersection was “to support a continuous driving and biking experience through the Grand Rounds” and trying to “limit the number of stop signs as well as crossings such as this,” noting that it felt the “crossing has great potential for impeding driving experience.” In written comments provided under Section 106 on May 16, 2014, the MRPB elaborated that it was concerned about the long-term noise and visual intrusion at this intersection and its impacts on adjacent park land, including the potential loss of the current Quiet Zone status for the crossing. In response, to MPRB comments, FTA and the Council dropped from further consideration an alternative for an LRT bridge over Cedar Lake Parkway to avoid potential adverse visual effects along the parkway and the Project now includes a shallow LRT tunnel under the parkway to avoid potential disruptions to the driving experience along the parkway from LRT. To address concerns about noise, the Project conducted a noise and vibration assessment for in accordance with FTA's Transit Noise and Vibration Impact Assessment Manual, which determined that per FTA criteria, Cedar Lake Parkway is not noise sensitive. A consultation meeting was held on June 17, 2015, during which effects of noise and vibration on historic properties were considered. The MRPB participated in this consultation, but did not provide any comments regarding the results of the analysis for Cedar Lake Parkway. In addition,

FTA and the Project consulted with the FRA and confirmed that shifting the existing freight rail alignment within its existing corridor will not result in a loss of Quiet Zone status for freight rail. To further minimize potential visual effects, and avoid any adverse visual effects, Project elements within and in the vicinity of Cedar Lake Parkway, including the LRT tunnel portal several hundred feet to the north, a TPSS, signal bungalow, equipment house, and the reconstructed segment of the parkway will be designed in accordance with the *SOI's Standards*. This measure is documented in the Project's Section 106 MOA. During a Section 106 consultation meeting held on February 24, 2015, the MPRB confirmed that this would address their concerns about potential visual effects on Cedar Lake Parkway. As is summarized in Table 3.5-3 of the Final EIS, and described more fully in the *Section 106 Assessment of Effects for Historic Properties: Southwest LRT Project Technical Report* (see Appendix H of the Final EIS), with the implementation of the measure described above for minimizing effects, and avoiding adverse effects, to the parkway, which the MnHPO, MRPB, and other consulting parties agreed to during consultation, FTA found the Project will have No Adverse Effect on Cedar Lake Parkway and the SHPO has concurred.

Impacts on Parks, Recreation Areas, and Open Spaces

Your letter included several comments relating to parks, recreation areas, and open spaces. The Final EIS includes an updated assessment of potential impacts to parks, recreation areas, and open spaces (see Section 3.6). The following are the responses related to these comments.

- **Concerns over safety of trail and park users in the Kenilworth Corridor, related to the co-location of LRT and Freight Rail.** See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*. Please also see *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.
- **Concern over safety of at-grade pedestrian and bicycle crossings at LRT and Freight Rail Crossings.** Pedestrian and bicycle crossings of these track locations have been designed based on current industry standards. Industry standards include but are not limited to flashing light signal assemblies with an audible warning to notify pedestrians and bicyclists of a train's arrival at crossing locations. These crossing treatments may also include detectable warnings and signs.

For instances where the roadway crossings will include crossings for sidewalks and trails, such as 21st Street in the Kenilworth Corridor, crossings and controls will be designed to promote pedestrian and bicycle safety and will include space between the freight tracks and the light rail tracks to allow sidewalk and trail users to have refuge space in the event of a freight and light rail train passing simultaneously. In addition, these crossings will be equipped with detectable warnings and fences lining the crossing paths to bring attention to the freight or light rail crossing locations. The design details of pedestrian and bicycle safety features will be made during Engineering and finalized prior to construction.

The Metropolitan Council will maintain all existing public bicycle and pedestrian connections including the Cedar Lake LRT Regional Trail, the Kenilworth Trail, and the Cedar Lake Trail although some trails or sidewalks may be reconfigured. All trails adjacent to a LRT station will have a connection to the station. At the Shady Oak, Downtown Hopkins, Blake, Louisiana, Wooddale, Beltline, West Lake, 21st Street, Penn, and Van White stations, transit users will cross through traffic (e.g., pedestrians and bicyclists) on the trail to access parking lots, sidewalks, or bus facilities or will connect to trails directly from station platforms. Exhibit 4.5-3 in Section 4.5.3.1 of the Final EIS illustrates the potential conflict. Wayfinding, regulatory and warning signage, and markings of trail intersections will be included in the Project to address these conflicting movements. A clearly defined through route will be identified for bicyclists in areas where the trail travels through a plaza or large paved area, either with pavement markings or distinctive pavement. Section 4.5.3 of the Final EIS outlines the impacts to bicycle and pedestrian facilities including trails and sidewalks.

In addition, The Council, City of Minneapolis, MPRB, and Hennepin County undertook the West Lake Multimodal Transportation Study, completed in February 2016. The goal of the study was to identify opportunities to address non-motorized and motorized travel within the West Lake LRT Station area with projects that can be implemented as a part of the construction of the Southwest LRT or as part of other capital initiatives. The study report includes Green Line Design Recommendations that will be

constructed as part of the Project, including enhanced crosswalk markings at specific intersections, and wayfinding signage.

During construction, some trails and sidewalks may be detoured either on a signed route on other trails/roadways or on a temporary facility built to re-route pedestrian and bicycle traffic around an obstruction. In Minnetonka, Hopkins, and Saint Louis Park, the Minnesota River Bluffs LRT Regional Trail and the Cedar Lake LRT Regional Trail will be maintained on temporary detour facilities within the existing right-of-way for portions of the construction period. Construction of the Project will be phased in such a way that a paved surface will be maintained for use by pedestrians and bicyclists proximate to the existing trail. At the trail crossings of Minnehaha Creek and Louisiana Avenue, trail and freight bridge construction will be phased such that a bridge will be available for pedestrian and bicycle usage during construction. In addition, a Construction Communication Plan will be developed that will include coordination with the park owners, advance notice of construction activities, highlighting road, sidewalk, and trail closures and detour routes. Mitigation measures for short-term (construction) impacts to roadways and traffic will be implemented by the Council prior to and during construction through the Construction Mitigation Plan, which includes strategies to maintain safety. In addition, Contractors will be required to comply with all guidelines established in the Minnesota Manual on Uniform Traffic Control Devices (2015), which conforms to industry standards for the design and operations of pedestrian and bicycle facilities.

The Council notes your comment that the conceptual design drawings located in Appendix G were too general to understand the specific measures to be implemented to maintain a safe crossing for pedestrians and bicyclists of light rail and freight trains. Updated Preliminary Engineering Plans (representing approximately 30 percent of design) for the Project are located in Appendix E of the Final EIS. Refer to Section 4.5 for additional details on pedestrian and bicycle crossings, and Section 4.6 for additional information on at-grade railroad crossing safety measures.

See Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.

Visual quality and aesthetics

There were a number of comments in your transmittal letter relating to the evaluation of visual and aesthetic impacts. The Final EIS includes an updated assessment of potential impacts to visual quality and aesthetics related to the Project. Refer to Section 3.7 and Appendix J for more information. The following are responses to specific comments related to visual and aesthetic:

- **Concerns over visual quality analysis methodology and the consideration of visual quality impacts during a limited time of the year.** The visual resource analysis in the Final EIS considers season variations and year-round use. As part of the analysis, an effort was made to photograph the existing conditions in as many of the analysis views as feasible under leaf-off conditions. As a consequence, the visual resources analysis includes visual assessments that are based on a mix of leaf-on and leaf-off conditions, and are representative of year-round conditions.
- **Concern over visual impact assessment methodology (static views).** The visual impact assessment was completed based on a widely used methodology that assesses the Project's effects on a series of static views. The views were selected based on an exhaustive effort to ensure inclusion of representative views. In the Kenilworth Corridor, most of the views selected were those that are experienced by trail users. A special analysis focusing on the "dynamic nature of how trail users experience the views" was not undertaken. Such analyses are not standard practice in visual impact assessment, and in this case, there is no evidence that such an approach would substantially change the outcome of the analysis.

The visual resources analysis was prepared using the standardized approach for visual impact assessment documented in the FHWA's Visual Impact Assessment of Highway Projects (FHWA, 1988). The FHWA developed this method in response to NEPA requirements that consideration be given to the impacts that proposed federal actions or Projects are likely to have on the environment's visual quality and it was designed to assess visual quality impacts along linear transportation corridors (such as the Kenilworth Trail) using a systematic and objective approach. The FHWA analysis method was selected to evaluate this Project's visual effects because the FTA does not have

a visual impact assessment methodology of its own. The FHWA methodology is well established and widely accepted for the assessment of visual impacts and is well suited to assess the visual impacts of linear transportation facilities located in urban areas.

- **TPSS facilities should be considered a significant factor for change in visual quality.** Potential impacts to visual quality were considered in the siting of TPSS facilities. There are no plans to include TPSS facilities on lands under the jurisdiction of the MPRB within the Kenilworth Corridor. There is one TPSS location within the Kenilworth Corridor, approximately 1,400 feet north of West 21st Street on the east side of the LRT alignment which will be located on land owned by HCRRA. The TPSS locations were selected to minimize impacts to sensitive receptors and efforts were made to select sites that are on underutilized land, such as surface parking lots. Where TPSS placement would have the potential to affect sensitive receptors, landscape plans will be developed to provide suitable screening or other measures to minimize visual impacts, as the design of the Project advances.
- **Viewpoints in the Kenilworth Corridor be considered substantially impacted regardless of methodology.** As part of the visual impact assessment the level of visual change was compared to the sensitivity of the view to the viewer. In assessing the sensitivity of the view, factors taken into account included the number and types of people who see the view, the length of time the view is observed, and the level of viewer concern about the view. Refer to Section 3.7 and Appendix J of the Final EIS for additional impacts on visual quality impacts and mitigation measures. Of the 19 views evaluated, six are in the Kenilworth Corridor. Of these substantial visual impacts were identified at two locations, moderate visual impacts at one location, and low visual impacts at three locations. Refer to Section 3.7.4 for a description of mitigation measures for visual quality impacts.
- **Visual impacts at the Kenilworth Corridor light rail tunnel portal.** As noted in Section 3.7.4, the Project will have substantial visual impacts related to the tunnel portals in the Kenilworth Corridor. Refer to Section 3.7.5 for a description of potential mitigation measures. In addition to implementation of the Visual Quality Guidelines for Key Structures, the Project will include incorporation of the following visual mitigation measures, as appropriate, where moderate and substantial visual impacts have been identified:
 - Retain as much of existing vegetation as appropriate to provide shielding for sensitive viewpoints, including techniques such as chaining and mowing without removal of the root systems, and/or tying back large shrubs and trees to provide adequate areas for construction activities
 - Restore and replant cleared areas in a timely manner, considering such factors as species type, seasonal growing conditions, and other construction-related activities
 - Place new and replacement trees based on such factors as helping to provide the maximum screening of views to and from sensitive viewpoints (e.g., adjacent residential areas), or providing street ornamentation
 - In areas where the light rail alignment will be located adjacent to sidewalks or trails provide planter strips between the sidewalk or trail and utilize plant selections such as low, hedge-like shrubs to create a visual buffer between the pedestrian ways and the light rail alignment to screen views of the light rail alignment.
 - As appropriate, develop landscape plans for areas adjacent to elevated structures, retaining walls, noise walls, and TPSS sites as appropriate to achieve such effects as providing partial screening from sensitive viewpoints.
 - Incorporate visual mitigation measures for Section 106 protected resources and Section 4(f) protected properties as specified in the Section 106 Memorandum of Agreement and the Final Section 4(f) Evaluation, respectively (see Appendix H and I, respectively).

The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. Furthermore, the Council retained a landscape design consultant to prepare a

landscape design study for the Kenilworth Corridor, which will be implemented into the Project. See Section 9.2 of the Final EIS for additional detail on this committee.

- **Kenilworth Lagoon bridge.** The Council acknowledges your comment that design to enhance the openness of the view, removal of bridge encroachments into the lagoon, and minimizing the visual focus of the new bridges could improve the visual experience of the lagoon. The Council will continue to coordinate with MPRB to advance the design of the bridge for the Kenilworth Lagoon crossing.
- **West ²1st Street.** Regarding your comment over the loss of trees in the Kenilworth Corridor and the introduction of a station at the ²1st Street Station (Viewpoint 18), the evaluation found that the removal of trees will slightly decrease the vividness of the view. However, the addition of the street trees, the widened sidewalk, and the plantings will make a positive contribution. Therefore, the overall level of vividness will generally remain the same. Refer to Section 3.7.4 of the Final EIS for additional details. Additionally, a separate Project is being conducted to design landscaping enhancements for the Kenilworth corridor that would be implemented after the Southwest LRT construction was completed. See *Master Response 16: Concerns related to ²1st Street Station and related impacts*.
- **Request to define design measures to mitigate loss of trees.** Native landscaping, including tree plantings, will be incorporated into the Project's design, where applicable and appropriate.
- **Visual impacts related to the grade-separated crossing of North Cedar Lake Trail not fully addressed in visual analysis.** Since the publication of Supplemental Draft EIS, the Project has been refined and will no longer include a grade-separated crossing of the Cedar Lake Trail at Cedar Lake Junction. Instead, the Cedar Lake Trail will cross the existing freight rail alignment and the proposed LRT alignment at-grade, just west of the proposed Penn Station (the trail currently crosses the freight rail alignment at-grade at that location). The visual assessment of this area reflects the revised design (see Section 3.7 of the Final EIS for more information on the visual assessment).
- **Van White Memorial bridge landing impacts on Bryn Mawr Meadows Park not included in visual analysis.** Van White Memorial bridge and Bryn Mawr Meadows Park are included in the visual quality analysis and Section 4(f) analysis for the Final EIS (refer to Sections 3.7 and 6.0). As described in Section 6.7.1.12 of the Final EIS, the proposed changes will affect the Luce Line Trail in Bryn Mawr Meadows Park, as well as two internal park trails. In particular, the Luce Line Trail will be realigned within Bryn Mawr Meadows Park to allow the trail to cross over a new bridge that will cross BNSF freight tracks to the east, connecting to the proposed Van White Station and Cedar Lake Trail (which provides connections to the Kenilworth Trail). A new bicycle/pedestrian bridge will replace the existing bridge that crosses BNSF freight rail tracks toward the south. The existing bridge is owned and maintained by MnDOT and the northern bridgehead is partially located within Bryn Mawr Meadows Park. A portion of the new bridge will be located within Bryn Mawr Meadows Park; this new bridge will be north of, and parallel to, the southern border of the park (just north of the BNSF freight rail right-of-way). The remaining portion of the new bridge will provide a connection between the portion located within the park and the proposed Van White Station and Cedar Lake Trail, across the BNSF freight rail and proposed light rail tracks. The current design of the new bridge has been prepared based on the Council's *Visual Quality Guidelines for Key Structures* (Council, 2015), which was developed in coordination with staff from local jurisdictions affected by the Project's proposed key structures. These guidelines allow for a consistent design approach for the key structures, allowing for design adjustments reflecting their local context, including Bryn Mawr Meadows Park. Prior to construction of the proposed new bridge for Luce Line Trail, the Council will conclude its consultation with the MPRB on the design of the proposed new bridge.
- **Park Siding Park visual changes noted but impacts are not included.** Park Siding Park is part of the visual assessment area encompassed by the Kenilworth Corridor and is evaluated in the Final EIS. Changes in development density in areas surrounding proposed transit station could result in an increase in Park Siding Park usage, which could have potential for both positive and negative consequences. The Project will result in changes in the park's setting and a visitor's visual experience through the construction of the light rail tunnel and reconstruction of the existing freight rail tracks and bicycle and pedestrian path in HCRRA right-of-way just south of the park. The primary visual change will be the removal and replacement of existing vegetation in the HCRRA right-of-way. A landscaping

plan for the area is currently under development, which includes the participation of the MPRB staff. The visual changes and impacts resulting from the Project will not alter or impair the overall use or function of the park. Refer to Section 3.7 for an updated visual quality and aesthetics impact assessment for the Project, including a listing of potential mitigation measures (see Section 3.7.5).

In summary, the proximity impacts of the Project on Park Siding Park will not substantially impair the qualifying activities, features, or attributes of the park and, therefore, FTA has determined that there will be no Section 4(f) constructive use of Park Siding Park under the Project, consistent with 23 CFR 774.15(a).

Environmental Effects

- **Groundwater flow and contamination due to Kenilworth Corridor light rail tunnel construction and freight rail operations.** Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*. As described in Section 3.14 of the Final EIS, Phase II ESAs have been conducted to determine the extent and magnitude of contamination within the Projects' limits of disturbance. The Phase II ESAs completed within the Kenilworth Corridor indicate that there is no groundwater contamination within the area of the Shallow Tunnel.

In response to your comment regarding the need to include freight rail in the ground water mitigation plan as "other infrastructure," where the Project will directly affect freight rail infrastructure (e.g., freight rail alignment shifts, freight rail bridges, southern connector), that infrastructure will be included in the groundwater mitigation plan. Other freight rail infrastructure not affected by the Project is outside of the scope of this project and will not be subject to the groundwater mitigation plan (see *Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data*).

- **Concern over impacts to water resources related to stormwater runoff.** The Project will incorporate stormwater treatment BMPs to treat runoff and provide flow rate and volume control. All constructed stormwater BMPs will be located outside of natural wetlands and streams. Cities and watershed districts have each expressed a preference for infiltration BMPs. The Project will implement these wherever feasible. The most suitable infiltration BMP is the trackside ditch, which will be built to parallel the LRT track wherever feasible, with soil amendments if needed to enhance the percolation rates. The Project will evaluate infiltration BMPs for use at other light rail facilities as well, including the stations, park-and-ride facilities, and parking lots. In reconstructed road areas that once drained directly into streams, new infiltration BMPs will be built downstream of these storm drains wherever feasible to provide detention and treatment of runoff prior to discharge. However, the suitability of these BMPs is constrained by available space within the corridor right-of-way, conditions, and physical limitations. For example, infiltration BMPs are precluded in areas with contaminated soils (Known locations of existing contaminated soils include near Nine Mile and Minnehaha Creeks, near the Hopkins OMF, and near the Shady Oak Park-and-Ride [see Section 3.14 of the Final EIS for additional information on Hazardous and Contaminated Materials]). Where infiltration is not feasible within the corridor, the Project will evaluate and implement other BMPs based on the sequence of compliance alternatives prescribed by each Watershed Management Organization's stormwater management ordinance discussed in *Local and State Governing Agency Stormwater Requirements Summary*.
- As described in Section 3.9, long-term stormwater runoff will be directed into stormwater management facilities created as part of the Project as approved by local jurisdictions and through final permitting. These facilities will be designed to provide stormwater treatment in compliance with NPDES requirements. Section 3.9 of this Final EIS includes an updated analysis of long-term and short-term (construction-related) impacts to water resources, including public waters and surface water quality. This section also includes applicable mitigation measures. Regarding your concerns over the potential for a "spill or leak of conveyed freight," Please refer to *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*

Noise impacts in the Kenilworth Corridor

There were a number of comments relating to noise. Refer to Section 3.12 of the Final EIS for an updated noise analysis, including an assessment of potential noise impacts and mitigation measures. The following are the responses related to noise:

- **Evaluate noise impacts using a comparison to freight rail relocation.** See Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data.
- **Identify remaining noise impacts not eliminated by implementation of light rail tunnel in Kenilworth Corridor.** The proposed tunnel in the Kenilworth Corridor will eliminate most noise impacts compared to an at-grade light rail alignment within the same segment of the corridor. There will be remaining noise impacts within this area near the northeast tunnel portal, at the Kenilworth Channel, prior to mitigation. Measures to avoid, minimize, and mitigate the adverse effect on the Lagoon and the historic district were concurred to by Section 106 consulting parties (including MPRB) and are included in the Section 106 MOA (Appendix H) include two-foot-high parapet wall and rail dampers along the Kenilworth Channel Bridge. The remaining noise impacts in the Kenilworth Corridor are outlined in Table 3.12-7 in Section 3.12 of the Final EIS.
- **Kenilworth Lagoon/Channel noise impact mitigation.** Table 3.12-8 in Section 3.12 of the Final EIS summarizes the noise impacts for institutional land uses (including the Kenilworth Channel and Lagoon Bank). One moderate impact is expected for the Kenilworth Channel. The Project will include a two-foot parapet wall and rail damper on the LRT bridge over the waterway to mitigate the moderate noise impact at the Kenilworth Lagoon.
- **Vibration impacts at the Kenilworth Channel.** The Project includes a separate trail bridge crossing the Kenilworth Channel. Specifically, there will be three new bridges with new supporting piers in the channel.
- **Hazardous and Contaminate Materials.** For a response to your concerns regarding the potential for construction activities to change conditions and allow contaminated materials to move toward lakes or other water bodies, refer to the previous section of this response titled *Groundwater flow and contamination due to Kenilworth Corridor light rail tunnel construction and freight rail operations*.

Bicycle and Pedestrian

There were a several comments relating to pedestrian and bicyclist facilities. Refer to Section 4.5 of the Final EIS for an updated evaluation of potential impacts to pedestrian and bicycle facilities and Section 4.6 for an updated evaluation of safety and security. The following are responses related to pedestrian and bicyclist facilities:

- **Request for information on the safety of pedestrian and bicycle crossings of LRT and freight rail.** For a response to your concerns regarding pedestrian and bicycle crossing safety, refer to the previous section of this response titled *Concern over safety of at-grade pedestrian and bicycle crossings at LRT and freight rail crossings*.
- **Elimination of the North Cedar Lake trail bridge and concerns over the potential to be “trapped between rail crossings.** The Council notes your comment regarding trail congestion due to the at-grade crossings of the Cedar Lake Trail west of Penn Station. Two-way, two-hour trail volumes along the Cedar Lake Trail were measured to be 540 bicycles in this area, so a review of the new crossing here merits additional attention. Freight crossings occur approximately two to three times a day and block the trail. The freight and LRT at-grade crossings will be separated, with the freight crossing located west of the LRT crossing. Based on trail volumes at this crossing, a queue of 30 to 40 bicyclists is expected during a freight rail crossing. In the Preliminary Engineering Plans (see Appendix E), the available space for queuing between the two crossings is sufficient. As a result, trail users waiting for a freight train to pass will not interact with the light rail tracks or the intersection of Cedar Lake Trail and Kenilworth Trail to the south. See Section 4.5.3.1 of the Final EIS for more information. Appendix E shows the proposed light rail alignment with the grade-separated crossing removed.

- **Impacts of freight rail on trail user safety have not been fully addressed in Supplemental Draft EIS.** All analyses used freight rail within the Kenilworth Corridor within the No Build Alternative (representing baseline conditions) to understand the potential impacts of the Project, which will co-locate freight rail and light rail within the Kenilworth Corridor. See Section 2.1 of the Final EIS for a description of the Project and the No Build Alternative. The Project does include industry standard crossing treatments for the LRT and freight tracks, including, but are not limited to, flashing light signal assemblies with an audible warning to notify pedestrians and bicyclists of a train's arrival at crossing locations. These crossing treatments may also include detectable warnings and signs. This will be an improvement over existing signing and warning at some locations.
- **Need to maintain access to parks for emergency vehicles during construction and operation of the Project.** See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor.*
- **Wildlife impacts in the Kenilworth Corridor and Cedar Lake Park not addressed in the Supplemental Draft EIS**

As described in Section 3.10, potential impacts associated with wildlife migration and habitat loss and/or degradation have been avoided or minimized through design solutions, such as the following:

- Roads have been designed using the minimum standard for widths and lanes when practicable (which reduces road kills by slowing traffic and reducing the distance turtles need to cross).
- Wetland crossings have been elevated where practicable.
- Utility access and maintenance roads have been kept to a minimum where practicable (this reduces road-kill potential).
- Terrain disturbed by the Project will be left with as much natural contour as practicable.

In addition, to avoid habitat fragmentation, appropriately sized and spaced openings will be provided in the permanent safety/security barriers (fences) in the area located approximately between 21st Street Station and Penn Station to maintain connectivity of terrestrial habitat and allow movement of terrestrial species, primarily small mammals. Within the Kenilworth Corridor specifically, the Council developed a landscape design that preserves and builds upon the natural character of the corridor, where applicable and appropriate. Section 3.10 of this Final EIS provides an updated assessment of impacts to threatened and endangered species, wildlife habitat, and migratory birds and applicable mitigation measures.

Draft Section 4(f) Impacts

There were a number of comments relating to the Draft Section 4(f) Evaluation Update. Refer to Chapter 6 and Appendix I of the Final EIS for more information on the Section 4(f) evaluation. The following are the responses related to the Section 4(f) evaluation:

- **Supplemental Draft EIS included typographical error.** The Council notes your comment that the Supplemental Draft EIS included a reference to Section 3.5.1.4 for a description of “de minimize use,” which does not exist. This reference was a typographical error and the text in question was intended to reference Section 3.5.6 of the Supplemental Draft EIS.
- **Final EIS should identify impacts to Park Siding Park if sewer is to be replaced.** No property from Park Siding Park is anticipated to be temporarily occupied to facilitate construction of the Southwest LRT Project. As described in Supplemental Draft EIS Section 3.5.4.1(I), the Southwest LRT Project's Draft Section 4(f) Evaluation included a preliminary finding that LRT 3A-1 would require construction activities that would have resulted in the temporary occupancy of approximately 0.016 acre of the park by the Project to construct and remove a temporary detour trail associated with construction of the proposed light rail alignment. However, through additional design refinement, the Council has determined that the Southwest LRT Project will be constructed without requiring a temporary trail detour into Park Siding Park, thus avoiding the approximately 0.016-acre temporary occupancy anticipated in the Draft Section 4(f) Evaluation.

The design and configuration of the sewer connection has been coordinated and reviewed by Metropolitan Council Environmental Services, who was the designer of the force main construction in 2013. During construction of the LRT tunnels, the force main will be temporarily connected around the construction area, allowing the force main to remain operational during tunnel construction. The permanent reconnection of the force main will occur over the tunnel. The construction will not impact Park Siding Park and will be maintained within the Project's limit of disturbance. See Appendix E for the Project's limit of disturbance in this area.

- **Reconstructed bridges should span the channel to maximize recreation use.** The proposed trail and LRT bridges have been designed to span the channel with no piers extending into the water (see Section 6.7). The reconstructed freight bridge will include piers in the water, but it has been designed to allow for the continuation of park uses and recreational activities. Recreational watercraft will be able to utilize the channel connection between Cedar Lake and Lake of the Isles in the same manner they do currently. In regards to your comment that the new bridges over the Kenilworth Channel may collect snow that could affect winter recreational activities, such as cross country skiing, on the lagoon, winter uses of the lagoon crossing are outlined in Section 6.7.2.10 of the Final EIS and are understood to include cross country skiing, snowshoeing, fat-tire biking, and walking. Weather and ice/snow conditions permitting, a groomed cross country ski trail is maintained in the Chain of Lakes Park during mid-winter months. The Project does not anticipate any disruption to winter activities related to a potential reduction in snow underneath the three channel spans (i.e., new bridges east to west: freight, LRT, and bicycle/pedestrian), because gaps between each of the three new bridges will allow direct and blowing snow onto the channel below and the ability of the channel to freeze during winter conditions will not be altered by the presence of the new bridges.
- **Concerns over visual quality and noise assessments for the new Kenilworth Channel Crossings as related to Section 4(f).**, FTA and Council staff met with MPRB staff on February 13 and March 6, 2015, to coordinate on determinations and avoidance, minimization, and mitigation measures for MPRB Section 4(f) properties that are addressed within this Draft Section 4(f) Evaluation Update – those meetings also included staff from Hennepin County and Minneapolis. Agendas, notes, and handouts from those meetings are provided in Appendix I of the Final EIS. As a result of this consultation process, the bridge design has changed since the Supplemental Draft EIS was published. The Project will result in changes to the facilities currently located within the Kenilworth Channel/Lagoon, including the following (see Exhibit 6.7-12A/B in Section 6.7.1.10 of the Final EIS):
 - Removal of the two existing wood bridges, supported by wood piers in the channel, that carry the existing freight rail tracks and multipurpose trail across the waterway;
 - Construction of three new bridges with new supporting piers in the channel, with a combined bridge width that will be approximately double that of the existing wood bridges (to carry freight rail and light rail tracks and the multipurpose trail); and
 - Modifications to the topographical features, vegetation, and WPA-era retaining walls of the channel that will be needed to accommodate the new bridges.

Based on the analysis and design, FTA has concluded that there will be a Section 4(f) *de minimis* use of the Kenilworth Channel/Lagoon where the HCRRA and BNSF rights-of-way cross the property, consistent with 23 CFR 774.5(b). While the Project will result in the placement of new bridge piers and bridge abutments within the park property boundary, the Project will not affect the protected activities, features, and attributes of the property with appropriate minimization and mitigation measures as document in the Project's Section 106 Agreement. In 2015, the MPRB concurred in writing with the FTA's Section 4(f) preliminary *de minimis* use determinations for the Kenilworth Channel/Lagoon (as an element of the Minneapolis Chain of Lakes Regional Park). Measures to avoid, minimize, and mitigate the adverse effect on the Lagoon and the historic district were concurred to by consulting parties (including MPRB) and are included in the Section 106 MOA (Appendix H).

Concerns over lack of visual quality assessments related to Bryn Mawr Meadows Park related to Section 4(f). Van White Memorial bridge and Bryn Mawr Meadows Park are included in the visual

quality analysis and Section 4(f) analysis for the Final EIS (refer to Sections 3.7 and 6.0). For additional information on the concerns regarding the lack of visual quality assessments related to Bryn Mawr Meadows Park, refer to the previous section of this response titled *Van White Memorial bridge landing impacts on Bryn Mawr Meadows Park not included in visual analysis*. Based on the Section 4(f) coordination described above, FTA has determined that there will be a *de minimis* impact to Bryn Mawr Meadows Park (refer to Chapter 6 for more information).

Comment #	#144
Commenter	Stuart Nolan
Commenter Organization	Stuart Co.

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council has reviewed your comment letter as well as the attached letters from ESI Engineering and Westwood Professional Services, and the sections that follow include responses to comments included in the letter and attachments.

- Operations and Maintenance Facility Location
- Existing Noise and Vibration Assessments
- Event Building
- Rail Crossover
- Elevated Light Rail Alignment
- Construction Vibration and Noise
- OMF Site Selection Evaluation: Failure to Identify Reasons for Selection of Site 9A
- Environmental Resources Which the Supplemental Draft EIS Did Not Consider in the 9A Selection
- Risk of Environmental Releases at Site 9A

Comments in Attachment from ESI Engineering

Operations and Maintenance Facility

You note that noise and vibration impacts were dismissed from review at Site 9A, Hopkins K-Tel East. Appendix F, Development and Evaluation of Design Adjustments Addressed in the Supplemental Draft EIS and Final EIS summarize the process that was used to identify the Hopkins OMF Facility. Additionally, Appendix F of the Supplemental Draft EIS references the *Operations and Maintenance Facility (OMF) Site Selection* technical report. That report provides a more detailed description of the evaluation process, criteria used, and the outcomes for each of the four steps in the selection process. The second and third-step evaluations considered noise impacts. The second- and third-step evaluations for Site 9A also noted that the site is consistent with adopted municipal land use guiding a zoning. In summary, by locating the OMF site in an appropriately zoned area the Project will reduce the potential for land use-related impacts, including noise, to sensitive land uses such as residential.

Site 9A was considered as part of the noise assessment for the Project; however, there were no sensitive noise receptors in the study area. Your letter states that Stuart Co. residential units fall within 750 feet of the south end of the proposed OMF site and that the screening distance is 1,000 feet. Although it is true that the screening distance is 1,000 feet, the screening distance should be applied at the center of the facility, not at the edge (See Table 4-1, Screening Distances for Noise Assessments, on page 4-3 of FTA's *Transit Noise and Vibration Impact Assessment* guidance manual). If applied at the center of the facility, there would be no sensitive receptors from the Stuart Co. developments within the screening distance.

Existing Noise and Vibration Assessments

Section 3.12, Noise, and Section 3.13, Vibration, of the Final EIS include an updated corridor-wide assessment of noise and vibration impacts, based on FTA's *Transit Noise and Vibration Impact Assessment* guidance manual. The noise evaluation includes a review of Minnesota Pollution Control Agency noise impact criteria and their applicability to the Final EIS noise assessment. As shown in Section 3.12, Noise, and Section 3.13, Vibration, of the Final EIS, the Project will not result in noise, vibration, or ground-borne noise impacts at the Stuart Co properties (Deer Ridge, Greenfield and Raspberry Woods). Assumptions used for the noise and vibration assessments in the Final EIS are listed in Appendix K, Noise and Vibration Supporting Documentation, of the Final EIS.

The most significant adjustment in the Project design in this area since publication of the Draft EIS is that the at-grade crossing of Smetana Road included in the design of the Project at the time of publication of the Draft EIS, is now a grade-separated crossing, which reduces the noise levels from light rail operations

considerably. There would be no sounding of LRT bells or horns and no grade crossing bells. The results in the Draft EIS included the grade crossing, and the removal of this grade crossing significantly reduced the projected noise levels to below the thresholds for impact.

These and the other adjustments made since publication of the Draft EIS to the proposed light rail track alignments were used in the updated noise and vibration assessments. These design adjustments are reflected in Appendix E, Preliminary Engineering Plans, of the Final EIS.

Additionally, the Final EIS assessment used updated ambient noise levels for residences further from Smetana Road, to reflect the quieter noise levels at these locations (which results in lower thresholds for impact). The impact assessment looked at the distances from the track to the apartment buildings, and included the speeds, which are much lower near the building closest to Smetana Road, due to the design constraints of the curve in the tracks.

Event Building

In regard to your comment about the outdoor social even building located on the north side of the Greenfield property, the outdoor social event building is not considered a noise sensitive use under FTA categories and was not assessed (see FTA's *Transit Noise and Vibration Impact Assessment* [FTA, 2006]).

Rail Crossover

There are no rail crossovers located in the immediate vicinity of the Stuart Co. properties, however rail crossovers are included in the noise and vibration assessments for the Project.

Elevated Light Rail Alignment

In regard to concerns regarding structure-borne noise, the Final EIS noise and vibration assessments account for the presence of elevated light rail track in this area, specifically at the northernmost buildings in the Deer Ridge Apartments, where the tracks are on an elevated structure to go over the freight tracks.

Construction Vibration and Noise

The Final EIS contains a detailed assessment of both noise and vibration during construction. The assessment considered mitigation measures that will be incorporated into the construction plans at locations throughout the corridor, including a Noise Control Plan (Section 3.12.4.2), which will help minimize noise from construction activities. Alternative construction methods have been recommended at locations where construction would be very close to buildings and where there is the potential for damage. Pre-construction surveys and vibration monitoring will be conducted at locations identified during the preparation of construction documents (see Final EIS Section 3.13.4.3).

The Council will develop a Noise Control Plan for the project. The Noise Control Plan will contain information regarding when advanced notice of construction activities will be provided to affected communities. The Council Noise Control Plan will also contain other stipulations to help avoid or minimize construction noise impacts. For example, the Noise Control Plan will require that construction equipment used by contractors be properly muffled and in proper working order. Additionally, screening distances have been applied showing locations where monitoring of vibration intensive construction activities, such as pile driving, would need to be conducted.

Comments in Attachment from Westwood Professional Services

OMF Site Selection Evaluation: Failure to Identify Reasons for Selection of Site 9A

In regard to your comment that the Supplemental Draft EIS do not provide enough information, additional information about the selection process used can be found in the *Operations and Maintenance Facility (OMF) Site Selection* technical report, which is referenced in Appendix C of the Final EIS. That report goes into detail about the selection process, criteria used, and the outcomes for each of the four steps in the selection process. A similar appendix is located in the Final EIS (Appendix F). The analysis conducted for the Supplemental Draft EIS is greater than any analysis conducted for the four potential locations included in the Draft EIS because we had more design, engineering and environmental information to use for the analysis.

In regard to your comment that Site 11A was a top candidate throughout the process, although Site 11A did receive the ratings noted in your letter during the second-step evaluation, it was dismissed during the

third-step of the four-step evaluation process because Nine Mile Creek crosses the site, known site contamination, and potential impacts to development in the Shady Oak Station area.

As documented in the *Operations and Maintenance Facility (OMF) Site Selection* technical report, the OMF site selection criteria were applied equally to Site 9A and 11A. The technical report applies the same level of detail in its evaluation of strengths and weaknesses for sites 9A and 11A. The report states that “Consent with land use guiding and zoning” and “Operator relief access due to station proximity” are credited to both site 9A and 11A. The report also notes, as does Appendix F, that Site 11A has a “Potential development impact to Shady Oak Station Area” and that Site 9A has “Redevelopment potential of remnant areas”.

Regarding comments related to cost, the Supplemental Draft EIS did identify cost ranges for the two sites as a part of the third-step evaluation in Appendix F (see Table F.4-3). Based on conceptual site designs, Site 9A was found to cost approximately \$5 million less than site 11A. Additionally, the Supplemental Draft EIS listed capital cost estimates in Table 5.4-1 and one of the categories listed in that table is “Support Facilities: Yards, Shops, Administrative Buildings”. The Final EIS has an updated capital cost estimate, which is included in Chapter 7, Financial Analysis. This evaluation process also consisted of several open houses and receipt of public input from neighboring communities. Through the evaluation process Site 9A and Site 3/4 moved ahead to the advisory committees and Corridor Management Committee for the Project, and the Council made a final determination based on feedback from committees and stakeholders.

Environmental Resources Which the Supplemental Draft EIS Did Not Consider in the 9A Selection

In regards to your comment that the environmental resource categories not evaluated in the Supplemental Draft EIS should be evaluated, impact evaluations were considered for the proposed Hopkins OMF site (Site 9A) for all applicable environmental resource categories during the Supplemental Draft EIS. It was determined that an evaluation was not needed for some resource categories because there were no substantial issues identified within the Hopkins OMF site study area. The rationale for not including evaluations specific resource categories in the Supplemental Draft EIS at the Hopkins OMF site are described in the Supplemental Draft EIS in Section 3.1 (see Table 3.1-1). The following are responses to the concerns on specific environmental categories within your letter:

- **Neighborhoods and community.** The proposed Hopkins OMF site is located within an existing office, warehouse, and light manufacturing development and will occupy an approximately 15-acre site between the Bass Lake Spur to the south, 5th Street South (K-Tel Drive) to the north, 15th Avenue South on the east, and the proposed LRT mainline alignment associated with the Project to the west. The OMF will replace an existing industrial land use and will be located within an area with land uses that are similar to the OMF. The nearest residential land use to the OMF is approximately a quarter mile south and the OMF will not encroach on the nearby landfill site. Therefore, OMF operations will not result in impacts to neighborhood and community beyond that of the general LRT alignment studied in the Draft EIS.
- **Air quality.** Air quality is evaluated on a regional basis as opposed to site specific evaluation, and therefore air quality impacts from OMF operations would generally be the same, regardless of the site. Therefore, air quality impacts related to the OMF were not evaluated in the Supplemental Draft EIS.
- **Pedestrian interference.** As described above, the OMF will replace an existing industrial land use with a similar use. The OMF will not create any new barriers to pedestrian or bicycle travel and therefore impacts to these resources were not evaluated in the Supplemental Draft EIS.
- **Cultural Resources, Visual Quality, Habitat and Open Space.** Cultural resources, visual quality, habitat and open space were all evaluated in the Draft EIS. The Project is generally within the half-mile study area for these resources and there have been no major changes since the publication of the Draft EIS.
- **Noise.** Refer to the previous section within this response titled *Operations and Maintenance Facility*.

The Final EIS evaluates all environmental resource categories in Chapters 3 and 4, including at the proposed Hopkins OMF Facility.

Risk of Environmental Releases at Site 9A

The Phase II ESA conducted at Site 9A further evaluated site-specific risks and response action plans (RAP) were developed to identify actions to minimize or avoid the risks. The Phase II ESA investigations included collecting soil, soil vapor, and groundwater samples for laboratory analysis. Data from the Phase II ESA indicated that the landfill has not impacted the proposed Hopkins OMF site, and risk of impact is considered low.

A RAP for the OMF was submitted to the MPCA in January 2016 for approval. This RAP included a soil vapor intrusion mitigation system to address chlorinated solvent contamination resulting from soil and groundwater contamination. This mitigation system would help mitigate methane soil vapor, in the event that methane migration to the OMF site occurs. For additional detail regarding Hazardous and Contaminated Materials see Section 3.14 in the Final EIS.

Comment #	#145
Commenter	Steven Goldsmith
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#146
Commenter	Monica Smith
Commenter Organization	Cedar Isles Dean Neighborhood Association (CIDNA)

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#147
Commenter	Cathy Konat
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#148
Commenter	Not Provided
Commenter Organization	Kenwood Isles Area Association (KIAA)

Response

Duplicate comment - Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right.*

Comment #	#149
Commenter	Susu Jeffrey
Commenter Organization	Friends of Coldwater

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement (EIS)*. The Council notes your opposition to the Project. The sections that follow include responses to these specific comments.

- New municipal consent process
- Safety impacts related to co-location of freight rail and light rail (blast zone)
- Project need/equity train
- Greenhouse gas reduction
- Concern over impacts to natural springs from other projects
- Kenilworth Corridor shallow light rail tunnel's impacts to groundwater and lakes
- Minnehaha Creek Watershed District (MCWD) owned parcel near Blake Station, and MCWD and Minnesota Department of Natural Resources (MNDNR) permitting powers

New municipal consent process

See *Master Response 2: Project sought municipal consent prior to the publication of the Supplemental Draft EIS*.

Safety impacts related to co-location of freight rail and light rail (blast zone) General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor. Please also refer to *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Project need/equity train

As described in Chapter 1, one of the Project's purposes is to improve access and mobility to the jobs and activity centers in the Minneapolis central business district, as well as along the entire length of the corridor for reverse-commute trips to the expanding suburban employment centers. The 2010 (existing) population of the Project Corridor is 547,510 (229,974 households). In 2040, the population of the Corridor is expected to increase to 722,420, an increase of 32 percent from 2010. Employment in the Project Corridor is forecast to increase from 314,904 jobs in 2010 to 427,950 jobs in 2040, a 36 percent increase.

In addition, minority and low income populations will benefit from improved connectivity and access to transit as a result of the Project. The overall population within census blocks generally within walking distance to the Project (i.e., one-half mile) is approximately 59,180 people, and the total aggregated minority population in this area is 16,639 or 28 percent of the total. The overall population within census blocks groups (i.e., smallest geography reported for income data) generally within walking distance to the Project is approximately 89,700 people, and the total population for whom poverty is determined is approximately 12,500 or 14 percent of the total. Refer to Chapter 5 of the Final EIS for more information on minority and low income populations.

Greenhouse gas reduction

As described in Section 3.11.3, the Project operation will result in a net GHG emissions reduction in the region and beneficial to GHG and climate change impacts. When compared to 2013 existing conditions, the GHG emissions in 2040 will decrease by more than 955,000 and 957,000 metric tons per year, respectively, for the Project and No Build Alternative. These emission reductions are related to factors such as the overall improvements of the region's travel network, the use of newer and more fuel efficient vehicles, and the improvements of emission control technologies.

Concern over impacts to natural springs from other projects

The Council notes your concern over impacts to natural springs resulting from other transportation projects not related to the Southwest LRT Project.

Kenilworth Corridor shallow light rail tunnel impacts to groundwater and lakes

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*. Section 3.8 of the Final EIS includes an updated analysis of geology and groundwater resources, and includes applicable mitigation measures. Section 3.9 of this Final EIS includes an updated analysis of long-term impacts to water resources, including public waters and surface water quality. This section also includes applicable mitigation measures. Section 3.14 of the Final EIS describes an updated analysis of hazardous and contaminated materials. Section 3.17 of this Final EIS describes an updated analysis of short-term (construction-related) impacts on environmental resources, including geology and groundwater. Section 3.17 also includes applicable mitigation measures for short-term impacts.

Minnehaha Creek Watershed District (MCWD) owned parcel near Blake Station, and MCWD and Minnesota Department of Natural Resources (MNDNR) permitting powers

The Council notes your comments on the MCWD owned parcel near the proposed Blake Station and the permitting powers of both the MCWD and MNDNR. Development of the MCWD owned parcel near Blake Station will be determined by the owners of the parcel MCWD and is outside of the jurisdiction of the Council and FTA. As described in Table 9.5-1, the Project will require multiple permits from MCWD and MNDNR for approvals related to project elements within each agency's jurisdiction.

Comment #	#150
Commenter	Allen and Shirley Blumenthal
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Southwest LRT Project.

Comment #	#151
Commenter	Brooke Haworth
Commenter Organization	Minnesota Department of Natural Resources

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of issues concerning the Project's impacts to biota and habitat, water resources, and groundwater. The sections that follow include response(s) to these comments.

- Impacts to biota and habitat
- Minimization of impacts to water crossings and public water permitting
- Groundwater management and dewatering permitting

Biota and habitat

There were a number of comments relating to biota and habitat.

- **Wildlife crossings.** The Council notes your request that consideration be given to the identification of high profile areas for wildlife crossings, including wetlands, public waters, and open park spaces, and that wildlife fencing and turn-back structures be incorporated to minimize wildlife mortality.
- Three urban Regional Ecological Corridors will be bisected by the Project (see Section 3.10 and Figure 3.10-2 of the Final EIS). Because the proposed light rail alignment will be elevated over the corridors near the Eden Prairie Town Center and the Wooddale Stations, only the corridor located at Penn Station could result in habitat fragmentation. To avoid habitat fragmentation at this location, appropriately sized and spaced openings will be provided in the safety/security barriers (fences) in the area located approximately between 21st Street Station and Penn Station to maintain connectivity of terrestrial habitat and allow movement of terrestrial species, primarily small mammals. For more information, please refer to Section 3.10.
- **Wildlife-friendly erosion materials.** The Council notes your request to use wildlife-friendly erosion materials throughout the Project, especially around wetland and open water areas, to minimize impacts to small mammals and herpetofauna. As described in Section 3.10 of the Final EIS, the Project will include the implementation of appropriate wildlife-friendly (e.g., natural materials, no welded webbing) construction BMPs, which will help to avoid or minimize erosion and sedimentation impacts and protect water quality when needed.
- **DNR Natural Heritage Inventory (NHIS).** The Council notes your request for an updated Natural Heritage Inventory (NHIS) data review to determine if any new records of rare species have been identified within the Project footprint. As requested by the Council on June 12, 2015, MnDNR performed a query on the NHIS database (MnDNR, 2015) to identify potential element occurrences of state-listed species within approximately one-mile of the Project and associated facilities (stations, the OMF, and park-and-ride lots). In addition, the Council executed a license agreement with the MnDNR to obtain a copy of the NHIS database for internal Project review. The study area has also been evaluated for preferred habitats of identified rare species in coordination with state and local agencies, and in accordance with Minnesota's endangered species law (Minnesota Statutes 84.0895). Refer to Section 3.10 for more information.

Minimization of impacts to water crossings and public water permitting

The Council notes your suggestion that design of public water crossing avoid impacts below the ordinary high water level, if possible. The Council acknowledges that if design of public water crossings cannot avoid impacts below the ordinary high water level, steps to minimize impacts will be required during consideration of MnDNR public water permits.

Section 3.9 of the Final EIS describes an updated analysis of water resources, including wetlands, floodplains, public waters, and surface water quality. The section also includes mitigation measures for long-term impacts. The Project will comply with applicable Federal, State, and local wetland regulations and it has submitted [wetland] permit applications to the USACE, the State of Minnesota, and various

local jurisdictions. Approval of the permit applications can occur after publication of this Final EIS/ROD. Refer to Appendix E for the updated preliminary engineering plans for the Project.

Groundwater management and dewatering permitting

The Council notes that a MnDNR dewatering permit is required for withdrawals in excess of 10,000 gallons per day and that groundwater models and management plans will be reviewed by MnDNR staff during the application process. Section 3.8 of the Final EIS includes an updated analysis of long-term and temporary short-term (construction-related) impacts associated with groundwater pumping and applicable mitigation measures. As described in Section 3.8, the Council will comply with all regulatory and permitting requirements.

Comment #	#152
Commenter	Steve Quinlivan
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#153
Commenter	Jennifer Labovitz
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#154
Commenter	Asad Aliweyd
Commenter Organization	New American Academy

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). For responses to your comments, please see the response to comment 138.

In addition, regarding your concern over the need to include “affordable housing, jobs and economic development for low-income and people of color in the Project,” Section 5.2.2 of the Final EIS includes a description of existing affordable housing within the study area (including Eden Prairie) and Section 5.4.1 describes measures that the Council will undertake in order to minimize the displacement of existing affordable housing options. As described in Section 3.2, the Project will create approximately 10,600 construction jobs and support a projected 172 new long-term jobs, which would be accessible to for low-income and minority populations. As described in Section 3.1.3, light rail lines can advance the timing and increase the intensity of development within the limits allowed by local comprehensive plans, especially in areas near proposed stations (including those within the City of Eden Prairie). To fully leverage this development potential and to support local land use goals, Hennepin County, in partnership with the Cities of Eden Prairie, Minnetonka, Hopkins, St. Louis Park, Edina and Minneapolis, undertook a station area planning effort (*Southwest Corridor Investment Framework*. Hennepin County, 2013), which identifies station area development potential.

Comment #	#155
Commenter	Kathleen Fix
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#156
Commenter	David Jaeger
Commenter Organization	Hennepin County Public Works

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Edits and clarifications
- Water resources
- Parking
- Shady Oak Station Area Development Potential and Visual Quality
- Acquisitions and Displacements
- Hazardous and Contaminated Materials

Edits and clarifications

The following are responses to your comments regarding edits and clarifications:

- **Forecast year.** The forecast year for modeling has been updated to 2040 in the Final EIS.
- **Southwest Station to Mitchell Station segment.** Adjustments to the proposed design of the Project made subsequent to publication of the Supplemental Draft EIS are addressed in the Final EIS (see Appendix E for the Project's Preliminary Engineering Plans). These design adjustments include shifting the western project terminus of the light rail alignment in Eden Prairie from the vicinity of Mitchell Road immediately south of Highway 212, to the SouthWest Station. Revisions to changes in segments and stations will be covered in the Final EIS.
- **Agency titles.** "Hennepin County Conservation District" has been changed to "Hennepin County."
- **Community Advisory Committee composition.** As reported in the Final EIS (Chapter 5), the membership of the CAC includes Met Council, Southwest Community Works, as well as policy makers from cities in the study area and Hennepin County.
- **Excelsior Boulevard:** Excelsior Avenue has been changed to Excelsior Boulevard in the Final EIS
- **Mitigation of impacts:** The Final EIS identifies mitigation measures for visual quality impacts (see Section 3.7).
- **Noise impacts exhibit:** The Final EIS includes a new exhibit (Exhibit 3.12-6) showing moderate and severe noise impacts. This information is also presented in tabular form in Table 3.12-5).
- **Parking Section Edit.** Where "LPA" is used, we have ensured it is spelled correctly.

Water Resources

Wetlands

The comment letter notes a preference for wetland replacement to occur within Hennepin County. The Southwest LRT Project Office has coordinated with the United States Army Corps of Engineers, the State of Minnesota, Hennepin County, and the applicable local units of government in preparing the Project's updated wetland analyses included in the Final EIS. The primary way that this coordination occurred was through the Project's Technical Evaluation Panel (TEP) of wetland regulators, which generally met monthly following completion of the Draft EIS.

Regarding your comment on wetland replacement within Hennepin County, currently no established wetland bank credits are available in Hennepin County within Major Watershed 33 and Wetland Bank Service Area 9 [all proposed permanent wetland impacts requiring mitigation occur within Major Watershed 33 (Minnesota River – Shakopee) and within Wetland Bank Service Area 9]. Wetland mitigation will be provided through the purchase of established, approved wetland bank credits within Major Watershed 33 and Wetland Bank Service Area 9 located in Scott County. This approach is

consistent with the Council's wetland permit applications (refer to Appendix D of the Final EIS for instructions on how to access these documents).

Floodplains, Elevations at Purgatory Creek Park and Technology Drive

Relative to floodplains, the letter provided the following: (1) floodplain elevations at Purgatory Creek and at Technology Drive need to be established; (2) floodplain impacts should be measured by volume, and (3) floodplain mitigation should be hydraulically connected to the impact area. Responses to these topics are provided below.

- 1) The Southwest LRT Project Office is coordinating the Riley Purgatory Bluff Creek Watershed District, Nine Mile Creek Watershed District, Minnehaha Creek Watershed District and Bassett Creek Watershed Management Commission to utilize their most current hydraulic/hydrologic models to estimate the floodplain elevation and floodplain fill volume.
- 2) For the Final EIS, floodplain impacts were measured in volume; construction of the Project will result in 7,037 cubic yards of long-term floodplain impacts, as summarized in Table 3.9-10 and illustrated on Exhibits 3.9-4 and 3.9-5 of the Final EIS.
- 3) As noted in Section 3.9.6.2 of the Final EIS, impacts to locally regulated floodplains will be mitigated by appropriate compensatory storage within the affected waterbody. Final design will include the appropriate compensatory storage required by applicable local agencies.

As background, Section 3.9.5.3 of the Final EIS notes that, "The Project has been designed in compliance with EOs 11988 and 13690; therefore, floodplain impacts have been minimized to the greatest practicable extent and tracks and structures associated with the Project will be built above the applicable FFRMS elevations. Details regarding impact minimization measures and the specific Project design elevations and associated FFRMS elevations are included in the *Executive Order 13690 Summary and Recommendations Memorandum, Surface Water Resources Evaluation Supporting Documentation Technical Memorandum* (Council, 2015), located in Appendix C of the Final EIS. As background, also see *Executive Order 11988 Summary and Recommendations Memorandum* and which is also included in the surface water resources evaluation supporting documentation in Appendix C.

State Stormwater Treatment Guidelines

Relative to your comment regarding the new state stormwater treatment guidelines that require up to 1.1 inch of runoff originating from all new impervious surfaces must be abstracted, this requirement will be applicable to the Project as documented in *the Local and State Governing Agency Stormwater Requirements Summary*, which is included in the *Surface Water Resources Evaluation Supporting Documentation Technical Memorandum* (Council, 2015), in Appendix C of the Final EIS.

Lake Levels

The Final EIS is consistent with the independently prepared Burns and McDonnell *Southwest LRT: Kenilworth Shallow LRT Tunnels Water Resources Evaluation* (2014) regarding the issue of impact of the Project on lake levels, by drawing the conclusion that "the water amount that would be re-directed would be relatively small for a lake water budget perspective..." (p. 11). Given that the more technical Burns and McDonnell report does not provide quantitative context, it is not necessary to provide quantitative context within the Final EIS (e.g., 190,000 gallons/year compared to the volume of the affected lakes) as suggested in your letter.

As background, the groundwater and lake level evaluation found that in the area surrounding Cedar Lake, Lake of the Isles, and Lake Calhoun groundwater and lake levels are similar, with little change in elevation across the system. The three lakes are connected by free-flowing surface water channels, effectively causing the lakes to act as one water body. As a result, there is little or no groundwater gradient among the lakes; there is no evidence of significant groundwater flow from one water body to another. Precipitation and evaporation processes are the dominant factors in lake level fluctuation for this area. Groundwater modeling studies to evaluate the impacts of the proposed Kenilworth Tunnel on water levels in the vicinity of the tunnel show that, because of the sandy soil conditions and lack of groundwater flow in the vicinity of the tunnel, groundwater will rise and fall equally around the tunnel avoiding impacts to lake levels. Because the Project is not expected to affect groundwater flow or levels, the interaction between surface water and groundwater will be unaffected and water levels in Project surface waters will be driven by precipitation and evaporation as they would be without the Project. See Final EIS Section 3.8.3.2 for more information.

Parking

Parking at Shady Oak Station

A comment in the letter questions what potential environmental impacts could result from the addition of 300+ temporary parking stalls associated with the Shady Oak Station park-and-ride lot, east of the Proposed Hopkins OMF. The Project does not include the addition of 300+ temporary parking stalls on the property east of the Hopkins OMF. The park-and-ride lot associated with the proposed Shady Oak Station is north of the Hopkins OMF and not to the east. The park-and-ride lot at the proposed Shady Oak Station was not evaluated within the Supplemental Draft EIS as is outside of the scope of that evaluation. As described in Section 4.3 of the Final EIS, the Project includes a 700 space park-and-ride lot. All environmental impacts associated with the Shady Oak park-and-ride lot are documented within the Chapters 3 and 4 of the Final EIS. While the proposed surface park-and-ride lot could be redeveloped at a later date, the Final EIS environmental analyses are based on the surface park-and-ride lot as being present in 2040. The proposed capacity of the Shady Oak park-and-ride lot has been sized to meet forecast demand in 2040.

Please see Appendix E of the Final EIS, which provides the layout of the proposed park-and-ride lot analyzed in the Final EIS. Additionally, impacts associated with the proposed park-and-ride lot at the Shady Oak Station are documented within the Final EIS. Table 4.3-2 in the Final EIS show the proposed park-and-ride lot capacity.

Correlate Parking Impacts

Regarding your suggestion to correlate parking impacts to better understand actual parking impact, the structure of the parking impacts section has changed in the Final EIS compared to what was included in the Supplemental Draft EIS. In particular, 1) the parking impacts are aggregated by station area, 2) existing parking within the study area is provided by jurisdiction, and 3) the number of planned park-and-ride spaces is provided at each proposed light rail station. This structure of the analysis in the Final EIS provides additional context to better understand the Project's impacts.

Shady Oak Station Area Development Potential and Visual Quality

The comment letter expressed concerns over the placement of the OMF and its operations potentially having impact on the development potential of the nearby station and future 17th Ave redevelopment. As noted in Section 3.1.2 of the Final EIS, "The Shady Oak Station, in the City of Hopkins, will be located in the middle of a large industrial area, about a quarter mile south of Excelsior Boulevard and about a quarter mile east of Shady Oak Road. The surrounding existing land uses are predominantly industrial and commercial near the station, with a mix of residential and retail uses farther north from the station along Mainstreet." The proposed Hopkins OMF site is within an existing office, warehouse, and light manufacturing development and occupy an approximately 15-acre site between the Bass Lake Spur to the south, 5th Street South (K-Tel Drive) to the north, 15th Avenue South on the east, and the proposed LRT mainline alignment associated with the Project to the west. Therefore, the OMF will be located within an area with land uses that are similar to the proposed Hopkins OMF.

The Final EIS includes an assessment of station area development potential in Section 3.1.3.2, which references Hennepin County's Southwest Corridor Investment Framework (Hennepin County, 2014). As noted in Figure 12-1: Shady Oak Station Area – Locator Map of the Southwest Corridor Investment Framework for the Shady Oak Station, the existing 10-minute walkshed does not encompass the OMF site. The Investment Framework concludes that the Shady Oak Station has development potential that is challenged from a visibility and access perspective.

The Project has and will continue to coordinate with the City on design and architectural elements of the OMF. The Final EIS evaluated visual impacts within the area of the proposed Shady Oak Station (viewpoint 7 included in the Hopkins Visual Assessment Unit). As shown in Section 3.7, there will be substantial visual impacts due to the removal of existing vegetation between the proposed station and surrounding commercial area, and introduction of new built features. In order to mitigate this impact, the Council will:

- Design and implement landscaping into the Project design at appropriate locations to address identified visual impacts, within available landscape budget and balancing other priorities for landscaping (e.g., surface water quality, habitat preservation, species of concern), which could include the following:

- Retain as much of existing vegetation as appropriate to provide shielding for sensitive viewpoints, including techniques such as chaining and mowing without removal of the root systems, and/or tying back large shrubs and trees to provide adequate areas for construction activities.
- Restore and replant cleared areas in a timely manner, where appropriate, considering such factors as species type, seasonal growing conditions, and other construction-related activities.
- Place new and replacement trees based on such factors as helping to provide the maximum screening of views to and from sensitive viewpoints (e.g., adjacent residential areas) or providing street ornamentation, where appropriate.
- Develop landscape plans for areas adjacent to elevated structures, retaining walls, noise walls, and TPSS sites to achieve such effects as providing partial screening from sensitive viewpoints.

Acquisitions and Displacements

Acquisition and displacement impacts have been adjusted since publication of the Supplemental Draft EIS, to reflect Project design adjustments that have been made since publication of the Supplemental Draft EIS. Please see Section 3.4.3 of the Final EIS for updated impacts. The design adjustments and the changes to the anticipated acquisitions and displacements are reflected in the Chapter 5, Environmental Justice of the Final EIS. As noted in the Final EIS Section 5.4.1.1, acquisitions-related impacts under the Project will be experienced by all populations in the corridor, regardless of race, ethnicity, or socioeconomic status, and, therefore, the Project will not have a disproportionately high and adverse impact on EJ populations related to acquisitions and displacements. Further, Chapter 5 reflects that the Project as a whole would not result in disproportionately high and adverse impacts to environmental justice populations.

Hazardous and Contaminated Materials

Regarding your comment on adding petroleum waste to the list of hazardous material categories (pursuant to federal statutes), the description of the analysis in the Final EIS (see Section 3.14) has been updated to refer directly to relevant laws and regulations, rather than grouping the laws and regulations into a list of categories as was done in the Supplemental Draft EIS. Because the analysis is not based on the text referenced in your letter, equivalent text has not been included in the Final EIS.

Regarding your comment on methane-related impacts, Section 3.14.3.2 of the Final EIS identifies long-term indirect impacts from hazardous and contaminated materials. This section documents that long-term management of methane-related indirect impacts on the proposed Hopkins OMF site from the Hopkins Sanitary Landfill may be necessary to limit potential worker exposure to methane. This issue will require further evaluation as part of the Engineering process, prior to construction. OSHA guidelines will be followed in the operation of the OMF.

In response to your comments on soil vapor samples, Phase II ESAs were conducted in areas within or adjacent to high- and medium-risk sites where new right-of-way will be purchased and/or where construction activities are anticipated to occur as a result of the Project. The Phase II ESAs further evaluate site-specific risks and identify actions to minimize or avoid the risks. Phase II ESA investigations generally include collecting soil and/or groundwater samples for laboratory analysis.

Data from the Phase II ESA, including on-site methane soil vapor samples, indicated that the landfill has not impacted the proposed Hopkins OMF site, and risk of impact is considered low. And therefore methane migration mitigation – including barriers or venting systems - is warranted at this site.

A Response Action Plan (RAP) for the OMF was submitted to the MPCA in January 2016. This RAP included a soil vapor intrusion mitigation system to address chlorinated solvent contamination to soil and groundwater. This mitigation system would help mitigate methane soil vapor, in the event that methane migration to the OMF site might occur.

Comment #	#157
Commenter	Stephen Bullard
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*. In addition, please refer to Chapter 7 of the Final EIS for the Project's financial analysis and to Chapter 8 of the Final EIS for a summary of the benefits of the Project to the No Build Alternative, based upon metrics related to the Project's purpose statement.

Comment #	#158
Commenter	Brian Gaiser
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Regarding your opposition to the co-location of the Project with freight rail in the Kenilworth Corridor because of the potential for environmental impacts, see *Master Response 10: Rationale for incorporating freight rail co-location into the Project*.

In response to your comment about the Project's adverse impacts to the Minneapolis parks system, the Final EIS includes the Project's Final Section 4(f) Evaluation. Within the Evaluation, FTA has reached the following determination relative to the Minneapolis Parks System: there will be a non-*de minimis* use of the Kenilworth Channel/Lagoon, which is an element of the Minneapolis Chain of Lakes Regional Park. Further, FTA has determined that there is no prudent or feasible alternative to the use of that property and that all possible planning to minimize harm to that property has occurred. In addition, FTA has determined that there will be a *de minimis* impact to Bryn Mawr Meadows Park and there will be construction activities within Cedar Lake Park that meet the criteria for a Section 4(f) temporary occupancy exemption. Other proximity impacts due to the Project will occur at Park Siding Park and FTA has determined that those proximity impacts would not substantially impair the activities, features, or attributes of the park that qualify it for Section 4(f) protection. See Chapter 6 of the Final EIS for additional information on the Section 4(f) Evaluation and Section 3.6 for additional information on parks, recreation areas and open spaces

Comment #	#159
Commenter	Susu Jeffrey
Commenter Organization	Friends of Coldwater

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#160
Commenter	John Harvey
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

In addition, regarding availability of comments received at listening sessions regarding the Project, please refer to the Council's Southwest LRT website: swlrt.org and Hennepin County's Southwest Community Works website swlrcommunityworks.org. Comments are posted with their corresponding meetings. The Council does not record verbal comments at every listening session.

- The Council had listening sessions on several draft reports, and all recorded comments on those are on this page: <http://metro council.org/Transportation/Projects/Current-Projects/Southwest-LRT/Engineering/Studies2013.aspx?source=child>.
- See the Project website at the following URL for a copy of the comments received on the Southwest LRT Draft EIS during the public comment period: <http://metro council.org/Transportation/Projects/Current-Projects/Southwest-LRT/Environmental/DEIS/DEIS-Comments.aspx>. Comments regarding the Draft EIS were posted shortly after the close of the public comment period in January 2013.
- See the following URL for a copy of comments received on the Southwest LRT Supplemental Draft EIS during the public comment period: <http://metro council.org/Transportation/Projects/Current-Projects/Southwest-LRT/Environmental/SDEIS/Comments.aspx>

Comment #	#161
Commenter	Jody Strakosch
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#162
Commenter	Heather Haakenson
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#163
Commenter	Lisa Nankivil
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#164
Commenter	David Lilly
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#165
Commenter	Barb Rasmus
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#166
Commenter	Marion Collins
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

In addition, regarding your comment on crossings within the Kenilworth Corridor where no mitigation for bells/horns has been made, noise impacts caused by the Project were assessed according to the guidance used by FTA on all transit projects throughout the country. This included measuring the existing noise, including all sources of noise in the area, projecting Project noise at all sensitive locations, determining impacts using FTA impact criteria, and applying mitigation or minimization measures at locations where impacts were identified. Noise from LRT vehicle braking, as well as from bells and horns were included in the Supplemental Draft EIS and the Final EIS at all locations where these devices would need to be sounded. Crossing bells will be sounded for 20 seconds for each light rail vehicle at a grade crossing and for five seconds at each non-FRA grade crossings.

Section 3.12.4 in the Final EIS describes the measures the Council will implement to mitigate the Project's noise impacts. In addition, the Project is being designed to maintain the existing train horn quiet zone in the City of Minneapolis. See Section 3.12 and Appendix K of the Final EIS for additional information.

Comment #	#167
Commenter	Charles Gribble and Edith Black
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#168
Commenter	Shelley Fitzmaurice
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#169
Commenter	Terry Saario and Lee Lynch
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#170
Commenter	Paul Allwood
Commenter Organization	Minnesota Department of Health (MDH)

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of issues concerning the Project's potential to improve health for people living near proposed transit stations. The FTA and the Council understand the importance of this Project in promoting health and well-being for all users, including low-income and minority populations. The Project has been carefully planned to include bicycle and pedestrian improvements that would provide connections between light rail stations and their surrounding neighborhoods. These connections are intended to provide residents with enhanced non-motorized access to transit which could lead to increased physical activity for transit riders who walk or bike to stations. In addition, the Project has been designed to encourage higher-density, mixed use development surrounding proposed station locations, which is one factor that could lead to increased access to healthy food choices for minority and low-income populations as stated in your letter. The following are responses to additional comments within your letter.

Housing: Potential for increased housing costs around transit stations

As the region makes significant investments in transit, it has taken steps to minimize and mitigate the impacts of neighborhood change along transitways that can displace existing low-income residents through increases in rent and housing costs, and which could lead to a decrease in racial diversity if unaddressed. This effort includes the development of plans and policies intended to preserve a mix of housing affordability protects housing options for existing low-income residents alongside the newer higher-income residents and rising housing costs that transit investments attract. In particular, in 2014, the Council adopted the *2040 Housing Policy Plan* which contains a policy to "Create or preserve a mix of housing affordability around emerging transit investments."

Southwest Corridor Community Works and their funding partners have been working together since 2012 to inventory existing housing options in the corridor, understand what the future housing demand may be and the likely demographics of people interested in living along the corridor. In addition, the work includes deep understanding of the current and potential local, county, state and federal technical and financial resources to support a full range of housing choices. The Council is working in partnership with Hennepin County and the cities to implement the Southwest LRT Community Works Investment Framework which will serve as a guide for short- and long-term transit related policy and investments. Implementation of this framework could include policies to ensure new developments surrounding station areas include affordable housing options. The Council is also involved in the Southwest LRT Community Works housing inventory that assesses existing housing and housing gaps in the corridor as a whole and around stations (<http://www.swlrtccommunityworks.org/beyond-rails/planning-information/housing-inventory>).

Some of the Southwest-specific studies and resources that inform this work include:

- **Southwest Corridor- wide Housing Inventory (2013)**, which chronicles existing housing and demographics along the corridor
- **Southwest LRT New Starts Affordable Housing Rating Evaluation Summary, MZ Strategies (2013)**, which outlines existing Southwest Corridor Cities plans and programs that support affordable and workforce housing that can be applied to the LRT Corridor
- **Southwest Corridor Investment Framework (2013)**, which provides Transitional Station Area Action Plans (TSAAPs) for each of the 17 station areas, including recommendations on likely sites for housing development
- **Southwest Corridor Housing Gaps Analysis (2014)**, which projects future housing demand, provides market analysis and outlines recommendations and tools to achieve a full range of housing choices

- **Southwest LRT New Starts Submittal (2014)**, which provides updated information on costs, ridership and land use/economic development both presently and looking into the future, as part of the Federal LRT Funding process
- **Corridor-wide Housing Strategy (2015)**, which documents a plan to support and encourage a full range of housing choices along the Southwest corridor station areas.

Additionally, cities have undertaken housing studies, outlined tools and strategies in comprehensive plans and set individual housing goals. Further, in 2015, the U.S. Department of Housing and Urban Development (HUD) released a Final Rule titled Affirmatively Furthering Fair Housing (AFFH), which is intended to help communities that receive HUD funding to meet long-standing fair housing obligations in their use of HUD funds. The rule responds to recommendations of the Government Accountability Office and stakeholders for HUD to enhance its fair housing planning obligations by providing greater clarity and support to jurisdictions receiving HUD funding, and facilitating local decision-making on fair housing priorities and goals. As recipients of HUD funding, the Council and the affected cities will be required to comply with this final rule which will help to ensure affordable housing goals are met. These efforts, along with other resources and technical assistance, have been compiled and taken into consideration to inform the Southwest Community Works Corridor-wide Housing Strategy along the Green Line Extension.

Chapter 5 of the Final EIS includes an updated and detailed Environmental Justice analysis, which is intended to identify any disproportionately high and adverse impacts to minority and low-income populations. Section 5.2 describes the locations of minority and low-income populations along the proposed light rail alignment, Section 5.3 describes how the Project has engaged minority and low-income populations throughout the Project development process. As noted in Section 5.4, acquisitions-related impacts under the Project will be experienced by all populations in the corridor, regardless of race, ethnicity, or socioeconomic status, and, therefore, the Project will not have a disproportionately high and adverse impact on EJ populations related to acquisitions and displacements. Further, Chapter 5 reflects that the Project as a whole would not result in disproportionately high and adverse impacts to environmental justice populations.

General Comments: Consider the two health impact assessments (HIA) that have been done for Bottineau Transitway and Central Corridor

These HIAs found that regional transitways (such as the Southwest LRT Project) can improve community health and health equity and the extent of these benefits is dependent on multiple factors, including the following:

- The impact of the transitway on health will depend on the land uses surrounding the new stations
- The impact of the transitway on low-income and minority communities will depend on efforts to ensure their access to light rail

The Project has been designed to leverage these health benefits. As described in Section 3.1.3.2, Hennepin County, in partnership with the Cities of Eden Prairie, Minnetonka, Hopkins, St. Louis Park, and Minneapolis, undertook a station area planning effort including a focus on transit oriented development. The resulting Southwest Corridor Investment Framework (Hennepin County, 2013) identifies short- and long- term infrastructure needs and land use plans for the light rail station areas included in the Project. These station area plans are intended, in part, to ensure land uses surrounding new stations are supportive of transit.

Comment #	#171
Commenter	Steven Kotke and Craig Taylor
Commenter Organization	City of Minneapolis

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Ridership
- Construction impacts
- Shallow Tunnel: Environmental Issues
- Freight rail safety
- LRT operation
- Regional Transit Connections
- Executive Summary
- Purpose and Need
- Affected Environment, Impacts, Mitigation

Ridership

The Southwest LRT ridership forecasts were developed using the Council's regional travel demand model for the Twin Cities metropolitan area. The forecast year for the model was 2030. The model was used to develop ridership projections and was also used for transportation analyses. For the Final EIS, the Project modeling was updated to reflect 2040 ridership. This update was made because more up to date model inputs were available when the Final EIS was under development.

Table 4.1-5, Average Weekday Station Usage (Ons and Offs) by mode of Access, in the Final EIS provides a summary of ridership at each station and a breakdown of whether those riders accessed the station via walking, transfer, or park-and-ride. Section 4.1 of the Final EIS and the draft *Travel Demand Methodology and Forecast, Revision 3, Southwest LRT Technical Report* provides detailed transit analysis and results for existing transit service, No Build Alternative (2040) and Project conditions (2040).

The following table includes projections for opening day ridership (2020), 2040 ridership, reverse commute ridership, new transit trips, and transit dependent ridership at each station. Please note that station boardings are defined as the average number of Ons and Offs at a station in order to estimate trips going through the station. For reverse commute trips, the end of the line station, SouthWest Station, has a high number of Offs, but zero Ons, which is why the station shows station boardings.

Station Name	Opening Day (YR 2020) Ridership Projections	YR 2040 Projected Ridership	Reverse Commute Ridership (YR 2040)	New Transit Trips (YR 2040)	Transit Dependent Ridership (0 Car Households) (YR 2040)
SouthWest Station	1,629	2,342	600	925	603
Eden Prairie Town Center Station (deferred)	0	1,209	330	594	394
Golden Triangle Station	934	1,554	584	591	526
City West Station	415	678	240	226	199
Opus Station	840	1,375	615	718	507
Shady Oak Station	1,132	1,286	282	455	206
Downtown Hopkins Station	1,325	2,059	547	830	590

Station Name	Opening Day (YR 2020) Ridership Projections	YR 2040 Projected Ridership	Reverse Commute Ridership (YR 2040)	New Transit Trips (YR 2040)	Transit Dependent Ridership (0 Car Households) (YR 2040)
Blake Station Louisiana Station	664	946	251	307	262
Louisiana Station	1,176	1,694	446	568	420
Wooddale Station	766	1,182	243	461	313
Beltline Station	1,272	1,993	529	677	518
West Lake Station	1,941	2,741	915	859	944
21st Street Station	670	1,001	137	514	218
Penn Station	404	644	229	190	308
Van White Station	683	289	69	105	108
Royalston Station	992	1,625	435	455	574
Downtown ridership & transfers from Green & Blue Lines	8,101	11,814	1931	3661	2190

Construction impacts

Table 2.1-2 in Section 2.1.1.2 of the Final EIS summarizes the construction activities for the Project based on Preliminary Engineering Plans (see Appendix E of the Final EIS). Additionally, each section within Chapters 3.0 and 4.0 of the Final EIS provide short-term, construction-related impacts for each specific environmental resource or transportation-related issue addressed in these two chapters. As appropriate, mitigations for short-term, construction-related impacts are also addressed within Chapters 3.0 and 4.0 for environmental and transportation topics.

The City's letter indicates that efforts must be made to:

- Dampen or minimize the noise and vibration that will be caused by sheet pile driving;
- Define means and methods for removing trees along the Kenilworth Channel;
- Limit hours of construction operation to ensure residents are not disturbed at night; and
- Enforce the City's Noise Ordinance.

The Final EIS contains a detailed assessment of both noise and vibration during construction. The assessment considered mitigation measures that will be incorporated into the construction plans at locations throughout the corridor, including a Noise Control Plan (Section 3.12.4.2), which will help minimize noise from construction activities. Alternative construction methods have been recommended at locations where construction would be very close to buildings and where there is the potential for damage. Pre-construction surveys and vibration monitoring will be conducted at locations identified during the preparation of construction documents (see Final EIS Section 3.13.4.3).

Construction noise levels are subject to local noise ordinances and noise rules administered by the MPCA (Minnesota Rules Chapter 7030). Local governments (including the City of Minneapolis) and MPCA administer these noise rules to establish maximum allowable noise levels. In general, Project construction will occur within daytime hours. However, night construction may sometimes be required. If nighttime construction necessary, a nighttime construction mitigation plan will be developed during the Project's final design and construction stages. The Council will discuss the nighttime mitigation plan with the City and have had discussions about off-hours work permits and strategies to address light pollution, which may include shielding of construction sites. The Council will require that construction equipment used by contractors be properly muffled and in proper working order. Advanced notice will be provided to affected communities of any planned abnormally loud construction activities.

A detailed Noise Control Plan will be prepared for the Project's construction duration. The plan will provide specific information on equipment and methods as a part of this plan for construction on the Project, as well as account for all activities, including those related to tree removal. A noise control engineer or acoustician will work with the contractor(s) to prepare the plan in conjunction with the contractor's specific equipment and methods of construction. See Section 3.12.4.2 and Appendix K for more information regarding the approach to construction noise mitigation.

For additional information and vibration impacts related to construction, refer to *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*.

As noted in Section 2.1.1.2 of the Final EIS, detailed work-specific construction plans will be developed and implemented prior to and during construction. In addition, the Council will develop and implement a Construction Mitigation Plan which will address hours of operation, construction vehicle access routes, and strategies for addressing dust and debris.

The Project will perform pre-construction surveys to document the existing conditions in the vicinity of construction activities. Photo documentation of construction staging sites, haul routes, and existing buildings and streetscape existing conditions will be conducted prior to beginning the work. Photo documentation shall include the following existing features of the site: paving, curb and gutter, water valves, hydrants, storm drainage and sanitary sewer inlets and manhole rings, plumbing, ceilings, roofs, walls, windows, masonry, foundations, signage, traffic signal equipment, lighting, overhead utilities and skyways, fences and walls, driveways, sidewalk, building fronts, and above-ground utilities.

Construction vehicle routes will be determined prior to construction and the contractor will be required to maintain corridor access points and haul routes and clean them at least once per day. Cleaning shall consist of removal and disposal of dust, dirt, mud, snow, and other material associated with construction activities. Accumulated snow and ice will be removed within 24 hours of the snowfall from access areas and any areas under the control of the contractor which are subject to use by pedestrian and vehicular traffic by the public.

The Council's outreach program will utilize periodic communication efforts to keep the local public aware of progress and construction expectations. Mitigation measures for short-term impacts related to construction activities will be identified in the Construction Mitigation Plan and Construction Communication Plan which will be implemented by the Council prior to and during construction. The purpose of the Construction Communication Plan is to prepare project-area residents, businesses, and commuters for construction; listen to their concerns; and develop plans to minimize harmful or disruptive effects. The Council will discuss the plans with City staff. Mitigation measures may include:

- Issue and distribute regular construction updates;
- Provide advance notice of roadway closures, driveway closures, and utility shutoffs;
- Conduct public construction meetings;
- Establish a 24-hour construction hotline;
- Prepare communication materials with applicable construction information
- Address property access issues; and
- Assign staff to serve as liaisons between the public and contractors during construction (Source: Council, 2015a. Communications and Public Involvement Plan (CPIP). See Final EIS, Appendix C for instructions on how to access this document)

Shallow Tunnel; Environmental Issues

As described in Sections 3.8 and 3.9 of the Final EIS, the Project will include appropriate avoidance, minimization, and mitigation measures for surface waters, storm drains/tunnels, and sanitary sewers. Short-term (construction) stormwater runoff will be directed into temporary stormwater management facilities created as part of the Project. These facilities will be designed to provide stormwater treatment in compliance with NPDES requirements.

Section 3.15.3.2 in the Final EIS documents that underground utilities (including water, sewer, stormwater, and nature gas pipes and pipelines), and electrical distribution and communication wires and cables within or crossing the utilities study area were evaluated to determine their condition and potential reaction to the added weight loading from light rail and freight rail. The Final EIS documents that utility

conflicts will be resolved through a variety of appropriate techniques, such as lowering the existing utility, encasing the utility line for additional protection, or relocating the line away from the LRT alignment.

Freight rail safety

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Section 4.6 of the Final EIS addresses safety and security of the Project. Please refer to the Final EIS for current information. As part of the Project, construction activities will occur close to active freight rail corridors. All contractors will prepare a Project safety and health program along with a site-specific safety plan to ensure that, while on the work site and construction activities, contractor and subcontractor personnel comply with the specified safety practices, codes, and regulations as described in the Project's Safety and Security Management Plan SSMP.

LRT operation

Regarding concerns over delays to emergency response vehicles and coordination with local emergency responders, see *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Regarding the comment that use of LRT bells, whistles, and horns be evaluated and minimized, the anticipated use of horns and bells at each at-grade crossing, station, and tunnel portal has been determined in consultation with Metro Transit Operations. Documentation of considerations and horn and bell usage is documented in Section 3.1 of the Noise and Vibration Technical Report (December 2015) that is included in Appendix K of the Final EIS.

Regional transit connections

The *2040 Transportation Policy Plan* (2040 TPP) indicates that the recommended locally preferred alternative that resulted from the Midtown Greenway Corridor Alternatives Analysis (AA) will be considered through a future amendment to the TPP. Since the AA's LPA was not included in the TPP at the time of the modeling effort for Southwest LRT, this alignment was not included in the analysis.

The *2040 Transportation Policy Plan* (2040 TPP) references 11 corridors being recommended for arterial BRT in the Arterial Transitway Corridor Study completed in 2012. The TPP notes that initial work has begun on the Snelling Avenue (A Line), the Penn (C Line), and the Chicago Emerson-Fremont (B Line) lines; these will be the first three corridors implemented in the region. The TPP noted that the remaining system planning is on hold. Based on the content included in the TPP, the C-Line along Penn Avenue was included in the 2040 travel demand model, however, the Lake Street arterial BRT was not. See Section 4.1 of the Final EIS, and the *Draft Travel Demand Methodology and Forecast, Revision 3*, Southwest LRT Technical Report in Appendix C for a more detailed description of the travel demand forecasting methodology.

Executive Summary

Section 3.12, Noise of the Final EIS provides results of the noise analysis, as well as mitigation measures identified to address adverse noise impacts that will result from the Southwest LRT Project.

Section 3.14, Hazardous and Contaminated Materials, of the Final EIS documents the effects of hazardous and contaminated materials resulting from the Southwest LRT Project, including those sites requiring remediation. Response Action Plans (RAPs) are being developed by the Council and approved by MPCA to address the risks identified in the Phase I and Phase II environmental site assessments.

Purpose and need

Refer to the previous section titled "Ridership" for the requested reverse commute ridership information.

Affected Environment, Impacts and Mitigation

Visual quality and aesthetics

Section 3.7.4 in the Final EIS describes the mitigation measures the Council will implement to mitigate the Project's visual quality and aesthetic impacts. The Council will also incorporate mitigation measures for Section 106-protected resources and Section 4(f)-protected properties as specified in the Section 106 Memorandum of Agreement (to which City of Minneapolis is concurring party) and the Final Section 4(f) Evaluation, respectively. Additionally, within the Kenilworth Corridor, the Council developed a landscape

design that preserves and builds upon the natural character of the corridor, where applicable and appropriate. The Council will continue to coordinate with the city through the design process.

The visual impact analysis for the Project was updated for the entire corridor since the publication of the Supplemental Draft EIS. The update caused a renumbering of the viewpoints from the Supplemental Draft EIS to the Final EIS. The updated visual quality assessment can be found in Section 3.7 of the Final EIS. For additional information on the visual quality analysis for the Kenilworth Corridor, including an explanation of the changes from the Supplemental EIS to the Final EIS and the Final EIS level of impacts, refer to *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Tunnel portal near the Kenilworth Channel

The Final EIS analyzed the Project design, including the tunnel portals. Project elements, including retaining walls with decreasing height as the LRT comes up to grade from the tunnel portal, and fencing that separates the tunnel portal and pedestrian/bike trails are included in the Final EIS (see Appendix J – Exhibit J-19). The Council prepared design guidelines for key structures throughout the proposed light rail alignment, focusing on bridges and retaining walls. Those guidelines, which would apply to both tunnel portals, are included within the *Visual Quality Guidelines for Key Structures* (Council, 2015 – refer to Appendix C to access the Guidelines).

Tunnel portal near Lake Street

As noted in Section 3.7.3, the visual quality impacts related to the south tunnel portal near West Lake Street were evaluated in the Final EIS (see viewpoint 14). The Project will have substantial visual impacts in this area. Refer to Section 3.7.5 for a description of potential mitigation measures. In addition to implementation of the Visual Quality Guidelines for Key Structures, the Project will include incorporation of the following visual mitigation measures, as appropriate, where moderate and substantial visual impacts have been identified:

- Retain as much of existing vegetation as appropriate to provide shielding for sensitive viewpoints, including techniques such as chaining and mowing without removal of the root systems, and/or tying back large shrubs and trees to provide adequate areas for construction activities
- Restore and replant cleared areas in a timely manner, considering such factors as species type, seasonal growing conditions, and other construction-related activities
- Place new and replacement trees based on such factors as helping to provide the maximum screening of views to and from sensitive viewpoints (e.g., adjacent residential areas), or providing street ornamentation
- In areas where the light rail alignment will be located adjacent to sidewalks or trails provide planter strips between the sidewalk or trail and utilize plant selections such as low, hedge-like shrubs to create a visual buffer between the pedestrian ways and the light rail alignment to screen views of the light rail alignment.
- As appropriate, develop landscape plans for areas adjacent to elevated structures, retaining walls, noise walls, and TPSS sites as appropriate to achieve such effects as providing partial screening from sensitive viewpoints.
- Incorporate visual mitigation measures for Section 106 protected resources and Section 4(f) protected properties as specified in the Section 106 Memorandum of Agreement and the Final Section 4(f) Evaluation, respectively (see Appendix H and I, respectively).

Additionally, within the Kenilworth Corridor, the Council developed a landscape design that preserves and builds upon the natural character of the corridor, where applicable and appropriate.

For information on the visual quality evaluation in the area of the 21st Street, refer to *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Noise impacts in the Kenilworth Corridor

Section 3.12, Noise, of the Final EIS provides the noise analysis for the Project. The section documents severe and moderate noise impacts caused by the Project and identifies mitigation measures for the

impacts, including noise impacts in the Kenilworth Corridor. The primary avoidance measure for noise impacts within the Kenilworth Corridor is the proposed shallow LRT tunnel. Implementation of the tunnel will avoid most noise impacts compared to an at-grade LRT alignment within the same segment of the corridor. Without the tunnel, the number of noise impacts would be greater.

From Lake CitiHomes to South Upton Avenue there will be 18 buildings with moderate noise impacts and one building with a severe noise impact without mitigation; with mitigation, there will be residual noise impacts (moderate) at five buildings (seven units at Lake CitiHomes and four residences at Burnham Road North). The residences with residual moderate noise impacts do not meet the threshold for mitigation (e.g., impact does not meet 3-dB increase threshold) as defined by Council's Regional Transitway Guidelines (see Appendix D).

Some of the noise impacts near 21st Street Station will be mitigated by the use of wayside bells instead of the routine sounding of train horns. For the residences not mitigated by the use of a wayside bell (one severe and four moderate impacts identified along Thomas Avenue South and Burnham Road North), interior noise testing will be conducted to determine if the residences meet the interior noise level criteria (defined in Appendix K). Based on the results, the Council will identify the noise mitigation to be implemented for the residences. If the interior noise level exceeds the criteria set in the Council's Regional Transitway Guidelines (Appendix D), the Council will work with property owners on applicable mitigation. This could include implementation of sound insulation, which would require approval by the property owner(s).

Table 3.12-8 in Section 3.12 of the Final EIS summarizes the noise impacts for institutional land uses (including the Kenilworth Channel and Lagoon Bank). One moderate impact is expected for the Kenilworth Channel, and no noise impacts are anticipated for the Kenilworth Lagoon. The Project will include a two-foot parapet wall and rail damper on the LRT bridge over the waterway to mitigate the moderate noise impact at the Kenilworth Lagoon.

Ground-borne noise impacts in the Kenilworth Corridor

Section 3.13.3 in the Final EIS identifies the ground-borne noise impacts from the Project. Table 3.13-7 documents that without mitigation, the Project will result in ground-borne noise impacts at 54 units (in five buildings) for residential land uses in the tunnel section south of the Kenilworth Channel (see Exhibit 3.13-2). The tunnel slab, a Project feature within the Kenilworth Corridor, significantly reduces the number and magnitude of ground-borne noise impacts relative to a tunnel without a slab within the same segment of the corridor.

Section 3.13.4 of the Final EIS provides the measures the Council will implement to mitigate the Project ground-borne noise impacts. Within the Kenilworth Corridor, the Council will also implement highly resilient rail fasteners in the tunnel section (approximately 2,200 feet) to eliminate ground-borne noise impacts.

Short-term noise and vibration impacts

Sections 3.12 and 3.13 document short-term impacts for noise and vibration, respectively. These impacts are based on a level of design that is advanced from the Supplemental Draft EIS. For additional information and vibration impacts related to construction, refer to *Master Response 7: Concerns related to vibration impacts from LRT tunnel construction*. For more information on construction activities, refer to the "Short-term (construction) impacts" section above.

Operating assumptions –10 vs. 7.5 minute headways

As reported in Section 2.5 of the Supplemental Draft EIS, and in Section 2.1 of the Final EIS, the light rail operating plan for the Project, light rail trains will generally operate every 10 minutes during peak periods, compared to approximately every 7.5 minutes identified under LRT 3A and LRT 3A-1 in the Draft EIS. The Final EIS reflects 10-minute headways will apply to light rail operations during AM and PM peak and mid-day operating hours (from 6:30 a.m. to 9:00 p.m.).

Service plans will be reviewed and revised, as needed, prior to opening of light rail service in 2020, and will be a result of a service planning process that complies with the Council's and SouthWest Transit's service planning policies, with federal requirements (e.g., Title VI), and a variety of external factors (e.g., transit demand, funding availability, public and agency comment). See Section 2.1 of the Final EIS for additional detail on the proposed Green Line light rail operations service plan.

Freight Rail - Daytime vs. nighttime and operating speeds

As described in Section 4.4, the Project is making minor infrastructure modifications to freight rail for very limited areas, mainly to facilitate the movement of light rail transit, but these modifications are not expected to significantly affect freight rail operations within the Kenilworth Corridor. The Kenilworth Corridor complies with Class 2 standards, as specified in the USDOT FRA Code of Federal Regulations (CFR) 49, Track Safety Standards, Part 213. CFR 49, Part 213.9 identifies “The maximum allowable operating speed for freight trains” as 25 mph for Class 2 track. However, based on discussions with TC&W, the Council understands that TC&W will continue to operate at a maximum speed of 10 mph in the Kenilworth Corridor and during similar operating hours as are used today. The Council will continue to coordinate with TC&W as the design of the Project advances

Existing noise measurements, which in some instances included traveling freight trains, were used for the noise and vibration analyses included in the Final EIS. The noise modeling completed for the Final EIS assumed train operating speeds of 10 mph within the Kenilworth Corridor.

Review and comment on future plans and mitigation efforts

Items included in Table 3.1-6 of the Supplemental Draft EIS are identified and expanded upon in applicable sections of the Final EIS. Final commitments and mitigation measures identified in the Final EIS are also documented in Sections 3.0 and 4.0 of the Final EIS. The City’s comment regarding interest to review and comment on future plans and mitigation efforts has been noted. The Council has continued to coordinate with the City on mitigation measures included in the Final EIS, including reviews of noise and visual impact mitigation measures, as well as impacts to historic properties through the section 106 consultation process. Development of the plans noted in your comment letter will be completed prior to the start of construction, and the Council will provide these to the City, as appropriate.

Bicycle and pedestrian

The North Cedar Lake trail crossing of the LRT and freight rail corridor west of Penn Station will be at-grade. As documented in Section 4.5.3 of the Final EIS the trail crossings of the tracks have been designed based on current industry standards. Freight crossings occur approximately two to three times a day and block the trail. The freight and LRT at-grade crossings will be separated, with the freight crossing located approximately 200 feet west of the LRT crossing at this location. Based on trail volumes at this crossing, a queue of 30 to 40 bicyclists is expected during a freight rail crossing. Exhibit 4.5-3 shows an excerpt from the Preliminary Engineering Plans (see Appendix E). By shifting the freight rail crossing west, the space available for queuing between the two crossings is sufficient for this many people with bicycles to stand and wait. As a result, trail users waiting for a freight train to pass will not interact with the light rail tracks or the intersection of Cedar Lake Trail and Kenilworth Trail to the south. Therefore, the Project will not result in an adverse long-term direct impact to the existing pedestrian and bicycle network at this location.

Environmental justice

As suggested in the comment, American Community Survey (ACS) 2009-2013 data were used in the Final EIS as a primary source for identifying low-income populations (see Chapter 5 for additional detail).

Public Waters and Stormwater Management

Regarding the comment to include that “stormwater runoff would be treated to meet local requirements,” the appropriate language has been included in the Final EIS. As described in Sections 3.8 of the Final EIS, the Project will include appropriate avoidance, minimization, and mitigation measures for surface waters, storm drains/tunnels, and sanitary sewers. Stormwater runoff water collected will be treated, if required, and pumped to the adjacent sanitary sewer systems owned by either the City of Minneapolis or Metropolitan Council Environmental Services. The Council will follow appropriate local procedures regarding groundwater discharge.

Land use - planning documents consulted

As described in Section 3.1.2 of the Final EIS, the *Minneapolis Plan for Sustainable Growth* (2009 update of *Minneapolis Comprehensive Plan*), the *Midtown Greenway Land Use and Development Plan* (Minneapolis, 2007) and the *Bryn Mawr Neighborhood Land Use Plan* (adopted by the City in 2005) were reviewed and used to inform the land use analysis for the Project.

No park-and-ride lots within city limits

Since publication of the Draft EIS, the proposed park-and-ride lots at LRT stations within the City of Minneapolis were removed from the Project. See Section 4.3 of the Final EIS for more information regarding parking. Additionally, as noted in Chapter 2 in the Final EIS, all light rail stations will include accessible connections to local street networks and sidewalks, as well as connections to bicycle and pedestrian facilities.

Long term indirect land use impacts

The Final EIS acknowledges station area development as a potential indirect impact to land use; however, because future developments would require the actions of others and is influenced by external market forces, specific station area development effects are generally outside of the scope of the Final EIS. Based on the *Southwest Corridor Investment Framework* (Hennepin County, 2013), additional development or redevelopment is anticipated in all Project light rail station areas (including West Lake and Penn Stations), except the 21st Street Station, which is currently fully developed with existing residential uses. All other proposed light rail stations are expected to experience additional mixed-use development that would be supportive of and compatible with light rail. The Southwest Corridor Investment Framework anticipates future changes in land use policies and zoning that would support opportunities for redevelopment and transit-oriented development, emphasizing a pedestrian-friendly, mixed-use environment with a multimodal transit network. See Section 3.1.3.2 of the Final EIS for more information.

Effects of construction activities on groundwater flow

The Council appreciates the City's request to rephrase the statement "construction activities and potential light rail-related improvements both have the potential to affect groundwater by potentially changing the flow of or contaminating groundwater within the Project vicinity" to add a statement that the Project also "has the potential of changing the flow of previously contaminated groundwater, if present."

The groundwater analysis included in the Final EIS has advanced since the completion of the Supplemental Draft EIS and can be found in Section 3.8 of the Final EIS. Two zones of groundwater contamination, one at either end of the Kenilworth Corridor (corresponding to the locations of the soil contamination described above), were identified and addressed in the RAP; groundwater throughout the remainder of the corridor was characterized as not contaminated. The contaminated zones are called "Groundwater Impact Areas," and are defined as areas surrounding a groundwater sample with an analytical result that exceeded method reporting limits (except metals). The Groundwater Impact Area at the west end of the Kenilworth Corridor is designated as GW-E06, and includes groundwater contaminated with DRO (non-detect to 352 µg/L) trichloroethene (non-detect to 2 µg/L) and vinyl chloride (non-detect to 0.4 µg/L). The Groundwater Impact Area at the east end of the Kenilworth Corridor is designated as GW-E07, and includes groundwater contaminated with DRO (non-detect to 34,700 µg/L), and GRO (non-detect to 1,790 µg/L). Based on data from the Phase II ESAs, all contaminant levels detected in the Groundwater Impact Areas indicate that groundwater would be acceptable for sanitary sewer disposal without treatment. The RAP states that small volumes of potentially contaminated groundwater will be collected, tested, transported and disposed at an approved facility under conditions of the facility discharge permit; and that larger volumes of potentially contaminated groundwater discharge will preferentially be disposed into the sanitary sewer as permitted with the Publicly Owned Treatment Works (POTW) or the Metropolitan Council Environmental Services (depending on location) under conditions of the facility discharge permit.

Based on the findings presented in Section 3.8 of the Final EIS, as described below, editing text from the Supplemental Draft EIS in the previous sentence is not required, therefore the statement from Section 3.2.2.1 of the Supplemental Draft EIS noted above, is not included in the Final EIS. See Section 3.8.3.2, Groundwater Resources, of the Final EIS for the updated groundwater impacts discussion, which includes an evaluation of the risk of groundwater contamination during construction.

Groundwater removal in the Kenilworth Corridor tunnel after construction

Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

Groundwater elevation in the area of the Kenilworth Corridor

As documented in the Southwest LRT Project Geology and Groundwater Evaluation Supporting Documentation (see Appendix C for instructions on how to access supporting documentation) and in the *Southwest Light Rail Transit: Kenilworth Shallow LRT Tunnels Water Resources Evaluation* (Burns and McDonnell, 2014) (Appendix D), a detailed evaluation of groundwater elevations within the Kenilworth Corridor was conducted. Within the Kenilworth Corridor, groundwater was generally observed 15 to 25 feet from the surface, with some areas near West Lake Station where groundwater was observed approximately 10 feet from the surface.

Waterproofing to limit groundwater infiltration

The tunnel design will minimize the inflow of groundwater through use of a waterproofing system and the permanent use of the steel sheetpile retaining wall system which is relatively impermeable (see Section 3.8.3.2 of the Final EIS). The groundwater management plan will include monitoring to assess excessive groundwater infiltration and to prioritize any potential repairs to the waterproofing systems. The Council will maintain the tunnel waterproofing system for the life of the tunnel.

Meeting 100-year storm event discharge from tunnel portals

Infiltration chambers that will be part of the LRT tunnel portal water management system will be sized to accommodate stormwater volumes associated with a 100-year storm event. Drains in the tunnel portals will be sized for volumes in excess of that level. Volumes of water in excess of the 100-year storm event will pass through the infiltration chambers and overflow into the existing storm sewer system and surface water bodies in the vicinity of the tunnel. The *Kenilworth Shallow LRT Tunnel Basis of Design Technical Report* provides additional details on the tunnel design (refer to Appendix C of the Final EIS for instructions on how to access this document). The Council notes the City's need to review and approve the proposed locations and rates and will follow applicable rules and regulations, as appropriate.

Filtration tanks, infiltration basins, other means

Section 3.9.5.2, Public Waters and Surface Water Quality of the Final EIS, addresses design features that will be included in to the Project to meet stormwater management requirements. This section notes that the Project will implement various design features to meet stormwater regulatory requirements, including coordination with applicable jurisdictions.

Section 3.8.2.3 of the Final EIS addresses groundwater quality impacts, including at the Kenilworth Corridor tunnel. This section documents that water collected at the tunnel portals will be routed through pumps, through a pretreatment system that captures debris and sediments and through an underground infiltration chamber, which will allow the water to enter into the groundwater system. Water collected in the tunnel will be treated, if required, and pumped to the adjacent sanitary sewer systems owned by either the City of Minneapolis or Metropolitan Council Environmental Services.

In the unlikely event of a spill of hazardous or contaminated materials in the tunnel, the proposed tunnel designs include measures to prevent infiltration through the tunnel bottom and would allow contaminated materials to be collected and routed to a sanitary sewer, preventing hazardous materials or contaminated stormwater in the tunnel from released into the groundwater. The Council coordinate with the City and will follow applicable rules and regulations, as appropriate.

Groundwater management plan

As described in Section 3.8.3.2 of the Final EIS describes that a groundwater management plan will be prepared by the Council, and approved by Minnesota Department of Natural Resources and applicable local jurisdictions (including the City of Minneapolis) before construction. That plan will address collection, storage, and disposal of surface water runoff and pumped groundwater following construction of the Project. Particularly within the Kenilworth Corridor, the groundwater management plan will include monitoring, which will be used to assess excessive groundwater infiltration and to prioritize any potential repairs to the waterproofing systems.

Straw bales as BMP

Your comment indicating that straw bales are not allowed for use as a BMP in Minneapolis has been noted. The Project will not use straw bales as a BMP within the City of Minneapolis.

Stormwater runoff

Section 3.9 of the Final EIS documents that the City of Minneapolis has jurisdiction over surface water resources per relevant codes and ordinances related to wetlands, public waters and surface water quality, and floodplains. The Project will ensure that long-term stormwater runoff will comply with the NPDES General Construction Permit Section III.D. Permanent Stormwater Management System.

Section 9.5 of the Final EIS shows the required permits and approvals, by agency. This table documents that the City of Minneapolis has permit authority for utilities (including water, sewer, electrical, and storm). This requirement captures the City's request that long-term stormwater runoff be reviewed and approved by the City of Minneapolis under Minneapolis Code of Ordinances Chapter 54, Stormwater Management.

LRT priority signalization at Minneapolis intersections

Since the publication of the Supplemental Draft EIS, the Council has coordinated with the agencies responsible for each signalized crossing location included in the Project, including MnDOT and the City of Minneapolis. The City of Minneapolis agreed to the proposed traffic signal design included in the Project.

Under the Project, signalized at-grade LRT crossings of roadways will operate with "traffic signal preemption" with active warning such as lights and gates, and not "traffic signal priority." Traffic signal priority means that traffic signals are coordinated to synchronize with light rail train movements to improve transit travel times; however, the trains may have to stop at the crossing for a short period when their traffic signal is red. Trains generally move at the same time as adjacent with traffic in a priority system.

Traffic signal preemption means that intersection traffic movements are controlled to allow the train to pass through without stopping. Signal preemption with automatic gates provides a higher level of control and safety at the at-grade crossings (i.e., gates block vehicles from entering the crossing). However, signal preemption can have a greater effect on roadway traffic operations.

Traffic signal preemption was chosen for the Project based on requirements of the Manual of Uniform Traffic Control Devices (Section 8C.5), which states Highway-LRT grade crossings in semi-exclusive alignments should be equipped with automatic gates and flashing-light signals where LRT speeds exceed 35 mph. The Project will generally result in LRT speeds exceeding this threshold, and therefore the Project will include flashing-light signals, automatic gates, and traffic signal preemption at signalized at-grade LRT crossings of roadways. For consistency in crossing treatments and for safety, gated crossings are also included in this Project for crossings where LRT speeds are anticipated to be less than 35 mph.

The traffic analysis performed for the Final EIS included preemption at crossings to understand the necessary roadway and traffic signal modifications to provide acceptable traffic levels of service in the build condition.

Comment #	#172
Commenter	George Puzak
Commenter Organization	Light Rail Transit Done Right

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#173
Commenter	Amy Sheldon
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). In response to your endorsement of the LRT Done Right comments, please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*. In addition, the following are responses to your specific comments:

Ridership will be lower than projected

Regarding your comment noting that ridership will be lower than projected due to the existing SouthWest Transit buses, the ridership modeling completed for the Project did factor in competitive bus service and is based on ridership at proposed light rail stations in 2040. As described in Section 4.1, Transit, of the Final EIS, a 14 percent increase (13,000 new trips) is forecast in weekday transit trips within the study area with the Project, compared to the No Build Alternative. The Council's regional travel demand model results, which have been reviewed and approved by the FTA, served as the primary data source for this analysis. Refer to the *Draft Travel Demand Methodology and Forecast, Revision 3, Southwest LRT Technical Report* listed in Appendix C for a more detailed description of the travel demand forecasting methodology and related forecasts. In summary, the Council's travel demand forecasting model has been calibrated based on existing transit ridership data and various other survey data. Further, the model is based on regionally and locally adopted land use plans and population and employment forecasts for 2040. The model forecasts are also based on the existing and proposed transportation networks in 2040, based on the Council's adopted 2040 Transportation Policy Plan. Finally, the model forecasts are based on the current definition of the Project, summarized in Chapter 2 of the Final EIS and illustrated in Appendix E of the Final EIS.

In addition, bus service in the Southwest Corridor will be modified as appropriate to meet demand and provide connections to the proposed Southwest LRT stations (see Section 4.1). Exhibit 4.1-5 in the Final EIS illustrates the Project bus operation Plan; Exhibit 4.1-4 shows the bus operations plan under the No Build Alternative.

Jobs have not materialized

Regarding your comment that the "expected jobs have not materialized" and "we do not know what parts of the local population will benefit or if jobs will materialize in proportion to the expense of the LRT," all analyses for the Final EIS used regionally adopted population and employment forecasts. As described in Section 1.3.5, employment in the Project Corridor is forecast to increase from 314,904 jobs in 2010 to 427,950 jobs in 2040, a 36 percent increase. The Council's regional travel demand model served as the primary data source for this analysis. Refer to the *Draft Travel Demand Methodology and Forecast, Revision 3, Southwest LRT Technical Report* listed in Appendix C for a more detailed description of the travel demand forecasting methodology. In summary, the Council's travel demand forecasting model is based on socioeconomic data from the 2010 Census and the Council's Traffic Analysis Zones (TAZ). The model has been calibrated based on existing transit ridership data and various other survey data. Further, the model is based on regionally and locally adopted land use plans and population and employment forecasts for 2040. The model forecasts are also based on the existing and proposed transportation networks in 2040, based on the Council's adopted 2040 Transportation Policy Plan. Finally, the model forecasts are based on the current definition of the Project, summarized in Chapter 2 of the Final EIS and illustrated in Appendix E of the Final EIS.

Federal money is driving decision making

Regarding your comment that the potential for federal money is driving decision making, the planning for this Project began at the local level over 15 years ago with the Southwest Rail Transit Study (HCRRA, 2003). On May 26, 2010, prior to the completion of the Draft EIS and based on an extensive alternatives analysis and public involvement process, the Metropolitan Council adopted the Project's Locally Preferred

Alternative (LPA) as recommended by the Hennepin County Regional Railroad Authority (HCRRRA) and included it as part of the 2030 Transportation Policy Plan. In September 2011, FTA approved the Project's entry into the FTA's New Starts program. The Project has been developed within the framework of FTA's New Starts criteria, in hopes of receiving funding. The New Starts program is discretionary funding source that is competitive. There is no guarantee that Project will receive federal funding under this program. Therefore, as evidenced by the Project's local planning history, the Project has not been prejudiced by funding considerations.

Brunswick Freight Rail Alignment

In response to your comment regarding better alternatives, such as the Brunswick route, please see *Master Response 13, Rationale for dismissal of the "Brunswick Central" freight rail relocation alternative.*

Comment #	#174
Commenter	Bryce and Donna Hamilton
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#175
Commenter	Patricia Benn
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your opposition to the Project. The sections that follow include responses to these specific comments.

- Alternative Alignment along Highway 100 from Beltline Station to downtown Minneapolis
- Alternative Alignment between Lake Street and Lyndale Avenue

Alternative Alignment along Highway 100 from Beltline Station to downtown Minneapolis

Placing the proposed light rail alignment along generally north-south or east-west freeway corridors would not meet the Project Purpose identified in Section 1.1 of the Final EIS. The Project Purpose notes that “The Southwest LRT Project will provide a competitive, cost-effective travel option that will attract choice riders to the transit system. The competitive and reliable travel time for the Southwest LRT Project is attributed to the diagonal nature of the line compared to the north-south/east-west orientation of the roadway network and to the increasing levels of congestion of the roadway network.” The additional length an alignment that used generally north-south or east-west orientation of existing freeways such as Highway 100 and I-394 (past Brownie Lake), respectively, would increase LRT travel times for trips between west of Highway 100 and downtown Minneapolis (including connecting trips), compared to the generally diagonal southwest to northeast light rail alignment included in the Project. Additionally, the existing rights-of-way for Highway 100 and I-394 would not be adequate to accommodate the introduction of a light rail alignment due to geographic and existing transportation infrastructure constraints. As a result, the use of those alignments for light rail would likely lead to property acquisitions and the displacement of adjacent land uses, including residences and commercial properties.

The Southwest Rail Transit Study, completed by HCRRA in October 2003 (available at: http://old.swlrtccommunityworks.org/technical-documents/cat_view/57-archive/60-rail-feasibility-study.html), considered a light rail alignment that would have utilized Highway 100 between I-394 and Highway 7. This alternative (E-2 within the Study) was not recommended for further study because:

- No excess right-of-way in the Highway 100 corridor
- Would have significant right-of-way impacts along Highway 100 due to multiple property owners
- Reduced service to population and employment concentrations in St. Louis Park
(Source: Figure 5.3: Screen 1 Recommendation)

The Project Purpose also indicates that the Project will improve access and mobility to the jobs and activity centers in the Minneapolis central business district, as well as along the entire length of the corridor for reverse-commute trips to the expanding suburban employment centers. These employment centers, shown on Exhibit 1.4-5 of the Final EIS, demonstrate that the Project alignment will more effectively provide access to these employment centers: Golden Triangle Business Park, Optum Corporate Headquarters and Business Park, Downtown Hopkins, and Park Nicollet Methodist Hospital compared to an alignment along I-394 and Highway 100. Also, an I-394/Highway 100 alignment would not provide direct service to stations projected to experience the highest average weekday station usage, including the Beltline Station or the West Lake Station, which is projected to have the highest level of ridership under the Project (See Section 4.1, Transit, of the Final EIS, including Table 4.1-5, Average Weekday Station Usage by Mode of Access, Year 2040, for additional information).

Alternative Alignment between Lake Street and Lyndale Avenue

In regard to the option of routing the light rail line between Lake Street and Lyndale, the option of routing the Project through other areas of south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership

estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

In general, that alignment alternative was dismissed from further study because it would be less cost effective and efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the Locally Preferred Alternative (LPA). Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA. Please refer to *Master Response 10: Rationale for incorporating freight rail co-location into the Project for more information.*

Comment #	#176
Commenter	Sally Rouse
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#177
Commenter	Todd Phelps
Commenter Organization	AGNL Health, LLC (Stinson Leonard Street LLP)

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of issues concerning potential Project related impacts on the ANGL Health Campus, located at 13625 and 13675 Technology Drive, in Eden Prairie.

Since the completion of the Supplemental Draft EIS in 2015, the Council has advanced the level of design for the Project. As a result of these design advancements, the westernmost terminus of the Project has been adjusted and will now be the proposed SouthWest Station and not the proposed Mitchell Station. The proposed Mitchell Station will not be included in the Project. Therefore, the Project will not continue along Technology Drive within the vicinity of the ANGL Health Campus and will not result in direct impacts to the ANGL Health Campus. Refer to Section 2.2.5 for more information on the design adjustment process. The analyses presented in the Final EIS reflect the current Project design.

Comment #	#178
Commenter	Steve Christensen
Commenter Organization	Granite Falls Energy LLC

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

In regards to your opposition to the “rerouting” of TC&W trains (i.e. LRT 3A, including freight rail relocation), see *Master Response 10: Rationale for incorporating freight rail co-location into the Project*. In summary, the Project does not include the relocation of TC&W freight trains from the Bass Lake Spur or Kenilworth Corridor, and TC&W operations will continue on generally the same alignment as today with the implementation of the Project.

Comment #	#179
Commenter	Mary Pattock
Commenter Organization	LRT Done Right

Response

At the request of the commenter, this comment letter has been superseded by a new comment letter submitted at a later date (comment #225). For a response to that comment, see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#180
Commenter	Steven Kotke and Craig Taylor
Commenter Organization	City of Minneapolis

Response

Duplicate comment - please see the response to comment 171.

Comment #	#181
Commenter	Meg McGonigal
Commenter Organization	City of St. Louis Park

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Noise impacts
- Contaminated sites
- Maps
- Traffic
- Park and ride traffic
- Bicycle traffic, parking and safety
- Freight rail route conclusions

Noise impacts

Table 3.12-5, Summary of Noise Assessment and Impacts for Category 2, Residential Land Use (without mitigation), identifies impacts to specific locations, including for residential land uses in St. Louis Park. Within the City of St. Louis Park, there are 18 buildings with a total of 64 units that would experience moderate noise impacts under the Project; and 45 buildings with a total of 174 that would experience severe noise impacts. Table 3.12-5 includes the Cityscape Apartments (no moderate or severe impacts) and the Park Glen Townhomes (moderate impacts at 16 units), which were mentioned specifically within the comment letter.

Section 3.12.4 of the Final EIS describes the mitigation measures that will be implemented with the Project to mitigate noise impacts, where applicable. See Table 3.12-7, Summary of Mitigation Measures and Residual Impacts for Residential and Institutional Locations, in the Final EIS for specific measures that will be implemented at impacted properties identified for mitigation. All buildings and units identified as having severe noise impacts within the City of St. Louis Park will be mitigated. Mitigation measures will include railroad quiet zones to eliminate LRT horns and bells.

None of the buildings or units identified as experiencing moderate noise impacts from the Project – including the 16 units at Park Glen Townhomes - will be mitigated because the impacts at these locations do not meet the 3 dB increase threshold for noise threshold for mitigation that is defined by the noise guidelines for mitigation in the *Regional Transitway Guidelines*. All of these buildings and units will experience residual noise impacts. See Section 3.12 and Appendix K of the Final EIS for additional detail.

As the design of the Project and the noise analysis for the Final EIS have progressed since publication of the Supplemental Draft EIS, Southwest LRT outreach staff have been in contact with property owners and residents of locations that are identified in the Final EIS as being impacted by Project noise. In addition to a letter sent to impacted individuals in January 2016, outreach staff will continue to be available to discuss Project noise issues and mitigations.

Contaminated sites

The Supplemental Draft EIS reported six high-risk hazardous and contaminated materials sites within the Project's Phase I Environmental Site Assessment study area for the St. Louis Park/Minneapolis Segment of the LPA, which did not include all of the alignment within the City of St. Louis Park. The Modified Phase I Environmental Site Assessment (ESA) for Southwest LRT – Segment 4 reported on hazardous and contaminated material sites within Hennepin County, which included 17 sites along the Project alignment through the City of St. Louis Park. Therefore, the Modified Phase I ESA reported more high-risk sites than the Supplemental Draft EIS (refer to the Hazardous and Contaminated Materials Evaluation Supporting Documentation located in Appendix C of the Final EIS).

Section 3.14, Hazardous and Contaminated Materials, of the Final EIS documents the effects of hazardous and contaminated materials from the Project along with mitigation measures that will be implemented. Table 3.14-1 identifies hazardous and contaminated materials sites by municipality and

level of risk, as identified within the Phase I ESA report. This table documents that there are 18 high risk and 63 medium risk hazardous and contaminated material sites within St. Louis Park. Phase II ESAs were completed to further investigate the potential risk of encountering contaminants at high- and medium-risk sites as identified in the Phase I ESAs. As part of a Phase II ESA, these sites were tested and the extent of the existing contamination was verified (refer to 3.14.2 for more information on Phase II ESAs).

The risk ratings (i.e., high, medium, or low risk) refer to the risk potential of encountering soil and/or groundwater contamination if the ground at the affected site is disturbed, rather than the severity of the contamination. The Project will implement avoidance measures to avoid long-term hazardous and contaminated materials impacts.

In cases where the disturbance of hazardous and contaminated material cannot be avoided, the Council will conduct site remediation in accordance with the Minnesota Pollution Control Agency (MPCA) Brownfield Program regulatory framework and the approved RAPs for the Project. The RAPs, which will be approved by the MPCA, address the risks identified in the Phase I and Phase II ESAs.

Maps

Within the Supplemental Draft EIS, all of the exhibits referenced in the comment (listed in the table below) included parklands, recreation areas, and open spaces. As indicated in your comment letter, these exhibits potentially included publicly owned land or open space within the vicinity of the Wooddale Station that is not parkland.

Final EIS exhibits that correspond to the Supplemental Draft EIS exhibits included in the City's letter are also included in the table below. None of the corresponding Final EIS exhibits include parklands, recreation areas, and open spaces. Rather, for the Final EIS, parklands, recreation areas and open spaces within the study area are included on exhibits in Section 3.6, of the Final EIS. Additionally, the parklands, recreation areas, and open spaces shown around the Wooddale Station have been refined and now includes Jorvig and Lilac Parks.

Supplemental Draft EIS Exhibit	Corresponding Final EIS Exhibit
3.4-1, Property Acquisitions, St. Louis Park/Minneapolis Segment	Exhibit 3.4-1, Property Acquisitions
3.4-5, Water Resources: Wetlands, Floodplains, and Public Waters, St. Louis Park/Minneapolis Segment	<ul style="list-style-type: none"> • Exhibits 3.9-2 and 3.9-3, Delineated Wetlands and Wetland Impacts • Exhibits 3.9-4 and 3.9-5, Floodplain Impacts
3.4-6, Noise/Vibration Impacts and Monitoring Locations, St. Louis Park/Minneapolis Segment	<ul style="list-style-type: none"> • Exhibits 3.12-3 and 3.12-4, Existing Noise Measurement Locations • Exhibits 3.12-5 and 3.12-6, Noise Impact Locations without Mitigation
3.4-7, Potential High-Risk Hazardous and Contaminated Materials Sites, St. Louis Park/Minneapolis Segment	Exhibits 3.14-1 and 3.14-1, Hazardous and Contaminated Sites

Environmental Justice

The City commented that Supplemental Draft Exhibit 3.4-9, Low-Income Population within Census Block Groups and Exhibit 3.4-10, Minority Population within Census Blocks, did not show the entire buffer area and expressed concern that Meadowbrook Manor apartments was not shown on these exhibits. Section 5.2 of the Final EIS documents environmental justice population studied for the entire Project area. Exhibit 5.2-1 shows aggregate race/ethnicity, by census block and Exhibit 5.2-9 shows low-income populations within the study area by census block group. Both of these exhibits include the area of Meadowbrook Manor apartments.

Traffic

Access modifications that have been implemented on Wooddale Avenue since publication of the Draft EIS in 2012, as noted in the City's comment letter, are included in the traffic analyses completed for the Project and reported in the Final EIS.

The Project has been designed to include a variety of roadway modifications (i.e., turn lanes, through lanes, or other capacity improvements) that will result in the avoidance of the Project causing congestion at intersections that would not be congested under the No Build Alternative (i.e., no intersections that would operate at a LOS A-D will not deteriorate to a LOS E-F with the Project, refer to Section 4.2 for more information on intersection operations). Table E-2 in Appendix E notes that the following improvements will be implemented to Wooddale Avenue:

- Modification of roadway from a single through lane in each direction to two through lanes with bike lanes in each direction on Wooddale Avenue South and
- New signalized intersections at Highway 7 interchange ramps on Wooddale Avenue South, access at Minnesota 7 service road change to right-in/right-out

These improvements were included in the traffic analysis completed for the Final EIS. Table 4.2-7 of the Final EIS summarizes intersection LOS for average weekday a.m. and p.m. peak hours, under existing conditions and year 2040 conditions for the No Build Alternative and the Project. This table shows that no adverse impacts will occur at Wooddale Avenue intersections as a result of the Project. That is, no intersections that would operate at LOS A to D under the No Build Alternative will operate at LOS E or F under the Project. Therefore, no mitigation measures are warranted for long-term impacts to roadways and traffic because there will be no adverse impacts.

Park and ride traffic

The *PEC-East Traffic Technical Memorandum* (Council 2015b) documents the analysis for the Park and Ride facilities, including incorporation of revised scope and budget for the Project, as approved by the Council on July 8, 2015 (refer to this memo in Appendix C of the Final EIS). The subsections below provide analysis of traffic operations in the vicinity of the Louisiana and Beltline Stations.

Louisiana Station

Project scope changes identified in July 2015 included increasing park-and-ride spaces from 230 to 350 spaces at the Louisiana Station. The analysis completed based on these revised park-and-ride spaces showed that:

- The revised Opening Year Build AM and PM peak hour analysis showed that all intersections would be expected to operate at LOS B or better during the peak hour scenarios.
- The 2040 Build AM and PM peak hour analysis showed that all intersections would be expected to operate at LOS B or better during the peak hour scenarios.
- No queuing issues were identified in the Opening Year or 2040 Build conditions.

The updated analysis for the Louisiana Station shows no change in intersection LOS with the larger park-and-ride facility at Louisiana Station. The adjacent intersections would still be expected to have acceptable operations, no queuing issues have been identified, and no additional improvements are needed to accommodate the additional traffic.

Beltline Station

The revised Project scope for the Beltline Station includes a decrease in park-and-ride size from 545 to 268 spaces. The analysis completed based on these revised park-and-ride spaces showed that:

- The revised opening year traffic analysis for the Project showed that all intersections would be expected to operate at LOS D or better during the peak hour scenarios.
- The 2040 forecast year traffic analysis for the Project showed that all intersections would be expected to operate at LOS D or better during the peak hour scenarios.
- No intersection queuing issues were identified in the opening year or 2040 forecast year scenarios.

For all intersections in the Beltline Station analysis area, the traffic analysis showed no more than 11 additional seconds of overall intersection delay as a result of the Project, and several intersections were shown to have improved operations in the Build conditions due to the improvements included as part of the Project. In addition, all intersections operated at LOS D or better in the Build conditions and most operated at LOS C or better. The traffic analysis also showed that queuing issues in the Beltline Station area were similar or less with the Project compared with the no build conditions, due to the intersection and turn lane improvements included in the Project at Beltline Boulevard and CSAH 25.

Bicycle traffic, parking and safety

Section 4.5, Pedestrian and Bicycle, of the Final EIS describes the Project's pedestrian and bicycle impacts and measures the Council will implement to mitigate these impacts. The Project will result in long-term direct changes to pedestrian and bicycle facilities, including relocation of public trails, such as the Cedar Lake Regional LRT Trail. All public trails relocated by the Project will be replaced with similar facilities that will provide the same level of transportation connectivity as currently exists. The Project will not result in adverse impacts as a result of public trail relocation. At Wooddale Avenue and Beltline Avenue the trail relocations include the addition of grade-separation where the trail crosses a roadway under existing conditions. These grade separations address the safety issues identified in the City's comment. Please see Appendix E, Preliminary Engineering Plans, in the Final EIS for additional information showing these improvements.

Regarding the city's comment that the Supplemental Draft EIS does not address bicycle parking adequately, since publication of that document, it has been determined that short-term, uncovered bike parking (i.e., bike racks) is proposed for installation adjacent to each station platform.

Your comment regarding Project consistency with the Southwest Light Rail Transit Bicycle Facility Assessment Technical Memorandum #2, which is part of the Hennepin County Bike Facility Assessment, has been noted. The Southwest LRT Project will not preclude any of the recommendations included in the Assessment, however, the complete recommendations are outside of the scope of the Project.

Freight rail route conclusions

Footnote 10 included in Appendix F of the Supplemental Draft EIS has been revised in Appendix F of the Final EIS to correctly read "Section 1.5.2.1.D, Identified Design Adjustments – April 2014 and Table F.5-7 summarize the Council's evaluation of the MN&S North design adjustment."

The rationale for incorporating freight rail co-location into the Project is described in Section 2.2 of the Final EIS. For more information on the freight rail route conclusions, see *Master Response 10: Rationale for incorporating freight rail co-location into the Project* and *Master Response 13: Rationale for dismissal of the "Brunswick Central" freight rail relocation alternative*.

Comment #	#182
Commenter	Meg McGonigal
Commenter Organization	City of St. Louis Park

Response

Duplicate comment - please see the response to comment 181.

Comment #	#183
Commenter	Ken Rafowitz
Commenter Organization	Lakes & Parks Alliance of Minneapolis, Inc. C/O The Chazin Group, Inc.

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#184
Commenter	Sally Darqis
Commenter Organization	Lakes & Parks Alliance of Minneapolis, Inc. C/O The Chazin Group, Inc.

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see *Master Response 15 Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#185
Commenter	Christine Scott
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#186
Commenter	Amy Rock
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#187
Commenter	Georgianna Ludcke
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#188
Commenter	Jeanette Colby
Commenter Organization	None

Response

Duplicate comment - please see the response to comment 117.

Comment #	#189
Commenter	Kathy Low
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

There are no AREMA or FTA guidelines that determine distance between LRT and freight rail in a shared corridor. That distance is determined through coordination between FTA, FRA, the transit operator (e.g., Metro Transit), and the freight operator(s). Please also see *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*. Also see *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Comment #	#190
Commenter	John Olson
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- The Supplemental Draft EIS should clarify that the Depot is located in Jorvig Park
- Retain Bass Lake Spur south of the proposed light rail line
- Question regarding why the Minneapolis and St. Louis Park analyses are not separate sections
- Peavey-Haglin Experimental Concrete Grain Elevator

The Supplemental Draft EIS should clarify that the Depot is located in Jorvig Park

The description of Jorvig Park in Section 6.7 of the Final EIS indicates that the park contains a relocated historic train depot and a description of the historic train depot notes that it was relocated to Jorvig Park. Because Jorvig Park is a recreation property and the historic depot is a historic property they are evaluated under both Section 4(f) of the Department of Transportation Act and Section 106 of the National Historic Preservation Act.

Retain Bass Lake Spur south of the proposed light rail line

The Council incorporated the freight rail and light rail “Swap” design modification into the proposed Project in April 2014 because the potential land use and economic development benefits and improved transit access to existing activity centers outweighed its additional cost.

Question regarding why the Minneapolis and St. Louis Park analyses are not separate sections

One of the purposes of the limited-scope Supplemental Draft EIS was to evaluate the impacts associated with the preferred alternative that includes freight rail co-location, rather than freight rail relocation, as identified in the Draft EIS. The segment studied in the Supplemental Draft EIS evaluates the environmental impacts of freight rail co-location within the Bass Lake Spur and Kenilworth Corridor, which are located in both St. Louis Park and Minneapolis. For this reason, the analysis does include St. Louis Park and Minneapolis as separate sections.

Peavey-Haglin Experimental Concrete Grain Elevator

The nomenclature for the Peavey-Haglin Experimental Concrete Grain Elevator is the historic name of the property and is the name used in the National Historic Landmark (NHL) database.

Comment #	#191
Commenter	Geri Kulsrud
Commenter Organization	Claremont Apartments

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of issues concerning the scope of the Supplemental Draft EIS and the Project's Section 4(f), noise and vibration analyses. The sections that follow include responses to these comments.

- Section 4(f) properties in Minnetonka
- Noise and Vibration
- Proposed Cost Reductions
- Concerns regarding eliminating pedestrian underpasses near Claremont Apartments

Section 4(f) Properties

Supplemental Draft EIS did not include new information on public trails, open space or Opus Hill

The Draft Section 4(f) Evaluation Update included in the Supplemental Draft EIS provided an update to the Draft Section 4(f) Evaluation that was included in the Draft EIS. Specifically, the update reflected design adjustments to the LPA adopted by the Council in April and July 2014; preliminary determination of effect on historic properties with the LPA; and revised preliminary determinations made since the Draft Section 4(f) Evaluation was published.

Since publication of the Project's Draft Section 4(f) Evaluation Update in the Supplemental Draft EIS, FTA prepared and published an Amended Draft Section 4(f) Evaluation for two newly identified Section 4(f) properties in Minnetonka. These properties, which are referenced in your comment letter, are as follows:

Property Name	Property Type	Location	Official with Jurisdiction	Section 4(f) Qualifying Description
Unnamed Open Space B	Park	Located generally south of Smetana Rd, west of Green Circle Dr, North of Bren Rd W, east of Claremont Apartments	City of Minnetonka	49.0-acre open space
Opus Development Area Trail Network	Park	Located generally between Smetana Road to the north, Hwy 169 to the east, Hwy 62 to the South and Shady Oak Road to the west	City of Minnetonka	9.6 acre recreational trails

In the Amended Draft Section 4(f) Evaluation, FTA also reviewed Unnamed Open Space A in Minnetonka for possible protection under Section 4(f). This parcel's official plan designation in the City Minnetonka 2030 Comprehensive Plan (Figure IV-15) is "Mixed Use" (and not "Parks" or "Open Space"). Based on deed/title information on this property there are no park/recreation-related easements or other park/recreational legal agreements attached to this property. Further, there is no deed covenant restricting the future use of this parcel to "parkland" or "open space." Therefore, FTA does not consider Unnamed Open Space A to be a Section 4(f) property

Within the Amended Draft Section 4(f) Evaluation, which was published for review and comment on January 11, 2016, FTA determined that these two properties qualify for Section 4(f) protection as publicly owned recreation properties of local significance. FTA also preliminarily determined that there will be a Section 4(f) *de minimis* impact on these two properties as a result of the Project. Following the close of the public comment period on the Amended Draft Section 4(f) Evaluation on February 25, 2016, and after consideration of comments received, FTA requested and received written concurrence from the City of

Minnetonka (as the Section 4(f) Official with Jurisdiction for the two properties) on the final Section 4(f) *de minimis* impact determinations for the two properties (as per 23 CFR 774.5(b) and 23 CFR 774.17). Chapter 6 of the Final EIS contains the Final Section 4(f) Evaluation, which includes the final Section 4(f) determinations for the above listed properties. Appendix I of the Final EIS provides background documentation for the Final Section 4(f) Evaluation. The Project's Record of Decision will include the Project's Final Section 4(f) Evaluation.

Noise and Vibration

Noise levels

The Council notes your comment regarding the noise analysis methodology used for the Supplemental Draft EIS.

The Claremont Apartments were assessed as part of the detailed Noise and Vibration analyses conducted for the Project in the Final EIS. As shown in Section 3.12.3, Claremont Apartments were identified as a Category 2 noise sensitive receptor which would have moderate noise impacts related to the Project without mitigation. While there were severe noise impacts identified in the Draft EIS, this was due primarily to the at-grade crossing at Smetana Road, which has been eliminated through the advancement of the design for the Project. Instead the crossing at Smetana Road is grade separated, eliminating the noise generated by an at-grade crossing.

A site specific noise measurement was conducted at the Claremont Apartments for the Final EIS to more accurately reflect the noise levels at the apartments, as compared with a location near Smetana Road that was used in the Draft EIS. The Final EIS includes the number of buildings and units with noise impacts and mitigation identified for these impacts (see Tables 3/12-5 and 3.12-7, respectively). These tables, and associated text, include the types of information you noted in your comment letter, specifically, receiver identification and location, land use description, number of noise sensitive sites, closest distance to the project, existing noise exposure, project noise exposure, and level of noise impact.

As described in Section 3.12.4.1, the Project will implement an approximately 8-foot high noise barrier extending approximately 1,800 feet within the vicinity of Claremont Apartments to mitigate noise impacts. With mitigation, there will be no remaining noise impacts at Claremont Apartments.

The Final EIS and the Supplemental Draft EIS noise assessment were completed in accordance with the guidelines specified in the FTA's Transit Noise and Vibration Impact Assessment guidance manual (FTA, 2006). Refer to Appendix K for detailed noise impact assessment data.

Vibration levels

As a part of the Final EIS, the Claremont Apartments were assessed as part of the Project's detailed vibration assessment. A site specific vibration propagation test was conducted at the Claremont Apartments to determine the soil characteristics and to determine how vibration travels through the soil at this location. Based on this information, the vibration from the LRT will not travel efficiently through the soil, and no vibration impacts are projected. Refer to Section 3.13 of the Final EIS for an updated vibration evaluation for the Project. As shown in Section 3.13.3, Claremont Apartments were identified as a vibration sensitive receptor, but based on the FTA impact criterion would not experience vibration impacts. The Final EIS and the Supplemental Draft EIS vibration assessment were completed in accordance with the guidelines specified in the FTA's Transit Noise and Vibration Impact Assessment guidance manual (FTA, 2006). Refer to Appendix K for detailed vibration impact assessment data.

Proposed Cost Reductions

The Project budget and scope reduction recommended by the Corridor Management Committee on July 1, 2015, and approved by the Council eliminated two pedestrian underpasses within the Opus area. The Project will still provide the same trail connectivity to the Opus Station with the three pedestrian underpasses that remain in the Project. One of the underpasses eliminated from the project was located at Bren Road East and was intended to serve the proposed bus stop near Opus Station. The bus stop and trail connection will remain as an at-grade crosswalk similar to the existing condition. The other underpass that was eliminated was the result of consolidating two proposed underpasses north of Bren Road West into a single proposed underpass. The existing pedestrian underpass at Bren Road West (just east of the LRT crossing) will remain and provide direct grade separated connectivity to Opus Station for areas north of Bren Road West, as it does in the existing condition. Refer to Appendix E for additional information.

Comment #	#192
Commenter	Kathy Grose
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please refer to Chapter 7 of the Final EIS for the Project's financial analysis and to Chapter 8 of the Final EIS for a summary comparison of the Project to the No Build Alternative based upon metrics related to the Project's Purpose statement. FTA and the Council have found that the No Build Alternative would not meet the Project's Purpose and Need. In addition to the No Build Alternative, other alternatives that would be less expensive than the Project were also evaluated, including the Enhanced Bus Alternative and two bus rapid transit alternatives (BRT 1 and BRT 2) in the Alternatives Analysis and in the Draft EIS. Section 2.2 of the Final EIS summarized the rationale for why they were dismissed from further.

Comment #	#193
Commenter	Kim Bartmann
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

The alternative of routing the Project along Lake Street throughout Minneapolis was previously evaluated during the Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

In general, that alignment alternative was dismissed from further study because it would be less cost effective and less efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the Locally Preferred Alternative (LPA). Hennepin Avenue is also a busy urban arterial, with a very constrained street right-of-way, many cross streets and driveway entrances and exits along its alignment. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

In summary, HCRRA and the Metropolitan Council, as well as the Project's Corridor Management Committee (CMC) found that the light rail alignment that is part of LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life, and supporting economic development.

Comment #	#194
Commenter	Kim Bartmann
Commenter Organization	None

Response

Duplicate comment - please see the response to comment 193.

Comment #	#195
Commenter	Todd Phelps
Commenter Organization	AGNL Health, LLC

Response

Duplicate comment - please see the response to comment 177.

Comment #	#196
Commenter	Frank Hornstein and Scott Dibble
Commenter Organization	Minnesota House of Representatives and Minnesota Senate

Response

Thank you for your comment on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your letter presents a range of issues concerning the evaluation of freight rail within the Supplemental Draft EIS. The following responds to these comments

Minnesota Statutes section 383B.81 created an environmental response fund for a number of purposes, including, but not limited to, acquisition and remediation of contaminated lands or property. The first priority for use of environmental response funds was to clean up the NL Industries/Tara Corporation/Golden Auto site and to provide adequate right-of-way for a portion of the rail line to replace the 29th street line in the City of Minneapolis. Minnesota Statute 383B.81 does not require freight rail to be relocated.

For additional information related to the process the Council undertook to retain freight rail in its current location, please see Master Response 10: Rationale for incorporating freight rail co-location into the Project.

Please see Master Response 6: Freight rail operations should not be considered an existing condition and should be excluded from the baseline data, for responses to your comments on this topic.

Please see Master Response 3: General concerns related to safety and security for LRT operating within close vicinity to freight in the Kenilworth Corridor, and Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor, for responses to your comments on these topics.

The following are responses to the six questions bulleted at the end of your comment letter:

- **Has TC&W shared specific information with the Minneapolis Fire Department and emergency management personnel regarding the chemical contents of ethanol and hazardous materials transported through the Kenilworth Corridor?**

On May 1, 2015, the 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 Federal Railroad Administration (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 the TC&W as 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 §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, TC&W 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.
- **Has TC&W shared specific information with the Minneapolis Fire Department and emergency management personnel regarding the frequency and size of ethanol and hazardous materials shipments through the Kenilworth Corridor?**
See response above.
 - **Has an emergency response plan been developed in consultation with the Minneapolis Fire Department to address potential issues of access to the site during construction in the event of a derailment, explosion or fire?**
The Council is implementing the Project's Safety and Security Management Plan (SSMP) in coordination with the Minneapolis, St. Louis Park, and Hopkins Fire and Police Departments, as well as, Minneapolis Park and Recreation Board's Police Department, TC&W and Metro Transit's Safety, Police and Rail Operations divisions. The Council, through the Metro Transit Director of Rail and Bus Safety, has established a LRT Fire Life Safety and Security Committee (FLSSC) that has already begun meeting as a group of first responders. These early discussions have helped shape the staging plans for construction and advance the design to provide adequate trail width for emergency vehicles access within the Kenilworth Corridor including the trail bridge over the Kenilworth Channel. Discussions have also included confirming fire hydrant locations. During construction, emergency vehicles will use the same haul road as construction vehicles.

The LRT FLSSC provides input to and comments on the fire protection, emergency preparedness plans and procedures, safety plans and security plans. As the Project progresses through 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 Project advances, these policies and procedures will be captured into the OEMP.

- **Are there other examples around the country where light rail and freight rail are co-located (including the transportation of hazardous materials in close proximity of light rail trains, businesses, and residences)? If so, what safety and mitigation measures are in place in those communities?**

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 Southwest LRT Project Office 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 Southwest LRT Project and will be incorporated into the construction and management documents, as applicable.

Shared Corridor Comparison

City/Operating Agency/Transit Line Name ^a	Shared Route Mileage	Freight Contents	Distance Between Commuter and Freight Rail ^b	Frequency of Commuter and Freight Rail	Derailment History	Mitigation Measures/ Features in Place
Charlotte/ Charlotte Area Transit System (CATS) – LYNX/ LRT - Blue Line	Shared corridor with Norfolk Southern (NS)/CSX (NS leases time to CSX) for 3.9 miles, 1.2-mile rail spur.	Couldn't obtain manifests but assume its typical hazardous materials.	Existing Track distances vary from 20' to 45'. Widest distances maintained on south end of line adjacent to NS/CSX main tracks from I 485 Station to Woodlawn Station (terminus).	174 LRT trips daily. Headways vary from 10 to 30 minutes throughout day. Number freight movements unknown.	None	Fenced right-of-way adjacent to NS/CSX main tracks at south end of existing Blue Line. Fiber Optic cable imbedded in top rail of fence as intrusion detection. In event of a derailment, LYNX Control Center notified of breach of fiber optic cable and NS is also to be similarly notified. All at-grade crossings are interfaced between LYNX and NS. LYNX maintains one set of crossing warning devices including gates and freight rail carrier maintains other set of crossing warning devices including gates. Each party notifies other party of incidents at grade crossings. New construction of Blue Line Extension will have similar intrusion detection added with copper wire being used instead of fiber optic cable in fence rail. CATS has an Emergency Preparedness and Continuity Plan that defines roles and responsibilities, readiness and preparedness, and tests, training and exercises.

City/Operating Agency/Transit Line Name ^a	Shared Route Mileage	Freight Contents	Distance Between Commuter and Freight Rail ^b	Frequency of Commuter and Freight Rail	Derailment History	Mitigation Measures/ Features in Place
Dallas/DART/LRT	Shared corridor with DGNO Railroad for approximately 7 miles	Freight content is unrestricted	25 feet or greater	DART Light Rail service hours 3:30 am-1:30 am Trains run 5-minute headway during peak hours and 15 minute headways off peak hours. Number of freight movements unknown.	None	For a portion of the shared Freight and LRT corridor there is a chain link fence in place to prevent pedestrian incursion. No Emergency Preparedness Plan provided.

City/Operating Agency/Transit Line Name ^a	Shared Route Mileage	Freight Contents	Distance Between Commuter and Freight Rail ^b	Frequency of Commuter and Freight Rail	Derailment History	Mitigation Measures/ Features in Place
Denver/ Regional Transportation District (RTD)/ LRT - C and D LinesCommuter Rail - CU A Line (opens April 2016)	LRT C and D lines: 11.8 miles shared ROW and 3.4 miles shared corridor with Union Pacific (UP)/BNSF. CUA Line: approximately 13 miles shared corridor with UP.	Materials including coal, liquid sulfur, crude oil on UP/BNSF line.	25 feet track center standard along shared LRT right-of-way except at pinch point where it is >17 feet.	LRT C and D Lines: 15 minute headways most of the day with 30 minute headways late pm; minimum 15 to 20 daily UP/BNSF freight trains.CU A Line: 15 minute headways from 6 am to 8 pm and 30 minute headways early am and late pm; # of freight movements unknown	December 2007: UP unit coal train derailed and RTD LRT collided with derailed freight equipment and derailed the LRT. No injuries. January 2008: BNSF freight train derailed while passing station at Littleton. Derailed freight equipment collided with and damaged crash wall between freight rail and LRT lines. No injuries. Both derailments/collisions occurred prior to installation of intrusion detection seismic system by RTD following two incidents. No derailments/collisions since January 2008 incident.	LRT C and D Lines: Positive Train Control installed. Guard rails on LRT installed on bridges and in stations. Grade crossing protection.CU A Line: Impact barriers between freight and commuter rail.Emergency Response Plan with call tree, roles and responsibilities, emergency response activities, emergency evacuation procedures, and First Responders Guides.

City/Operating Agency/Transit Line Name ^a	Shared Route Mileage	Freight Contents	Distance Between Commuter and Freight Rail ^b	Frequency of Commuter and Freight Rail	Derailment History	Mitigation Measures/ Features in Place
Jersey City, Newark, Trenton/ New Jersey Transit (NJT)/ Hudson/Bergen LRT	5.2 miles shared ROW	Freight content is unknown	Generally, < 25 feet track spacing	Response pending	No Incidents in NTSB database	Fence physically separates light rail and freight rail tracks. NJT has an Emergency Preparedness Plan. This Plan addresses staffing, activities, and specific procedures which would be undertaken in dealing with different types of emergencies, including weather disasters (hurricanes, blizzards, etc.) or other incidents that disrupt the NJT system. There are no specific actions related to the freight railroads because many of the procedures would be the same as for other incidents impacting the light rail operation.
Los Angeles/ Los Angeles County Metropolitan Transportation/ LRT Blue Line, Green Line, Gold Line Extension	Blue Line: 10 miles shared corridor with UP. Green Line: 1.6 miles shared corridor, mostly elevated structure on RR ROW on west end of line. Gold Line extension: Approx. 7 miles shared corridor with BNSF to open March 2016.	Green Line: freight carries hazardous material. Blue and Gold Lines: No hazmat materials on freight.	Min 30 feet track centers between LRT and mainline railroad. Some areas less than 30 feet.	Blue Line: 12 minute headways off-peak and 6 minute headways during peak hours; 2 freight movements/day Gold Line: 12 minute headways off-peak and 6 minute headways during peak hours; 1 freight movement/day	1990 - Blue Line at Manville Grade Crossing-Vehicle vs. LRT Train, multiple injuries; 2015 - Blue Line Artesia Crossover-Operator error, hand-throw switch and did not lock into position. No injuries; 2015 - Blue Line 119th St. Grade Crossing-Vehicle vs. LRT Train, 1 injury	Green Line: grade separation with freight. Will be conducting drills with commuter rail in the future. Intrusion detection for areas less than 30 feet apart. Reported no Emergency Preparedness Plan.
Maryland - Counties near DC/ Maryland Transit Administration (MTA)/ LRT Purple Line	Purple line to have 1.1 mile shared corridor with CSX. To open in late 2021.	Freight content is unknown	Unknown	Unknown - not yet operating	Under final design and construction. No report of incidents.	Crash wall separation from CSX line Contractor/concessionaire to perform own hazard analysis and threat and vulnerability analysis; under development

City/Operating Agency/Transit Line Name ^a	Shared Route Mileage	Freight Contents	Distance Between Commuter and Freight Rail ^b	Frequency of Commuter and Freight Rail	Derailment History	Mitigation Measures/ Features in Place
Portland/ Tri Met Metropolitan Area Express (MAX)/ LRT Yellow (Expo Center) and Orange Line (Milwaukie)	Yellow Line: 4.5 miles shared ROW with UP, steel lift bridge shared with UP; double-deck lift span with railroad underneath. Orange Line: 6 miles shared ROW with UP and Pacific Northwestern railroad (PNWR). Includes at-grade diamond crossing with UP, and seven shared roadway crossings with UP/PNWR.	Freight content is unknown	Yellow Line: 50-foot track centers on northern 3 miles Orange Line: 25-foot track centers plus crash wall on southern 3 miles	Yellow Line: LRT 10 minute headways, approximately 20 UP trains per day. Orange Line: LRT 15 minute headways, approximately 30 UP trains per day. LRT operates from 5AM to midnight.	No Incidents	Yellow Line: Track Centers >50 feet, fully fenced row. Orange Line: At-grade crossing fully interlocked, derails on freight side, Automatic Train Stop (ATS) on LRT side. No Emergency Preparedness Plan provided
Sacramento/ Regional Transit/ LRT Blue Line (South), LRT Gold Line (Folsom)	Blue Line: 3 miles shared corridor Gold Line: 16.5 miles shared ROW	Freight content is unknown	Blue Line: 20' track centers between freight and LRT Gold Line: 20'-50' track centers	Blue and Gold Lines: 15 minute headways with 30 minute headways in evening UP: Approximately 15 - 20 trains per day.	No Incidents	Freight train movements operate at low speed when on corridor with Light Rail. Standard operating procedures specific to common corridor operations covering communication procedures and emergency response procedures.

City/Operating Agency/Transit Line Name ^a	Shared Route Mileage	Freight Contents	Distance Between Commuter and Freight Rail ^b	Frequency of Commuter and Freight Rail	Derailment History	Mitigation Measures/ Features in Place
St. Louis/ Bi-State Development Agency/ LRT - Red and Blue Lines	Red and Blue Lines: 3.5 miles shared ROW, track connection, grade crossing protection. 1.6 miles adjacent to industrial track owned by Bi-State.	Coal and likely hazmat.	Approximately 15 feet track centers from existing freight. LRT was built on existing railway trackage.	LRT 310 trips/day. Number of freight trains unknown.	Three incidents reported. Incident 1: Date unknown: a freight train derailment involving a tanker car and a chemical spill. Fire Department called for evacuation of area just west of Grand Station. Staff uncertain whether revenue service had begun when incident occurred. Incident 2. 2003 or 2004 (uncertain of date): Derailment UPRR coal train at Grand Platform. ML advised of incident but service did not stop. Incident 3. Date unknown: UPRR freight train struck vehicle that was pushed by train. ML shut down, so that Fire Department could access the freight tracks from Scott Avenue near Sarah Avenue.	Emergency Preparedness Program Plan defines roles and responsibilities and multi-agency coordination, and response and recovery procedures. Use cameras and verbal observations. Emergency phone communication between LRT Control Center and railway.

City/Operating Agency/Transit Line Name ^a	Shared Route Mileage	Freight Contents	Distance Between Commuter and Freight Rail ^b	Frequency of Commuter and Freight Rail	Derailment History	Mitigation Measures/ Features in Place
San Jose/Santa Clara/ Santa Clara Valley Transportation Authority/ Mountain View LRT Vasona LRT (extension of Mountain View corridor)	Mountain View LRT: 2.1 miles shared track with Caltrain, 1.5 miles shared ROW with Caltrain, track connection. Vasona LRT: 6.8 miles shared ROW with freight (last 1.6 miles in planning).	No restrictions on freight type.	Varies - unknown	LRT: 15 minute headways during peak hours; 30 minute headways off-peak Freight rail: operates 3 times per week	No Incidents in NTSB database	Standard Operating Procedures specific to common corridor operations covering communication procedures, and accident/incident reporting and investigation; fence separation between LRT and freight for most of the corridor;
Washington, DC/ Washington Metropolitan Area Transportation Authority (WMATA)/ Green Line Red Line Orange Line	22.1 miles shared corridor between the 3 lines with CSX. Third Rail.	Freight content is unknown	Varies - unknown	Varies	No Incidents in NTSB database	Intrusion detection and fencing Quarterly drills No Emergency Preparedness Plan provided
^a Some of these projects and methods are still in development ^b Centerline to Centerline						

- **Are the St. Louis Park and Hopkins fire departments and emergency management personnel involved in discussions regarding co-location of light rail and freight rail in their communities?**

Yes, the Council has engaged St. Louis Park, and Hopkins. In addition, we have engaged with, Minneapolis and Minnetonka fire departments and emergency management personnel in discussions regarding co-location of light rail and freight rail in their communities. The Council has reviewed the design plans with the emergency responders and has incorporated their comments in the Project design.

- **Given the growth of oil and ethanol transportation in the region, and associated safety concerns since co-location was made permanent two years ago, does the Metropolitan Council have any plans to discuss re-routing freight trains carrying ethanol and other hazardous materials away from Hopkins, St. Louis Park, and Minneapolis during and after construction of the Southwest Light Rail project?**

The Council evaluated alternative options for re-locating freight rail and vetting the findings of the evaluations with the Southwest LRT Corridor Management Committee. Currently, the Council does not have plans to discuss rerouting freight trains. Ever since the 1998 Trackage Rights Agreement between the TCW, the CP and HCRRA was executed, both rail carriers have the right to transport any rail traffic over the Kenilworth Corridor, without restriction as to the type of traffic and cannot be compelled to relocate their operations. The co-location alternative selected by the Council accordingly does not result in any change to current rail operations. Nor do the Council, HCRRA, the City of Minneapolis 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 U.S.C. § 10501(b) and the Federal Rail Safety Act, 49 U.S. C. §§ 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.)

Comment #	#197
Commenter	Kristine Vitale
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Regarding your opposition to the Project using the Kenilworth Corridor between Lake of the Isles and Cedar Lake, see *Master Response 10, Rationale for incorporating freight rail co-location into the Project*.

Regarding your concern over dewatering of chain of lakes, the Project does not include long-term groundwater pumping (i.e., dewatering) during operations of the Project and therefore will not result in adverse impacts to groundwater or surface water resources within the area of Cedar Lake and Lake of the Isles (Kenilworth Corridor). Refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

Regarding your concern over the loss of trees in the Kenilworth Corridor, the Council has conducted a detailed tree inventory of trees that will be removed (see Section 3.10 and Appendix C for more information on the tree inventory and impacts/mitigation). Also, the Project has been adjusted through the design process to minimize impacts to the Kenilworth Corridor and to parks, recreation areas, and open spaces, including Cedar Lake Park. To further minimize long-term impacts, the Project will be a shallow tunnel between West Lake Street and south of the Kenilworth Lagoon. The Kenilworth Trail will also be retained in the corridor as part of the Project, with detours provided during construction activities. Within the Kenilworth Corridor specifically, the Council developed a landscape design that preserves and builds upon the natural character of the corridor, where applicable and appropriate.

The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. Furthermore, the Council retained a landscape design consultant to prepare a landscape design study for the Kenilworth Corridor, which will be implemented into the Project. See Section 9.2 of the Final EIS for additional detail on this committee.

Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the "Kenilworth Corridor" is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway).

Section 3.6 of the Final EIS evaluates impacts to parklands, recreation areas, and open spaces from the Project and identifies mitigation measures and commitments based on the design adjustments identified by the Council in April and July 2014 and July 2015. Section 4.5 of the Final EIS evaluates pedestrian and bicycle facilities.

Comment #	#198
Commenter	Beth Stockinger
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your opposition to co-location of freight rail and light rail in the Kenilworth Corridor has been noted. The sections that follow include response(s) to these specific comments.

- Opposition to co-location
- Park impacts
- Consider alternative alignments
- Concern over impacts to the Kenilworth Trail

Opposition to co-location

See *Master Response 10: Rationale for incorporating freight rail co-location into the Project*.

Park Impacts

In regard to your comment concerning the Project's adverse impacts on the Minneapolis Parks System, the Final EIS includes the Project's Final Section 4(f) Evaluation. Section 4(f) is a federal law that protects publicly owned parks, recreation areas, wildlife and/or waterfowl refuges, as well as significant historic sites. In summary, FTA cannot approve the use of a Section 4(f) property unless FTA determines: 1) there is no feasible and prudent avoidance alternative to the use of the property and that all possible planning to minimize harm to the property has been incorporated into the Project; or 2) the use of the property will result in only *de minimis* impacts to the property; or 3) if temporary construction activities within the property will not adversely affect the property. Within the Project's Final Section 4(f) Evaluation (Chapter 6 of the Final EIS), FTA has determined relative to parks and recreation areas that there will be a non-*de minimis* use of the Kenilworth Channel/Lagoon, which is an element of the Minneapolis Chain of Lakes Regional Park. Further, FTA has determined that there is no prudent or feasible alternative to the use of that property and that all possible planning to minimize harm to that property has occurred. In addition, FTA has determined that there will be a *de minimis* impact to Bryn Mawr Meadows Park and there will be construction activities within Cedar Lake Park that meet the criteria for a Section 4(f) temporary occupancy exemption. Other proximity impacts due to the Project will occur at Park Siding Park and FTA has determined that those proximity impacts will not substantially impair the activities, features, or attributes of the park that qualify it for Section 4(f) protection. See Chapter 6 of the Final EIS for additional information.

Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the "Kenilworth Corridor" is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway).

Consider alternative alignments

The Council notes your suggestion to consider the following alternative alignments: Lake Harriet Parkway, along Minnehaha Falls, or on the River Parkway. The option of routing the Project through other areas of south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and

minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

In general, that alignment alternative was dismissed from further study because it would be less cost effective and efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the Locally Preferred Alternative (LPA). Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

Concern over impacts to the Kenilworth Trail

For the viewpoints within the Kenilworth Corridor, these impacts ranged from low to substantial. Viewpoints 5 and 6, included in the Supplemental Draft EIS, are renumbered to 16 and 18, respectively, in the Final EIS. Further, an additional viewpoint from the Burnham Road Bridge looking southeast down the channel toward the Kenilworth Corridor Bridges was added to the analysis—viewpoint 17. The level of impact remains the same for viewpoints 16 and 18 (low level of impact), however, there will be a substantial level of impact at viewpoint 17 as construction of the new bridges will require noticeable clearing of trees and other vegetation on the west side of the right-of-way.

The visual quality evaluation for the area north of the Kenilworth Channel (viewpoint 18 – looking toward the 21st Street Station) concluded that the level of visual impact will be low. Removal of trees is a contributing factor in the visual assessment for this area. The visual evaluation found that the removal of trees will slightly decrease the vividness of the view. However, the addition of the street trees, the widened sidewalk, and the plantings in the 21st Street Station area will make a positive contribution. For a more detailed explanation of the rationale for this conclusion, refer to the “Concern over visual impacts at 21st Street Station” in *Master Response 16: Concerns related to 21st Street Station and related impacts*.

These findings are based on FHWA's Visual Impact Assessment of Highway Projects (FHWA, 1988). The method was designed to provide a systematic and objective approach to evaluation of the visual changes. The FHWA methodology is well established and widely accepted for the assessment of visual impacts and is well suited to assess the visual impacts of linear transportation facilities in urban areas. The assessment for the Project was based on visual assessment of the Project corridor, completed through site visits, analysis of existing conditions, and an evaluation of visual change. All viewpoint sites were visited and the corresponding views were photographed to document the existing views. This field work, review of the photographs, and the subsequent coordination/consultation process with the Project team provided a basis for understanding the typical visual issues for each visual assessment area. Computer modeling and rendering techniques were then used to produce simulated images of the with-Project conditions for the viewpoints evaluation (see Appendix J). These visual simulations provided the bases for the assessment of visual change.

The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. See Section 9.2 of the Final EIS for additional detail on this committee.

Comment #	#199
Commenter	Peter Beck
Commenter Organization	The Luther Company LLLP

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern regarding impacts of temporary easement on Hopkins Honda property
- Notice of intent to make a claim for value of business and property

Concern regarding impacts of temporary easement on Hopkins Honda property

The Project's proposed temporary property easement on the Hopkins Honda property is needed to obtain access to construct the proposed improvements at 8th and 5th Avenue as well as the light rail station and alignment that are immediately adjacent to the property. The Council has and will continue to work with The Luther Company LLLP and Hopkins Honda to minimize temporary impacts to the property both in duration and extent. The construction activities within the temporary easement will be managed such that only one of the two access points to the property at 8th Avenue or 5th Avenue will be closed at any given time and the drive aisle that connects between 8th and 5th Avenue is excluded from the temporary easement boundary.

Regarding your concerns over the elimination of the row of parking along the northern edge of the property, the limits of the proposed temporary property easement only affect the portion of parking between 8th Avenue and the trail access point and not the entire parking row that extends to 5th Avenue. The Council will develop and implement a construction staging plan which will minimize the use of the parking spaces in this impacted location to the extent possible.

The Project will include mitigation measures to address temporary construction impacts to businesses through the development and implementation of the Construction Mitigation Plan and the Construction Communication Plan. For additional information on those plans see Section 3.2, Economic Activity, of the Final EIS. Section 3.4, Acquisitions and Displacements, of the Final EIS provides information on the short-term (construction) easements related to the Project, as well as mitigation measures that will help to minimize the impacts during construction. All property will be acquired in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Relocation Act), and MN Stat. 117. Additionally, the plans previously listed in this response will also mitigate temporary partial and full closures of existing streets. See Section 4.2, Roadways and Traffic, of the Final EIS for additional details on street closures during construction, including a description of potential short-term impacts (i.e., lane closures) and applicable mitigation measures.

In regards to your proposed options for alternate staging areas, the Council has not determined all of the staging areas for construction of the Project and will continue to work with Luther and Hopkins Honda on feasible locations. The final location of staging areas will be determined by the Council's construction contractors based upon various specifications.

Notice of intent to make a claim for value of business and property

In regard to your comment on making a claim for the total value of the business if a temporary easement covers both property access points during construction, as stated above, construction activities within the temporary easement will be managed such that only one of the two access points to the property will be closed at any given time.

Comment #	#200
Commenter	Peter Beck
Commenter Organization	St. Paul Fire and Marine Insurance Company

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern regarding permanent acquisition, temporary easement, and related mitigation
- Proposed options for reducing impacts to SPFM Property
- Suggestion to move LRT Alignment and OMF to minimize or avoid impacts

Concern regarding permanent acquisition, temporary easement, and related mitigation

In regard to your concern about the proposed permanent acquisition of a portion of property located at 11311 K-Tel Drive (the "SPFM Property") as well as the concern about the proposed temporary construction easement on the same property, see Section 3.4 of the Final EIS (See Exhibit 3.4-1, Parcel Identification number 053-2611722140006). This section provides information on the property acquisition impacts to businesses and states that the Council will identify and compensate businesses for long-term and short-term (construction) impacts, in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Code of Federal Regulations [CFR] Title 49, Part 24), as amended (49 CFR, Part 24) (Uniform Act). The Council has identified the need for both permanent and temporary acquisitions of a portion of this property for the Project's long-term right-of-way needs and for construction of the Project. As noted in Section 3.4 of the Final EIS, compliance with the Uniform Act will be the mitigation measure incorporated into the Project to address impacts related to permanent and temporary acquisition of property, including the SPFM Property.

In regards to your proposed mitigation measures and construction staging options, the Council has not determined all of the staging areas for construction of the Project and will continue to work with the St. Paul Fire and Marine Insurance Company on feasible options. Final staging plans will be determined by the Council's construction contractors based upon various specifications. Your proposed site specific mitigation measures can be proposed and considered within the property acquisition process, in compliance with the Uniform Act.

The Project will remove 61 of the 120 off-street parking spaces at the SPFM Property. The Project will not temporarily remove parking spaces. The Council will compensate business owners for the loss of off-street parking spaces, in accordance with the Uniform Act. This compensation will include consideration from parking space requirements. Design adjustments have reduced the temporary easements needed and will allow the driveway and access to loading locks to remain fully functional during construction.

Proposed options for reducing impacts to SPFM Property

In 2015, Project staff met with you and the property owner to discuss comments contained in this letter. Both permanent and temporary impacts to the property have been reduced with additional design refinements. Please note that much of the temporary easement on this property is needed to relocate a City of Minnetonka storm sewer west of its current location onto this property to be clear of the proposed light rail alignment (the existing storm sewer is within an easement on the property). Again, design adjustments have reduced the temporary easements needed and will allow the driveway and access to loading locks to remain fully functional during construction. Temporary easements will likely be secured for a duration of less than five years.

Suggestion to move LRT Alignment and OMF to minimize or avoid impacts

In regard to your suggestion to move the Hopkins OMF and proposed light rail alignment to the east, the location of the proposed light rail alignment is generally determined by the western boundary of the Hopkins Landfill because the light rail alignment cannot be located within the boundary of the landfill due to substantial risks associated with hazardous and contaminated materials on the landfill site. Relocation of the Hopkins OMF to the east would result in requiring two additional properties to the east. Without relocation of the proposed light rail alignment to the east, the relocation of the Hopkins OMF to the east

would not avoid the impacts to the SPFM Property. As previously described, design adjustments incorporated into the Project have reduced the temporary easements needed and will allow the driveway and access to loading locks to remain fully functional during construction. Therefore, the Council is not considering a full acquisition of the SPFM property related to the needed temporary easements.

Comment #	#201
Commenter	Kenneth Westlake
Commenter Organization	US Environmental Protection Agency (EPA)

Response

See Appendix N, Agency Coordination Letters, of the Final EIS for the response to EPA's comment letter on the Supplemental Draft EIS.

Comment #	#202
Commenter	Cathy Deikman
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#203
Commenter	Gretchen and Doug Gildner
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*. In addition, your letter includes other comments that are responded to below.

- Safety impacts related to colocation of freight rail and LRT, and the transport of hazardous material in the Kenilworth Corridor
- Vibration, noise, dewatering, and deforestation
- Visual impact analysis
- Existing contamination of Cedar Lake rail yard and mitigation costs

Safety impacts related to colocation of freight rail and LRT, and the transport of hazardous material in the Kenilworth Corridor

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*. Please also see *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Also see response to comment #196 from Representative Hornstein and Senator Dibble.

Vibration, noise, dewatering, and deforestation

Since the release of the Supplemental Draft EIS, the analysis for the Project has been updated in the areas of vibration (Section 3.13), noise (Section 3.12), ecosystems (Section 3.10), and groundwater resources (Section 3.8). Please refer those sections of the Final EIS for additional analysis and discussion of impacts and proposed mitigations. These sections provide an updated analysis and an appropriate level of detail for addressing impacts in the Kenilworth Corridor including a noise impact analysis for the Kenilworth Channel. Relative to your comment concerning dewatering, refer to *Master Response 17: Concern over impacts to groundwater and surface water in the Kenilworth Corridor*.

Visual impact analysis

In regard to your comment questioning the methodology and findings of visual impacts within the Kenilworth Corridor, Section 3.7 of the Final EIS includes an updated visual assessment. Six viewpoints were studied within the Kenilworth Corridor for the visual assessment completed for the Final EIS. Section 3.7.4 of the Final EIS documents the level of visual impact anticipated for each viewpoint. For the viewpoints within the Kenilworth Corridor, these impacts range from low to substantial. Section 3.7.5 of the Final EIS documents the mitigation measures the Council will implement to mitigate the Project's visual quality and aesthetic impacts, including those within the Kenilworth Corridor.

For the viewpoints within the Kenilworth Corridor, these impacts ranged from low to substantial. Viewpoints 5 and 6, included in the Supplemental Draft EIS, are renumbered to 16 and 18, respectively, in the Final EIS. Further, an additional viewpoint from the Burnham Road Bridge looking southeast down the channel toward the Kenilworth Corridor Bridges was added to the analysis—viewpoint 17. The level of impact remains the same for viewpoints 16 and 18 (low level of impact), however, there will be a substantial level of impact at viewpoint 17 as construction of the new bridges will require noticeable clearing of trees and other vegetation on the west side of the right-of-way.

The visual quality evaluation for the area north of the Kenilworth Channel (viewpoint 18 – looking toward the 21st Street Station) concluded that the level of visual impact will be low. Removal of trees is a contributing factor in the visual assessment for this area. The visual evaluation found that the removal of trees will slightly decrease the vividness of the view. However, the addition of the street trees, the widened sidewalk, and the plantings in the 21st Street Station area will make a positive contribution. For a

more detailed explanation of the rationale for this conclusion, refer to the “Concern over visual impacts at 21st Street Station” in *Master Response 16: Concerns related to 21st Street Station and related impacts*.

These findings are based on FHWA’s Visual Impact Assessment of Highway Projects (FHWA, 1988). The method was designed to provide a systematic and objective approach to evaluation of the visual changes. The FHWA methodology is well established and widely accepted for the assessment of visual impacts and is well suited to assess the visual impacts of linear transportation facilities in urban areas. The assessment for the Project was based on visual assessment of the Project corridor, completed through site visits, analysis of existing conditions, and an evaluation of visual change. All viewpoint sites were visited and the corresponding views were photographed to document the existing views. This field work, review of the photographs, and the subsequent coordination/consultation process with the Project team provided a basis for understanding the typical visual issues for each visual assessment area. Computer modeling and rendering techniques were then used to produce simulated images of the with-Project conditions for the viewpoints evaluation (see Appendix J). These visual simulations provided the bases for the assessment of visual change.

The Council will also continue to work with the Kenilworth Landscape Design Committee, established in May 2015. The purpose of this committee is, in part, to help ensure that landscape design will restore the natural setting while incorporating the regional trail system, light rail, and freight rail. This group focuses on landscape design in the Kenilworth Corridor from West Lake Station to Penn Avenue Station. See Section 9.2 of the Final EIS for additional detail on this committee.

In particular, the Council has prepared design guidelines for key structures throughout the proposed light rail alignment, focusing on bridges and retaining walls. Those guidelines are included within the Visual Quality Guidelines for Key Structures (Council, 2015 – refer to Appendix C to access the Guidelines). These guidelines were developed by the Council, reflecting various coordinating efforts with affected local jurisdictions. The guidelines have been used by the Council in the advancement of the Project’s design and development of final design plans. The guidelines have and will help to ensure a consistent aesthetic element for key structures throughout the proposed light rail alignment, while allowing for some flexibility in wall treatments. Refer to Section 3.7.4 for more information. Additionally, within the Kenilworth Corridor, the Council developed a landscape design that preserves and builds upon the natural character of the corridor, where applicable and appropriate.

Existing contamination of Cedar Lake rail yard and mitigation costs

See *Master Response 8: Questions over the extent of hazardous and contaminated materials in the Kenilworth Corridor*.

Comment #	#204
Commenter	Julia Singer
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). In addition to expressing your support of the Southwest LRT Project, please see responses below to other comments within your email.

- Keep 21st Street Station
- Proposed “highline” for bikes and pedestrians in the Kenilworth Corridor

Keep 21st Street Station

See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Proposed “highline” for bikes and pedestrians in the Kenilworth Corridor

After publication of the Draft EIS the Council developed and evaluated a range of design adjustments to LRT 3A-1 (co-location), including an elevated bicycle and pedestrian trail through a portion of the Kenilworth Corridor. In summary, the “Elevate the Kenilworth Trail” design adjustment was dismissed from further study because visual impacts due to structure height and connecting ramps, impacts the visual quality and setting of the trail (e.g., separation from ground vegetation) and the addition of grade changes to the trail, and potential visual impacts on Kenilworth Lagoon. This evaluation was presented to the public, stakeholders and participating agencies for review and comment, including the Project’s Corridor Management Committee. See Appendix F of the Final EIS for additional information. There are no long-term impacts on the Kenilworth Trail, because the trail will maintain its current functionality after construction of the Project. See Section 4.5.3 of the Final EIS for additional information on evaluation of trails.

Comment #	#205
Commenter	George Puzak
Commenter Organization	None

Response

Duplicate comment - please see the response to comment 66.

Comment #	#206
Commenter	Lou Schoen
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

The option of routing the Project through uptown and south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

In general, that alignment alternative was dismissed from further study because it would be less cost effective and efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the Locally Preferred Alternative (LPA). Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

In summary, HCRRA and the Metropolitan Council, as well as the Project's Corridor Management Committee (CMC) found that the light rail alignment that is part of LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life, and supporting economic development.

Comment #	#207
Commenter	Fred and Gloria Sewell
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Your opposition to the Southwest LRT Project has been noted.

Comment #	#208
Commenter	Rick Getschow
Commenter Organization	City of Eden Prairie

Response

Duplicate comment - please see the response to comment 142.

Comment #	#209
Commenter	Chris Johnson
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please refer to the response to *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right* for responses relevant to the comments included in the LRT Done Right letter, including several other topics of concern itemized in your letter.

In regard to your comment that Southwest LRT should be routed via existing freeway corridors rather than the Kenilworth Corridor, the option of placing the proposed light rail alignment along generally north-south or east-west freeway corridors that are available in the Southwest LRT Study Area would not meet the Project Purpose identified in Section 1.1 of the Final EIS. The Purpose notes that “The Southwest LRT Project will provide a competitive, cost-effective travel option that will attract choice riders to the transit system. The competitive and reliable travel time for the Southwest LRT Project is attributed to the diagonal nature of the line compared to the north-south/east-west orientation of the roadway network and to the increasing levels of congestion of the roadway network.”

Additionally, the Project Purpose indicates that the Project will improve access and mobility to the jobs and activity centers in the Minneapolis central business district, as well as along the entire length of the corridor for reverse-commute trips to the expanding suburban employment centers. These employment centers, shown on Exhibit 1.4-5 of the Final EIS, demonstrate that the Project alignment will more effectively provide access to these employment centers: Golden Triangle Business Park, Optum Corporate Headquarters and Business Park, Downtown Hopkins, and Park Nicollet Methodist Hospital compared to a freeway based alignment. A freeway alignment would also not provide direct service to stations projected to experience the highest average weekday station usage, including the Beltline Station or the West Lake Station, which is projected to have the highest level of ridership under the Project (See Section 4.1, Transit, of the Final EIS, including Table 4.1-5, Average Weekday Station Usage by Mode of Access, Year 2040, for additional information).

Use of freeway alignments for the Southwest LRT have previously been considered. The Southwest LRT Alternatives Analysis, completed by HCRRA in 2007, studied an alignment that would utilize the I-494 corridor under LRT Alternatives 2A and 2C. The Southwest LRT Alternatives Analysis also developed and evaluated enhanced bus transit alternatives that would utilize Highway 169 and 212, as well as a BRT alternative that would have utilized existing bus shoulder lanes on Highway 169. Both enhanced bus and BRT alternatives were dismissed from further evaluation within the Alternatives Analysis because these alternatives were found to not meet Project goals as documented within Section 2.2 of the Final EIS, these alternatives were screened out of further evaluation within the AA process.

The Southwest Rail Transit Study, completed by HCRRA in October 2003 (available at: http://old.swlrtccommunityworks.org/technical-documents/cat_view/57-archive/60-rail-feasibility-study.html), also considered alignments that would utilize portions of freeway along The Southwest Rail Transit Study included portions of alignment along I-494, Highway 169, and Highway 212. Alternative W8 of the Study, which incorporated alignment along TH 212 and TH 169 was not recommended for further study due to:

- Significantly higher capital costs and lower Project ridership than W1 and W4
- Poor service to western Minnetonka

Significant structures required at the Southwest Metro Transit Station, bridge over wetlands along Highway 169, and tunnel under Highway 169 and Excelsior Boulevard
(Source: Figure 5.4 Screen 2 Evaluation Results)

Though the Policy Advisory Committee for the Study recommended further consideration of a Modified Alternative 3A: LRT from Southwest Metro to downtown Minneapolis, the report noted that additional study should be conducted to reroute the alignment to better serve employment generators because direct service to employment sites would not be provided because the alignment remained within the existing Highway 169 and 212 rights-of-way.

The study also considered a light rail alignment that would have utilized Highway 100 between I-394 and Highway 7. This alternative (E-2 within the Study) was not recommended for further study because:

- No excess right-of-way in the Highway 100 corridor
- Would have significant right-of-way impacts along Highway 100 due to multiple property owners
- Reduced service to population and employment concentrations in St. Louis Park (Source: Figure 5.3: Screen 1 Recommendation)

In regard to your comment that the Southwest LRT alignment should be routed through Uptown, the option of routing the Project through Uptown and south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

In general, that alignment alternative was dismissed from further study because it would be less cost effective and less efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the Locally Preferred Alternative (LPA). Hennepin Avenue is also a busy urban arterial, with a very constrained street right-of-way, many cross streets and driveway entrances and exits along its alignment. This alternative would perform very similarly to the 3C-1 and 3C-2 alternatives. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

In summary, HCRRA and the Metropolitan Council, as well as the Project's Corridor Management Committee (CMC) found that the light rail alignment that is part of LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life, and supporting economic development.

Comment #	#210
Commenter	Lindy Nelson
Commenter Organization	United States Department of the Interior

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). We acknowledge and appreciate your preliminary concurrence with the preliminary determinations included in the Draft Section 4(f) Evaluation Update, assuming there are no subsequent changes to the preferred alternatives or impacts to the eligible properties.

Since publication of the Supplemental Draft EIS, there have been several updates to the Project's Section 4(f) Evaluation. The following is a summary of these changes.

Design Adjustments and Section 4(f) Determination Changes for Cedar Lake Park. Within the Supplemental Draft EIS, Cedar Lake Park was found to have a Section 4(f) *de minimis* use due to anticipated permanent easements for a sidewalk extension in the park near East Cedar Beach and a proposed bicycle and pedestrian bridge for North Cedar Lake Trail at Cedar Lake Junction. Since that time, the Minneapolis Park and Recreation Board (MPRB) has agreed to retain ownership of the area of the park where the sidewalk extension will occur, so no permanent easement is required at that location. Further, the proposed bicycle and pedestrian bridge at Cedar Lake Junction has been removed from the Project design. While some sections of the North Cedar Lake Trail will be reconstructed within the park, the trail will cross the existing freight rail alignment at graded (as it does today) and it will also cross the proposed light rail alignment at grade. With the removal of the proposed bicycle and pedestrian bridge, there will be no related permanent easement in Cedar Lake Park. As a result of these design adjustments, the Project will only result in construction activities within Cedar Lake Park and the Project will not result in the permanent incorporation of any portion of the park into the Project. FTA has concluded, and the MPRB has concurred in writing, that that the construction activities that will occur within Cedar Lake Park meet the Section 4(f) criteria for a temporary occupancy exception.

Since publication of the Project's Draft Section 4(f) Evaluation Update in the Supplemental Draft EIS, FTA prepared and published an Amended Draft Section 4(f) Evaluation for two newly identified Section 4(f) properties in Minnetonka. These properties are as follows:

Property Name	Property Type	Location	Official with Jurisdiction	Section 4(f) Qualifying Description
Unnamed Open Space B	Park	Located generally south of Smetana Rd, west of Green Circle Dr, North of Bren Rd W, east of Claremont Apartments	City of Minnetonka	49.0-acre open space
Opus Development Area Trail Network	Park	Located generally between Smetana Road to the north, Hwy 169 to the east, Hwy 62 to the South and Shady Oak Road to the west	City of Minnetonka	9.6 acre recreational trails

Within the Amended Draft Section 4(f) Evaluation, which was published for review and comment on January 11, 2016, FTA determined that these two properties qualify for Section 4(f) protection as publicly owned recreation properties of local significance. FTA also preliminarily determined that there will be a Section 4(f) *de minimis* impact on these two properties as a result of the Project. Following the close of the public comment period on the Amended Draft Section 4(f) Evaluation on February 25, 2016, and after consideration of comments received, FTA requested and received written concurrence from the City of Minnetonka (as the Section 4(f) Official with Jurisdiction for the two properties) on the final Section 4(f) *de minimis* impact determinations for the two properties (as per 23 CFR 774.5(b) and 23 CFR 774.17).

Chapter 6 of the Final EIS contains the Final Section 4(f) Evaluation, which includes the final Section 4(f) determinations for the above listed properties. Appendix I of the Final EIS provides background documentation for the Final Section 4(f) Evaluation. The Project's Record of Decision will include the Project's Final Section 4(f) Evaluation.

Section 106 Findings of Effect. FTA, the Council, and the Minnesota Historic Preservation Office (MnHPO) have reached final findings of effect of the Project on qualifying Section 106 resources. In addition, they have also prepared the Project's Section 106 Memorandum of Agreement (MOA) to resolve adverse effects on qualifying Section 106 resources, including specifying avoidance, minimization, and mitigation measures that will avoid adverse effects to other resources. The final Section 106 findings of effect and the Section MOA have been incorporated into the Final Section 4(f) Evaluation, including the stipulation of avoidance, minimization, and mitigation measures for adversely effected Section 106 resources that are Section 4(f) protected properties (i.e., the Kenilworth Lagoon and the Grand Rounds Historic District [GRHD]). In summary, the Section 106 MOA stipulates the following measures to address the Project's adverse effect on the Kenilworth Lagoon and the GRHD: 1) install noise mitigation on the new light rail bridge across the lagoon; 2) rehabilitate/reconstruct the WPA Rustic Style retaining walls to minimize/mitigate adverse effects; 3) design Project elements within and adjacent to the GRHD in accordance with SOI Standards (36 CFR 68) and allow for further consulting party review of the design; 4) develop and implement a Construction Protection Plan; and 5) prepare guidance for future preservation activities within a portion of the GRHD (see Section 3.5 and Appendix H of the Final EIS).

The final findings of effect and the Section 106 MOA are included in Appendix H of the Final EIS and they are reflected in FTA and the Council's Section 4(f) determination that all measures to minimize harm have been employed for the two historic resources that will be subject to Section 4(f) use. (See Chapter 6 of the Final EIS.)

The Project's Section 106 process will be completed with signing of the Section 106 MOA by FTA and MnHPO, which will occur prior to publication of the Project's Record of Decision (ROD). The signed Section 106 MOA will be included in the ROD.

FTA's Final Section 4(f) Determinations and Written Concurrence from Officials with Jurisdiction.

FTA and the Council have reached final Section 4(f) determinations for all properties addressed in the Final Section 4(f) Evaluation (see Chapter 6 of the Final EIS). Those final determinations include: Section 4(f) uses that are non-*de minimis*; Section 4(f) *de minimis* uses; and temporary occupancy exceptions. FTA has received written concurrence from the officials with jurisdiction for all Section 4(f) *de minimis* determinations that are parks or recreation areas and for all temporary occupancy exceptions (for historic resources, the Council notified the MnHPO in writing that their concurrence with findings of no adverse effect would be used by FTA and the Council in reaching *de minimis* use determinations for Section 106 resources). Copies of the officials with jurisdiction written concurrence are included in Appendix I of the Final EIS.

Other Miscellaneous Adjustments and Updates. Since publication of the Supplemental Draft EIS, relatively minor adjustments have been made to the proposed design of the Project, which are reflected in the Project's Preliminary Engineering Plans (see Appendix E). Those design adjustments and the resulting updates to the environmental analysis documented in the Final EIS are reflected in the Project's Final Section 4(f) Evaluation. Except for the design adjustments that affected Cedar Lake Park as previously described, these adjustments and updates have not affected the overall Section 4(f) determinations that were in the Draft Section 4(f) Evaluation Update.

The DOI is receiving a copy of the Final EIS, which includes the Project's Final Section 4(f) Evaluation (see Chapter 6 and Appendix I) and the Section 106 MOA (see Appendix H). The DOI is encouraged to review and comment on the Section 4(f) Evaluation during the Final EIS waiting period before FTA issues the Project's Record of Decision. The DOI will receive a copy of the ROD when it is published by FTA, which will include a signed copy of the Section 106 MOA.

Comment #	#211
Commenter	Joyce Murphy
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). In regard to your request to have Project location of light rail alignment decisions reconsidered, See *Master Response 10: Rationale for incorporating freight rail co-location into the Project*.

Safety at West 21st Street crossing of proposed light rail alignment

See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Comment #	#212
Commenter	Edith Black
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please refer to the response to *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right* for responses relevant to the comments included in the LRT Done Right letter.

In regard to your comment that the Southwest LRT alignment should be routed along the Midtown Greenway: The option of routing the Project through Uptown and south Minneapolis via the Midtown Greenway was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

In general, that alignment alternative was dismissed from further study because it would be less cost effective and less efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the Locally Preferred Alternative (LPA). Hennepin Avenue is also a busy urban arterial, with a very constrained street right-of-way, many cross streets and driveway entrances and exits along its alignment. This alternative would perform very similarly to the 3C-1 and 3C-2 alternatives. Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

In summary, HCRRA and the Metropolitan Council, as well as the Project's Corridor Management Committee (CMC) found that the light rail alignment that is part of LRT 3A and LRT 3A-1 will best meet the Project's Purpose and Need Statement, as expressed by the goals of improving mobility, providing a cost effective and efficient travel option, preserving the environment, protecting quality of life, and supporting economic development.

Comment #	#213
Commenter	Laura Kinkead
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#214
Commenter	Louise Delagran
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Concern over hazardous freight cargo in the Kenilworth Corridor
- Concern over Federal Railroad Administration (FRA) Oversight
- Concern over noise and visual impacts at the 21st Street Station

Concern over hazardous freight cargo in the Kenilworth Corridor

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*. See also *Master Response 11: Safety concerns related to hazardous freight rail cargo within the Kenilworth Corridor*.

Concern over Federal Railroad Administration (FRA) Oversight

See *Master Response 3: General concerns related to safety and security for LRT construction and operations within close vicinity to freight in the Kenilworth Corridor*.

Concern over noise and visual impacts at the 21st Street Station

See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Comment #	#215
Commenter	Thad and Shiela Spencer
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#216
Commenter	Melissa Lally
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#217
Commenter	Laila Schirrmeister
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#218
Commenter	Harvey Ettinger
Commenter Organization	East Isles Residents Association Parks Committee

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please refer to the response in *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right* for responses relevant to the comments included in the LRT Done Right letter.

In regard to your comment about considering options documented in the letter from Mr. Bob Carney, please see response to comment #131. The Council reviewed the following transit options requested for review by Governor Dayton: No Build Alternative, Enhanced Bus, and Bus Rapid Transit (BRT) Alternatives (see <http://metro council.org/getdoc/73777f40-2fd1-48c8-af49-a62531e581c2/Presentation.aspx>). The Council presented this review to the Corridor Management Committee (CMC) in June 2015 and the CMC dismissed them as they do not meet the Project's Purpose and Need.

The prior evaluation of those alternatives is also documented in Section 2.2 of the Final EIS, which provides the rationale for why the Enhanced Bus and BRT alternatives were previously dismissed from further study. Please see Chapter 8 of the Final EIS for a summary comparison of the Project to the No Build Alternative based upon metrics related to the Project's Purpose statement. In particular, FTA and the Council have found that the No Build Alternative would not meet the Project's Purpose and Need.

Comment #	#219
Commenter	Herb Jones
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS).

Alternate alignments along Lake Street or along Highway 394

Regarding your comment that Southwest LRT should be routed via TH 100 and I-394, rather than the Kenilworth Corridor, the option of placing the proposed light rail alignment along generally north-south or east-west freeway corridors would not meet the Project Purpose identified in Section 1.1 of the Final EIS. The Project Purpose notes that “The Southwest LRT Project will provide a competitive, cost-effective travel option that will attract choice riders to the transit system. The competitive and reliable travel time for the Southwest LRT Project is attributed to the diagonal nature of the line compared to the north-south/east-west orientation of the roadway network and to the increasing levels of congestion of the roadway network.”

The additional length an alignment that used generally north-south or east-west orientation of existing freeways such as Highway 100 and I-394 (past Brownie Lake), respectively, would increase LRT travel times for trips between west of Highway 100 and downtown Minneapolis (including connecting trips), compared to the generally diagonal southwest to northeast light rail alignment included in the Project.

Additionally, the existing rights-of-way for Highway 100 and I-394 would not be adequate to accommodate the introduction of a light rail alignment due to geographic and existing transportation infrastructure constraints. As a result, the use of those alignments for light rail would likely lead to property acquisitions and the displacement of adjacent land uses, including residences and commercial properties.

The Southwest Rail Transit Study, completed by HCRRA in October 2003 (available at: http://old.swlrtccommunityworks.org/technical-documents/cat_view/57-archive/60-rail-feasibility-study.html), considered a light rail alignment that would have utilized Highway 100 between I-394 and Highway 7. This alternative (E-2 within the Study) was not recommended for further study because:

- No excess right-of-way in the Highway 100 corridor
- Would have significant right-of-way impacts along Highway 100 due to multiple property owners
- Reduced service to population and employment concentrations in St. Louis Park
- Source: Figure 5.3: Screen 1 Recommendation

The Project Purpose also indicates that the Project will improve access and mobility to the jobs and activity centers in the Minneapolis central business district, as well as along the entire length of the corridor for reverse-commute trips to the expanding suburban employment centers. These employment centers, shown on Exhibit 1.4-5 of the Final EIS, demonstrate that the Project alignment will more effectively provide access to these employment centers: Golden Triangle Business Park, Optum Corporate Headquarters and Business Park, Downtown Hopkins, and Park Nicollet Methodist Hospital compared to an alignment along I-394 and Highway 100. Also, an I-394/Highway 100 alignment would not provide direct service to stations projected to experience the highest average weekday station usage, including the Beltline Station or the West Lake Station, which is projected to have the highest level of ridership under the Project (See Section 4.1, Transit, of the Final EIS, including Table 4.1-5, Average Weekday Station Usage by Mode of Access, Year 2040, for additional information).

In regard to the option of routing the light rail line along Lake Street, the option of routing the Project through other areas of south Minneapolis was previously evaluated during Alternatives Analysis, Scoping, and the Draft EIS as LRT 3C-1 and LRT 3C-2.

As documented in Section 11.2.6 of the Draft EIS, LRT 3C-1 was determined to be the least cost effective of the alternatives considered in the Draft EIS, due to its relative high costs and lowest ridership

estimates. It was also found that LRT 3C-1 was not compatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, it would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

As documented in Section 11.2.7 of the Draft EIS, LRT 3C-2 was found to be incompatible with approved comprehensive plans, because of potential disruptions to regional roadways, such as Nicollet Mall, and impacts to pedestrian facilities. Further, LRT 3C-2 would have had greater construction impacts, due to extensive in-street construction. Finally, LRT 3C-1 was found to have disproportionately high and adverse impacts to low-income and minority populations due to displacements, impacts to community cohesion, the most severe construction impacts, and increased traffic congestion in environmental justice areas identified in the Draft EIS.

In general, that alignment alternative was dismissed from further study because it would be less cost effective and efficient, have greater adverse environmental impacts, and support economic development and the study area's quality of life to a lesser degree compared to the Locally Preferred Alternative (LPA). Section 2.2 of the Final EIS provides a more detailed description of how the alternatives were evaluated during the Project's various phases and the rationale for the identification of the LPA.

The Project has been adjusted through the design process to minimize impacts to parks and trails, including those in or adjacent to the Kenilworth Corridor. The Project will be within a shallow tunnel between West Lake Street and the Kenilworth Lagoon, which will minimize long-term impacts to the Kenilworth Corridor and trail. The Kenilworth Trail will be retained in the corridor as part of the Project. Short-term impacts during construction will be mitigated with temporary detours. Section 4.5 of the Final EIS evaluates pedestrian and bicycle facilities.

Historic properties and districts located within the Kenilworth Corridor are described in Appendix H of the Final EIS. It is important to note that the "Kenilworth Corridor" is not a historic or federally protected property unto itself, but rather is a geographical area reference that contains portions of Section 106 historic and Section 4(f) properties (e.g., Kenilworth Channel/Lagoon and Cedar Lake Parkway).

Comment #	#220
Commenter	William Griffith
Commenter Organization	Claremont Apartments (Larkin Hoffman)

Response

Duplicate comment - please see the response to comment 191.

Comment #	#221
Commenter	Susu Jeffrey
Commenter Organization	Friends of Coldwater

Response

Duplicate comment - please see the response to comment 149.

Comment #	#222
Commenter	Jerry Van Amerongen
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#223
Commenter	Diane Steen-Hinderlie
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The sections that follow include response(s) to these comments.

- Suggestion to mention Jorvig Park and historical buildings in same section for ease of reading
- Request for clarification regarding switching wye and freight rail swap changes
- 21st Street Station
- Moving Kenilworth Trail

Suggestion to mention Jorvig Park and historical buildings in same section for ease of reading

The description of Jorvig Park in Section 6.7 of the Final EIS indicates that the park contains a relocated historic train depot and a description of the historic train depot notes that it was relocated to Jorvig Park. Because Jorvig Park is a recreation property and the historic depot is a historic property they are evaluated under both Section 4(f) of the Department of Transportation Act and Section 106 of the National Historic Preservation Act.

Request for clarification regarding switching wye and freight rail swap changes

Please refer to *Master Response 12: Concern over potential impacts related to replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur*. This master response gives a description of replacement of the Skunk Hollow Switching Wye with the Southerly Connector between the Bass Lake Spur and the MN&S Spur.

21st Street Station

The Council notes your support for regaining the 21st Street Station as part of the Project, as described in Section 2.1 in the Final EIS. See *Master Response 16: Concerns related to 21st Street Station and related impacts*.

Moving Kenilworth Trail

In regard to your suggestion that the Kenilworth Trail could be moved out of the Kenilworth Corridor, See *Master Response 14: Relocate the Kenilworth Trail instead of co-locating freight rail and light rail within the Kenilworth Corridor*.

Comment #	#224
Commenter	Jean and John Sandbo
Commenter Organization	None

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The Council notes your support for the comments submitted by the LRT Done Right organization. Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#225
Commenter	Mary Pattock
Commenter Organization	LRT Done Right

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). Please see *Master Response 15: Comments Received from Kenwood Isles Area Association (KIAA), Cedar Isles Dean Neighborhood Association (CIDNA), and LRT-Done Right*.

Comment #	#226
Commenter	Tim Kelly
Commenter Organization	Minnesota House of Representatives

Response

Thank you for your comments on the Southwest LRT (METRO Green Line Extension) *Supplemental Draft Environmental Impact Statement* (EIS). The following includes responses to comments within your two letters dated July 10, 2015 to Marisol Simon, US Department of Transportation – Federal Transit Administration and June 23, 2015, to Adam Duinick, Chair – Metropolitan Council.

Based on the current scope of the Southwest LRT Project as described in Chapter 2, Alternatives Considered, of the Final EIS, the Project's capital cost estimate in year-of-expenditure dollars is \$1,791 million (see Chapter 7, Finance, of the Final EIS). The development of this cost estimate, and associated scope occurred throughout the spring and summer of 2015, during which time Council staff presented materials at five meetings of the Corridor Management Committee (CMC) between May and July 2015. In developing its recommendations to the Council concerning scope adjustments, the CMC considered recommendations adopted by the Project's Business Advisory Committee (BAC) and Community Advisory Committee (CAC) in June 2015. The Council considered the recommendations from the BAC, CAC, and CMC prior to identifying the scope adjustments on July 8, 2015. This process is documented in Section 2.2.5 and Chapter 9 of the Final EIS. The capital cost estimate within the Final EIS reflects the scope adjustments made by the Council.

The Council and FTA were also accepting public comments on the Southwest LRT Project's Supplemental Draft EIS, including comments on the capital cost estimate for the proposed Project during this time. The comment period for Supplemental Draft EIS was from May 22 through July 21, 2015.

The Project's public and agency coordination activities were also developed and implemented in accordance with NEPA, MEPA, and other applicable laws, such as Chapter 4410, Environmental Quality Board (EQB) Environmental Review Program. The Southwest LRT Project's agency and public coordination activities have included meetings with the Technical Project Advisory Committee (TPAC), which is composed of staff from the Council's Southwest LRT Project Office, Hennepin County, MnDOT, the cities of Eden Prairie, Minnetonka, Hopkins, St. Louis Park and Minneapolis, Three Rivers Park District, and the Council's Metro Transit Rail Operations division. Community and business representatives serve on the BAC and CAC, which provide input and recommendations to the CMC. For a more complete description of coordination activities that occurred in each municipality to support the Southwest LRT Project's environmental planning activities, please see Chapter 9 of the Final EIS.

In your June 23, 2015, letter, you raised several questions about the Council's cash flow financing plan for the Southwest LRT Project. Responses to your letter, including answers to eight questions within your letter, were included in a letter to you from Adam Duinick, Chair – Metropolitan Council, dated July 22, 2015. That letter and its attachment are incorporated herein as responses to your concerns and questions about the Council's cash flow financing plan.

Attachment 5: Responses to Comments on the Amended Draft Section 4(f) Evaluation

Responses to Comments on the Amended Draft Section 4(f) Evaluation

Appendix M, Attachment 5 contains comments received on the Southwest LRT (METRO Green Line Extension) Amended Draft Section 4(f) Evaluation. Attachment 5 is divided into two parts:

- Index of comments received on the Supplemental Draft EIS: Contains a table with the commenter name/organization and the page number for the response
- Responses to comments received.

Index of comments received on the Amended Draft Section 4(f) Evaluation

United States Environmental Protection Agency.....	M.5-2
SFI Partnership.....	M.5-3

Responses to Comments Received on the Amended Draft Section 4(f) Evaluation

Comment #	#1
Commenter	
Commenter Organization	United States Environmental Protection Agency

Response

See Appendix N, Agency Coordination Letters, of the Final EIS for the response to EPA's comment letter on the Supplemental Draft EIS.

Comment #	#2
Commenter	Jerry Kavan
Commenter Organization	SFI Partnership 54

Response

Thank you for your comments on the Amended Draft Section 4(f) Evaluation, stating your disagreement with the FTA’s preliminary determinations regarding Section 4(f) properties in the Opus Hill Area, noting three prior letters from 2012, 2013, and 2015 as supporting information. FTA considered your comments on the Amended Draft Section 4(f) Evaluation prior to reaching its final Section 4(f) determinations included within the Project’s Final Section 4(f) Evaluation (Chapter 6 of the Final EIS).

Following are summaries of the three letters referenced in your February 2016 letter on the Amended Draft Section 4(f) Evaluation:

- Your 2012 letter, in response to the Draft EIS, does not include any information or comments on the Section 4(f) process, documentation, or properties (see Appendix L.2 for a copy of that letter and Appendix L.3 for responses to comments within that letter).
- Your 2013 letter is a data practices act request, requesting information on “the recreational trail operated and maintained by the City of Minnetonka that travels through the Opus Hill area” (part of the Opus development area trail network) and on other Section 4(f) properties and properties considered for Section 4(f) protection. The Council responded to that data practices act request under separate cover.
- Your 2015 letter, in response to the Supplemental Draft EIS, notes that the Draft Section 4(f) Evaluation Update in the Supplemental Draft EIS (i.e., Section 3.5) does not include information on the public trail southwest of the Claremont Apartments (part of the Opus development area trail network) or on the open space south and east of the Claremont apartments (Unnamed Open Space B), and whether or not the trail or open space qualify for Section 4(f) protection. A copy of your 2015 letter and a response to it are provided in Appendix M, Supplemental Draft EIS Comments and Responses (see comments and responses #191 and #220).

Since receipt of those letters, FTA and the Council published the Amended Draft Section 4(f) Evaluation (January 2016), which included FTA’s determination that Unnamed Open Space B and the Opus development area trail network qualify as Section 4(f) properties, based on their public ownership (by the City of Minnetonka) and being public accessibility areas of local significance for recreation purposes. Further, the Amended Draft Section 4(f) Evaluation included FTA’s preliminary determinations that the Project would result in Section 4(f) *de minimis* impacts to the Unnamed Open Space B and the Opus development area trail network, based on the preliminary determination that the Project would not adversely affect the activities, features, and attributes that qualify the properties for Section 4(f) protection. Since publication of the Amended Draft Section 4(f) Evaluation, FTA received the City of Minnetonka’s written concurrence with the Section 4(f) *de minimis* impact determinations for Unnamed Open Space B and the Opus development area trail network (see Appendix I). The Final Section 4(f) Evaluation includes FTA’s final determinations that Unnamed Open Space B and the Opus development area trail network qualify as Section 4(f) properties and that the Project will have Section 4(f) *de minimis* impacts on those properties. Chapter 6 of the Final EIS provides a description on the rationale and documentation supporting these Section 4(f) determinations by FTA.