

Appendix A

Summary of Mitigation Measures



Table A-1. Summary of Mitigation Measures for the Preferred Alternative

Resource	Measures to Mitigate Adverse Effects
Land Use and Land Use Planning	Where it is not possible to remain within existing right-of-way, FHWA and WisDOT would compensate property owners in accordance with applicable laws and regulations for land acquired from residences, businesses, utilities, and American Family Field (Sections 3.4.3, 3.5.3, 3.6.3, and 3.7.3). Some land currently used as highway right-of-way may potentially no longer be needed as right-of-way. WisDOT may declare the land excess right-of-way, and it could be converted to a different land use.
Transportation Service	<p>Section 3.27, Construction, describes measures to manage congestion during construction, which would be a result of lane closures on I-94 and adjacent local streets. WisDOT developed a draft 30% Transportation Management Plan (TMP) in April 2022 to coordinate and manage impacts associated with construction (see Appendix B-5). This document is a draft, and the potential improvements and related costs for mitigation will vary based on final design, construction timing, and construction staging. The document identifies ways that transit can be used to mitigate the construction delays for all users in the corridor and identifies transit infrastructure improvements that could remain post-construction for potential future transit service improvements. WisDOT identified spending \$25-\$30 million on transit for operational (additional bus runs, maintaining headways) and infrastructure (signals, bus stops, lane modifications) costs for construction traffic mitigation. The TMP is a continually updated document. WisDOT will continue to engage with TMP stakeholders (e.g., transit agencies and local community groups) in TMP development and implementation. The 30% TMP in Appendix B-5 lists the TMP stakeholders to date. The TMP is a flexible document that allows for adjustments based on which measures are working well or not.</p> <p>WisDOT would construct some off-interstate improvements to mitigate the traffic impacts of partially closing the Hawley Road interchange. The improvements are extending Washington Street to make it easier for drivers in the Hawley Road corridor to access the 68th Street/70th Street interchange and improvements at three local road intersections to improve local road operations.</p> <p>Existing Washington Street is about 0.5-mile south of I-94 and currently intersects with 70th Street and dead ends a few blocks to the east. It provides access to several businesses. A new Washington Street alignment would be constructed to provide a connection between 70th Street and Hawley Road/60th Street (Exhibit 2-1). Connecting 70th Street to Hawley Road/60th Street via Washington Street would provide convenient access to and from Hawley Road from the 68th Street/70th Street interchange for traffic that would no longer be able to enter I-94 eastbound or exit from I-94 westbound at Hawley Road.</p> <p>In addition to the Washington Street connection, WisDOT has identified three local road intersections for improvements to mitigate traffic congestion because of the partial closure of the Hawley Road interchange. Each of the intersections would see a modest increase in traffic volumes as a result of the access change at Hawley Road. The following are the local road intersections:</p> <ul style="list-style-type: none"> • 70th Street/Greenfield Avenue • National Avenue/Greenfield Avenue • Brewers Boulevard/National Avenue <p>At the 70th Street/Greenfield Avenue intersection, WisDOT would restripe the pavement to extend the southbound left-turn lane and improve the traffic signals to improve traffic operations. No right-of-way would be required for the improvements.</p> <p>At the National Avenue/Greenfield Avenue intersection, WisDOT would restripe the pavement and improve the traffic signals. Along National Avenue, northeast-bound National Avenue would be restriped to provide for a combined left and through lane, along with a right-turn lane. This would eliminate approximately 100 feet of on-street parking (about five parking spots). For southwest-bound National Avenue, a combined left and through lane, along with a right-turn lane, would be provided. This would eliminate approximately 150 feet of on-street parking. Along Greenfield Avenue, a left-turn lane and a combined through and right-turn lane would be provided in each direction. This would remove about 70 feet of parking along westbound Greenfield Avenue.</p> <p>At the Brewers Boulevard/National Avenue intersection, WisDOT would restripe traffic lanes and improve traffic signals. A second left-turn lane would be added to northbound Brewers Boulevard. Along National Avenue, west of Brewers Boulevard, the second westbound through lane would be extended by approximately 500 feet to a spot between 48th and 49th streets. In addition, a right turn lane would be provided from westbound National Avenue to the VA entrance at General Mitchell Boulevard/47th Street. This was requested by the VA to improve access to its campus, and it would improve traffic operations along National Avenue.</p> <p>To mitigate the narrow lanes and/or shoulders through the cemetery section (Hawley Road to Zablocki Drive), WisDOT will implement countermeasures such as dynamic traffic management tools to warn drivers of closed lanes in the narrow segment, advance warning signs alerting drivers to the narrow lanes and/or shoulders, and other tools like reflectors on the center median barrier and the outside barrier.</p> <p>WisDOT and FHWA will coordinate with Canadian Pacific Railway to minimize interruptions to rail service while replacing the I-94 bridge over the Canadian Pacific Railway. WisDOT and FHWA will also work with MCTS and inter-county bus service providers to minimize disruption to their routes during construction (Section 3.27.4.4).</p>



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	<p>With the half interchange at Hawley Road, WisDOT would modify the I-94 signage along key arterials to direct drivers to the 68th Street/70th Street interchange or the Stadium Interchange. If needed, as part of the TMP, traffic calming measures could be installed along residential streets adjacent to the Hawley Road interchange, like Main Street and Adler Street south of I-94 and Dixon Street north of I-94. Under the half interchange at Hawley Road, traffic calming measures would deter drivers from using these residential streets to reach the 68th/70th Street interchange. These mitigation measures may vary based on final design, construction timing, and construction staging.</p> <p>The preferred alternative would not have any permanent, adverse impacts on existing bicycle and pedestrian accommodations. The preferred alternative includes several bicycle and pedestrians improvements, described in Section 3.3.2.5.</p>
Utilities	<p>WisDOT will compensate utilities for relocating their facilities and/or compensate for acquisition of real estate interests in compliance with state and federal law. Some utilities that are currently in WisDOT's right-of-way would be moved by the utility companies without compensation from WisDOT. Other utilities within WisDOT's right-of-way would receive compensation to relocate their facilities. WisDOT and FHWA would continue coordinating with utilities, municipalities, and Milwaukee County to avoid or minimize interruptions in service during construction.</p>
Residential Development	<p>Where it was not possible to avoid residences, federal property acquisition law provides for payment of just compensation for residences displaced for a federally funded transportation project (Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended [Uniform Act]). Acquisition price, replacement dwelling costs, moving expenses, increased rental or mortgage payments, closing costs, and other relocation costs are covered for the residential displacement.</p> <p>Under state law, no person or business would be displaced, unless a comparable replacement dwelling, business location, or other compensation (when a suitable replacement business location is not available) would be provided. Compensation is available to all displaced persons without discrimination. Prior to appraisals and property acquisition, an authorized relocation agent would interview each owner and renter to be relocated in order to determine their needs, desires, and unique situations associated with relocating. The agent would explain the relocation benefits and services each owner may be eligible to receive.</p> <p>Property acquisitions not involving residential, business, or other building relocations are also compensated in accordance with state and federal laws. Before initiation of property acquisition, WisDOT provides information explaining the acquisition process and the state's Eminent Domain Law under Section 32.05, Wisconsin Statutes. A professional appraiser inspects the property to be acquired. Property owners are invited to accompany the appraiser to ensure that full information about the property is taken into consideration. Property owners may also obtain an independent appraisal. Based on the appraisal, the value of the property is determined and that amount offered to the owner. If agreement on fair market value cannot be reached, the owner would be advised of the appropriate appeal procedure.</p> <p>A search of available housing from local realtor listings in June 2023 reported six homes of similar price (\$150,000 to \$200,000) to the one displaced residence, within roughly 1 mile of I-94 west of WIS 175/Brewers Boulevard (www.shorewest.com; accessed June 2023).</p> <p>Septic tanks, drain fields, or wells on acquired properties would be abandoned in accordance with state regulations and local zoning standards. WisDOT will survey all buildings to be demolished to determine whether asbestos or lead paint is present. All appropriate and applicable engineering and regulatory controls will be followed during the handling and disposal of asbestos-containing material and lead-based paint. Contractors must comply with regulations of the U.S. Environmental Protection Agency (USEPA); National Emission Standards for Asbestos; the Occupational, Safety, and Health Administration regulations on asbestos removal; local government regulations; and all other applicable regulations. The most recent editions of all applicable standards, codes, or regulations shall be in effect. Persons performing asbestos abatement must comply with all training certification requirements, rules, regulations, and laws of the State of Wisconsin regarding asbestos removal. Before a contractor demolishes a building that may contain or is known to contain asbestos, the contractor must notify the Wisconsin Department of Natural Resources (WDNR) and the Wisconsin Department of Health and Family Services at least 10 working days before starting the work, using WDNR Form 4500-113: "Notification of Demolition and/or Renovation and Application for Permit Exemption."</p> <p>Coordination that occurred with the resident who lives in the one displaced residence did not indicate age, disability, or income characteristics that would require special relocation consideration or services. WisDOT also coordinated with the potential relocated resident prior to and during public meetings and no needed special relocation considerations or services were identified at those times. If unusual circumstances were to arise during real estate activities, WisDOT real estate personnel would be available to provide appropriate relocation services.</p> <p>During the project's final design phase, WisDOT will design lighting in accordance with national standards and in such a way to minimize the amount of freeway lighting that enters adjacent residential neighborhoods. Freeway lighting would be designed similar to what it is today, focused on lighting in the median.</p>



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<p>Commercial and Industrial Development</p>	<p>Where it was not possible to avoid properties, commercial and industrial acquisitions and relocations would be in accordance with the Uniform Act. In addition to providing just compensation for property acquired, additional benefits are available to eligible displaced businesses, including relocation advisory services, reimbursement of moving expenses, and down-payment assistance. Under state law, no person would be displaced unless a comparable business location or other compensation (when a suitable business location replacement is not practical) is provided. Compensation is available to all displaced businesses without discrimination.</p> <p>Before initiating property acquisition activities, property owners would be contacted and given a detailed explanation of the acquisition process and Wisconsin’s Eminent Domain Law under Section 32.05, Wisconsin Statutes. Any property acquired would be inspected by one or more professional appraisers. The property owner would be invited to accompany the appraiser during the inspection to ensure that the appraiser is informed of every aspect of the property. Property owners will be given the opportunity to obtain an appraisal by a qualified appraiser that will be considered by WisDOT in establishing just compensation. Based on the appraisal, the value of the property would be determined and that amount offered to the owner.</p> <p>Before a contractor demolishes a building that may contain or is known to contain asbestos, the contractor must notify WDNR and the Wisconsin Department of Health and Family Services at least 10 working days before starting the work, using WDNR Form 4500-113: “Notification of Demolition and/or Renovation and Application for Permit Exemption.”</p> <p>Coordination with business owners indicated that there are no known age, ethnic, handicapped, or minority characteristics that would require special relocation consideration for any business displacement. If unusual circumstances were to arise during the business relocations, WisDOT real estate personnel would be available to provide appropriate relocation services. There are two businesses that would be potentially difficult to relocate. Badger Truck Center, Inc., and Central Bark Doggy Day Care are franchisee establishments that operate within a designated territory. As part of their franchise agreements, they are not allowed to relocate within a specified distance of another franchisee. There is potential for Badger Truck to relocate near its existing site.</p> <p>A search of a commercial realty website in May 2023 (www.loopnet.com) listed more than 20 commercial/industrial locations in the City of Milwaukee that would be adequate replacement sites for some businesses that would be displaced as a result of the project.</p> <p>Based on the listings, there is a sufficient number of available properties for displaced businesses. However, the availability of vacant commercial and industrial locations is always in flux. As businesses relocate in the future, the number of business and commercial listings may change, but it appears likely that sufficient replacement business buildings will be available when required.</p> <p>Reconstructing Hawley Road with a half interchange would change how employees and customers access businesses in the study area (Section 3.6.2.2). To minimize adverse impacts to businesses along or near Hawley Road, WisDOT would modify the I-94 signage along key arterials to direct drivers to the 68th Street/70th Street interchange or the Stadium Interchange. WisDOT would also construct some off-interstate improvements to mitigate the traffic impacts of partially closing the Hawley Road interchange. The improvements are extending Washington Street to make it easier for drivers in the Hawley Road corridor to access the 68th Street/70th Street interchange and improvements at three local road intersections to improve local road operations under the partial closure of the Hawley Road interchange.</p>
<p>Institutional and Public Services</p>	<p>WisDOT and FHWA would replace or compensate the Stadium District for American Family Field parking spaces that are lost and compensate the Stadium District for land that is acquired. WisDOT may do one or more of the following to replace the lost parking: construct new parking lots on existing open land or existing WisDOT right-of-way that would no longer be required; build more of the proposed roadways over the parking lots on bridges to provide for parking under the bridges; or compensate the Stadium District to construct a new parking structure. WisDOT and FHWA would continue working with the Stadium District and the Milwaukee Brewers to ensure efficient ingress and egress of the parking lots before and after games.</p> <p>WisDOT and FHWA would compensate Girl Scouts of America for any land acquired as part of the project.</p> <p>As requested by the VA (2016 Final EIS; Appendix D, letter D-27), WisDOT and FHWA would maintain the Zablocki Drive connection between Bluemound Road and the VA Campus. The VA noted that this northern access route improves safety and traffic congestion on the VA Campus and is an additional evacuation route. It also provides access to the portion of Wood National Cemetery north of I-94. The preferred alternative maintains this northern connection separate from General Mitchell Boulevard.</p> <p>The Washington Street extension would mitigate the traffic impacts on the VA, cemeteries, and emergency services of partially closing the Hawley Road interchange by making it easier for drivers on Hawley Road to access the 68th Street/70th Street interchange. Connecting 70th Street to Hawley Road/60th Street via Washington Street would provide convenient access to and from Hawley Road from the 68th Street/70th Street interchange for traffic that would no longer be able to enter I-94 eastbound or exit from I-94 westbound at Hawley Road.</p> <p>WisDOT would build a new Service Facility to replace the 60th Street building.</p>



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Socioeconomic Characteristics	<p>The preferred alternative includes the following features that minimize impacts on residences, businesses, community facilities, and access points:</p> <ul style="list-style-type: none"> Maintains comparable access points to and from I-94 and connectivity east of the Stadium Interchange. The Washington Street extension would mitigate the traffic impacts of partially closing the Hawley Road interchange by making it easier for drivers on Hawley Road to access the 68th Street/70th Street interchange. Connecting 70th Street to Hawley Road/60th Street via Washington Street would provide convenient access to and from Hawley Road from the 68th/70th Street interchange for traffic that would no longer be able to enter I-94 eastbound or exit from I-94 westbound at Hawley Road. <p>WisDOT will continue to coordinate with the public and communities during future design phases and construction.</p>
Environmental Justice	<p>Freeway Access Change</p> <p>The mitigation as a result of changes in access will address impacts to the general population as well as the environmental justice population. WisDOT is committed to maintaining existing access to and from I-94 to the greatest extent practicable. While a change of access may provide short-term inconvenience, there would still be many access points to/from I-94, WIS 175, and Brewers Boulevard. To mitigate for reconstructing the Hawley Road interchange as a half interchange, Washington Street would be extended to provide a connection between 60th Street/Hawley Road and 70th Street to make it easier for drivers in the Hawley Road corridor to access the 68th Street/70th Street interchange with I-94. The Washington Street extension would reduce the amount of through-neighborhood traffic due to the lack of access eastbound at Hawley Road interchange.</p> <p>In addition to the Washington Street connection, WisDOT would improve three local road intersections to mitigate traffic congestion. Each of the following intersections would see a modest increase in traffic volumes as a result of the access change at Hawley Road:</p> <ul style="list-style-type: none"> 70th Street/Greenfield Avenue National Avenue/Greenfield Avenue Brewers Boulevard/National Avenue <p>Residential and Business Impacts</p> <p>The mitigation of residential and business displacements will address impacts to the general population as well as the environmental justice population. All property acquisitions would receive compensation and relocation assistance in accordance with the state and federal law, including the Uniform Act. In addition, WisDOT has researched relocation opportunities (refer to Sections 3.5.3 and 3.6.3).</p> <p>WisDOT would facilitate finding and making available comparable housing before any resident is required to move, regardless of whether that person owns or rents their home. In working with residents that would be displaced by the project, WisDOT would identify replacement housing options that consider such factors as proximity to commercial and community facilities, schools (if applicable), an individual’s place of employment, and accessibility to transit. A search of available housing from local realtor listings in June 2023 reported six homes of similar price (\$150,000 to \$200,000) to the one displaced residence, within roughly 1 mile of I-94 west of WIS 175/Brewers Boulevard (www.shorewest.com; accessed June 2023).</p> <p>A search of a commercial realty website in May 2023 (www.loopnet.com) listed more than 20 commercial/industrial locations in the City of Milwaukee that would be adequate replacement sites for some businesses that would be displaced as a result of the project. Based on the listings, there are sufficient available properties for displaced businesses. However, the availability of vacant commercial and industrial locations is always in flux. As businesses relocate in the future, the number of business and commercial listings may change, but it appears likely that sufficient replacement business buildings would be available when required. WisDOT would assist as required under applicable laws in the event sufficient replacement buildings would not be available.</p> <p>Noise</p> <p>Four noise barriers were determined reasonable and feasible in environmental justice areas, and two noise barriers were determined reasonable and feasible in non-environmental justice areas. 215 receptors in environmental justice areas are impacted (30 percent of the total receptors studied); if the majority of the benefited receptors vote in favor of the noise walls, 272 receptors (38 percent) in environmental justice areas are anticipated to receive noise reductions of 5 or more dBA. 110 receptors in non-environmental justice areas are impacted (40 percent of the total receptors studied); if a majority of the benefited receptors vote in favor of the noise walls, 59 receptors (21</p>



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	<p>percent) are anticipated to receive noise reductions of 5 or more dBA.. Per WisDOT’s federally-approved noise policy, only those benefitted receptors receiving an 8 dBA reduction or more will get a vote. Refer to Section 3.9.4.3 for more detail.</p> <p>Greenhouse Gases (GHGs)</p> <p>Mitigation measures have been identified to minimize construction impacts (including GHG impacts) on environmental justice populations (Section 3.20.3). Prior to construction, a plan would be developed to establish construction phases, estimated durations, appropriate sequencing, mitigation commitments, and community outreach and communication commitments. This plan would be made available for the public to comment on prior to execution. WisDOT would continue its targeted stakeholder outreach inclusive of minority and low-income populations. Access to and from I-94 during construction would be maintained to the extent possible, or alternative access would be provided. If alternative access is not available, the specific construction activity would be reviewed to determine whether it could occur during non-peak hours.</p> <p>WisDOT will continue to provide meaningful engagement opportunities for environmental justice populations throughout final design. Environmental justice populations will be able to express any concerns about GHG impacts, and WisDOT will work with them to develop appropriate project and construction mitigation.</p> <p>The mitigation measures are part of the effort by FHWA to adopt practicable means to avoid and minimize environmental impacts in accordance with 40 CFR 1505.2, and will be further developed during final design. These collective measures would reduce or offset greenhouse gas emissions from project construction and benefit all populations, including environmental justice populations, living along the project corridor.</p> <p>Construction Impacts</p> <p>Mitigation measures have been identified to minimize construction impacts, such as noise, vibration, emissions, and dust (Section 3.27.4). Prior to construction, a plan would be developed to establish construction phases, estimated durations, appropriate sequencing, and community outreach and communication commitments. WisDOT would continue its targeted stakeholder outreach inclusive of minority and low-income populations. Access to and from I-94 during construction would be maintained to the extent possible, or alternative access would be provided. If alternative access is not available, the specific construction activity would be reviewed to determine if it could occur during non-peak hours.</p> <p>A draft 30% TMP Report was completed in April 2022 and a final report will be developed during the final design phase and implemented to minimize impacts to travelers, transit riders, and commuters on I-94 during construction. WisDOT has identified spending \$25 million to \$30 million on transit for operational (additional bus runs to maintain headways) and infrastructure (signals, bus stops, and lane modifications) costs for construction traffic mitigation.</p> <p>WisDOT will use local or other geographic and economic hiring preferences for construction to create jobs for minority and/or low-income populations.</p>
<p>Visual Character/Aesthetics</p>	<p>Wisconsin State Statute 85.0205 notes that WisDOT “... may not expend more than 1.5 percent of the project costs of any highway improvement project on elements that the department determines are primarily related to the aesthetic preferences of communities adjacent to the project, generally known as community sensitive solutions.” However, it does note that WisDOT can spend more than this 1.5 percent if is reimbursed by another party, such as a local municipality. WisDOT Facilities Development Manual (FDM) 11-3 also notes: “It is WisDOT policy to use a ‘Community Sensitive Design’ (CSD) approach to enhance transportation project development and resulting solutions. CSD is an approach of creating public works projects that function safely, efficiently, and are pleasing to both the users and the neighboring communities.”</p> <p>Other federal laws such as Section 106 do require mitigation for impacts. The amended Section 106 Programmatic Agreement for this project between WisDOT and the Section 106 consulting parties includes stipulations for the design and look of the walls, landscape, and signage adjacent to the Soldiers’ Home National Historic Landmark and National Register Historic District. There is also a stipulation for the aesthetic options for the potential noise barrier along Story Parkway, adjacent to Story Hill Residential Historic District 2 and 3.</p>
<p>Surface Water and Fishery</p>	<p>WisDOT would comply with Wisconsin Administrative Code NR 151 and WisDOT’s Memorandum of Understanding on Erosion Control and Stormwater Management with WDNR. WisDOT would work with WDNR, MMSD, and partner communities during the project’s final design to calculate stormwater measurements and to address stormwater management, from a water quality and water quantity standpoint. WisDOT would coordinate with these partners to identify additional stormwater management measures that may be cost-effective to implement, consistent with WisDOT’s stormwater management policies.</p> <p>WisDOT has a Sensible Salting Program that includes “a number of components intended to encourage counties to lower their use of all materials used to de-ice roads while maintaining the high level of safety that Wisconsin drivers have come to expect.” Example components include “salt application rate guidelines”; “pre-wetting guidelines” to</p>



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	<p>treat the salt, which can reduce the application rate and help the salt mixture stick to the road; and “ground speed controllers,” which “coordinate the spinner rate with the speed of the truck.” All components of the Sensible Salting Program are described in Appendix A of WisDOT’s 2021 TS4 Permit Report, available online at https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrcs/environment/2021TS4permitreport.pdf. Less salt was used in the 2022/2023 winter season than the prior year, yielding a cost savings of \$11.1 million. Preliminary results of new salt application techniques are showing significant reduction in overall salt use while maintaining clear roads and level of service for the traveling public (WDNR 2023).</p> <p>In 2018, MMSD developed TMDL limits on behalf of WDNR for the watersheds within the Milwaukee area, including the Menomonee River and its tributaries (WDNR 2018). TMDL is the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards. TMDLs were established for fecal coliform bacteria, phosphorus, and sediment. WisDOT would obtain a WDNR Transportation Construction General Permit to comply with TMDLs. The permit is required for WisDOT directed and supervised projects with one or more acres of land disturbance. The permit authorizes WisDOT to discharge stormwater to waterways in accordance with conditions set forth in the permit.</p> <p>WisDOT would implement stormwater management techniques for the preferred alternative. As required by WDNR, the project’s conceptual stormwater management plan will evaluate the impact of runoff release rates for 100-year and 2-year storm events.</p> <p>The preferred alternative would increase impervious area and therefore increase the amount of stormwater runoff from I-94. However, the alternatives would also provide the opportunity for BMPs to treat the runoff and bring I-94 in compliance with Wisconsin’s stormwater management regulations that limit the amount of pollution in runoff.</p> <p>BMP options that could be implemented in the I-94 East-West Corridor are described in the following list and shown in Exhibit 3-22. BMPs will be further refined in coordination with WDNR, local municipalities, and MMSD during final design.</p> <p>The following are the BMP options:</p> <ul style="list-style-type: none"> • Retention Basins (Wet Detention Basins)—Retention basins have a permanent pool of water year-round. The permanent pool allows pollutant particles in stormwater runoff to settle over an extended period of time. Nutrient uptake also occurs through increased biological activity. • Dry Detention Basins—A dry detention basin typically is designed to store runoff and discharge it slowly to reduce the peak discharge downstream. As normally designed, the basins typically have little effect on the volume of stormwater released to the receiving water. Peak flow reduction is often accomplished through use of a multistage outlet structure that allows increased discharge as water levels in the basin increase. • Infiltration Devices—Infiltration can be achieved through use of trenches or grass swales. Infiltration devices are used to slow the water flow so that more water is absorbed into the ground and more pollutants are removed from runoff. Due to the potential extent of contaminated soils throughout this study area, the use of infiltration devices may be discouraged. • Grass-lined Ditches—This BMP generally helps reduce suspended solids to meet the regulatory goal of NR 151, which outlines establishes runoff pollution performance standards for transportation facilities. • Trapezoidal Swale through Infield—This BMP combines grass ditch treatment with peak flow reduction and is considered the same level of suspended solid control as grass ditches. • Vegetated Rock Filters—This BMP may be used at outfalls to waterways or anywhere concentrated runoff leaves the right-of-way. It is similar in concept to a level spreader, which attempts to reintroduce sheet flow and provides a small amount of peak flow and volume reduction. • Swale Blocks/Ditch Checks—Swale blocks/ditch checks are small earthen berms constructed in the bottom of a ditch at regular intervals to detain runoff from frequent storms. This BMP provides peak flow reduction and may provide infiltration benefits depending on soil conditions. • Inline Storage—This method is not desirable from a water quality standpoint, but would manage water quantity. Storm sewer pipes would be designed larger than normal to provide storage in the sewer during rain, then the water is gradually released after the rain ends. • Biofiltration Basins—Biofiltration basins are similar to infiltration devices and appear from the surface to look like a garden area. They use engineered soil, underdrains, native vegetation, and shallow detention to allow flows to be stored on the surface and slowly infiltrate to the subsoils or in cases of contaminated or poorly drained soils, drain through underdrain to a storm sewer. In narrow or restricted land space areas, stormwater biofiltration systems may be used within ditch areas, between mainline and frontage road lanes, or within ramp areas.



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	<ul style="list-style-type: none"> Stormwater Trees – this BMP may be used in the project corridor or watershed to reduce runoff. Stormwater trees absorb stormwater during a rainfall event, absorb carbon dioxide, serve as an urban canopy to reduce urban heat zones, and reduce erosion during rainfall events. WisDOT has committed to spending \$300,000 as part of MMSD’s Reforestation and Wetland Restoration Initiative. <p>To comply with Wis. Stat. § 87.30 and Wis. Admin. Code. Ch. NR 216, and to address concerns raised by MMSD, WisDOT, and FHWA are investigating detention ponds to manage stormwater from the proposed improvements. The detention ponds would also improve water quality by allowing solid pollutants (sand, grit, etc.) to settle out of the water before it flows into storm sewers or streams. WisDOT would provide landscaping around the detention ponds. Potential locations for detention ponds include the southeast corner of Hawley Road and I 94, and the northwest quadrant of the Stadium Interchange, to be confirmed during final design (Exhibit 3-23). Stormwater from I-94 in the area through the cemeteries would be best served using storm sewer conveyance to the proposed pond in the northwest quadrant of the Stadium Interchange.</p> <p>East of 38th Street to 20th Street, I-94 drains to a combined sanitary and storm sewer system. The drainage design team intends to separate the freeway stormwater runoff from the combined sewer with low flows going into the MMSD system for treatment and high flows discharging to the Menomonee River; this will be determined during final design.</p> <p>The Marquette Interchange Project introduced the stormwater management strategy (Marquette Approach) of separating the “first flush” or low flows of storm events to the combined sewer and allowing the higher and cleaner flows to discharge to the river. This was seen as a win-win approach because MMSD would still treat the first flush (small portion) of stormwater runoff with the highest pollutant levels, but not be overtaxed with the higher flows. This example will be evaluated for this project during final design. MMSD’s comments on the Supplemental Draft EIS encouraged WisDOT to follow the Marquette Interchange approach.</p>
Environmental Corridors and Natural Areas	There are no feasible Stadium Interchange options that could completely avoid impact to the linear primary environmental corridor. The preferred alternative was designed to minimize impacts to the primary environmental corridor in this location by clear spanning it.
Floodplains and Hydraulics	No mitigation measures are needed.
Groundwater and Water Supply	No mitigation measures are needed.
Wetlands	<p>Presidential Executive Order 11990, Protection of Wetlands, requires federal agencies to avoid, to the extent practicable, long- and short-term adverse impacts associated with the destruction or modification of wetlands. More specifically, the order directs federal agencies to avoid new construction in wetlands unless there is no practicable alternative. The order states that where wetlands cannot be avoided, the proposed action must include all practicable measures to minimize harm to wetlands.</p> <p>The Clean Water Act’s Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230) are administered by USEPA and the Corps of Engineers. The guidelines state that dredged or fill material should not be discharged into aquatic ecosystems (including wetlands), unless it can be demonstrated that there are no practicable alternatives to such discharge, that such discharge will not have unacceptable adverse impacts, and that all practicable measures to mitigate adverse impacts are undertaken.</p> <p>Compensation for unavoidable wetland loss will be carried out in accordance with the Wisconsin Department of Transportation Wetland Mitigation Banking Technical Guideline developed as part of the WisDOT/WDNR Cooperative Agreement on Compensatory Wetland Mitigation and the regulations for compensatory wetland mitigation issued jointly by the Corps of Engineers and USEPA in May 2008 (33 CFR § 325, 33 CFR § 332, and 40 CFR § 230 [April 10, 2008]). A wetland mitigation plan will be developed during the project’s final design phase, in consultation with state and federal agencies.</p>
Upland Habitat and Woodland	No mitigation measures are needed. As part of the amended Section 106 Programmatic Agreement, a landscape plan will be prepared for the area adjacent to the Soldiers’ Home National Historic Landmark and National Register Historic District. In addition, for the work along National Avenue, adjacent to the Soldiers’ Home National Historic Landmark and National Register Historic District, the amended Section 106 Programmatic Agreement has a stipulation to minimize impact to identified heritage trees within the NHL, as defined in the Soldiers’ Home Historic American Landscape Survey.
Wildlife	No mitigation measures are needed.



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<p>Threatened and Endangered Species</p>	<p>Prior to construction, WisDOT will consult with WDNR in accordance with the DOT/DNR Cooperative Agreement Memorandum of Understanding On Endangered and Threatened Species Consultation to develop appropriate measures to mitigate potential adverse impacts to state-listed species. During final design, WisDOT will conduct field surveys for state-listed species and the area of impact to potential habitats as identified in the field surveys will be determined. If a listed threatened or endangered species is present and cannot be avoided, WisDOT and WDNR will initiate incidental take consultation in accordance with the Wisconsin Statute 29.604 “Endangered and threatened species protected.” The statute requires a consideration of mitigation measures to reduce the impact and a public notice before the permit can be issued.</p> <p>Bridges and culverts will be inspected to determine if there is any evidence of migratory birds nesting in the structures. If evidence of nesting is observed, WisDOT or its contractor will remove any unoccupied nests from the underside of structures prior to nesting season, which is April 15 to August 31. After nests are removed and prior to nesting season, nets will be placed under the bridge or at the sides of the culvert structures to prevent birds from re-establishing nests on affected structures.</p> <p>Based on consultation with USFWS, WisDOT made an effect determination that the project “may affect, likely to adversely affect” for the northern long-eared bat. Through formal conferencing, USFWS provided a provisional effect determination of “may affect, likely to adversely affect” for the tricolored bat. Avoidance and minimization measures to limit impacts to the northern long-eared bat and tricolored bat include:</p> <ul style="list-style-type: none"> • Modifying all aspects of the project to avoid tree removal in excess of what is required to implement the project safely. • Limiting tree removal to that specified in project plans and ensuring that contractors understand clearing limits and markings in the field (e.g., install bright-colored flagging or fencing prior to any tree clearing to ensure that contractors stay within clearing limits). • Ensuring that tree removal within potential habitat will occur outside of the active season (November 1 to March 31) and areas are clearly marked to stay within limits. • Using the Backlight, Uplight, and Glare (BUG) system developed by the Illuminating Engineering Society in designing permanent and temporary lighting. Permanent lighting will be designed to be as close to 0 as possible for all three BUG ratings, with a priority of an “uplight” rating of 0 and a “backlight” rating as low as practicable. Temporary lighting will be directed away from suitable habitat during the active season. <p>During construction, if a dead or injured bat is found, WisDOT will cease construction activities immediately and notify USFWS. WisDOT will ensure that contractors take care when handling dead or injured bats, or any other federally listed species that are found, to preserve biological material in the best possible condition and to protect the handler from exposure to diseases, such as rabies. WisDOT will ensure that any evidence about determining the cause of death or injury is not unnecessarily disturbed.</p> <p>WisDOT and FHWA will reinstate project-level consultation if the following occur:</p> <ul style="list-style-type: none"> • The amount or extent of incidental take of northern long-eared bats is exceeded. • New information reveals that the Project may affect listed species or critical habitat in a manner or to an extent not considered in the PBO. • The project is subsequently modified in a manner that causes an effect to listed species or designated critical habitat not considered in the PBO. • A new species is listed or critical habitat designated that may be affected by the project. <p>To minimize potential indirect effects on bats or aquatic insects which may provide forage, WisDOT will implement erosion, sediment, and stormwater controls to protect water quality, wetlands, and streams. Where feasible, vegetated swales will be used to assist with filtering sediment and other pollutants from roadside drainage. Where reasonable, disturbed areas created from construction activities will be revegetated with trees that will become suitable habitat in the future.</p> <p>To minimize impacts to both bat species and the RPBB, trees will be cut during the bats’ inactive season (November 1 to March 31) but left in place until the RPBB active season (April 9 to October 9) to avoid disturbing the overwintering habitat of the RPBB. WisDOT will restore areas of RPBB suitable habitat with native wildflower seed mix and flowering shrubs following construction.</p> <p>To minimize potential effects on air quality, construction contractors will use proactive measures to prevent discharges of dust into the atmosphere that may unreasonably interfere with the public and adjacent properties or may be harmful to plants and animals.</p>



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Resource	Measures to Mitigate Adverse Effects
Noise	<p>A total of 15 noise barriers were analyzed for eight residential areas and three cemeteries abutting the corridor that would be exposed to noise levels that approach or exceed the noise level criteria for considering barriers for the preferred alternative. Six barriers were determined reasonable and feasible for the preferred alternative. See Tables 3-32 and 3-34 and Exhibit 3-24c.</p> <p>During the final design phase of the project as the roadway profiles and retaining walls are more accurately defined relative to the surrounding areas, the location of feasible and reasonable noise mitigation will be reassessed. If final design results in substantial changes in roadway design from the conditions modeled for the Supplemental EIS, noise abatement measures will be reviewed.</p> <p>WisDOT is likely to incorporate the feasible and reasonable noise barriers for the preferred alternative, less the noise barrier sections on structure, into the project. A final decision on the installation of abatement measures will be made upon completion of the project’s final design and through the public involvement process, which will solicit the viewpoints of residents and property owners benefited by the construction of the feasible and reasonable noise barriers.</p>
Greenhouse Gases	<p>WisDOT will follow its Standard Specifications that exist to address pollution reduction/containment measures for the contractor, and also implement the following mitigation measures to help reduce GHG emissions:</p> <ul style="list-style-type: none"> • Implement detours and strategic construction timing where feasible to reduce construction delays, including vehicle idling from backups. • Set up active construction zones, staging areas, and material transfer sites in a way that reduces standing wait times for equipment. Reducing idling times reduces GHG emissions from passenger cars and construction vehicles. • Work with contractors and subcontractors to reduce idling times. An example would be for contractors and subcontractors to complete and submit idling logs of construction vehicles and equipment every 6 months and monitor by comparing with a baseline log at the inception of the project. • Work with local municipalities and neighborhood groups, including groups focused on serving environmental justice populations, to minimize the impacts of staging areas and material transfer sites. • Engage construction contractors in ridesharing and other commute trip reduction efforts to reduce GHG emissions from commuter vehicles of employees working on the project. <ul style="list-style-type: none"> — WisDOT will determine an area near the jobsite where construction staff and equipment parking could occur, which results in distribution of GHG emissions. — WisDOT will post signs to encourage construction staff to use public transport or rideshare. • Recycle construction and demolition materials to the extent possible. Asphalt, concrete, and rubble are often recycled into aggregate or new asphalt and concrete products. Metals—including steel—are also valuable commodities to recycle. • Use LED bulbs in new lighting installed along the project corridor. LEDs use less electricity than traditional light bulbs, which in turn reduces the amount of fuel being burned to generate electricity. • Plant stormwater trees in the project corridor. Stormwater trees not only absorb stormwater and reduce erosion during a rainfall event, but they also absorb CO2 and serve as an urban canopy to reduce urban heat zones. WisDOT has committed to spending \$300,000 as part of MMSD’s Reforestation and Wetland Restoration Initiative, as well providing additional landscaping within the project limits. • As a recommendation from the 30% Traffic Management Plan (TMP) for the project, WisDOT would commit \$25 million to transit for operational (additional bus runs to maintain headways) and infrastructure (signals, bus stops, and lane modifications) costs for construction traffic mitigation. This will help minimize congestion on I-94 (and GHG emissions) during construction by promoting transit usage, which in turn reduces idling. This mitigation was developed based on coordination with MCTS, traffic and construction analyses, and impact assessments. This plan allows for flexibility during I-94 East-West Corridor project construction to adjust the plan based on measures that are working well and any new measures or technology that may not currently be available. The plan also takes into consideration the potential for permanent transit facility measures that could serve as long-term transit system upgrades. The Draft 30% TMP was shared with Community Advisory Committee and Transit Technical



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	<p>Advisory Committee, both of which include local residents and community groups, and they were provided an opportunity to comment on the document. The plan also calls for continued community input during construction.</p> <ul style="list-style-type: none"> — WisDOT will create and post signs to encourage the motoring public to use public transit or rideshare during construction. • The project will include WisDOT project site air quality specifications. This includes voluntarily establishing staging zones for trucks waiting to load and unload; locating staging zones where idling of diesel-powered equipment will have minimal impact on abutting properties and the general public; having trucks queue up in these zones when practicable; and, encouraging drivers to shut down diesel trucks as soon as it appears likely that they will be queued up for more than 10 minutes. <p>Mitigation measures have been identified to minimize construction impacts (including GHG impacts) on environmental justice populations. Prior to construction, a plan would be developed to establish construction phases, estimated durations, appropriate sequencing, and community outreach and communication commitments. WisDOT would continue its targeted stakeholder outreach inclusive of minority and low-income populations. Access to and from I-94 during construction would be maintained to the extent possible, or alternative access would be provided. If alternative access is not available, the specific construction activity would be reviewed to determine whether it could occur during non-peak hours. Section 3.9.4 of the Supplemental EIS identifies mitigation for environmental justice communities.</p> <p>The mitigation measures described previously are part of the effort by FHWA to adopt practical means to avoid and minimize environmental impacts in accordance with 40 CFR 1505.2, and will be further developed during final design. These collective measures would reduce or offset GHG emissions from project construction and benefit all populations, including environmental justice populations, living along the project corridor.</p>
<p>Hazardous Materials</p>	<p>During design, WisDOT will develop remediation measures for contaminated sites that cannot be avoided. Disturbance near potentially contaminated sites will be minimized to the extent possible and practicable. As applicable, the construction contract special provisions will include a Notice to Contractor describing the potential contamination with names and locations of sites. The areas of potential contamination will be marked on the plan sheets with reference to check the Notice to Contractor in the special provisions.</p> <p>The regional WisDOT office will work with concerned parties to ensure that disposition of any petroleum contamination is resolved to the satisfaction of WDNR, WisDOT, and FHWA before acquisition.</p> <p>During the project’s real estate acquisition phase, WisDOT will survey all buildings and structures that need to be demolished to determine whether asbestos or lead-based paint is present. All appropriate and applicable engineering and regulatory controls will be followed during the handling and disposal of asbestos containing materials and lead-based paint. Contractors must comply with USEPA regulations; National Emission Standards for Asbestos; the Occupational, Safety, and Health Administration regulations on asbestos removal; local government regulations; and all other applicable regulations. The most recent editions of all applicable standards, codes, or regulations shall be in effect. Additionally, any person performing asbestos abatement must comply with all training certification requirements, rules, regulations, and laws of the State of Wisconsin regarding asbestos removal.</p> <p>Special provision 203-005, bid item 203.0210s will be included in the construction plans to address asbestos abatement. The contractor will be responsible for completion of the Notification of Demolition and/or Renovation (WDNR Form 4500-113).</p>
<p>Soil Resources</p>	<p>No mitigation measures are needed.</p>
<p>Cemeteries</p>	<p>WisDOT would replace the Zablocki Drive bridge across I-94. The preferred alternative would continue to provide access to Wood National Cemetery (and the VA Campus in general) via General Mitchell Boulevard.</p> <p>A wall would be built south of I-94 to partially screen views of I-94 from Wood National Cemetery (Section 3.24.3).</p> <p>WisDOT and FHWA will continue to work with the National Cemetery Administration to determine the impacts of vibration from I-94. WisDOT and FHWA, in coordination with Section 106 consulting parties, will prepare a Monitoring Plan to address concerns about construction related vibration impacts adjacent to the Soldiers’ Home NHL and Historic District. The Monitoring Plan will include a raise and align survey for grave markers within Wood National Cemetery.</p> <p>Further measures to minimize and mitigate impacts to the Wood National Cemetery (as a contributing element of the Soldiers’ Home NHL) and Calvary Cemetery (eligible for listing on the National Register of Historic Places) are part of the amended Section 106 Programmatic Agreement and are discussed in Sections 3.24.3 and 3.24.4.</p> <p>No mitigation measures are planned for the Beth Hamedrosh Hagodel, Spring Hill, or Anshai Lebowitz cemeteries; however, coordination with all cemeteries near the project will continue throughout the design process and into construction.</p>



Table A-1. Summary of Mitigation Measures for the Preferred Alternative

Resource	Measures to Mitigate Adverse Effects
	<p>Per the project’s amended Section 106 Programmatic Agreement, if human remains are inadvertently/accidentally discovered during implementation of the project, all ground disturbing activities in the immediate area of the discovery shall halt until the following actions have been carried out, in accordance with Wisconsin Statute 157.70 and the Native American Graves Protection and Repatriation Act, as required. WisDOT shall immediately implement measures to protect the human remains from inclement weather and vandalism, and notify appropriate law enforcement officials to determine whether or not the remains are subject to a criminal investigation by local or federal authorities. The VA’s National Cemetery Administration will be notified and consulted if human remains are discovered within or adjacent to Wood National Cemetery.</p>
<p>Historic Properties</p>	<p>The amended Section 106 Programmatic Agreement was written to ensure there would be no adverse effects on historic properties. The amended Section 106 Programmatic Agreement includes minimization measures through preparing the following plans:</p> <ul style="list-style-type: none"> • Design Coordination Plan • Construction Staging Plan • Landscape Plan for Wood National Cemetery • Wall Design Plan for Wood National Cemetery • Signage Plan for Wood National Cemetery and the Soldiers’ Home NHL • Monitoring Plan for Soldiers’ Home NHL and Historic District • National Avenue at Brewers Boulevard Improvements Plan • Noise Barrier Design Plan for Story Hill Residential Historic District 2 and 3 <p>Additional information on these plans is available in the amended Section 106 Programmatic Agreement (Appendix I).</p> <p>To reduce impacts to Wood National Cemetery and the Soldiers’ Home NHL and Soldiers’ Home Historic District, WisDOT and FHWA determined from the beginning of the design process that no graves would be moved as a result of this project. As part of the project, a low wall would be constructed adjacent to Wood National Cemetery both north and south of I-94 within WisDOT right-of-way. The specific materials, design, appearance, and height and size of the walls will be determined through consultation and a Wall Design Plan, as stipulated in the amended Section 106 Programmatic Agreement. The low wall was requested by the National Cemetery Administration to address their concerns regarding noise and visual impacts in close proximity to the freeway. A low wall would not be an adverse effect on the NHL. As stipulated in the amended Section 106 Programmatic Agreement, the draft Design Plan for the Wood National Cemetery walls will be submitted to Signatories and Consulting Parties for review and comment prior to implementation.</p> <p>The 8- and 6-lane alternatives would stay within the existing interstate footprint as much as possible. The 8- and 6-lane alternatives would move I-94 south, away from the Story Hill Residential Historic District 2 and 3, reducing noise and visual impacts to the district. If a noise wall is built adjacent to Story Hill Residential Historic District 2 and 3, it could have an Adverse Effect on the district. While a noise wall could visually diminish the integrity of setting and feeling in the southern portion of the district, FHWA and WisDOT believe that the visual effect could be minimized aesthetically. This determination will be made during the final design phase, in accordance with the amended Section 106 Programmatic Agreement.</p> <p>WisDOT and FHWA, in coordination with Section 106 consulting parties, and in accordance with the amended Section 106 Programmatic Agreement, will prepare a Monitoring Plan to address concerns about construction related vibration impacts adjacent to the Soldiers’ Home NHL and Historic District. The Monitoring Plan will include a raise and align survey for grave markers within Wood National Cemetery.</p>
<p>Archaeological Resources</p>	<p>No adverse impacts to archaeological resources were identified. The amended Section 106 Programmatic Agreement includes stipulations regarding the inadvertent discovery of human remains during construction activities and archaeological monitoring within areas that could possibly contain human remains during construction activities.</p>



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Resource	Measures to Mitigate Adverse Effects
Recreational Resources/ Public Use Lands	<p>If 44th Street is closed during construction, WisDOT and WDNR would develop a detour route for the Hank Aaron State Trail Extension that follows 44th Street. In addition, WisDOT would construct a permanent connection between the Hank Aaron State Trail and Oak Leaf Trail along 44th Street and Wells Street, traveling under I-94 east of the Stadium Interchange. WisDOT would also construct a new access point to the Hank Aaron State Trail at 64th Street, a shared-use path connecting 32nd Street with Greves Street (contingent on future electrical substation relocation plans), and a shared-use path along 25th Street to improve bicycle and pedestrian connections in the I 94 East-West Corridor (Section 3.3.2.5).</p> <p>WisDOT would purchase a temporary easement from Milwaukee County to access General Mitchell Boulevard to reconstruct it. All sidewalks and landscaping along General Mitchell Boulevard affected by the reconstruction would be restored.</p> <p>WisDOT would also purchase a temporary easement from the Redevelopment Authority of the City of Milwaukee for the temporary use of some Menomonee Valley Community Park land during construction. After the reconstruction of the 35th Street viaduct is completed, the Menomonee Valley Community Park property that WisDOT temporarily occupied during construction would be returned to its pre-construction condition. WisDOT will ensure that the stormwater filtration systems built into the park remain intact and function as intended once reconstruction of the 35th Street viaduct is completed.</p> <p>Additional potential mitigation measures for the Menomonee Valley Community Park as discussed in detail in Section 4.4.1.3 of this Supplemental Final EIS include the following:</p> <ul style="list-style-type: none"> • Continuing use of soccer fields east of the 35th Street viaduct • Installing fencing around construction and staging areas to ensure the safety of park users • Providing a buffer area between the construction area and the soccer fields east of the viaduct • Installing netting between the construction and staging area and the soccer fields to prevent soccer balls from entering the construction and staging area • Constructing a temporary walkway to the soccer fields from the west side of the park • Providing a chain-link fencing on the viaduct after reconstruction to prevent debris from falling down to the park and soccer fields • The Redevelopment Authority of the City of Milwaukee will be monetarily compensated for the temporary use of their land.
Construction	<p>Noise</p> <p>To reduce the potential impact of construction noise, WisDOT Standard Specifications would require operation of motorized equipment in compliance with all applicable local, state, and federal laws and regulations relating to noise levels permissible within and adjacent to the project construction site. All motorized construction equipment would be required to have mufflers constructed in accordance with the equipment manufacturer’s specifications or a system of equivalent noise-reducing capacity. WisDOT would also require that mufflers and exhaust systems be maintained in good operating condition, free of leaks and holes. In addition, WisDOT would notify potentially affected residents prior to noise-intensive activities.</p> <p>Vibration</p> <p>WisDOT will coordinate with adjacent property owners prior to construction to determine if any buildings near construction areas are in poor structural condition. WisDOT will meet City of Milwaukee vibration ordinances. In addition, WisDOT would notify potentially affected residents prior to vibration-intensive activities.</p> <p>Air Quality (Emissions and Dust)</p> <p>Construction vehicle emission impacts will be mitigated through implementing and maintaining a comprehensive traffic control plan, enforcing emission standards for gasoline and diesel construction equipment, and stipulating that unnecessary idling and equipment operation is to be avoided. In addition, WisDOT will work with the applicable local units of government when identifying haul routes in the final construction plans and specifications to minimize construction traffic from using roadways near schools, daycare facilities and parks when possible.</p> <p>Several air-quality construction mitigation best practices are available to assist in reducing diesel emission impacts from construction equipment. Off-road diesel engines can contribute significantly to the levels of particulate matter and nitrogen oxides in the air. In recent years, USEPA has set emissions standards for engines used in most new</p>



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	<p>construction equipment. However, construction equipment can last for a long time, and it may take several years before all equipment is furnished with engines that meet USEPA standards. WisDOT and FHWA will implement strategies to reduce emissions from the older engines that are in operation today. Examples strategies include:</p> <ul style="list-style-type: none"> • Reducing idling at the construction site to reduce emissions and fuel consumption. • Properly maintaining diesel engines so the engines perform better and emit less pollution. • Switching to fuels that contain lower levels of sulfur to reduce particulate matter. • Retrofitting off-road construction equipment with diesel-emission control devices to reduce particulate matter, nitrogen oxides, carbon monoxide, or hydrocarbons, and other air pollutants. <p>USEPA’s comments on the November 2022 Supplemental Draft EIS suggested several measures to reduce emissions during construction (Appendix J). In the final design phase, WisDOT will consider including the measures on a voluntary or mandatory basis.</p> <p>Fugitive dust impacts generated by construction would be mitigated by standard dust control measures. The measures may include the frequent watering of construction sites that have large expanses of exposed soil, watering debris generated during the demolition of existing structures, washing construction vehicle tires before they leave construction sites, and securing and covering equipment and loose materials prior to travel.</p> <p>Dust control during construction would be accomplished in accordance with WisDOT’s Standard Specifications for Highway and Structure Construction (WisDOT 2024), which requires applying water or other dust control measures during grading and on haul roads. The location and operation of concrete batch plants would be in accordance with the Standard Specifications, and any special provisions developed during coordination with WDNR regarding air-quality standards and emissions. Any portable-material plants would be operated in accordance with WDNR air-quality requirements/guidelines. Demolition and disposal of residential or commercial buildings is regulated under WDNR’s asbestos renovation and demolition requirements (Wisconsin Administrative Code, Chapter NR 447).</p> <p>Traffic</p> <p>During the final design phase, WisDOT and FHWA would evaluate the diversion routes to determine if improvements to the routes are necessary. In addition to roadway improvements, signal timing modifications, temporary signals, parking restrictions, intersection improvements, incident management, and demand management options may be instituted during construction to ease potential congestion and delay.</p> <p>Freeway and local street lane closures would be staged to ease disruptions to the extent possible. Other mitigation measures may include the following:</p> <ul style="list-style-type: none"> • Adding MCTS buses and increasing frequencies to maintain headways, improving transit infrastructure, and providing funding to support MCTS staffing and outreach during construction. • Holding workshops to determine methods to reduce the effects of construction on area businesses, residents, commuters, community services, and special events. • Implementing a community involvement plan to engage and inform the public. Information sources would include radio, internet, print, and television. • Encouraging businesses to modify their work schedules and/or shipping schedules to avoid peak traffic hours. • Improving detour routes and other routes due to increased traffic resulting from freeway construction. <p>Water Quality/Erosion</p> <p>Appropriate techniques and BMPs, as described in the WisDOT Facilities Development Manual, would be employed to prevent erosion and to minimize siltation to environmentally sensitive resources in the study area. Erosion control devices would be installed before erosion-prone construction activities begin.</p> <p>WisDOT’s construction contractor would use standard erosion control devices and BMPs to reduce and control the deposit of sediment into environmentally sensitive resources before erosion-prone construction begins. The construction contractor would be required to prepare an erosion control implementation plan that includes all erosion control commitments made by WisDOT while planning and designing the project. The construction plans and contract special provisions must include the specific erosion control measures agreed on by WisDOT in consultation with WDNR. WDNR will review the Erosion Control Implementation Plan. The following measures may be used during construction:</p> <ul style="list-style-type: none"> • Minimizing the amount of land exposed at one time



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	<ul style="list-style-type: none"> • Silt fencing • Sedimentation traps • Dust abatement • Turbidity barriers • Street sweeping • Inlet protection barriers • Temporary seeding • Erosion mats • Ditch or slope sodding • Seeding and mulching exposed soils <p>Under revisions to the WisDOT/WDNR Cooperative Agreement, Memorandum of Understanding on Erosion Control and Stormwater Management, following construction, disturbed land would be re-seeded with a mix of fast-growing grasses. Drainage systems would be maintained, restored, or re-established in a manner that would not impound water.</p> <p>Additional impact mitigation techniques during construction would include the following, as needed, at a particular location:</p> <ul style="list-style-type: none"> • If dewatering were required, dirty water would be pumped into a stilling, or settling, basin before it would be allowed to re-enter a stream. • Trenched-in erosion bales would be installed in areas of moderate velocity runoff; clean-aggregate ditch checks would be installed in ditches with moderate- to high-velocity runoff during and after construction; and ditches would be protected with erosion bales and matting in conjunction with seeding. • Storing and fueling construction equipment would be done in upland areas, away from environmentally sensitive areas. Accidental spills during refueling at construction sites or as a result of an accident involving hazardous material haulers would be handled in accordance with local government response procedures. First response would be through local fire departments and emergency service personnel to ensure public safety and to contain immediate threats to the environment. Depending on the nature of the spill, WDNR would then be notified to provide additional instructions regarding cleanup and restoration of any affected resources. The cost of cleanup operations is the responsibility of the contractor or carrier involved in the spill. Further, WisDOT’s Standard Specifications state that public safety and environmental protection measures shall be enforced by the construction contractor. • Contractors would be required to follow WDNR guidelines for ensuring that construction equipment used in or near waterways is adequately decontaminated for zebra mussels and plant exotics, including purple loosestrife and Eurasian milfoil. <p>Material Source/Disposal Sites</p> <p>If any material sources are necessary to construct the project, appropriate erosion control measures would be applied to these sites during and following construction; and following use, such sites would be properly seeded, mulched, and protected from erosion.</p> <p>Any portable materials plants would be properly treated to prevent erosion, and WDNR would be able to review site plans, including any gravel-washing operations, high-capacity wells, and site closure/restoration.</p>

