Monticello Industrial AUAR

FINAL ALTERNATIVE URBAN AREAWIDE REVIEW

JANUARY 2026

PREPARED FOR:

CITY OF Monticello

PREPARED BY:

Kimley»Horn

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List of Acronyms

Aggregate Caliper Inch (ACI)

Alternative Urban Areawide Review (AUAR)

Annual Average Daily Traffic (AADT)

Asbestos and Regulated Materials (ARM)

Asbestos Containing Material (ACM)

A-weighted Decibels (dB(A))

Best Management Practices (BMP)

Biochemical Oxygen Demand (BOD)

Carbon Dioxide (CO2)

Carbon Monoxide (CO)

Chlorofluorocarbons (CFCs)

Climate Mapping for Resilience and Adaptation (CMRA)

Climate Resilience Evaluation and Awareness Tool (CREAT)

CO2 equivalent (CO2e)

County Road (CR)

County State Aid Highway (CSAH)

Deoxyribonucleic Acid (DNA)

Diameter at Breast Height (DBH)

Drinking Water Supply Management Area (DWSMA)

Ecosystems Research and Development Bureau (ERDB)

Electromagnetic Field (EMF)

Electronic Waste (e-waste)

Environmental Assessment Worksheet (EAW)

Environmental Protection Agency (EPA)

Environmental Site Assessment (ESA)

Federal Emergency Management Agency (FEMA)

Gallons per Day (GPD)

Greenhouse Gas (GHG)

Hertz (Hz)

Hydrofluorocarbons (HFCs)

Institute of Transportation Engineers (ITE)

Land Use Code (LUC)

Level of Service (LOS)

Light Industrial Park (LIP)

Methane (CH4)

Migratory Bird Treaty Act (MBTA)

Million Gallons per Day (MGD)

Million Gallons per Year (MGY)

Minnesota Department of Health (MDH)

Minnesota Department of Natural Resources (MnDNR)

Minnesota Department of Transportation (MnDOT)

Minnesota Environmental Quality Board (EQB)

Minnesota Office of the State Archeologist (OSA)

Minnesota Pollution Control Agency (MPCA)

Minnesota Routine Assessment Method (MnRAM)

Minnesota State Highway XX (MN XX)

Minnesota State Historic Preservation Office (SHPO)

Minnesota Statewide Historic Inventory Portal (MnSHIP)

MN Public Utilities Commission (PUC)

National Oceanic and Atmospheric Administration's (NOAA)

National Pollutant Discharge Elimination System (NPDES)

National Register of Historic Places (NRHP)

Nationwide Urban Runoff Program (NURP)

Natural Heritage Information System (NHIS)

Natural Resources Conservation Service (NRCS)

Nitrogen Trifluoride (NF3)

Nitrous Oxide (N2O)

Noise Area Classification (NAC)

Ordinary High Water Level (OHWL)

Perfluorocarbons (PFCs)

Planning and Conservation (IPaC)

Rapid Infiltration Basin (RIB)

Responsible Governmental Unit (RGU)

Shared Socioeconomic Pathways (SSPs)

Soil Conservation Service (SCS)

Stormwater Pollution Prevention Plan (SWPPP)

Subsurface Sewage Treatment Systems (SSTS)

Sulfur Hexafluoride (SF6)

Total Phosphorus (TP)

Total Suspended Solids (TSS)

Traffic Impact Analysis (TIA)

Transition Area (TA)

United States Fish and Wildlife Service (USFWS)

US Army Corps of Engineers (USACE)

Vehicles per Day (VPD)

Wastewater Treatment Plant (WWTP)

Water Resources Management Plan (WRMP)

What's In My Neighborhood (WIMN)

World Health Organization (WHO)

Alternative Urban Areawide Review

This Alternative Urban Areawide Review (AUAR) follows the format of an Environmental Assessment Worksheet (EAW) (December 2022 version). Where the AUAR guidance provided by the Minnesota Environmental Quality Board (EQB) indicates that an AUAR response should differ notably from what is required for an EAW, the guidance is noted in *italics.*

1. PROJECT TITLE

Monticello Industrial AUAR

2. PROPOSER

Proposer: Monticello Tech, LLC
Contact Person: Nick Frattalone
Address: 3205 Spruce Street
City, State, ZIP: Little Canada, MN 55117
Phone: 651-484-0448
Email: nickf@frattaloneco.com

3. RGU

RGU: City of Monticello
Contact Person: Angela Schumann
Title: Community Development Director
Address: 505 Walnut Street
City, State, ZIP: Monticello, MN 55362
Phone: 763-271-3224
Email: angela.schumann@MonticelloMN.gov

4. REASON FOR PREPARATION

AUAR Guidance: Not applicable to an AUAR.

The Alternative Urban Areawide Review (AUAR) process provides local governments with the opportunity to evaluate how different land uses may impact the community's environment and to plan how to manage and mitigate those impacts. It allows environmental analysis before major development occurs, helping guide local planning and zoning decisions. More information can be found on the Environmental Quality Board's website: https://www.eqb.state.mn.us/environmental-review/overview/alternative-urban-areawide-review-auar-process

5. PROJECT LOCATION

County: Wright
City/Township: Monticello
PLS Location (¼, ¼, Section, Township, Range): Sections 22, 23, 26, 27, Township 121N, Range 25W
Watershed (81 major watershed scale): Mississippi River – St. Cloud and North Fork Crow River Watersheds
Tax Parcels: 213100224203, 213100224100, 213100224400, 213100233100, 213100224300, 213100224401, 213100234403, 213100233300, 213100271300, 213100271100, 213100262300, 213100262400, 213100262200, 213100271301, 213100271302, 213100233101.
At a minimum, attach each of the following to the AUAR:

US Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (see **Figure 1)**

- **Map depicting the boundaries of the AUAR and any subdistricts used in the AUAR analysis** (see **Figure 2** through **Figure 4**)
- List of data sources, models, and other resources (from the Item-by-Item Guidance: Climate Adaptation and Resilience or other) used for information about current Minnesota climate trends and how climate change is anticipated to affect the general location of the project during the life of the project (as detailed below in Item 7)
- **Cover type map as required for Item 8** (see **Figure 7**)
- **Land use and planning maps as required in conjunction with Item 0** (see **Figure 8** and **Figure 9**)

Figure 1: USGS Map

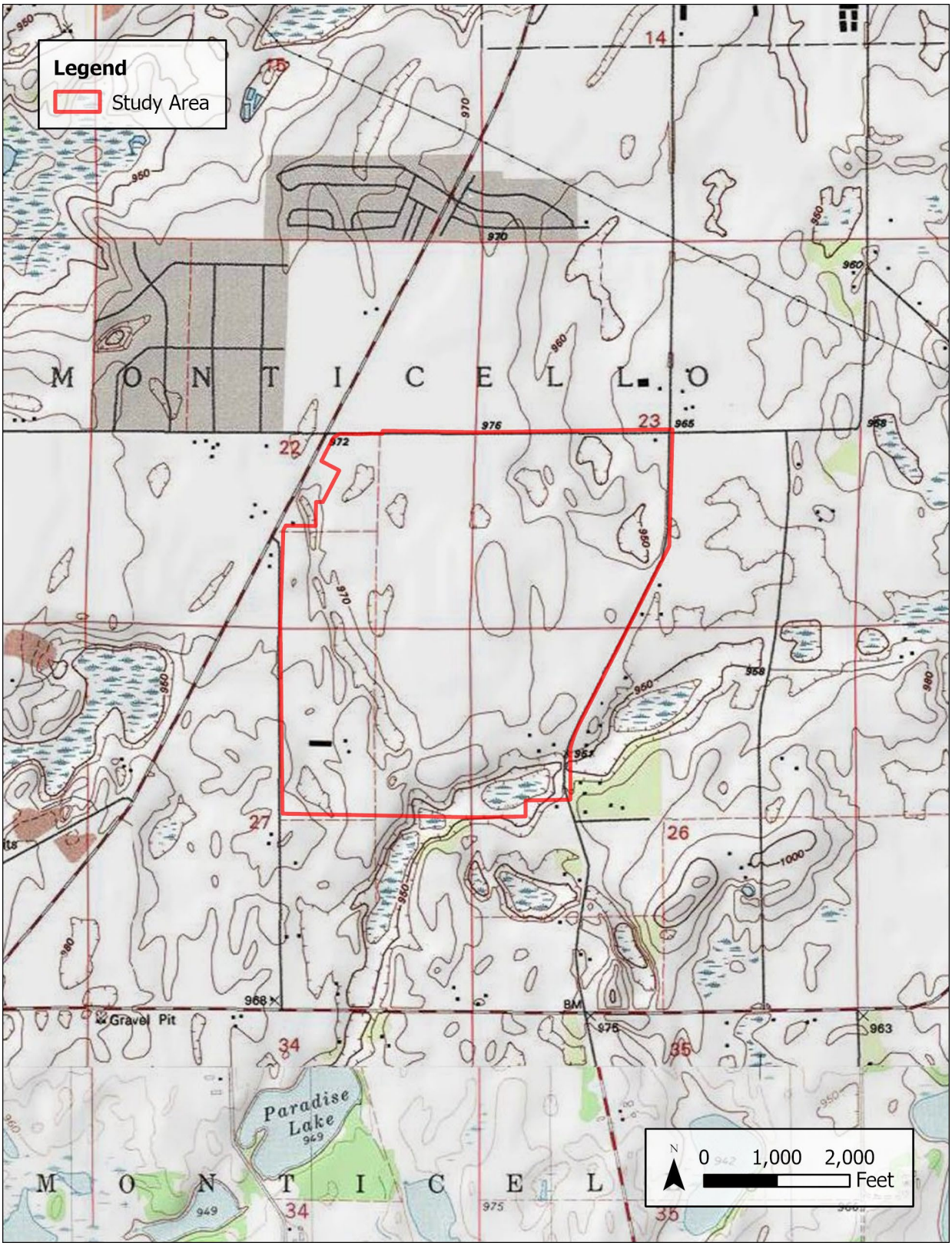
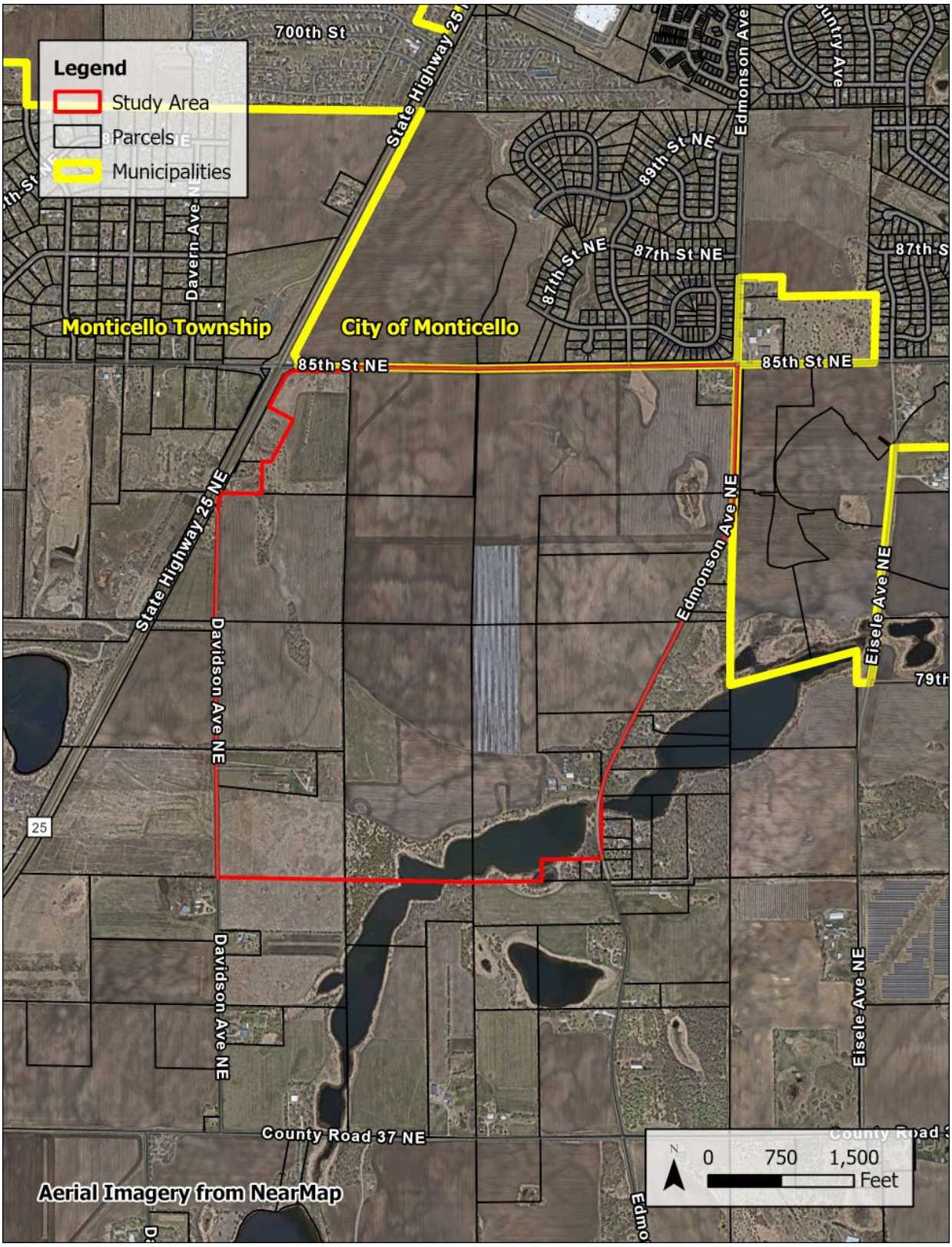


Figure 2: AUAR Study Area



6. PROJECT DESCRIPTION

AUAR Guidance: Instead of the information called for on the EAW form, the description section of an AUAR should include the following elements for each major development scenario included:

- *Anticipated types and intensity (density) of residential and commercial/warehouse/light industrial development throughout the AUAR area.*
- *Infrastructure planned to serve development (roads, sewers, water, stormwater system, etc.). Roadways intended primarily to serve as adjoining land uses within an AUAR area are normally expected to be reviewed as part of an AUAR. More "arterial" types of roadways that would cross an AUAR area are an optional inclusion in the AUAR analysis; if they are included, a more intensive level of review, generally including an analysis of alternative routes, is necessary.*
- *Information about the anticipated staging of various developments, to the extent known, and of the infrastructure, and how the infrastructure staging will influence the development schedule.*

The AUAR study area encompasses an area totaling approximately 550 acres on 16 parcels in Monticello Township, Wright County, Minnesota (shown on Figure 2). Monticello Tech, LLC is proposing to develop the study area from existing farmland to a technology campus or light industrial uses. The AUAR provides scenario-based planning for the study area given that the development potential and individual impacts of development uses in either scenario are highly variable. The intent of the AUAR is to recognize the maximum development capacity impact of both scenarios and identify mitigation measures that may be taken to compensate for those impacts.

Two scenarios are evaluated in the AUAR as outlined in Table 1. Scenario 1 includes multiple buildings for a total of up to 3,000,000 square feet of a proposed technology park/campus development (see Figure 3). Scenario 1 could include a data center, research and design facilities, technology, laboratories or research park uses. These types of uses are expected to also include the need to build additional electrical substations, transmission lines, and backup generators. For the purposes of impact evaluation, this scenario assumes a data center campus, with 5-10 principal buildings, approximately 200,000 – 400,000 square feet per building with a few ancillary support buildings. Scenario 1 is expected to follow a similar life cycle of other typical light industrial development. With most technology park campuses, including data centers, the exterior shell of the buildings are anticipated to be used over many decades, while the internal components are upgraded periodically as technology advances.

Scenario 2 includes multiple buildings for a total of up to 5,000,000 square feet of light industrial land use based on the City of Monticello's adopted land use plan (see Figure 4). Scenario 2 could include process and production manufacturing which uses moderate amounts of partially processed materials, warehousing and distribution, machine shops, computer technology including office and research and development facilities (but not including data centers as a singular principal use), professional and corporate offices and industrial engineering facilities. For the purposes of impact

evaluation, this scenario assumes a light industrial park type development that could include 5-20 buildings that range from approximately 20,000-1 million square feet. Generally, light industrial development within Scenario 2 is expected to occur in the range of 50,000 – 500,000 square foot buildings. See item 8 for more information on cover types and what is included in the buildable/developable area for both scenarios.

The proposed development within the AUAR study area is anticipated to begin construction in 2027. Under Scenario 1, a developer would build out the AUAR study area in multiple phases, ending in approximately 2034. Under Scenario 2, multiple developers would build out the AUAR study area in multiple phases, ending in approximately 2045.

Development of the study area for both scenarios would include new municipal infrastructure, including water service, sewer, stormwater, streets, and utilities. All new services would be extensions or additions to existing infrastructure or upgrades to existing systems to support the new development. Both scenarios are anticipated to require approximately two miles of trunk water and trunk sanitary sewer extensions to serve the site along Fallon Avenue NE and 85th Street NE extending as directed by the City to the property boundary. Additionally, a trunk water extension may be routed along Edmonson Ave NE. Additional infrastructure needs would be built in general conformance with the City of Monticello 2040 Comprehensive Plan and City specifications.

Scenario 1 would require significantly lower operational traffic and potentially higher water/wastewater demands compared to Scenario 2. However, both scenarios present variable impacts to water/wastewater demand based on the types of uses developed in either scenario. Scenario 2 would require additional public roadway network improvements as compared to Scenario 1. Scenario 2 is anticipated to include a new entrance to Highway 25. Both scenarios are expected to incorporate similar screening/buffering elements to minimize any potential land use conflicts.

Given the variability between and within the two identified scenarios, the AUAR identifies additional study and mitigation requirements specific to development for each or both scenarios.

Table 1: Development Scenarios

Component	Scenario 1	Scenario 2 (Comp Plan)
Technology Park (square feet)	3,000,000 (31% of study area)	-
Light Industrial (square feet)	-	5,000,000 (42% of study area)
Total (square feet)	**3,000,000**	**5,000,000**
Total Project Area	**550 acres**	**550 acres**

Figure 3: Development Scenario 1

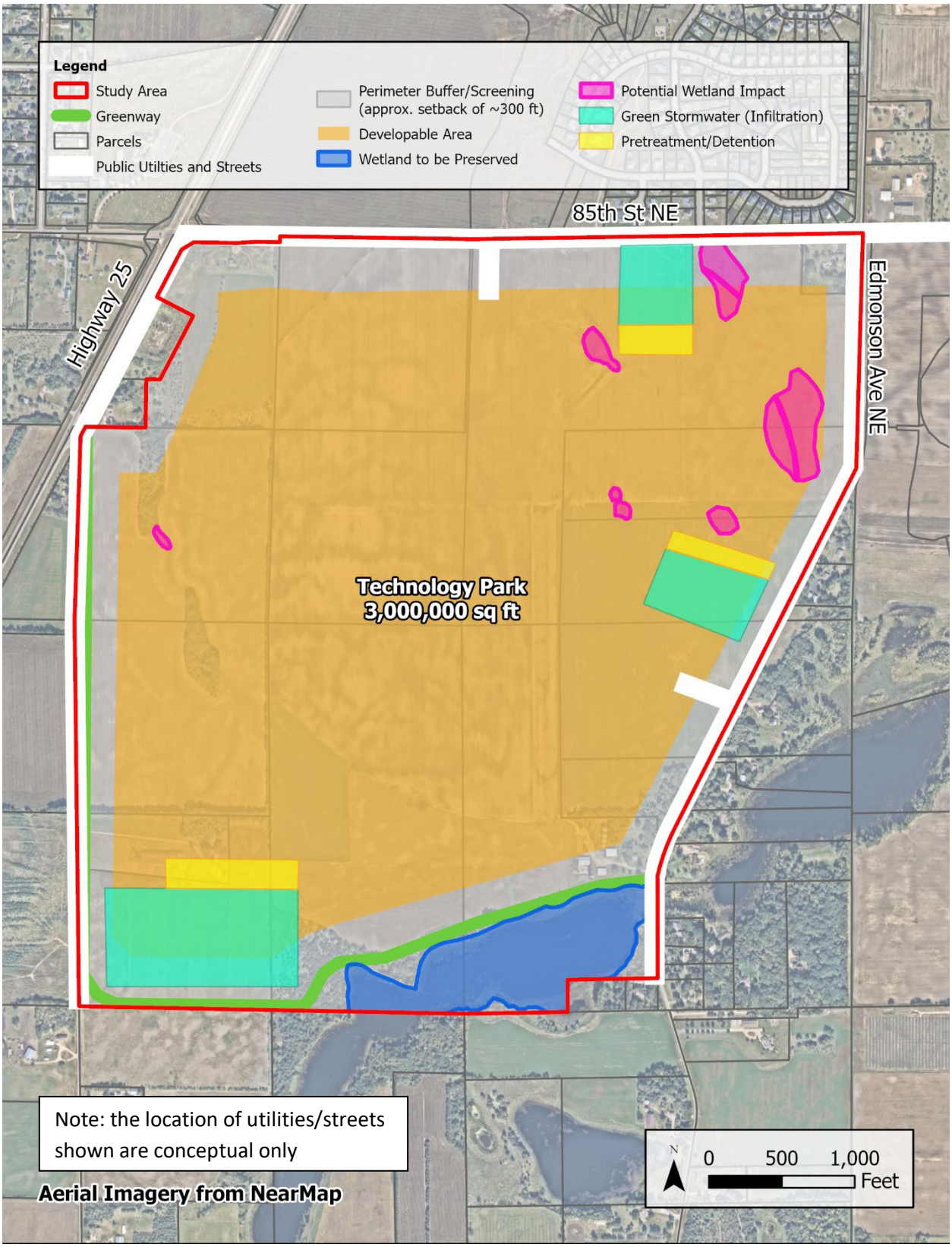
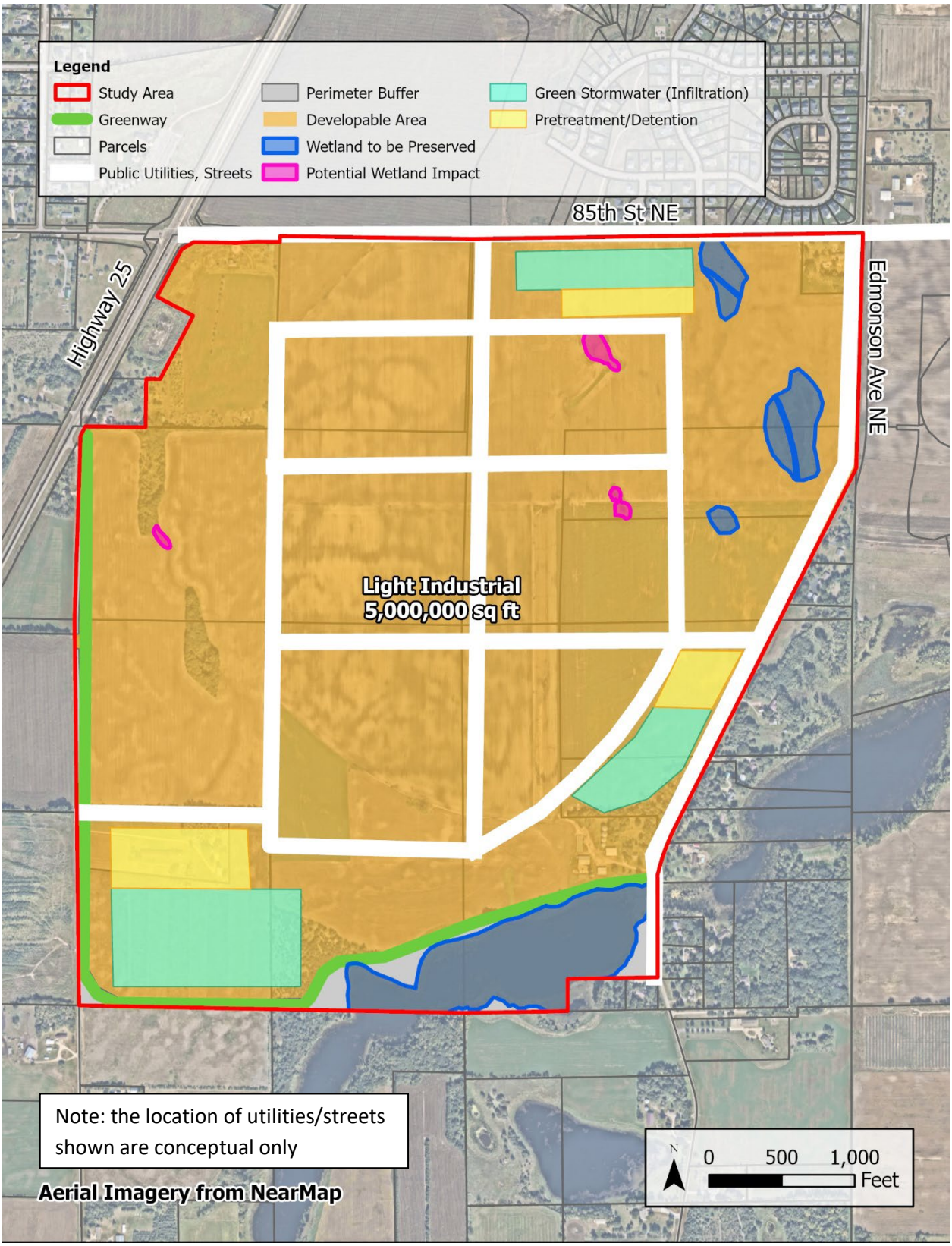


Figure 4: Development Scenario 2



7. CLIMATE ADAPTION AND RESILIENCE

a. Describe the climate trends in the general location of the project (see guidance: *Climate Adaptation and Resilience*) and how climate change is anticipated to affect that location during the life of the project.

Trends in temperature, precipitation, flood risk, and cooling degree days are described below for the general project location. Some of the climate projections summarized below use shared socioeconomic pathways (SSPs), which are greenhouse gas concentration scenarios used by the Intergovernmental Panel on Climate Change. The SSPs reflect assumptions about how industrialization, fossil fuel dependence, land use, and population density evolve in the future. The assumptions are based on population growth, urbanization, economic growth, technological advances, greenhouse gas and aerosol emissions, energy supply and demand, land-use changes, and more.[1] SSP 245 is an intermediate scenario in which emissions decline after peaking around 2040, and SSP 370 is a high-emission scenario in which emissions continue to rise through the 21st Century.

Temperature

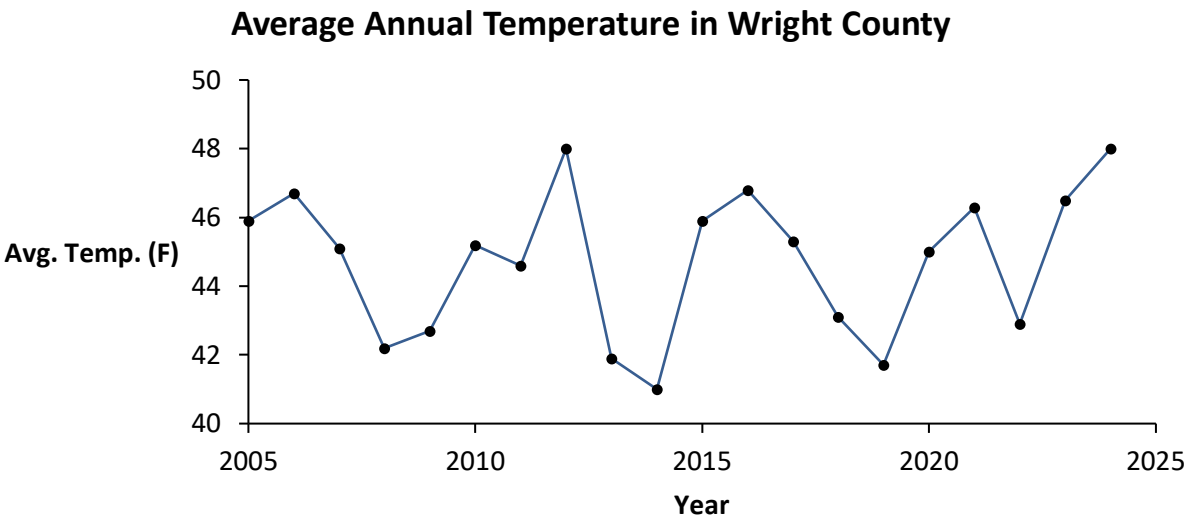
According to the National Centers for Environmental Information, the annual daily average temperature in Wright County from 2005 to 2024 was 44.7°F.[2] According to the Minnesota Climate Mapping and Analysis Tool, the annual daily average temperature in the study area is projected to increase to 48.0°F from 2040 to 2059 under an intermediate emissions pathway (SSP 245). [3] In 2080-2099, annual daily average temperature is projected to further increase to 51.0°F and 53.2°F under an intermediate (SSP 245) and high emissions pathway (SSP 370), respectively.

[1] More information on SSPs is available at: https://climate.umn.edu/sites/climate.umn.edu/files/2023-06/ClimateProjectionPrimer_Compiled_CoverPage.pdf

[2] National Centers for Environmental Information, National Oceanic and Atmospheric Administration. *County Time Series.* Available at: https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/time-series.

[3] Minnesota CliMAT. University of Minnesota. Available at https://app.climate.umn.edu/?output_type=modelVal&scenario=ssp370_2080-2099&model=ensemble&variable=tmax-degF&time_frame=yearly&aoi=none#intro_pane

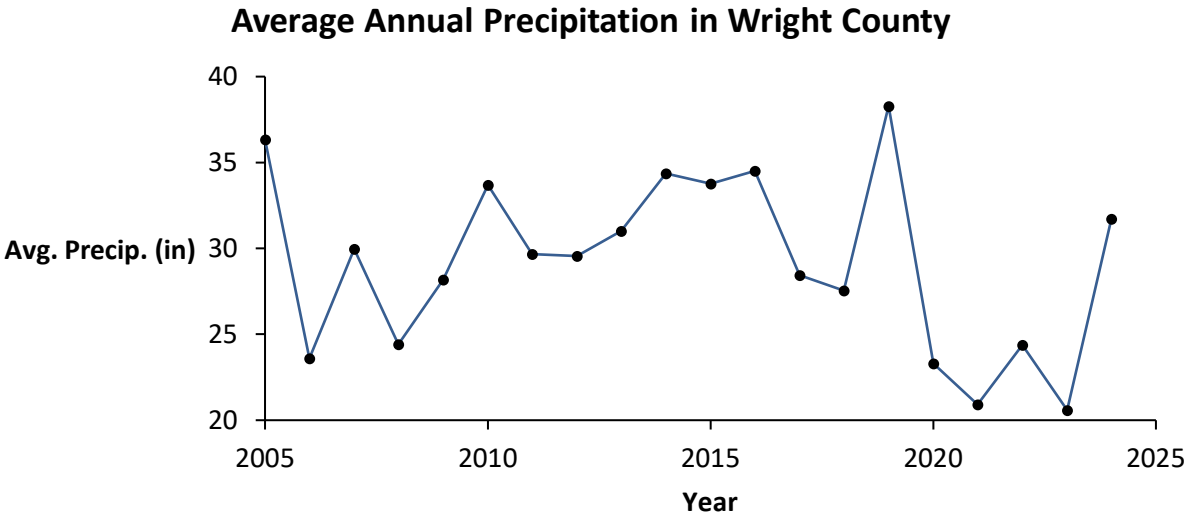
Figure 5: Average Annual Temperate in Wright County



Precipitation

According to the National Centers for Environmental Information, the annual average precipitation in Wright County from 2005 to 2024 was 29.2 inches.[4] According to the EPA Climate Resilience Evaluation and Awareness Tool (CREAT) Climate Change Scenarios Projection Map, there is a projected 2.6% to 13.8% increase in 100-year storm intensity by 2035 and a projected 5.2% to 26.9% increase in 100-year storm intensity by 2060 for the AUAR study area.[5]

Figure 6: Average Annual Precipitation in Wright County



[4] National Centers for Environmental Information, National Oceanic and Atmospheric Administration. *County Time Series*. Available at: https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/time-series.
[5] CREAT Climate Change Scenarios Projection Map. US EPA. Available at https://www.arcgis.com/home/item.html?id=3805293158d54846a29f750d63c6890e

Localized Flood Risk

The National Oceanic and Atmospheric Administration's (NOAA) Climate Mapping for Resilience and Adaptation (CMRA) tool[6] includes climate projections for numerous variables related to various climate hazards. In this tool, the lower emissions scenario is a possible future in which humans drastically reduce their use of fossil fuels, reducing global emissions of heat-trapping gases to zero by 2040. This scenario is known as RCP 4.5. The higher emissions scenario is a possible future in which humans continue increasing emissions of heat-trapping gases from fossil fuels through 2100. This scenario is known as RCP 8.5. For a census tract containing the AUAR study area, this tool projects the average annual total precipitation in 2015-2044 to increase to 30.7 inches with lower emissions and 31.1 inches with higher emissions. In 2035-2064, the average annual total precipitation is projected to further increase to 31.1 inches with lower emissions and 31.2 inches with higher emissions.

Cooling Degree Days

As defined by the National Weather Service, cooling degree days, which are often used as a proxy to estimate cooling needs for buildings, can be examined as a baseline and projected exposure indicator under the RCP 4.5 and RCP 8.5 scenarios. Cooling degree days are indexed units, not actual days, which roughly describe the demand to heat or cool a building. Cooling degree days accumulate on days warmer than 65°F when cooling is required. For example, if a weather station recorded an average daily temperature of 78°F, cooling degree days for that station would be 13.

According to Heat Vulnerability in Minnesota,[7] which provides county level data, the number of cooling degree days in 2019 for the county containing the AUAR study area (Wright County) was 381. The number of cooling days in 2050 for Wright County is projected to be 448 and 598 for RCP 4.5 and 8.5, respectively.

b. For each resource category in the table below, describe the project's proposed activities and how the project's design will interact with those climate trends. Describe proposed adaptations to address the project effects identified.

Table 2: Climate Considerations and Adaptions

Resource Category	Climate Considerations	Project Information	
		Climate Change Risks and Vulnerabilities	Adaptions (Scenario 1 and Scenario 2)
Project Design	Aspects of building architecture/ materials choices and site	In the coming decades, the location of the study area is anticipated to experience:	• Majority of technology park developers have sustainability goals around water, energy, carbon, recycling that would be implemented on this site (applies to Scenario 1).

[6] NOAA Climate Mapping for Resilience and Adaption tool. Available at https://resilience.climate.gov/#assessment-tool.
[7] Heat Vulnerability in Minnesota. Minnesota Department of Health and the University of Minnesota. Available at https://maps.umn.edu/climatehealthtool/heat_app/.

Resource Category	Climate Considerations	Project Information	
		Climate Change Risks and Vulnerabilities	Adaptions (Scenario 1 and Scenario 2)
	design may impact conditions in the surrounding area, including changing climate zones, temperature trends, and potential for extended heat waves.	• Increased annual temperature. • Increased annual precipitation and more frequent heavy rainfall events. • Increased freeze thaw cycles.	• Energy efficient building shells, appliances, equipment and lighting would be incorporated into the building design to minimize overall energy needs with rising cooling demand. • Proposed native trees and landscaping would reduce runoff and mitigate heat island effect and increased energy/water costs for cooling. • Parking areas would be evaluated to reduce impervious areas within the AUAR study area to mitigate potential increases in precipitation. • A chloride management plan would be implemented per any state and local guidelines or requirements. Chloride conscious design would be considered to minimize salt usage by the development. This could include considering potential locations of snow melt, ice formation, and tree shading. • Addition of pathways and plannedfuture roundabouts at Minnesota State Highway 25 and 85th Street and the intersection of Fallon Avenue and School Boulevard will reduce vehicle emissions from stalling vehicles (that would typically occur at a stop sign or signal) and encourage pedestrian activity.
Land Use	Loss of tree cover, removal of wetlands, increasing severity of storms, increased frequency of	• Development of the study area will convert the land use from agriculture to industrial uses, increasing impervious surfaces within	• Design of the site, greenway, and stormwater management facilities will be used to reduce the risk of flooding in the AUAR study area. Infiltration areas will be used to improve water quality and reduce stormwater runoff in the project vicinity.

Resource Category	Climate Considerations	Project Information	
		Climate Change Risks and Vulnerabilities	Adaptions (Scenario 1 and Scenario 2)
	freeze/thaw transitions	the study area as well as demand for utility and energy services. • Portions of the proposed development may experience flooding during extreme rain events.	• Design of the site will incorporate buffer requirements and preservation of wetlands or woodlands as required by the City ordinance and/or to the extent practical.
Water Resources	Current Minnesota climate trends and anticipated climate change in the general location of the project may influence water resources.	• Water resources in the general project area may become warmer, and increase in volume due to increased temperatures and runoff. There may be more evaporation and water available when it rains leading to an increase in the flood potential. • It is projected that there will be more severe storm events with high, intense rain amounts which will require drainage systems to be adequately maintained to	• Developer will consider using native plants and perennials for landscaping and stormwater features to absorb water and reduce the water demand for irrigation. • Developer will use native plants and perennials for landscaping adjacent to water resource buffers • If using groundwater, water reuse systems such as cycling water, will be implemented for cooling purposes to reduce water usage (applies to Scenario 1). • Stormwater Best Management Practices (BMP) shall meet criteria for Minnesota Pollution Control Agency (MPCA) water quality requirements. • Stormwater BMP's shall be designed to meet the City of Monticello's criteria for rate control as well as runoff volume reduction. • Stormwater BMP's will be designed to maintain stormwater runoff rates at or below the level of existing conditions. • The precipitation depth for the 100-year, 24-hour storm is anticipated to increase by 20% by the end of the century based on the paper Equipping Municipalities with Climate

Resource Category	Climate Considerations	Project Information	
		Climate Change Risks and Vulnerabilities	Adaptions (Scenario 1 and Scenario 2)
		accommodate for the increase in water volume.	Change Data to Inform Stormwater Management.[8] The runoff volume and rates would increase proportionally to the precipitation depth assuming the same land use and storm duration. Stormwater BMPs should be conservatively designed to account for this increase in runoff volume. Stormwater conveyance system should be designed to account for the increase in peak flow. • Water efficient irrigation design will be considered for any landscape irrigation systems. • Green infrastructure systems will be included in site development. This could be infiltration basins, infiltration trenches, rainwater gardens, bioretention areas without underdrains, or vegetated swales with impermeable check dams. • Additional adaptations discussed in Item 12.
Contamination / Hazardous Materials/ Wastes	Current Minnesota climate trends and anticipated climate change in the general location of the project may influence the potential environmental effects of generation /use/ storage of hazardous	The proposed development is not anticipated to generate hazardous waste or materials. Any potential technology campus and light industrial uses may require storage of hazardous materials and wastes.	Design of the site would ensure placement of any potential storage of hazardous materials and wastes would not be in floodplain areas or result in contamination.

[8] Equipping Municipalities with Climate Change Data to Inform Stormwater Management. Available at: https://conservancy.umn.edu/server/api/core/bitstreams/e29c1999-088a-4958-b68f-c201153f4884/content.

Resource Category	Climate Considerations	Project Information	
		Climate Change Risks and Vulnerabilities	Adaptions (Scenario 1 and Scenario 2)
	waste and materials.		
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	Current Minnesota climate trends and anticipated climate change in the general location of the project may influence the local species and suitable habitat.	Suitable habitat for species may become unsuitable due to land use changes, increased temperature, and increased runoff.	• Climate-appropriate native plantings and stormwater BMPs will provide suitable habitat for small mammals, insects, and bird species. • Integration of a future greenway corridor will provide for additional habitat and species connectivity.

8. COVER TYPES

AUAR Guidance: The following information should be provided:

- *A cover type map, at least at the scale of a USGS topographic map, depicting:*
  - *Wetlands (identified by Circular 39 type)*
  - *Watercourses (rivers, streams, creeks, ditches)*
  - *Lakes (identify public waters status and shoreland management classification)*
  - *Woodlands (break down by classes where possible)*
  - *Grassland (identify native and old field)*
  - *Cropland*
  - *Current development*
- *An overlay map showing anticipated development in relation to the cover types. This map should also depict any "protection areas," existing or proposed, that will preserve sensitive cover types. Separate maps for each major development scenario should be generally provided.*

The AUAR study area is approximately 550 acres of cropland, forest, wetland, open water, impervious surface, and grassland. See Table 3 for the complete acreage of each cover type within the AUAR study area. There are few existing buildings and structures within the study area that include some single-family homes and some farmstead buildings and structures. These cover types were determined by reviewing recent aerial photography and wetland boundaries were determined during two field delineations completed June 2024 and April 2025.

The proposed cover types for the two scenarios are included in Table 3. Of the buildable area for Scenario 1 (listed as impervious in the Table 3 below), 3 million square feet would be buildings,

approximately 4-4.5 million square feet would include driveways, parking, access roads, generators, equipment yard and the remainder would be pervious areas such as landscaping, buffer areas and stormwater. Of the buildable area for Scenario 2.5 million square feet would be buildings, approximately 4-5 million square feet would be parking and circulation areas and the remainder would be pervious area such as landscaping, buffer areas, and stormwater.

Protected elements, including wetland impacts and buffer/protection areas, are shown on the proposed scenarios maps for Scenarios 1 and 2, which are shown on Figure 3 and Figure 4. For Scenario 1, the proposed Rapid Infiltration Basin (RIB) system (see Item 12.b. i for more information on the RIB) is anticipated to be 15 to 20 acres in total area and could be located in several of the cover types listed in Table 3 such as lawn/landscaping or other infiltration areas. The system is anticipated to be comprised of four cells with a bottom area of each cell being approximately 3.5 to 4.5 acres in size based on preliminary soil information. Actual size will depend on the developers' flow rates and results of more in-depth soil testing.

Site development of either scenario would be required to follow city landscaping ordinances. Landscaping for both scenarios is recommended to include the use of green infrastructure to enhance existing wetland function, preserve existing natural features, and mitigate stormwater runoff. Green infrastructure systems include infiltration basins, infiltration trenches, rainwater gardens, bioretention areas without underdrains, vegetated swales with impermeable check dams. The project proposer will use native plants in landscape design and will maintain existing significant floodplain and wetland complexes as feasible. The proposed Wooded/Forest, Brush/Grassland, and Lawn/Landscaping cover types account for the proposed greenway transecting the site. The acreage of green infrastructure systems proposed for the two scenarios is included in Table 3 and Table 4.

Table 3: Existing and Proposed Cover Types

Cover Type	Existing (acres)	Scenario 1 (acres)	Scenario 2 (acres)
Wetlands and Shallow Lakes (less than 2 meters deep)	30.75	22.26	29.49
Rivers/Streams	0 ln ft	0 ln ft	0 ln ft
Wooded/Forest	28	25.25	25.25
Brush/Grassland	36.25	1	1
Cropland	444	0	0
Livestock Rangeland/Pastureland	0	0	0
Lawn/Landscaping	0	289.49	262.26
Green Infrastructure (total from Table 4)	0	33	39
Impervious Surface	11	171	232
Other (Stormwater Pretreatment and Detention Ponds)	0	8	17
Total	**550 acres**	**550 acres**	**550 acres**

Table 4: Green Infrastructure

Green Infrastructure	Before (acres)	Scenario 1 (acres)	Scenario 2 (acres)
Constructed Infiltration Systems (infiltration basins, infiltration trenches, rainwater gardens, bioretention areas without underdrains, vegetated swales with impermeable check dams)[9]	0	33	39
Total	**0**	**33**	**39**

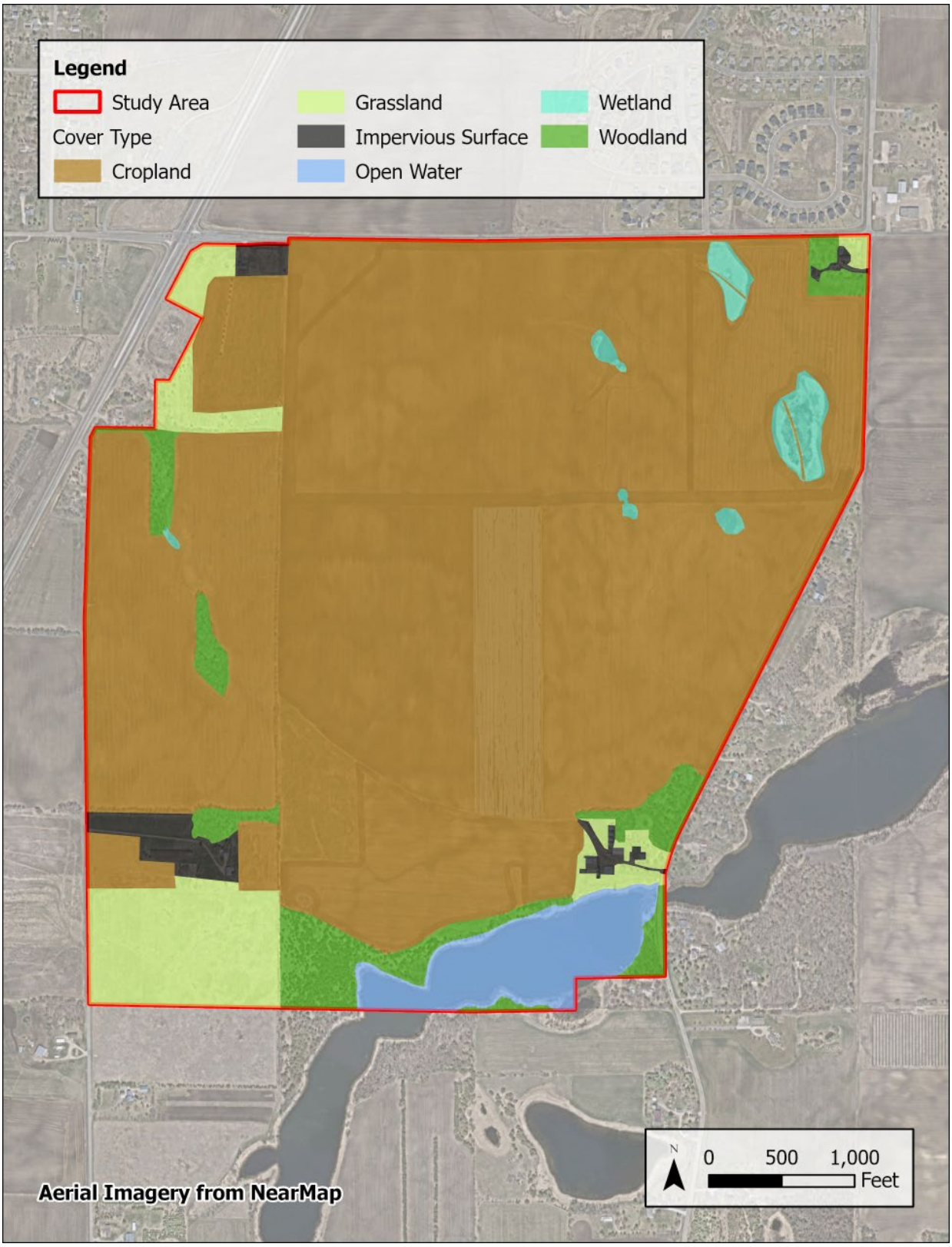
Table 5: Trees

Trees	Scenario 1 (acres)	Scenario 2 (acres)
Area of Mature Trees Removed During Development[10]	15	25
New Trees Planted (acres)[11]	15	25

Any hardwood tree 6 inches or more in diameter at breast height (DBH), softwood tree 8 inches or more in DBH, or conifer over 12 feet in height must be replaced at a rate of 1:1 aggregate caliper inch (ACI) to removed DBH inches per Ordinance 847 which amends Chapter 153.061 of the Monticello Code of Ordinances.

[9] Based on preliminary stormwater requirement calculations based on estimated impervious surface area.
[10] Tree clearing will be limited as much as feasible to support the proposed development scenarios. Tree clearing will be restricted to the winter months when migratory birds are not likely to be present (November 1 – March 31). If winter tree clearing is not feasible, technical assistance from the U.S. Fish and Wildlife Service will be obtained before any trees or shrubs are removed.
[11] Exact number to be determined as design plans advance. Higher quality trees will be preserved to the extent practicable as site design advances.

Figure 7: Existing Cover Types



9. PERMITS AND APPROVALS REQUIRED

AUAR Guidance: A listing of major approvals (including any comprehensive plan amendments and zoning amendments) and public financial assistance and infrastructure likely to be required by the anticipated types of development projects should be given for each major development scenario. This list will help orient reviewers to the framework that will protect environmental resources. The list can also serve as a starting point for the development of the implementation aspects of the mitigation plan to be developed as part of the AUAR.

Table 6: Anticipated Permits and Approvals

Unit of Government	Type of Application	Status
Federal		
US Army Corps of Engineers (USACE)	Section 404 Permit	To be applied for, if applicable
State		
Minnesota Pollution Control Agency	Section 401 Water Quality Certification	To be applied for, if applicable
	National Pollutant Discharge Elimination System Stormwater Permit for Construction Activities	To be applied for, if applicable
	Sanitary Sewer Extension Permit	To be applied for, if applicable
	Construction Contingency Plan and Response Action Plan approval	To be applied for, if applicable
	Notice of Intent of Demolition	To be applied for, if applicable
	Industrial Wastewater Permit	To be applied for, if applicable
	Significant Industrial User Permit	To be applied for, if applicable
	Construction Stormwater Permit	To be applied for, if applicable
	Fuel Storage Tank	To be applied for, if applicable
	Air Permit	To be applied for, if applicable
	Discharge Permit	To be applied for, if applicable
	Environmental Assessment Worksheet	To be applied for, if applicable
Minnesota Department of Natural Resources (MnDNR)	Temporary Groundwater Appropriation Permit for Construction Dewatering	To be applied for, if applicable
	Water Appropriation Permit Amendment	To be applied for, if applicable
	Public Waters Work Permit	To be applied for, if applicable
Minnesota Department of Health	Water Main Installation Permit	To be applied for, if applicable
	Notification of Intent to Perform a Demolition	To be applied for, if applicable
	Notification of Asbestos Related Work	To be applied for, if applicable
	Water Tower and Well(s) Approval	To be applied for, if applicable
Minnesota Department of Transportation	Right-of-Way Permit	To be applied for, if applicable
	Plumbing Review	To be applied for, if applicable

Unit of Government	Type of Application	Status
Minnesota Department of Labor Industry	Electrical Permit	To be applied for, if applicable
County		
Wright County	WCA Review and Approval, pending annexation	To be applied for, if applicable
	Right-of-Way Permit	To be applied for, if applicable
	Subsurface Sewage Treatment System Abandonment Permit	To be applied for, if applicable
City		
City of Monticello	Preliminary/Final Plat	To be applied for, if applicable
	Sign Permit	To be applied for, if applicable
	Building Permit	To be applied for, if applicable
	Site Plan Approval	To be applied for, if applicable
	Conditional Use Permit	To be applied for, if applicable
	Right-of-Way Permit	To be applied for, if applicable
	WCA Review and Approval	To be applied for, if applicable
	Zoning Map Amendment	To be applied for, if applicable
	Demolition Permit	To be applied for, if applicable
	AUAR Adoption	In process
	Erosion Control, Grading, and Stormwater Permit	To be applied for, if applicable
	Planned Unit Development	To be applied for, if applicable
	Annexation	Subject to Orderly Annexation Agreement with Monticello Township

Note for the potential for additional permits/approvals for Scenario 1:

Additional environmental reviews may be necessary, which are the responsibility of either the city or the project proposer, should potential improvements and supporting infrastructure for either development scenario exceed mandatory environmental thresholds. The local utility company will design and obtain development permit and approvals needed for any potential grid infrastructure projects that are required for Scenario 1 through the MN Public Utilities Commission (PUC). If either scenario results in a proposed project that anticipates the need for more than 1,000,000 gallons of fuel storage for backup generators and/or may exceed the threshold for air emissions, a separate Environmental Assessment Worksheet (EAW) will be required for these components of the project per Minnesota Rules 4410.4300. The specific number of generators that would trigger this requirement for a project is variable based on the type of generator and size of the belly tank; however, typically this would be in the range of 100-200 generators. A separate EAW with MPCA as the RGU could also be required if a project triggers the need for a sewer extension with over 2 million GPD of water. For Scenario 1, a separate EAW with MPCA as the RGU would also be required for the proposed Rapid Infiltration Basin system.

Note for both scenarios:

When land is annexed to the City limits, increased regulations will apply such as zoning, subdivision, stormwater and water management.

10. LAND USE

a. Describe:

i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, and prime or unique farmlands.

The AUAR study area is in a semi-rural area just south of the City of Monticello, in Monticello Township, Wright County, Minnesota. The study area consists of 16 existing parcels. The study area is generally bounded by 85th Street NE to the north, Edmonson Avenue NE on a portion of the property to the east, and parcel boundaries to the west, southeast, and south. Land uses adjacent to the study area include single family and agricultural to the north, sparse single-family residences with mostly agricultural uses to the east and west, and natural areas including woodland, grassland, and wetlands. A single-family neighborhood is planned for development within 3-5 years to the east of Edmonson Avenue.

There are no existing parks within the study area or immediate vicinity. Bertram Chain of Lakes Regional Park is located approximately three miles northwest of the study area boundary. A greenway corridor is planned per the City's adopted Natural Resource Inventory & Assessment. The alignment of the greenway should coincide with other existing or added natural features on the site.

According to the Web Soil Survey for the study area 3.3 percent is mapped as prime farmland, 2.8 percent would be prime farmland if drained, and 77 percent of the study area is considered farmland of statewide importance.[12]

ii. Planned land use as identified in comprehensive plans (if available) and any other applicable plan for land use, water, or resource management by a local, regional, state, or federal agency.

Wright County Northeast Quadrant Land Use Plan

Wright County adopted the *Northeast Quadrant Land Use Plan* in 2007[13]. The Northeast Quadrant Land Use Plan was developed to provide a framework for shaping future growth of the Northeast Quadrant of Wright County, which include the Buffalo, Monticello, and Rockford Townships. Anticipated phasing for future development in the AUAR study area is predicted to occur between 2020 and 2040. The study area is identified as Transition Area (TA) in the 2007 Monticello Township Land Use Plan.[14] The purpose of the Transition Area is to properly manage the land at the urban/rural fringe. Management of these areas consists of identifying and designating areas to economically and efficiently accommodate growth pressures. The proper management

[12] USDA. 2024. Web soil Survey. Available at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.
[13] Northeast Quadrant Land Use Plan. Available at: https://www.co.wright.mn.us/DocumentCenter/View/236/Northeast-Quadrant-Land-Use-Plan---Adopted-07-31-07-PDF.
[14] Monticello Township. 2007. *Monticello Land Use Plan*. Available at: https://www.co.wright.mn.us/DocumentCenter/View/235/Monticello-Township-Land-Use-Plan-Map-PDF

of these areas will avoid premature annexation, prohibit large lot residential development that would make provision of municipal services unnecessarily expensive, and limit the possibility of incompatible future land uses.[15] The Plan notes that orderly annexation agreements provide more detailed plans for annexation areas.

City of Monticello 2040 Comprehensive Plan

The City of Monticello adopted the *Monticello 2040 Comprehensive Plan* in 2020.[16] The plan is centered around three important themes: Sustainability, Community Health, and Sense of Place. The Plan focuses on land use, growth, and orderly annexation; mobility and connectivity; economic development; parks, pathways, and open space; and community character, art, design, facilities, and infrastructure. The Plan covers the geographic area of the City's current municipal boundary as well as the Monticello Orderly Annexation Area. The study area is completely within the Monticello Orderly Annexation Area and is planned to be annexed into the city. The study area has the land use designation of Light Industrial Park (see Figure 9). See Table 7 for a description of this land use designation and allowed uses.

According to the plan, areas currently within the City limits adjacent to the study area have been designated for future commercial or residential uses, with an identified industrial land use to the northwest directly across 85th Street. The southern boundary of the study area is also the southern boundary of the City's Orderly Annexation Area.

The 2040 Plan includes appendix studies for municipal utilities, including water and sanitary sewer systems.

The city has plans for a park south of the study area, which is intended as city-owned and available for public use with a trail along the wetland edge.

Table 7: Study Area Future Land Use Designations Purpose and Allowed Uses

Land Use Designation	Purpose	Allowed Uses
Light Industrial Park (LIP)	To promote a strong industrial business sector represented by increased jobs and tax revenue generated for the City of Monticello.	Process and production manufacturing which uses moderate amounts of partially processed materials, warehousing and distribution, research and development, medical laboratories, machine shops, computer technology, professional and corporate offices and industrial engineering facilities. "Computer technology" includes active technology uses dominated by office and research-oriented businesses. The Light Industrial Designation accommodates Data Center (or similar "Technology Campus")

[15] Northeast Quadrant Land Use Plan. Available at: https://www.co.wright.mn.us/DocumentCenter/View/236/Northeast-Quadrant-Land-Use-Plan---Adopted-07-31-07-PDF

[16] City of Monticello. 2020. *Monticello 2040 Vision and Plan*. Available at: Complete-Monticello-2040-Comprehensive-Plan-PDF

Land Use Designation	Purpose	Allowed Uses
		development for passive computer storage and processing only when specific elements are demonstrated. Consideration of these uses in the LIP areas shall be subject to the following review requirements, among others as determined on a case-by-case basis: a. The City's 2040 Plan recognizes data centers as a singularly unique land use due to size and scope. b. Data center use locations will not create conflict with other land uses, especially residential land uses, through off-site impacts including unusual amounts of noise, lights, odors, or other similar aspects. Data center users will demonstrate site conditions that meet this condition and are consistent with other light industrial development. c. Where data center development creates shortages in land supply, utility services, electric generation service to the broader area, or any other impacts on the City of Monticello or its neighboring communities, and which are not specifically mitigated by the data center developer and its associated partners, the City is under no obligation to accommodate the use within any land use district or location, or through any land use process. d. Data center uses shall demonstrate convincingly that its burden on municipal services, infrastructure, or fiscal condition

Land Use Designation	Purpose	Allowed Uses
		is completely mitigated by the data center project and its developers, and such mitigation is sustainable by its subsequent owners, users, and other related entities. e. The data center will not inhibit future growth; it will accommodate and facilitate the extension of efficient and orderly municipal infrastructure to the edge of the development property consistent with the City's plans for growth. f. Full and clear assurances from both the data center use and the electric utility provider that data center development will not create threats of power loss to the community, nor limit the city's other growth and development interests in the future.
Source: City of Monticello. 2020. Monticello 2040 Chapter 3: Land Use, Growth and Orderly Annexation. https://www.ci.monticello.mn.us/DocumentCenter/View/313/Chapter-3---Land-Use-Growth-and-Orderly-Annexation-PDF.		

Monticello Orderly Annexation Agreement

The City and Monticello Township have established an Orderly Annexation Agreement providing for the annexation of specific land area within Monticello Township. The current agreement extends through January 1, 2040. The agreement outlines the triggering events for annexation. The study area is within the orderly annexation area covered by the agreement.

Natural Resource Inventory & Assessment

The City of Monticello has adopted a Natural Resource Inventory & Assessment which identifies and inventories existing natural resources within the Monticello Orderly Annexation Area and assesses the resource's quality. The document is used to plan for parks, trails and integration of natural resources into development planning.

The Natural Resource Inventory and Assessment identifies a conceptual future greenway corridor[17] that bisects the study area east-west. From this plan, the purpose of the greenway corridor is to connect the major parks of the City and future annexation area. The locations for these corridors were identified based on the presence of natural land cover features, existing parks and open spaces, locations of Areas of Community Importance, and locations of conservation areas. Greenway corridors could provide

[17] Source: City of Monticello. 2008. Natural Resource Inventory and Assessment. https://www.monticellomn.gov/DocumentCenter/View/270/Natural-Resource-Inventory-Assessment-Conceptual-Greenway-Corridors-PDF

connections between and among natural open spaces and parks via trails and walkways and can be natural areas such as wildlife corridors with no developed trail system or other disturbance within the corridor.

Wright County Trail & Bikeway Plan

In addition to consistency with the City's Natural Resource Inventory & Assessment, the greenway corridor evaluation should consider long-range regional trail planning as identified in the Wright County Trail & Bikeway Plan. The plan is designed to connect the County with non-motorized trails and bikeways which will provide opportunities for residents to increase their physical activity and improve their health. The Plan envisions the County creating a network of offroad trails and on-road bikeways that connect and complement city and township trails and bikeways.

iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.

AUAR Guidance: Water-related land use management districts should be delineated on appropriate maps, and the land use restrictions applicable in those districts should be described. If any variances or deviations from these restrictions within the AUAR area are envisioned, this should be discussed.

Zoning

The study area is currently within Monticello Township and is being used for agricultural purposes. Once annexed into the City of Monticello municipal limits, a zoning change would be required for future development and would be required to be consistent with the City of Monticello's Comprehensive Plan. The Monticello Zoning Ordinance includes a Wetland Overlay District, which would apply to wetlands within the study area.

The city is also in the process of creating a Data Center Planned Unit Development (PUD) Zoning Ordinance that would create a review and plan submittal process specific to the data center use and its impacts. The Ordinance once adopted would apply to data centers of any scale or location within the city.

FEMA National Flood Hazard

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (panel number 27171C0170D, effective 6/20/2024 and panel number 27171C0165D, effective 6/20/2024), the AUAR study area is in an area of minimal flooding area, or Zone X.[18,19]

Comprehensive Water Resource Management Plan[20]

The Water Resources Management Plan (WRMP) serves as a comprehensive planning document to guide the City in conserving, protecting, and managing its surface water

[18] FEMA. 2024. *FEMA Flood Map 27171C0165D*. Available at: FIRMette Web [27171C0165D] (fema.gov).
[19] FEMA. 2024. *FEMA Flood Map 27171C0170D*. Available at: FIRMette Web [27171C0170D] (fema.gov).
[20] City of Monticello. 2019. *Comprehensive Water Resource Management Plan*. Available at: Comprehensive-Water-Resource-Management-Plan-PDF (monticello.mn.us)

resources. The City will use the WRMP as a guide to reach goals related to water quality, volume reduction, and flood management. The WRMP also includes associated goals and policies that address wetland management. As part of the goals and policies relating to wetland management, the WRMP references wetland buffers between developments adjacent to a wetland area. The goals and policies outlined in the WRMP relating to wetland buffers are in accordance with the City of Monticello's Code of Ordinances for Wetland Districts and associated buffer and setback requirements.

City of Monticello Shoreland Ordinance

As noted above, the study area is within the Monticello Orderly Annexation Area and is planned to be annexed into the city. Once annexed, a reclassification of DNR Basin 86-394 would be required. The DNR anticipates this basin would be classified as Natural Environment. The city would zone the 1,000-foot area surrounding the Ordinary High Water Level (OHWL) of this basin as a Shoreland Overlay District. According to the city zoning ordinance, industrial use is not allowed within a shoreland district. Within a shoreland district, building structures and sewers must be located at least 150 feet from the OHWL, no structures shall exceed 25 feet in height, and detached accessory structures shall not exceed 15 feet in height. Structures must be placed in accordance with floodplain regulations applicable to the site. If these controls do not exist, the elevation of the lowest floor's placement or floodproofing must be three feet above the OHWL or the highest known water level, whichever is higher. Non-water oriented uses on lots with water frontage are required to double the ordinary structure setbacks unless substantially screened from view by vegetation (leaf-on conditions) or topography. There are also restrictions that apply to the shore and bluff impact zones; however, given the required setback of 150 feet from the OHWL, impacts to these zones are not anticipated. The Community Development Department will also evaluate possible soil erosion impacts and development visibility from public waters before issuing a permit for construction of sewage treatment systems, roads, driveways, structures, or other improvements on steep slopes within the shoreland district. Full ordinance language is found in Zoning Code 153.046 Overlay Zoning Districts.

iv. If any critical facilities (i.e., facilities necessary for public health and safety, those storing hazardous materials, or those housing occupants who may be insufficiently mobile) are proposed in floodplain areas and other areas identified as at risk for localized flooding, describe the risk potential considering changing precipitation and event intensity.

No critical facilities are proposed as part of the project.

b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

AUAR Guidance: The extent of conversion of existing farmlands anticipated in the AUAR should be described. If any farmland will be preserved by special protection programs, this should be discussed.

If development of the AUAR will interfere or change the use of any existing designated parks, recreation areas, or trails, this should be described in the AUAR. The RGU may also want to discuss under this item any proposed parks, recreation areas, or trails to be developed in conjunction with development of the AUAR area.

The AUAR must include a statement of certification from the RGU that its comprehensive plan complies with the requirements set out at Minnesota Rules, part 4410.3610, subpart 1. The AUAR document should discuss the proposed AUAR area development in the context of the comprehensive plan. If this has not been done as part of the responses to Items 6, 9, 11, 18, and others, it must be addressed here; a brief synopsis should be presented here if the material has been presented in detail under other items. Necessary amendments to comprehensive plan elements to allow for any of the development scenarios should be noted. If there are any management plans of any other local, state, or federal agencies applicable to the AUAR area, the document must discuss the compatibility of the plan with the various development scenarios studied, with emphasis on any incompatible elements.

Existing Land Use

Scenario 1 and Scenario 2

The existing agricultural and residential land use within the study area is expected to transition to other uses as the area develops. Any new development, redevelopment, annexation, change in land use, or change in zoning is required to be consistent with the City of Monticello 2040 Comprehensive Plan.

Zoning

Scenario 1 and Scenario 2

Wright County zoning map shows this area zoned for AG-General Agriculture. Monticello Township does not have a zoning map. When the AUAR study area is annexed by the city of Monticello, the City's zoning map will need to be updated to include the study area with an applicable zoning district that is consistent with the future land use for the area.

Both scenarios are anticipated to comply with the Water Resources Management Plan and the Shoreland Overlay Ordinance that applies to the Unnamed MnDNR Public Water Wetland on the southern portion of the study area.

Once the Data Center PUD Zoning Ordinance is adopted, it may include different development requirements applicable to Scenario 1. Any requirements pertaining to overlay districts that overlap with the study area will also apply.

2040 Comprehensive Plan

The City of Monticello has certified that the 2040 Comprehensive Plan complies with the requirements set out in Minnesota Rules, part 4410.3610, subpart 1.

Scenario 1

The development anticipated under Scenario 1 is consistent with the future Light Industrial Park land use designation for the AUAR study area pending compliance with the review requirements as detailed within the designation language of the 2040 Plan. The City of Monticello 2040 Comprehensive Plan accommodates technology campus development as described for Scenario 1 under the Light Industrial Park designation pending rezoning in compliance with the list of review requirements as described in Table 7 for a data center or similar technology campus use.

Scenario 2

Development as contemplated under Scenario 2, which consists of a variety of light industrial use, is consistent with the land uses allowed under the Monticello 2040 Comprehensive Plan Light Industrial Park designation, but does not anticipate a technology campus as the primary use of the study area.

Wright County Northeast Quadrant Land Use Plan

Scenario 2

The study area was anticipated to be developed between 2020 and 2040 in the Wright County Northeast Quadrant Land Use Plan. Scenario 2's full build out is likely to require a longer timeline beyond 2040 based on typical light industrial land development occurring in the greater Twin Cities area and would therefore be subject to future land use planning for that undeveloped portion.

Natural Resource Inventory & Assessment

Scenarios 1 and 2

Both scenarios would need to incorporate the conceptual future greenway corridor as site planning advances.

c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 10b above.

Both scenarios would incorporate buffering and screening to mitigate any potential land use conflicts with nearby existing residential uses. No industrial development would occur within shoreland, in accordance with city zoning ordinances.

Scenario 1

Scenario 1 would require a zoning change to allow for a technology campus use in the study area and would need to comply with the Data Center PUD Zoning Ordinance once approved. Application of the Shoreland Overlay District will also require review. The study area is outside the city of Monticello and would require the city to annex land from the Township. Future development would need to consider aligning the Natural Resource Inventory & Assessment

greenway corridor with the natural amenities in the area and accommodate future development as shown on Figure 3.

Scenario 2

Scenario 2 would require a zoning change to allow for light industrial use in the study area. The study area is outside the city of Monticello and would require the city to annex land from the Township. Future development would need to consider aligning the Natural Resource Inventory & Assessment plan greenway corridor with the natural amenities in the area and accommodate future development as shown on Figure 4.

Figure 8: Existing Land Use

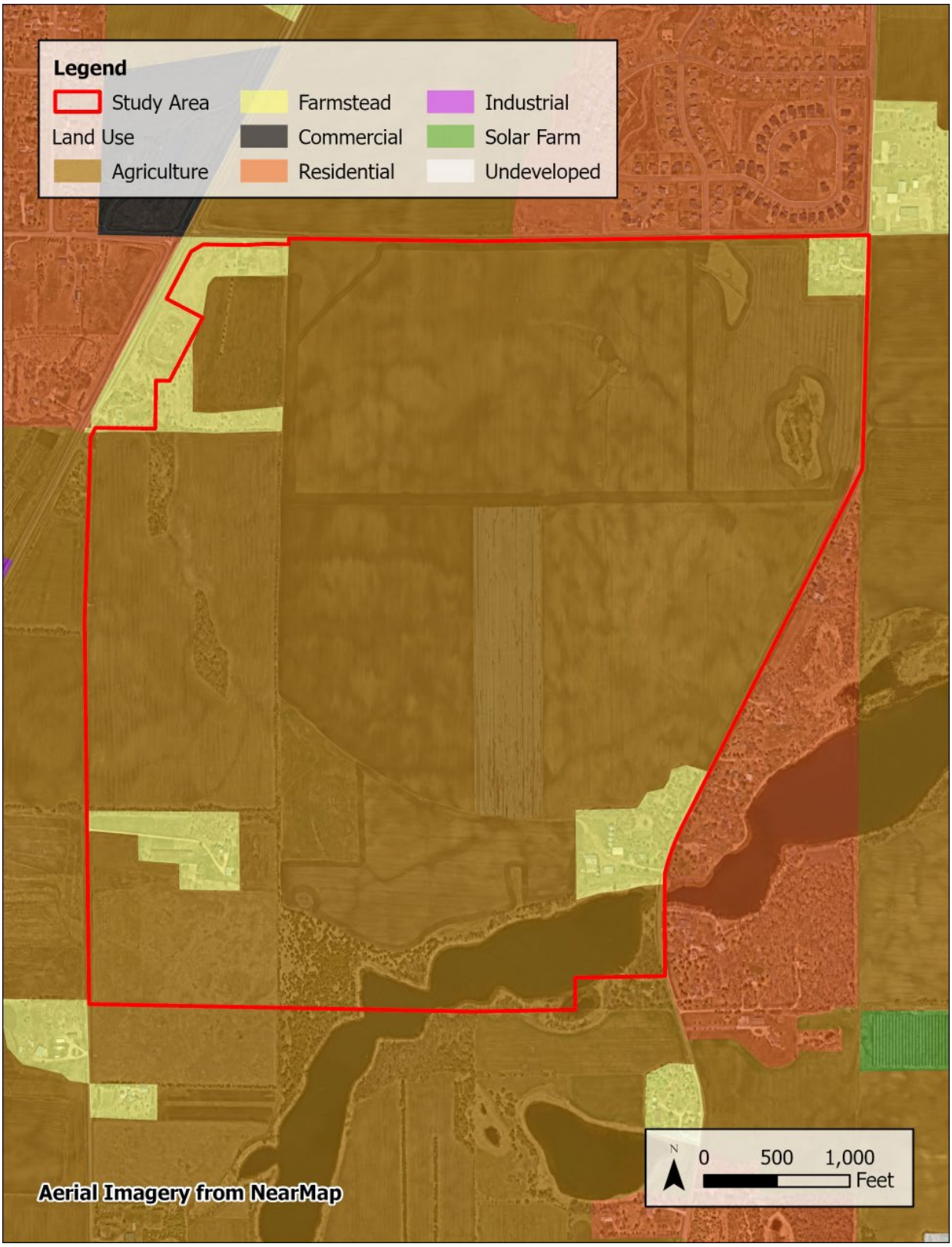
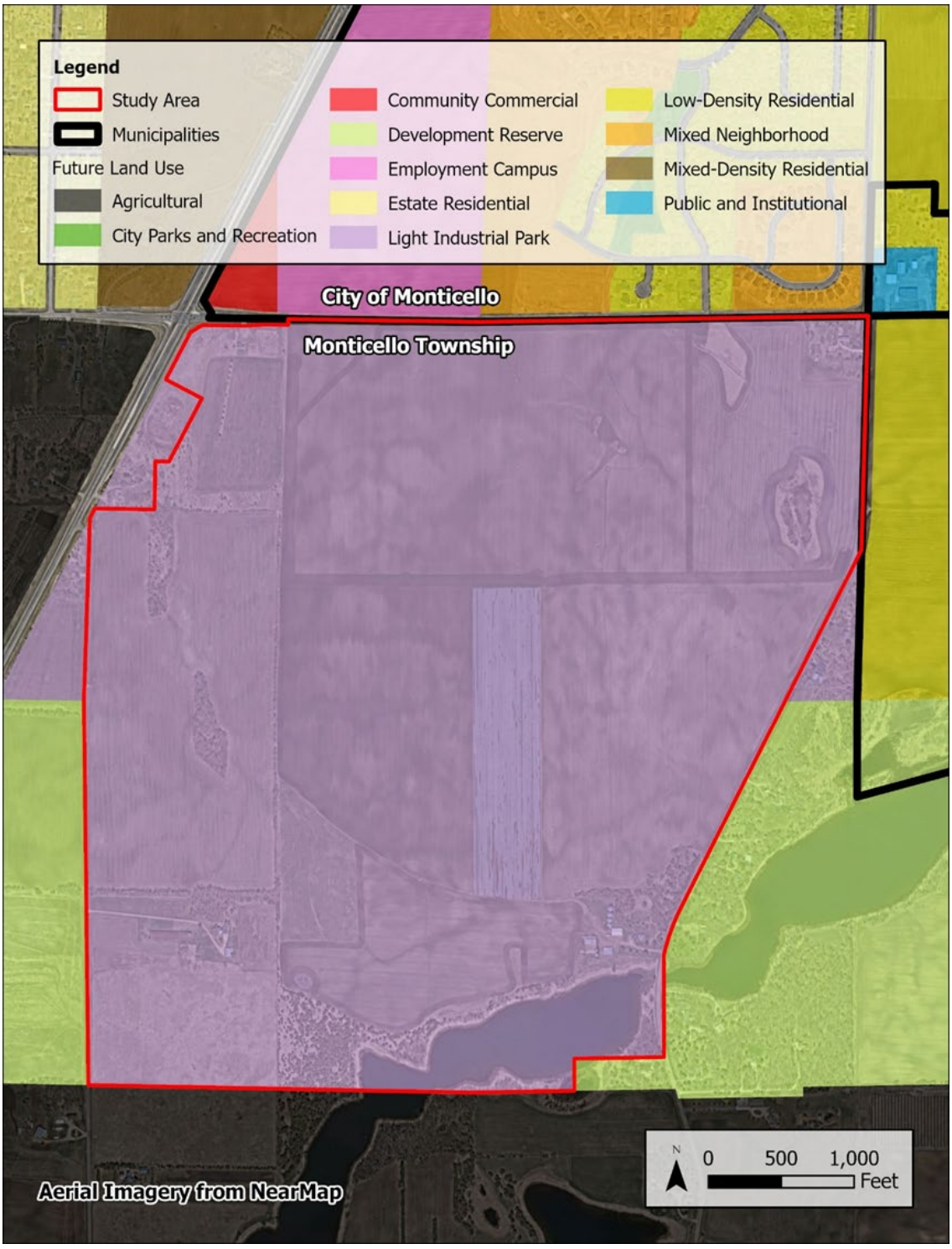


Figure 9: Future Land Use[21]



[21] Future land uses for the city of Monticello and adjacent areas determined in the Monticello 2040 Comprehensive Plan. Available at: https://monticellomn.gov/274/Monticello-2040.
Agricultural land use for Monticello Township was determined in the Monticello Township Land Use Plan. Available at: https://www.co.wright.mn.us/DocumentCenter/View/235/Monticello-Township-Land-Use-Plan-Map-PDF.

11. GEOLOGY, SOILS, AND TOPOGRAPHY/LAND FORMS

a. Geology – Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.

AUAR Guidance: A map should be included to show any groundwater hazards identified.

According to the Geologic Atlas of Wright County, the majority of the AUAR study area is underlain by Mesoproterozoic bedrock and Paleozoic bedrocks. The Mesoproterozoic rocks consist largely of sandstone, with minor amounts of siltstone and shale. These rocks are poorly known in Wright County; therefore, they cannot be confidently assigned to individual formations. However, they are likely to correlate with parts of the Hinckley Sandstone, Fond du Lac, and Solor Church Formations. The Paleozoic rocks are dominantly medium-to coarse-grained quartz sandstone and are part of the Mt. Simon Sandstone formation.[22]

There are no known sinkholes located within the AUAR study area. Additionally, there are no karst conditions located within or near the study area. There is a shallow, unconfined aquifer within the AUAR study area.

A Geotechnical Evaluation of the study area was completed in May 2025. According to borings conducted during the study the site contains topsoil across varying in thickness from 1-2 feet. Beneath the topsoil a mix of upper clay and silt soils was encountered generally extending 1-5 feet deep. Beneath this layer the site generally consists of sandy soils mixed with varying amounts of clay, silt, and gravel to a depth of 30-50 feet with groundwater typically encountered 10-30 feet beneath the surface. The Rapid Infiltration Basin (RIB) systems, discussed in the water resources section below, will be placed according to the results of a hydrogeological analysis. This analysis will ensure RIB placement results in an adequate distance between projected groundwater mounding, at the end of a 20-year infiltration period, and the soil surface. The soils are generally considered suitable for support of the proposed buildings with some soil improvements recommended, such as removal of topsoil and replacement with engineered fill materials. With 10 feet or more of soil above the groundwater, construction activities will not impact the groundwater in the study area as the soil acts as a natural filter.

b. Soils and Topography – Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability, or other soil limitations, such as steep slopes or highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after

[22] University of Minnesota. 2013. *Bedrock Geology*. Available at: https://conservancy.umn.edu/server/api/core/bitstreams/c8f26a04-9210-476a-9e2c-b098c1209760/content.

project construction to address soil limitations including stabilization, soil corrections, or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 11.b.ii.

AUAR Guidance: The number of acres to be graded and number of cubic yards of soil to be moved need not be given; instead, a general discussion of the likely earthmoving needs for development of the area should be given, with an emphasis on unusual or problem areas. In discussing mitigation measures, both the standard requirements of the local ordinances and any special measures that would be added for AUAR purposes should be included. A standard soils map for the area should be included.

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey, the study area is comprised of 12 different soil types. Soils are classified by the NRCS into four hydrologic soil groups, A, B, C, and D, with A having the lowest runoff potential and D having the greatest runoff potential. The erosion hazard indicates the hazard of soil loss from off-road areas after disturbance activities that expose the soil surface. All soil information for the study area is described in Table 8. Within the project site, 13.0 percent of the soil surface is mapped with a "moderate" rating, indicating that some erosion is likely in these areas and that erosion control measures may be needed. The remaining 86.1 percent of the study area is mapped with a "slight" rating, meaning that erosion is unlikely under ordinary climatic conditions, and 0.9 percent is considered null or not rated.

Topography within the study area varies from 948 feet in elevation in the northeastern corner of the site to 980 feet in elevation in the southern portion of the study area as shown in Figure 1.

Scenario 1 and Scenario 2

It is anticipated that for both development scenarios the raw earthwork can be generally balanced on the site to maintain the existing drainage patterns when feasible. This earthwork will be compliant with the city shoreland ordinance. Where appropriate, slope stabilization will be provided by means of vegetation establishment, erosion control blankets, or other standard methods of erosion and sediment control.

A National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit will be obtained prior to any earthwork or grading activities within the AUAR study area. A Stormwater Pollution Prevention Plan (SWPPP) will be provided as a part of the permit. A Minnesota Stormwater Pollution Prevention Plan (SWPPP) typically includes a site map, description of activities, and Best Management Practices (BMPs) for erosion/sediment control and pollution prevention, plus maintenance plans, spill prevention, inspection records, and training documentation, all aimed at minimizing pollutants from construction or industrial sites entering waterways, with specific requirements depending on the site's industrial sector or if it's part of a city's (MS4) program.

Operational activities are not expected to have an impact on soils within the study area.

A 1991 report by the MnDNR identified substantial aggregate resources underneath the study area.[23] The report did not designate the study area as an "Aggregate Resource Area"; however, it is adjacent to a proposed Aggregate Resource Area. The city will consider mining of aggregate resources prior to moving forward with either development scenario. While mining could be incorporated under Scenario 2, Scenario 1 would not allow for these aggregate resources to be mined.

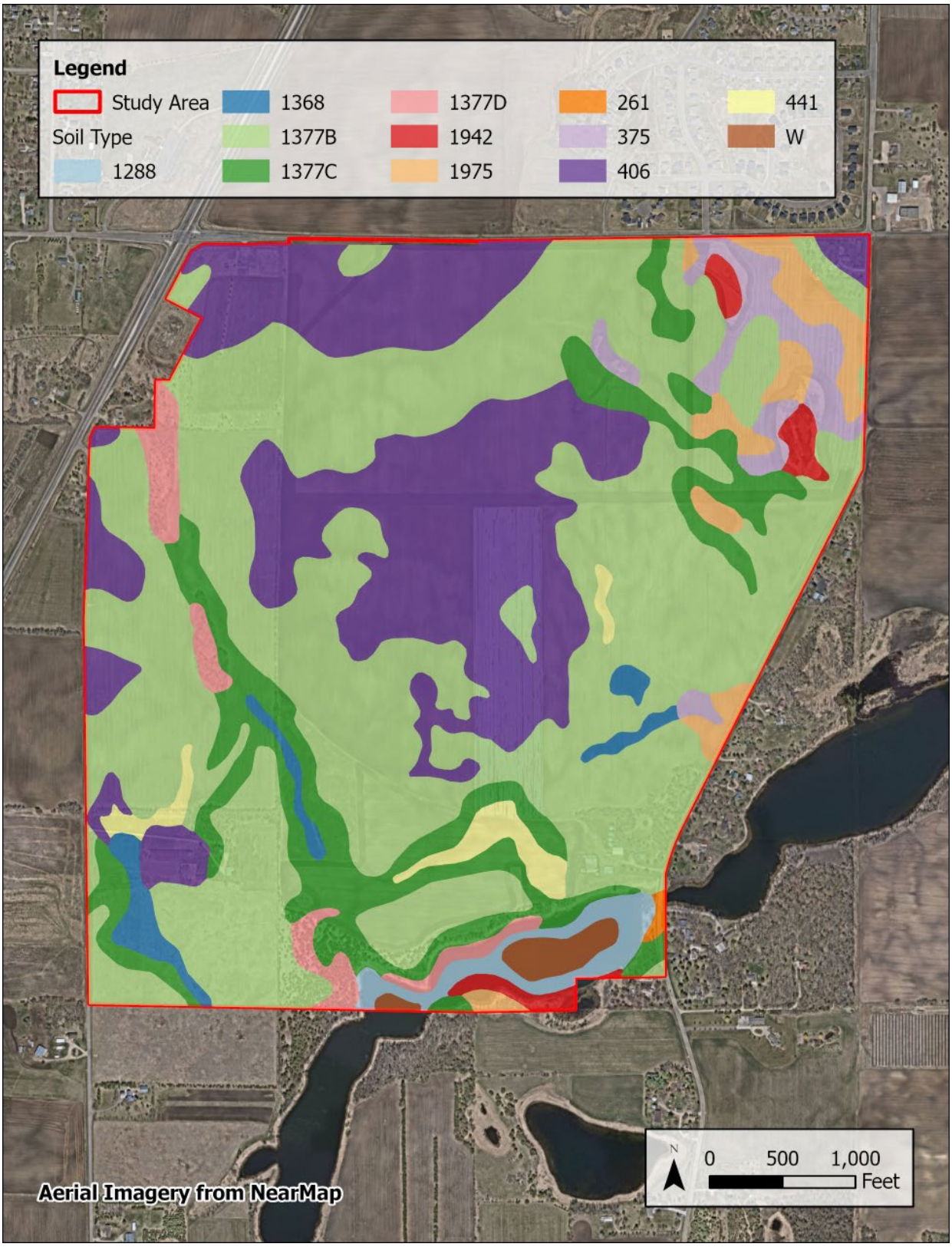
Table 8: Soil Types

Map unit symbol	Map unit name	Acres in AOI	Percent of AOI	Farmland Rating	Hydric Rating	Hydrologic Soil Group	Erosion Hazard Rating
261	Isan-Isan, frequently ponded, complex, 0 to 2 percent slopes	0.7	0.1%	Not prime farmland	2, 3	A/D	Slight
375	Forada sandy loam, 0 to 2 percent slopes	15.6	2.8%	Prime farmland if drained	2, 3	B/D	Slight
406	Dorset sandy loam, 0 to 2 percent slopes	127.0	23.1%	Farmland of statewide importance	2	B	Slight
441	Almora loam, 0 to 2 percent slopes	8.8	1.6%	All areas are prime farmland	0	B	Slight
1288	Seelyeville and Markey soils, ponded, o to 1 percent slopes	9.1	1.7%	Not prime farmland	1, 2, 3	A/D	Slight
1368	Southhaven loam, o to 2 percent slopes	9.5	1.7%	All areas are prime farmland	0	B	Slight
1377B	Dorset-Two Inlets complex, 6 to 12 percent slopes	279.8	50.9%	Farmland of statewide importance	0	A	Slight

[23] MnDNR. *Wright County Aggregate Map.* Available at: https://www.dnr.state.mn.us/lands_minerals/aggregate_maps/completed/wright.html.

Map unit symbol	Map unit name	Acres in AOI	Percent of AOI	Farmland Rating	Hydric Rating	Hydrologic Soil Group	Erosion Hazard Rating
1377C	Dorset-Two Inlets complex, 6 to 12 percent slopes	59.1	10.7%	Not prime farmland	0	A	Moderate
1377D	Dorset-Two Inlets complex, 12 to 20 percent slopes	12.6	2.3%	Not prime farmland	0	A	Moderate
1942	Forada and Leafriver soils, frequently ponded, 0 to 1 percent slopes	6.4	1.2%	Not prime farmland	1, 2, 3	B/D	Slight
1975	Oylen sandy loam, 0 to 2 percent slopes	16.5	3.0%	Farmland of statewide importance	2	C	Slight
W	Water	4.9	0.9%	Not prime farmland	N/A	N/A	Not Rated
Source: United States Department of Agriculture. 2024. *Web Soil Survey.* https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.							

Figure 10: Soil Types



12. WATER RESOURCES

AUAR Guidance: The information called for on the EAW form should be supplied for any of the infrastructure associated with the AUAR development scenarios, and for any development expected to physically impact any water resources. Where it is uncertain whether water resources will be impacted depending on the exact design of future development, the AUAR should cover the possible impacts through a "worst case scenario" or else prevent impacts through the provisions of the mitigation plan.

a. Describe surface water and groundwater features on or near the site below.

i. Surface Water – lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within one mile of the project. Include DNR Public Waters Inventory number(s), if any.

There are seven identified wetlands within the study area as shown in Figure 12. Two field wetland delineations were completed in 2024 and 2025 to confirm the extents of wetlands and waterways within the project study area (see Appendix A).[24]

The closest MPCA 303d Impaired Water to the study area is Pelican Lake, located approximately 1.3 miles to the southeast.[25] There is one unnamed MnDNR Public Water Wetland in the southeastern corner of the study area (ID# 86039400). There are five unnamed MnDNR Public Water Wetlands within one-mile of the study area (ID# 86048400, 86008300, 86007700, 86007500, 86008400). There are three MnDNR Public Water basins within one-mile of the study area (Paradise Lake - ID# 86008200, Slough Lake - ID# 86007800, Gilchrist Lake - ID# 86006400).[26] Additionally, there are no trout streams or lakes, County Ditches migratory waterfowl feeding/resting lakes, or outstanding resource value waters within or adjacent to the study area.

Runoff from the study area generally drains to landlocked basins on the west, east and north side of the property, and approximately 15% of the site drains towards the wetland located in the southern portion of the study area.

[24] The westernmost wetland is referred to as "Wetland 7" in this document. However, since this wetland was delineated in 2025, separately from the other six wetlands, it is referred to as "Wetland 1" in the 2025 Notice of Decision included in Appendix A.
[25] Minnesota Pollution Control Agency. 2024. *Impaired Waters*. Available at: https://mpca.maps.arcgis.com/apps/webappviewer/index.html?id=fcfc5a12d2fd4b16bc95bb535d09ae82
[26] Minnesota Department of Natural Resources. 2025. *Public Waters (PW) Basin and Watercourse Delineation*. Available at: https://gisdata.mn.gov/dataset/water-mn-public-waters

Figure 11: Surface Water Resources

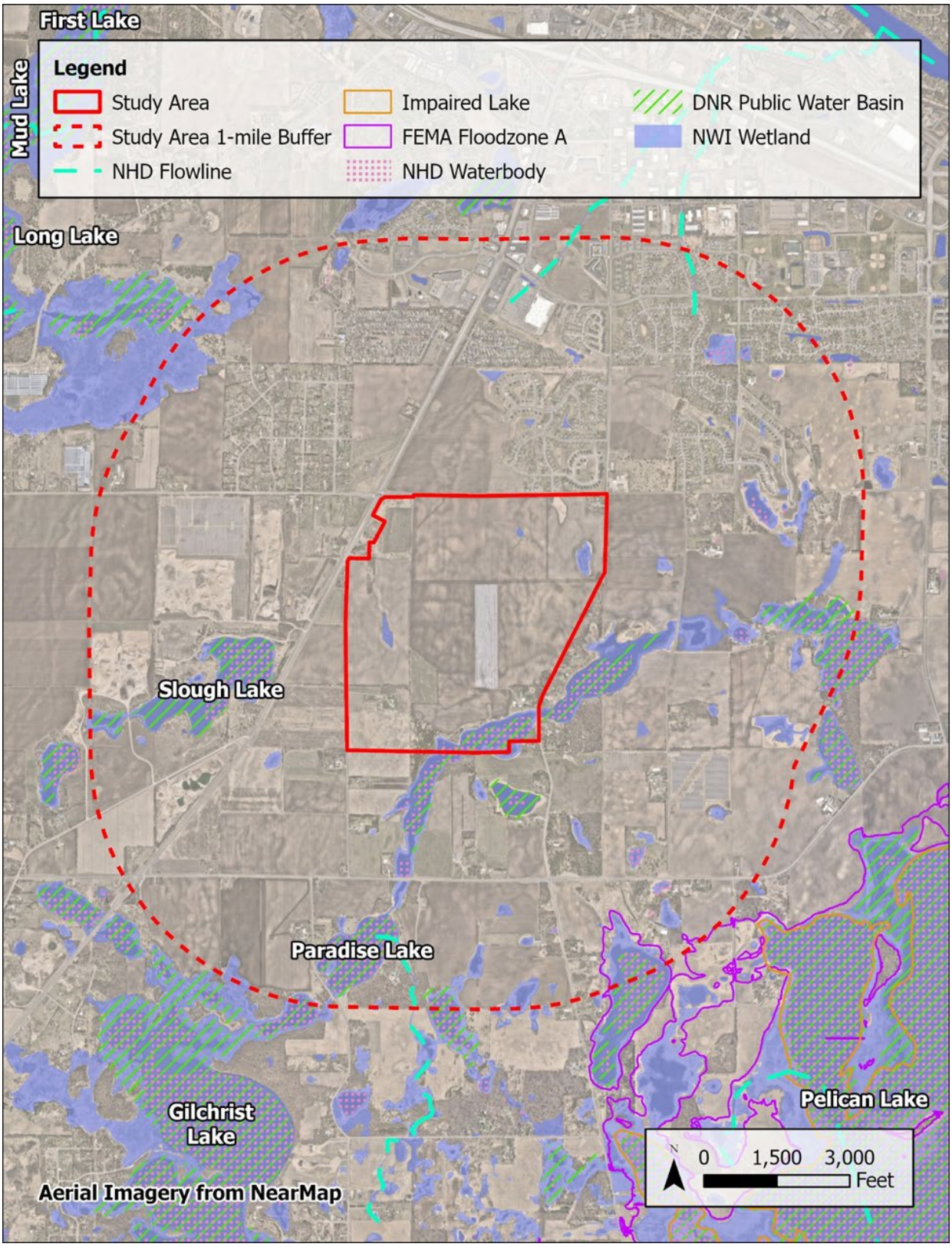


Figure 12: Wetland Delineation Summary

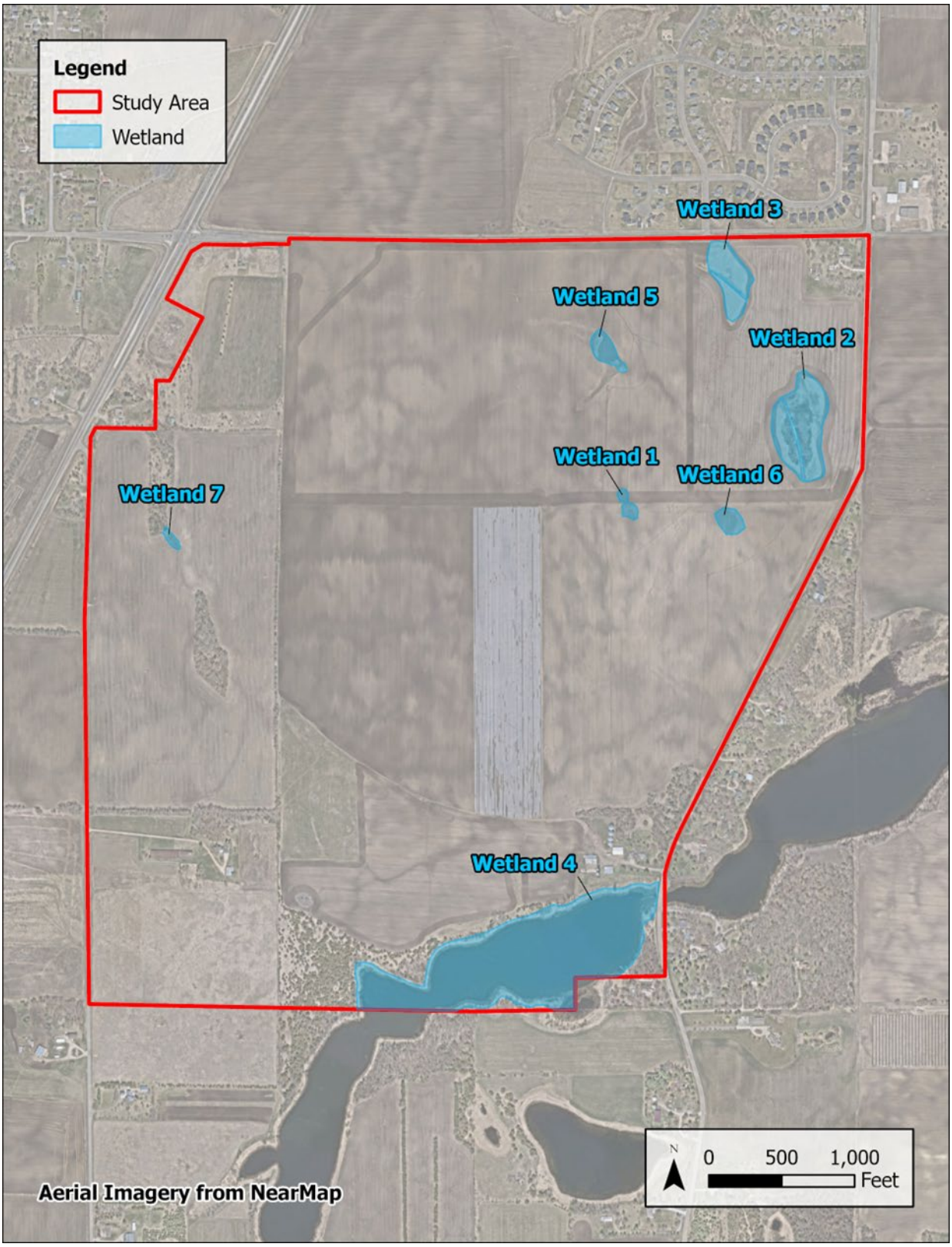


Table 9: Wetland Delineation Summary

Resource ID	Wetland Plant Community	Size (acres)	Anticipated Wetland Quality[27]	Notes
Wetland 1	Seasonally Flooded Basin	0.33	Low	Wetland located in depression in the northcentral section of the study area. The wetland collects runoff from the surrounding landscape. The wetland boundary was based on the change in topography and offsite aerial analysis.
Wetland 2	Fresh Wet Meadow	4.44	Medium	Wetland located in depression in the northeastern section of the study area. The wetland collects runoff from the surrounding landscape. The wetland boundary was based on the change in topography, offsite aerial analysis, and hydrophytic vegetation dominance.
Wetland 3	Seasonally Flooded Basin	2.19	Low	Wetland located in depression in the northeastern section of the study area. The wetland collects runoff from the surrounding landscape. The wetland boundary was based on the change in topography, offsite aerial analysis, and hydrophytic vegetation dominance.
Wetland 4	Shallow, Open Water; Floodplain Forest; Fresh Wet Meadow	22.26	Medium	Wetland complex located in a depression between agricultural fields along the southern border of the study area. The complex consists of a shallow, open water plant community surrounded by a fresh wet meadow plant community and a forested floodplain plant community. The wetland collects runoff from the surrounding landscape and a series of onsite/offsite mapped National Wetland Inventory, National Hydrology Database, and Public Water Inventory features. The wetland boundary was based on the change in topography and hydrophytic vegetation dominance.
Wetland 5	Seasonally Flooded Basin	0.75	Low	Wetland located in depression in the northeastern section of the study area. The wetland collects runoff from the surrounding landscape. The wetland

[27] Wetland quality is discussed further in Table 18.

Resource ID	Wetland Plant Community	Size (acres)	Anticipated Wetland Quality[27]	Notes
				boundary was based on the change in topography, presence of hydric soils, and hydrophytic vegetation dominance.
Wetland 6	Seasonally Flooded Basin	0.60	Low	Wetland located in depression in the northeastern section of the study area. The wetland collects runoff from the surrounding landscape. The wetland boundary was based on the change in topography and offsite aerial analysis.
Wetland 7	Seasonally Flooded Basin	0.18	Low	The wetland is located in a farmed depression in the center of the study area. The wetland collects runoff from the surrounding landscape and drains south. The wetland boundary was based on the change in topography, historic aerials, and LiDAR review.

ii. Groundwater – aquifers, springs, and seeps. Include 1) depth to groundwater; 2) if project is within a MDH well protection area; and 3) identification of any onsite and/or nearby wells, including unique numbers and well logs, if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

According to the Geologic Atlas of Wright County groundwater is present at approximately 20 feet below grade, excluding the wetland portion.[28]

Based on Minnesota Department of Health (MDH) and Minnesota Department of Natural Resources (MnDNR) well records, five wells may be located within the study area. Descriptions of each well are identified in Table 10 and wells with verified mapped locations are shown in Figure 13. Under either scenario, the wells located within the study area will be properly sealed by a licensed well contractor prior to redevelopment within the study area as per MDH well sealing requirements.

If unidentified wells are found, the MDH must be contacted to determine the course of action, which may include sealing, relocating, or preserving by a licensed well contractor according to Minnesota Rules Chapter 4725.

The northwestern corner of AUAR study area is located within a wellhead protection area (Monticello) and a Drinking Water Supply Management Area (DWSMA) (Monticello).[29] The DWSMA is listed as low vulnerability. According to the Monticello

[28] Minnesota Department of Natural Resources. 2018. *Geological Atlas of Wright County, Minnesota Part B, Hydrogeology*. Available at: https://files.dnr.state.mn.us/waters/groundwater_section/mapping/cga/c30_wright/wright_report.pdf
[29] Minnesota Department of Health. *Source Water Protection Web Map Viewer*. Available at: https://mdh.maps.arcgis.com/apps/View/index.html?appid=8b0db73d3c95452fb45231900e977be4

Wellhead Protection Plan, the DWSMA is an area studied for potential contaminant sources and how to reduce pathways for those contaminants that could reach the source water aquifer.[30] Under Scenario 1, the DWSMA would need to be re-evaluated to account for the anticipated increase in water appropriations from the aquifer. Surface water that is captured and infiltrated will be designed in accordance with the MPCA stormwater manual and DWSMA standards, to reduce the risk of impacting the groundwater from surface water runoff. The surface water runoff from future development will be captured and treated in lined stormwater ponds prior to leaving the site to meet requirements from the City of Monticello, MPCA, MDH, and the NPDES Construction Stormwater Permit.

Scenario 1

Scenario 1 would include the use of non-contact cooling water. This water is used to absorb and remove heat from equipment or processes without directly contacting the materials being cooled. It typically circulates through heat exchangers or condensers to dissipate heat from various mechanical or industrial systems before being discharged or reused. This water could be circulated through the system two or more times to reduce water usage. The non-contact cooling wastewater generated under Scenario 1 is proposed to be discharged into the groundwater via a Rapid Infiltration Basin (RIB) system. See the wastewater section below for a detailed description of RIB function.

The City completed a draft study in 2025 to evaluate the current aquifer capacity in the area. The study evaluated two scenarios, both assuming four new wells with assumptions for pumping at different levels. The study found that there appears to be limited draw down impact to adjacent wells within city limits and wells directly across the Mississippi River. The four sites for the potential location for the well identified through this study include the following:

- Site No. 1: 4th St. and Palm St.
- Site No. 2: Southeast parcel on the corner of Dundas Rd. and Dundas Cir.
- Site No. 3: 4th St. and Wright St.
- Site No. 4: Adjacent to the Monticello Fire Station

Following construction of the new well, the City would implement monitoring wells and the water data from these monitoring wells would be sent to the MnDNR to evaluate if there is additional mitigation needed for adjacent private wells. If there is an impact to adjacent wells, the DNR and City would lower the pumping levels allowed.

The wellhead protection boundary area as part of the DWSMA will need to be increased with any new wells.

[30] City of Monticello. *Wellhead Protection Program.* Available at: https://www.monticellomn.gov/232/Wellhead-Protection-Program.

Scenario 2

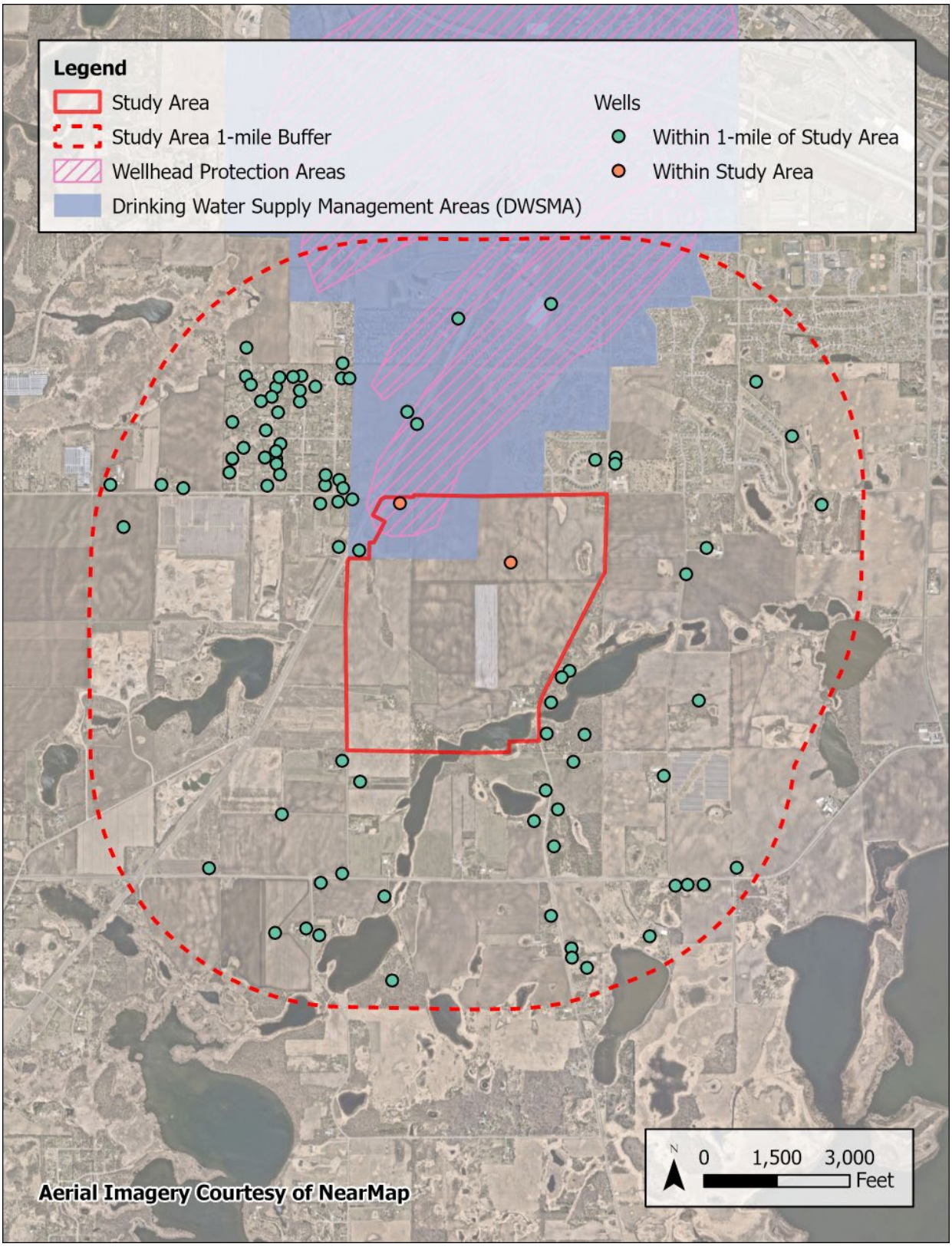
Scenario 2 would not require a RIB system for cooling wastewater discharge, and all wastewater would be discharged to the Municipal collection system.

Table 10: Wells within AUAR Study Area

Well ID Number	Index Status	Well Use	Well Depth (feet)	MN DNR Permit
182151	Active	Irrigation	122	2012-0909
472289	Active	Domestic	62	-
785271	Unverified	Irrigation	120	-
840393	Unverified	Irrigation	96	2019-1384
183902	Unverified	Domestic	79	-

Source: Minnesota Department of Health. *Minnesota Well Index*. Available at: https://mnwellindex.web.health.state.mn.us/; Minnesota Department of Natural Resources. *Well Records.*

Figure 13: Groundwater Resources



b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects below.

i. Wastewater – For each of the following, describe the sources, quantities, and composition of all sanitary, municipal/domestic, and industrial wastewaters projected or treated at the site.

AUAR Guidance: Observe the following points of guidance in an AUAR:

- *Only domestic wastewater should be considered in an AUAR—industrial wastewater would be coming from industrial uses that are excluded from review through an AUAR process*
- *Wastewater flows should be estimated by land use subareas of the AUAR area; the basis of flow estimates should be explained*
- *The major sewer system features should be shown on a map and the expected flows should be identified*
- *If not explained under Item 6, the expected staging of the sewer system construction should be described*
- *The relationship of the sewer system extension to the RGU's comprehensive sewer plan and (for metro area AUARs) to Metropolitan Council regional systems plans, including MUSA expansions, should be discussed. For non-metro area AUARs, the AUAR must discuss the capacity of the RGU's wastewater treatment system compared to the flows from the AUAR area; any necessary improvements should be described.*
- *If on-site systems will serve part of the AUAR, the guidance in the February 2000 edition of the EAW Guidelines on page 16 regarding item 18b under Residential development should be followed.*

1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.

The City of Monticello has its own wastewater treatment plant (WWTP) that is permitted for 2.36 million gallons per day (MGD) and has an average daily flow of 1.15 MGD. The WWTP ultimately discharges into the Mississippi River. For both Scenarios 1 and 2, the City of Monticello's Sanitary Sewer Comprehensive plan indicates a proposed trunk sewer being extended to and through the site to serve this area of the city. A draft analysis of the sanitary sewer collection system for this development was completed in November 2024 by the city to determine the scope of the improvements to serve this area with sanitary sewer. Based on the results of the study, a 36-inch trunk sanitary sewer line will need to be constructed down

Fallon Avenue from Chelsea Road. A more detailed analysis of the scope and extent of the trunk sewer extension will be needed for a specific project. If the specific project that requires an expansion, modification or replacement of a municipal sewage collection system resulting in an increase in design average daily flow of any part of that system by 1,000,000 gallons per day or more if the discharge is to a wastewater treatment facility with a capacity less than 20,000,000 gallons per day, then an EAW would need to be completed per Minn. R. 4410.4300, subp. 18(A) with MPCA as the Responsible Governmental Unit (RGU).

Scenario 1

Under Scenario 1, a technology campus use would only send domestic strength waste to the WWTP. Typically, facilities of this size have discharges of 25,000 gallons per day (GPD) or 50,000 GPD depending on the number of people on site per day. The city has the available capacity to treat the domestic wastewater at their current treatment plant but will require the trunk sewer extension to be constructed to provide sewer service to the study area, see Table 11.

Scenario 1 is not anticipated to generate industrial wastewater. If these conditions change, the AUAR would need to be updated and additional review and permitting may be required. Industrial wastewater has several meanings. By definition industrial wastewater is water that is discharged from an industrial process, including water from manufacturing, equipment cleanup, air pollution control, and contaminated cooling or stormwater, essentially any water that comes into contact with raw materials, products, byproducts, or waste.

For the purposes of evaluating the maximum development capacity impact (worst case), Scenario 1 assumes a water-cooled system could be implemented. If a specific project advances that intends to use an air-cooled system or a combination or air and water-cooled, the peak demand evaluated in this AUAR already covers the upper limit for water use anticipated in terms of impacts and mitigation.

Non-contact cooling water use from a technology campus is anticipated to have a peak discharge of 1 to 1.5 MGD for the peak day, and may discharge as much as 100 million gallons per year. This discharge does not contain any Biochemical Oxygen Demand (BOD) or Total Suspended Solids (TSS) like domestic wastewater and is only discharged from approximately April through October on an intermittent basis. The discharge does not occur on an everyday basis and the amount of water discharged is dependent on the temperature of the facility and the ambient air temperature. This discharge is proposed to be infiltrated back into the soil through a Rapid Infiltration Basin (RIB) system within the site[31]. The proposed Rapid Infiltration Basin (RIB) system will be separate from any stormwater management systems or basins and is well-suited to the study area due to the generally sandy and permeable soils

[31] MPCA's guidance on RIBs: https://www.pca.state.mn.us/sites/default/files/wq-wwtp5-64.pdf

(per the Geotechnical Evaluation completed for the study area in May 2025). The RIB system is designed with Drinking Water Supply Management Area (DWSMA) considerations in mind and will comply with Minnesota Department of Health (MDH) and Minnesota Pollution Control Agency (MPCA) standards of care for DWSMA regions.

Non-contact cooling water, which circulates through equipment multiple times in technology parks, will ultimately be discharged to the RIB. This water contains no human or industrial waste and meets MDH drinking water standards, consisting only of water from groundwater wells. The discharge will be infiltrated back into the soil through the RIB system, allowing for gradual aquifer recharge over time.

As part of the RIB system permit application, a hydrogeological study will be conducted to determine groundwater flow direction, assess soil suitability, and identify any limitations for siting the RIB. This study will also address the rate of infiltration and required RIB sizing. A full water quality analysis of the effluent will be provided, and any pre-treatment requirements will be determined by the MPCA prior to discharge. The permitting process will include an EAW and a 30-day public and agency comment period, with an anticipated timeline of 12 to 18 months from permit submittal to approval.

The RIB system is anticipated to be 15 to 20 acres in total area and anticipated to be comprised of four cells with a bottom area of each cell being approximately 3.5 to 4.5 acres in size based on preliminary soil information. Actual size will depend on the developers' flow rates and results of more in-depth soil testing. The RIB system will consist of multiple cells, each accepting cooling water wastewater flow for two days and then resting for six days, with rotation to ensure proper infiltration and resting. The system acts as a large filter, trapping most impurities at the surface. Maintenance will involve periodic removal of the top few inches of mineral deposit-laden soil, which will be disposed of in a landfill. Monthly Discharge Monitoring Reports will be required according to the NPDES permit. The developer will be responsible for hiring a licensed professional to prepare these reports and send them to the MPCA.

If a future development requires discharge of 310,000 GPD or less of non-contact cooling water and domestic wastewater then that discharge could go to the city's municipal sanitary sewer collection system, as the additional discharge to the WWTP is within hydraulic capacity. However, with the additional non-contact cooling water that is anticipated with Scenario 1, it is expected to have a slight decrease in the organic loading that would require biological adjustments to operation of the WWTP. Discharge above that capacity will require additional study and evaluation for impact and system improvements.

Other alternative wastewater methods that could be investigated include:

- Re-use of non-contact cooling water for spray irrigation for crop fields
- Obtain a surface discharge permit for non-contact cooling water discharge

Under all scenarios, non-contact cooling water discharges to the municipal system are not expected to exceed 310,000 GPD. If a facility anticipates a discharge greater than this threshold, the developer must obtain an individual NPDES permit from the MPCA. Potential discharge methods subject to evaluation include rapid infiltration basins, spray irrigation, or surface discharge systems, all of which must be located on or near the facility property.

Each system requires a separate permit review by the MPCA, including full system design, comprehensive soils investigations, water quality modeling, and preparation of an EAW. The permitting process includes a 30-day public comment period prior to approval. Ongoing monitoring for permitted pollutants is required, with monthly discharge reporting to the MPCA.

Scenario 2

Office/warehouse industrial developments typically have a low water and wastewater demand on the distribution and collection system. Based on the anticipated uses and using the MCES SAC determination calculator, assuming 30% office and 70% warehouse for each building, Scenario 2 is estimated to produce approximately 310,000 GPD of wastewater. The wastewater would consist of typical domestic strength wastewater. The city appears to have the available capacity in their existing system for the proposed flows for Scenario 2 with the extension of the sanitary sewer trunk main, see Table 11. However, development of other light industrial uses allowed under the land use plan guidance will require evaluation for wastewater demand prior to development for necessary wastewater impacts and infrastructure requirements.

Scenario 2 is not anticipated to generate industrial wastewater. If these conditions change, the AUAR would need to be updated and additional review and permitting may be required.

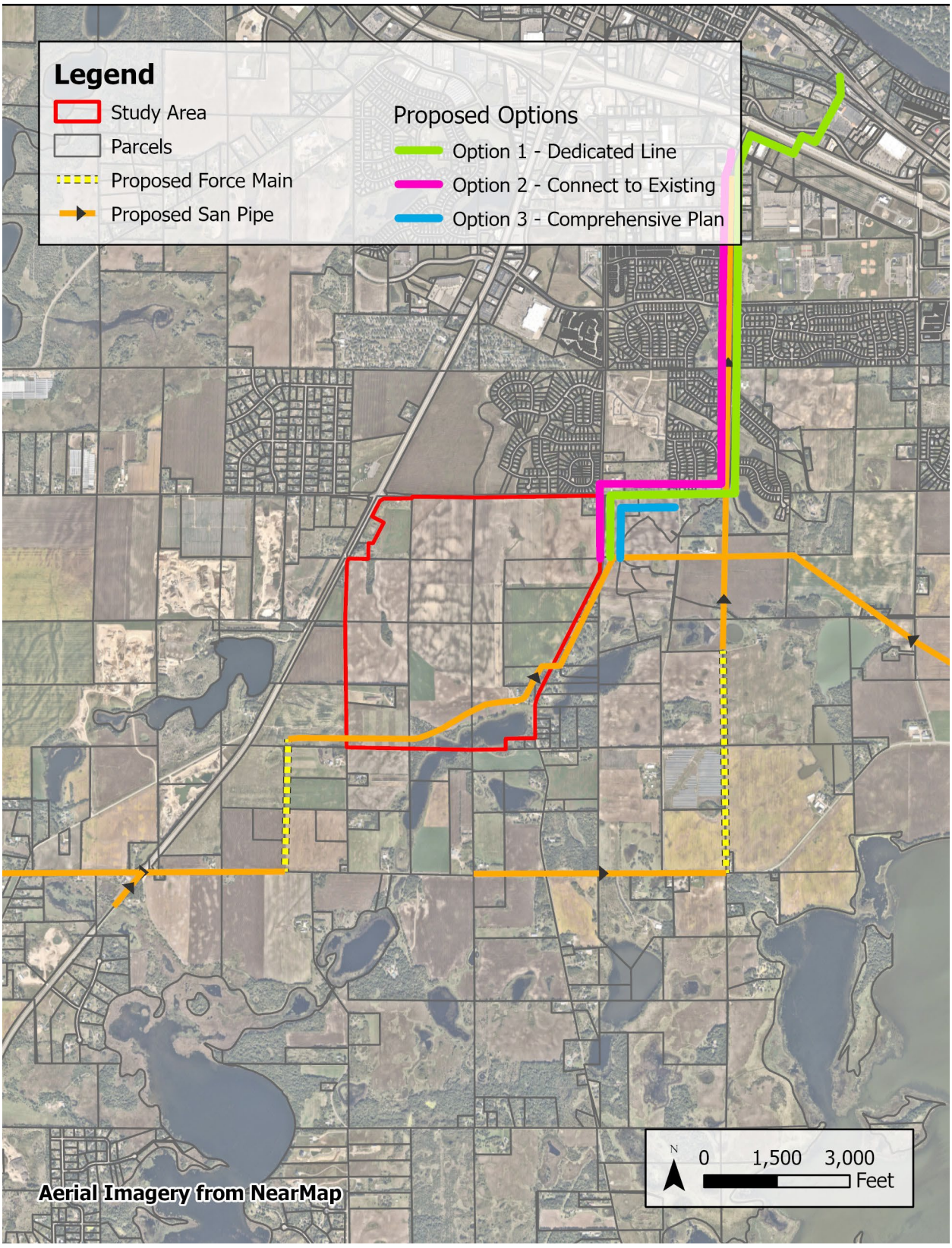
Scenario 1 and 2 Monitoring for Contaminants

Monitoring of the wastewater effluent will be conducted in accordance with NPDES permit issued by the MPCA. The discharge will be required to meet the limits of contamination set by the MPCA for the specific site during the permitting process.

Table 11. Wastewater Treatment Plant Capacity (Domestic)

	Scenario 1	Scenario 2
WWTP Permit Capacity (MGD)	2.36	
WWTP Average Flow (MGD)	1.15	
WWTP Average Available Capacity (MGD)	1.21	
Additional Proposed Flow to WWTP (MGD)	0.025-0.05	0.31

Figure 14: Proposed Sewer Service Options



2) **If the wastewater discharge is to a subsurface sewage treatment system (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.**

No subsurface sewage treatment systems (SSTS) are anticipated within the AUAR study area for the proposed development scenarios. The residences within the study area will remain until such time development starts. The SSTS systems will be pumped, collapsed, filled, and abandoned per the MPCA chapter 7080 code. A permit for the abandonment of the existing SSTS will be applied for from the county.

3) **If the wastewater discharge is to surface water, identify the wastewater treatment methods, discharge points, and proposed effluent limitations to mitigation impacts. Discuss any effects to surface or groundwater from wastewater discharges.**

There is no planned surface discharge of the non-contact cooling wastewater for either scenario. The cooling water from the facility is proposed to be discharged to a RIB system and infiltrated into the ground water. The effluent that will be discharged to the ground water will need to meet the water quality standards set by the MPCA for the discharge as described above.

Should an alternate method of surface discharge via a surface discharge permit be implemented for either scenario, the developer would need to obtain a NPDES permit from MPCA.

ii. **Stormwater – Describe changes in surface hydrology resulting from change of land cover. Describe the routes and receiving water bodies for runoff from the project site (major downstream water bodies as well as the immediate receiving waters). Discuss environmental effects from stormwater discharges on receiving waters post-construction, including how the project will affect runoff volume, discharge rate, and change in pollutants. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity, and amount with this discussion. For projects requiring NPDES/SDS Construction Stormwater permit coverage, state the total number of acres that will be disturbed by the project and describe the stormwater pollution prevention plan (SWPPP), including specific best management practices to address soil erosion and sedimentation during and after project construction. Discuss permanent stormwater management plans, including methods of achieving volume reduction to restore or maintain the natural hydrology of the site using green infrastructure practices or other stormwater management practices. Identify any receiving waters that have construction-related water impairments or are classified as special as defined in the Construction Stormwater permit. Describe additional requirements for special and/or impaired waters.**

AUAR Guidance: For an AUAR the following additional guidance should be followed in addition to that in EAW Guidelines:

- *It is expected that an AUAR will have a detailed analysis of stormwater issues*
- *A map of the proposed stormwater management system and of the water bodies that will receive stormwater should be provided*
- *The description of the stormwater systems would identify on-site and "regional" detention ponding and also indicate whether the various ponds will be new water bodies or converted existing ponds or wetlands. Where on-site ponds will be used but have not yet been designed, the discussion should indicate the design standards that will be followed.*
- *If present in or adjoining the AUAR area, the following types of water bodies must be given special analyses:*
    - *Lakes: Within the Twin Cities metro area, a nutrient budget analysis must be prepared for any "priority lake" identified by the Metropolitan Council. Outside of the metro area, lakes needing a nutrient budget analysis must be determined by consultation with the MPCA and DNR staffs.*
    - *Trout streams: If stormwater discharges will enter or affect a trout stream, an evaluation of the impacts on the chemical composition and temperature regime of the stream and the consequent impacts on the trout population (and other species of concern) must be included.*

Environmental Effects

Stormwater runoff can cause several environmental problems. When untreated, stormwater drains from manmade locations such as agricultural fields, impervious surfaces, and construction sites. It can carry sediments and/or pollutants that harm aquatic ecosystems and wildlife.

Analysis Objectives

This analysis aims to evaluate the potential impacts of the proposed development in the AUAR on receiving waters and provide guidance on necessary stormwater mitigation measures to protect downstream bodies. The focus is on recommending stormwater mitigation strategies to reduce runoff volumes and rates leaving the AUAR area to the MnDNR Public Water Wetland (ID#86039400) and to address the potential loss of landlocked storage within the study area. The standards and strategies guiding these mitigation measures are derived from the following sources:

- Minnesota Pollution Control Agency (MPCA), National Pollution Discharge Elimination System (NPDES) General Construction Permit;
- City of Monticello Engineering Design Standards for Stormwater Management

- City of Monticello Comprehensive Water Resources Management Plan
- Minnesota Stormwater Manual

Specific requirements that guided the analysis for the AUAR are described below:

1. Rate Control – The City of Monticello requires onsite detention to maintain existing flow rates for the 2-year (2.84 inches), 10-year (4.22 inches), and 100-year (6.87 inches) 24-hour rainfalls. In addition, the city requires that detention basins be designed with capacity for the critical 100-year event (2-hour, 6-hour, 12-hour, or 24-hour rainfall, or the 10-day, 9.94-inch snowmelt runoff event). If the basin is landlocked, the back-to-back 24-hour event and the 10-day 9.94-inch snowmelt runoff event is also used.
2. Volume Control – The City of Monticello's performance goal is to capture and retain on site 1.1 inches of runoff from the sum of the new and fully reconstructed impervious surfaces in post-construction conditions. The City's Comprehensive Water Resources Management Plan states that the city prefers the use of regional stormwater retention systems.
3. Water Quality – The City of Monticello requires pretreatment prior to discharge to infiltration facilities. And if the volume control standard has been met, then the water quality sizing criteria shall be considered satisfied.

   Meeting these AUAR standards should sufficiently protect the downstream system after development in either scenario.

   Existing Conditions

   Most of the study area is agricultural land with good soils. There is minimal impervious surface area within the study area, and no existing permanent stormwater management features. There are three landlocked areas located in the study area and four main drainage areas, See Figure 15 for names and drainage areas.

   Approximately 326 acres, (308 acres within study area, 18 acres offsite) flows south and west to landlocked basin LL-1 with an ultimate outfall to the southwest of approximately 964.2 feet above sea level. Approximately 94 acres of the site drains northeast to landlocked basin LL-2 with an ultimate outfall of 954.9 feet above sea level. Approximately 79 acres of the site drains east to landlocked basin LL-3 with an ultimate outfall of 961.4 feet above sea level. Approximately 69 acres of the site flows south unrestricted to the unnamed MnDNR Public Water Wetland in the southeast corner of the site (ID# 86039400). This feature appears to be hydraulically connected to Paradise Lake and Gilchrist Lake to the south.

   HydroCAD was used to model the landlocked basins and assess their storage capacity and potential discharge. The available storage was calculated using the 100-year, 10-day runoff (7.2 inches) per the City of Monticello Design Manual, dated December 2024. The HWL was calculated using the 10-day, 9.94-inch snowmelt runoff event per the City of

Monticello Design Manual. See table below for existing landlocked basin available storage and HWL.

Table 12: Existing Landlocked Basin Summary

Basin Name	Available Storage (acre-feet)	Existing HWL	Overflow Elevation	Discharge in Critical 100-yr Event?
LL-1	95.6	965.1	964.2	Yes
LL-2	54.5	954.5	954.9	No
LL-3	36.1	961.5	961.4	Yes

There is approximately 18 acres of offsite drainage area from the southwest that contributes to the existing landlocked basin LL-1. According to StreamStats, [32] approximately 4.35 square miles of offsite drainage originates at County Road 12 and continues northwest toward the study area (see Appendix B for the Streamstats report). However, public LIDAR data indicates that this drainage does not actually reach the study area boundary. Within the StreamStats-defined drainage area, there are several landlocked basins (ID#86042300, ID#86008000, ID#86007900, and ID#86007800) that retain runoff volume and prevent flow from moving further downstream. Additionally, the mapped flow path in StreamStats crosses Minnesota Highway 25, but the road's lowest elevation near the study area is 971 feet, while Basin #86007800's DNR-defined ordinary high water level (OHWL) is 950.9 feet. This elevation difference, along with the presence of landlocked basins, means that the estimated 4.35 square miles of offsite drainage shown in StreamStats does not actually flow through or enter the study area. A detailed survey of this area will be conducted to confirm the conveyance of offsite flow in this area.

During Construction

During construction, erosion and sediment control best management practices (BMPs) will be implemented to prevent impacts to aquatic ecosystems per the City of Monticello and MPCA MS4 and NPDES Standards. There are no special or impaired waters within 1-mile of the study area. The following design/construction standards are to be adhered to during construction:

- Plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices to minimize erosion and prevent damage to adjacent property. All areas not to be disturbed shall be marked (e.g., with flags, stakes, signs, silt fence etc.) on the project site before any work begins.

[32] Available at: https://streamstats.usgs.gov/ss/.

- The erosion and sediment control measures shall be maintained and repaired throughout construction and until such time as the property has been either sodded or a seeded vegetative cover has taken hold.
- Temporary rock entrances are required on every construction site and are required after backfilling of foundation.
- Exposed soil, including stockpiles shall be stabilized immediately where activity has permanently or temporarily ceased on any portion of this site and will not resume for a period of time exceeding 14 days.
- After connecting drainage ditches or swales that drain water from the site, the last 200 linear feet must be stabilized within 24 hours after connecting to surface water.
- If dewatering is to take place, adequate treatment must be provided so that nuisance conditions will not result from the discharge.
- Pipe outlets must have temporary or permanent energy dissipation before connecting to surface water.
- All areas disturbed during construction must be restored, and a minimum of six inches of topsoil must be installed prior to permanent restoration.
- Sediment control practices must be established on all down gradient perimeters before any upgradient land disturbing activities begin. These practices must remain in place until final stabilization has been achieved.
- Temporary sedimentation basins will be designed with outlet skimmers, energy dissipation, sediment storage, stabilized banks, and permanent vegetation to maximize pollutant removal and control.
- Ensure that clearing and grading activities are restricted within 50 feet of the existing wetland boundary that is to be protected, in order to maintain a buffer strip of natural vegetation. If maintaining the required buffer is not feasible, the reason must be documented in the Stormwater Pollution Prevention Plan (SWPPP) and redundant perimeter sediment control best management practices (BMPs) must be installed. All buffers must be maintained in compliance with the City's Wetland Overlay District.
- Compliance with the NPDES General Construction Stormwater Permit requirements.

Post Construction

Overall impervious surface area is proposed to increase to 170 acres in Scenario 1 and 233 acres in Scenario 2, increasing the runoff coefficient from existing conditions. To mitigate this, on-site stormwater basins are proposed and will be sized to accommodate runoff from these impervious areas and the outlet control structures will be designed to discharge at a rate less than that in the existing condition for the 2-year, 10-year, and 100-year, 24-hour storm events and the 10-day, 9.94-inch runoff event for landlocked basins. These basins will be separate from the proposed RIB systems to mitigate non-contact cooling water discharge.

The proposed conditions analysis assumes the impervious areas in scenarios 1 and 2 are distributed evenly across the site. Additionally, as the drainage area boundaries are schematic, it is assumed that in either scenario existing drainage patterns are able to be maintained with the proposed locations of the stormwater management areas. There are three stormwater management areas proposed in this analysis that align with where the existing landlocked basins are located. See Figure 16 and Figure 17 for proposed stormwater management drainage areas and basins.

The PR-DA-1 drainage area encompasses approximately 325 acres, in the western portion of the study area with all runoff directed to Basin P1 in the southwest. Basin P1 is sized to detain the full runoff volume generated by a 100-year, 24-hour storm event and retain 1.1" times the new impervious area. For storm events exceeding 24-hours, controlled discharge from Basin P1 may occur to Minnesota Public Water Wetland ID #86039400. Furthermore, discharge rates from Basin P1 will be restricted to match existing condition rates from LL-1 to prevent adverse impacts downstream.

The PR-DA-2 drainage area encompasses approximately 107 acres in the northeast portion of the study area, with all runoff directed to Basin P2. Basin P1 is sized to detain the full runoff volume generated by a 100-year, 24-hour storm event and retain 1.1" times the new impervious area. The existing landlocked basin does not discharge in the 10-day, 9.94-inch runoff event. Therefore, PR-DA-2 will be restricted to this threshold. Basin 2 may discharge to the preserved landlocked area as long as this landlocked area maintains no discharge to the north.

The PR-DA-3 drainage area encompasses approximately 94 acres, in the eastern portion of the study area with all runoff directed to Basin P3 in the southwest. Basin P1 is sized to detain the full runoff volume generated by a 100-year, 24-hour storm event and retain 1.1" times the new impervious area. For storm events exceeding 24-hours, controlled discharge from Basin P3 may occur to Minnesota Public Water Wetland ID#86039400. Furthermore, discharge rates from Basin P3 will be restricted to match existing condition rates from LL-3 to prevent adverse impacts downstream.

The PR-DA-4 drainage area encompasses approximately 42 acres in the southeast portion of the study area and will flow directly to Minnesota Public Water Wetland ID#86039400. Discharge rates from PR-DA-4 will be restricted to match existing condition rates entering Minnesota Public Water Wetland ID#86039400.

According to the Comprehensive Water Resources Management Plan, the city prefers to provide rate control with a regional stormwater retention system.[33] If a regional system is not viable, onsite basins will be required to store the full runoff volume in the event of a 100-year, 24-hour storm.[34] For the purposes of this analysis, the proposed basins are sized to manage the runoff from a fully developed drainage area, including any offsite

[33] Available at: https://www.monticellomn.gov/203/Resources.
[34] See Section 3.1 Policy 4 of the City of Monticello Comprehensive Water Resource Management Plan. Available at: https://www.monticellomn.gov/203/Resources.

drainage area (approximately 18 acres from the southwest). Infiltration basins with pretreatment Nationwide Urban Runoff Program (NURP) ponds are assumed to be viable based on the high-quality soils. Infiltration basins will follow MPCA guidelines and the requirements of the NPDES Permit. Drawdown times and ponding depths are the driving metric for basin size and footprint. NURP ponds with permanent pools should be evaluated for algae growth. Natural buffers around the ponds should be prioritized to reduce nutrient loading and trash entering the pond from the direct drainage areas, aeration devices can also be used to increase pond circulation and limit algae growth.

Infiltration basin sizing assumes a maximum ponding depth of 4 feet with an infiltration rate of 1.0 inches per hour, with a mix of sand and gravel soils present. Future Geotech reports will help further define infiltration rates used in the basins. Pretreatment basins are sized to provide a permanent pool of the 2.5" event based on NURP standards with an average ponding depth of six feet. The detention area needed is based on the difference in runoff volume from existing conditions to proposed conditions for the Back-to-Back 100-year storm for a given basin on the site. See Table 13 and Table 14 below for a summary of the proposed runoff volumes and stormwater basin sizing.

Table 13: Proposed Conditions Runoff Volume Summary

Scenario	Basin	1.1" * Impervious Volume Control Requirement (ac-ft)	2.5" Runoff Volume (ac-ft)	100-yr Runoff Volume (ac-ft)	Δ Volume for Back-to-Back 100-Year Storm (ac-ft)
Scenario 1	P-1	8.9	7.3	78.6	17.1
	P-2	2.9	2.4	25.9	16.4
	P-3	1.2	2.1	22.7	15.2
Scenario 2	P-1	12.2	12.3	95.0	42.6
	P-2	4.0	3.8	31.2	21.6
	P-3	1.6	3.3	26.8	21.4

Table 14: Proposed Stormwater Basin Sizing Summary

Scenario	Basin	Pretreatment Area (ac)	Infiltration Area (ac)	Detention Area (ac)	Total Stormwater Area (ac)
Scenario 1	P-1	1.2	19.7	2.9	23.7
	P-2	0.4	6.5	2.4	9.3
	P-3	0.4	5.7	2.5	8.6

Scenario	Basin	Pretreatment Area (ac)	Infiltration Area (ac)	Detention Area (ac)	Total Stormwater Area (ac)
Scenario 2	P-1	2.1	23.8	7.1	32.9
	P-2	0.6	7.8	3.6	12.0
	P-3	0.6	6.7	3.6	12.0

Potential locations for these basins are based on buildable area, minimizing wetland impacts and maintaining existing drainage patterns, see Figure 15, Figure 16, and Figure 17. These figures are schematic in nature, a detailed stormwater management plan would be provided in later design stages with the potential for more stormwater BMPs. Additionally, freeboard will be 2-feet above the High-Water Level determined by modeling the 100-year critical event. The emergency overflows shall be 1.5-feet below the lowest ground elevation adjacent to a structure.

Outlets to landlocked areas may be constructed if decreases in storage or increased design elevations cause negative upstream or downstream impacts to infrastructure or property. If no outlet is proposed for the existing or proposed landlocked basins, freeboard will be determined by the greater of the following: 1) three feet above the HWL determined by modeling back-to-back 100- year, 24-hour events. 2) Three feet above the highest known water level. 3) Five feet above the HWL determined by modeling a single 100-year, 24-hour event. In existing conditions, the greatest freeboard comes from three feet above the HWL of the Back-to-back 100-year, 24-hour event. Future stormwater management plan(s) for the study area will define the freeboard requirements on a site-by-site, basin-by-basin basis.

Future stormwater BMPs would manage stormwater runoff and limit the volume of discharge to existing landlocked areas. A climate trends analysis including the potential for increased rainfall will help define any additional volume or rate control needs during site design. The city code does not currently specify a requirement to evaluate increased precipitation depths due to climate change. The precipitation depth for the 100-year, 24-hour storm is anticipated to increase by 20% by the end of the century based on the paper, Equipping Municipalities with Climate Change Data to Inform Stormwater Management.[35] The runoff volume and rates would increase proportionally to the precipitation depth assuming the same land use and storm duration. During site design, stormwater BMPs may consider a conservative design to account for this increase in runoff volume. Stormwater conveyance systems may also consider a conservative design to account for the increase in peak flow.

[35] Equipping Municipalities with Climate Change Data to Inform Stormwater Management. Available at: https://conservancy.umn.edu/server/api/core/bitstreams/e29c1999-088a-4958-b68f-c201153f4884/content.

Under the proposed development, stormwater from the impervious areas of the site will be conveyed to stormwater management BMPs using storm sewer and overland flow. The conveyance system will be designed to the City of Monticello Engineering Design Standards. The onsite BMPs will be designed to the published MPCA guidelines as well as City of Monticello requirements. Pretreatment of stormwater is required prior to discharge to an infiltration basin or filtration basin. It is anticipated that all onsite BMPs would be constructed prior to any construction of impervious surface.

The soils across the AUAR study area primarily consist of hydraulic group A/B and are potentially suitable for infiltration. Additional studies and percolation testing should be considered to better understand site specific infiltration feasibility. As an alternative to infiltration, biofiltration or wet stormwater ponds could be pursued as the stormwater management approach for the site. The required treatment volume is determined by the City of Monticello, MS4 General Permit and NPDES Stormwater Permit as a function of new and reconstructed impervious area and will be required to meet the permanent stormwater management requirements of the MS4 and NPDES permit. For both scenarios, it will be required to retain 1.1 inches of runoff from new and reconstructed impervious surfaces. If volume retention is deemed infeasible, biofiltration or wet sedimentation may be used to treat stormwater runoff and must comply with the City's MIDS Flexible Treatment Options. Finally, existing off-site flows directed to the project will need to be managed onsite using a regional system or maintain existing drainage patterns via bypass flow. Conveyance strategies for offsite flow must be sized assuming fully developed conditions.

Additional detailed stormwater analysis will be provided at later stages of the design phase. This will include a stormwater management plan with existing and proposed detailed drainage figures, narrative describing onsite stormwater management and offsite conveyance, as well as applicable hydrologic and hydraulic modeling. Detailed basin information (normal water level, water quality volume, high water level) will also be provided in the stormwater management plan. The following stormwater management and erosion control requirements will be adhered to:

- City of Monticello Engineering Design Standards for Stormwater Management.
- National Pollution Discharge Elimination System permit requirements will be determined for each new development within the AUAR study area.

Additionally, to mitigate additional winter salt use associated with the planned increase impervious surfaces, the project proposer will implement a chloride management plan with every project that requires an NPDES permit.

Figure 15. Existing Drainage Conditions

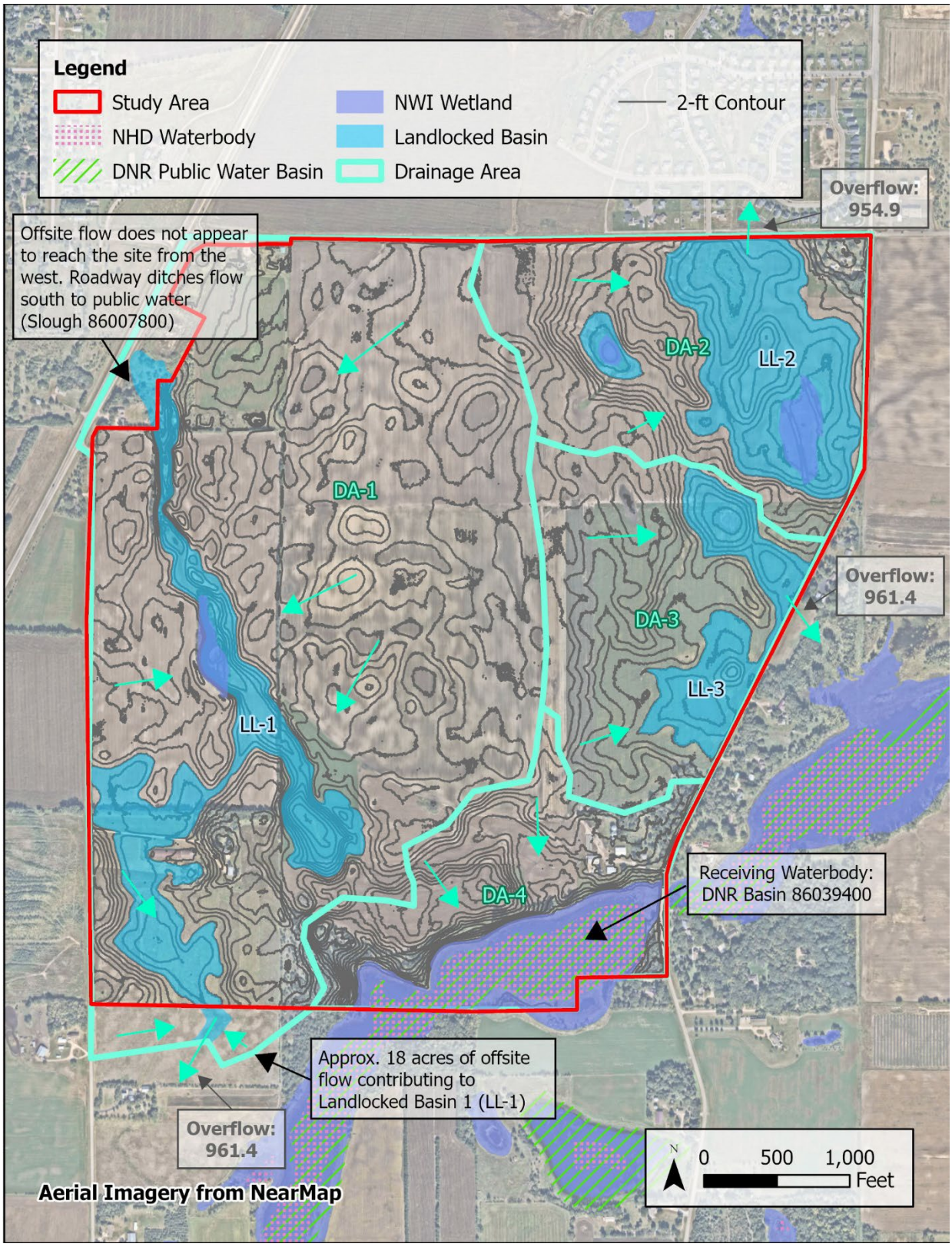


Figure 16. Proposed Stormwater Basins for Scenario 1

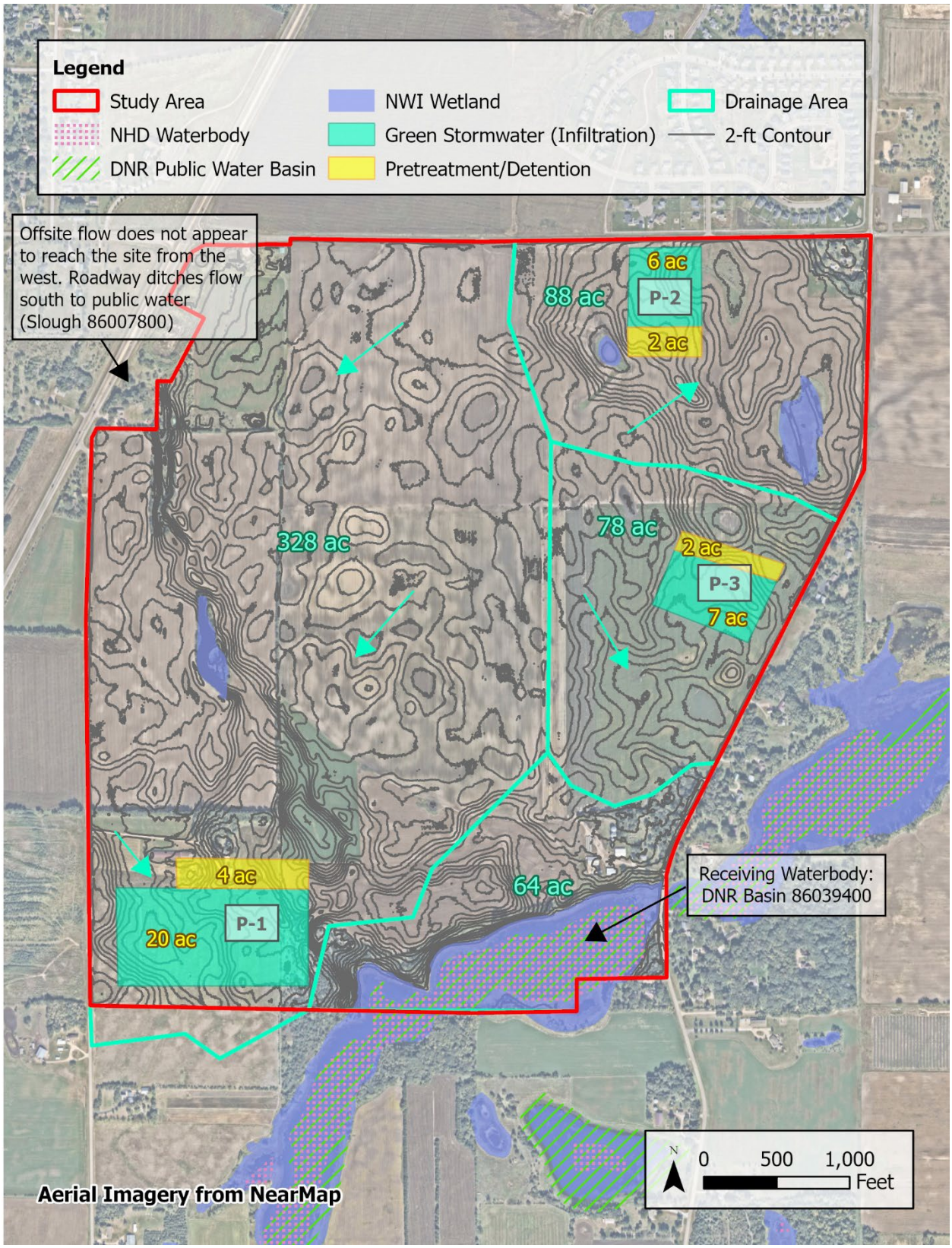
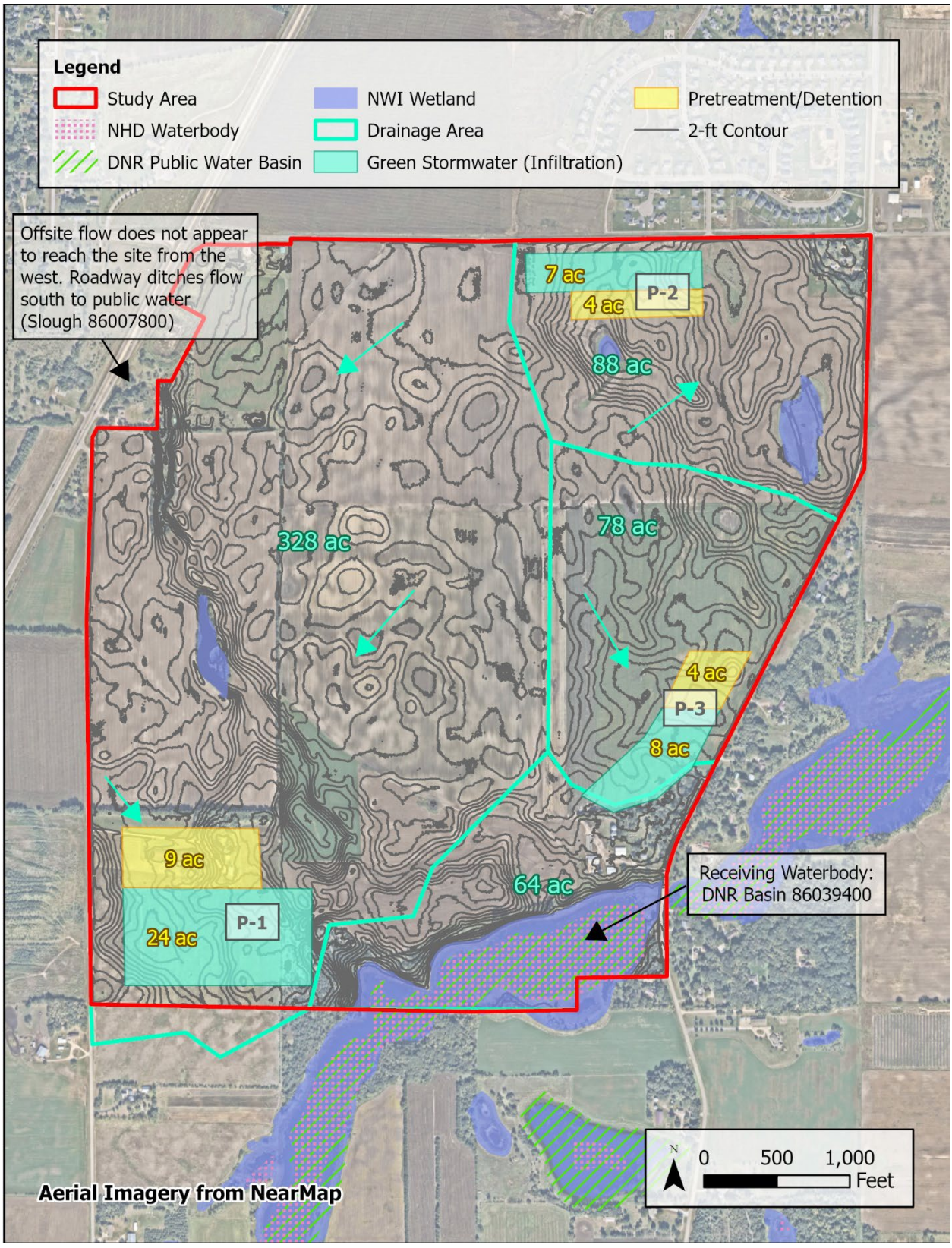


Figure 17. Proposed Stormwater Basins for Scenario 2



iii. **Water Appropriation – Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use, and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Discuss how the proposed water use is resilient in the event of changes in total precipitation, large precipitation events, drought, increased temperatures, variable surface water flows and elevations, and longer growing seasons. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation. Describe contingency plans should the appropriation volume increase beyond infrastructure capacity or water supply for the project diminish in quantity or quality, such as reuse of water, connections with another water source, or emergency connections.**

AUAR Guidance: If the area requires new water supply wells, specific information about that appropriation and its potential impacts on groundwater levels should be given; if groundwater levels would be affected, any impacts resulting on other resources should be addressed.

The water supply for the study area is anticipated to be obtained from the City of Monticello water supply system. Currently, the city has a MnDNR water appropriations permit to extract up to 800 million gallons per year from the Quaternary Buried Artesian aquifer from four wells. From 2019 to 2023 the city pumped a total of 511 to 651 million gallons per year of water from the aquifer. The City of Monticello has an average daily water demand of approximately 2.2 million gallons per day and a maximum day demand of 4.4 million gallons per day. The city is currently in the early stages of designing a water treatment plant that will remove the iron and manganese from the water supply (shown on Figure 18). The city has completed a preliminary study of their water supply system and has determined that watermain extensions and potentially a water storage tank will need to be constructed to service the study area. Depending on the specific water demand, additional pumping capacity may need to be added to the water system. Minimum watermain improvements for both scenarios include a 24-inch water main extension along Fallon Avenue from Chelsea Road to 85th Street NE and a 16-inch watermain extension along Edmondson Road from School Boulevard to the site to complete a looped system (see Figure 18).

Currently, the study area has two irrigation wells that have a combined water appropriation permits from the MnDNR totaling 76.3 million gallons per year (MGY). In 2023 there were 88.4 million gallons withdrawn through the two irrigation wells and a low of 43.1 million gallons withdrawn in 2019. In both scenarios these two wells will be

abandoned and removed from service. This will lessen the demand on the aquifer by the 76 MGY that is currently being withdrawn per year.

The city has completed a preliminary aquifer analysis. Under either scenario, the DNR may choose to perform further analysis before providing the required permits or approvals for any new city wells to evaluate potential impacts on adjacent wells or Pelican Lake.

Scenario 1

For the purposes of evaluating the maximum development capacity impact (worst case), Scenario 1 assumes a water-cooled system could be implemented. If a specific project advances that intends to use an air-cooled system or a combination or air and water-cooled, the peak demand evaluated in this AUAR already covers the upper limit for water use anticipated in terms of impacts and mitigation.

For Scenario 1, a technology campus is anticipated to have a maximum peak day water demand of up to 3-3.5 million gallons per day (MGD) for non-contact cooling water use during the months of April through October at full build out. This would be an average daily demand of 750,000-875,000 GPD. This water demand is also intermittent and dependent on the ambient temperature and will fluctuate greatly during these months. It is anticipated that this system will only run 5-15% of the entire year. The estimated yearly water demand could be as high as 250 – 300 million gallons per year, including the domestic demand, which could range between 25,000 to 50,000 GPD depending on the total number of employees at the facility. Onsite storage at the facility may be implemented to shave the peak day demand to levels in the average daily demand category.

Under Scenario 1, the city would need to increase their water appropriation from the MnDNR to accommodate the full buildout of the project. The water demands will be phased as the project is intended to be built over the next 10+ years to get to the full build out (summarized in Table 15). The phasing will depend on the availability of water for the facility and the specific developer's development plans.

Table 15: Scenario 1 Water Demand Phasing

Year	Demand
2025	0 million gallons per year
Ramp up	Developer dependent
Full build out (approximately 2035)	Up to 250-300 million gallons per year

Currently, the City of Monticello has approximately 149 MGY of available water appropriations available. The existing irrigation wells within the study have an appropriation of approximately 76 MGY. The future development is anticipated to

provide up to 75 MGY of recharge water back to the aquifer through the on-site RIB system. The new net demand from the facility would be 99 MGY on the aquifer once the demand from the current irrigation wells are removed and the 75 MGY is infiltrated to the aquifer (see Table 17 for a breakdown). The infiltration process through the RIB will not immediately recharge the aquifer but will occur over the next 10-20 years.

If using groundwater for cooling, water reuse systems, such as cycling water, will be implemented to reduce water usage. This would entail having the cooling water cycle two or more times for reuse.

For Scenario 1, the firm pumping capacity for the city will need to be increased and a 2.5-million-gallon water storage tank would likely need to be constructed near the site in addition to the watermain extensions as shown on Figure 18. Under this scenario, the water treatment plant capacity would need to be increased to accommodate up to 3-3.5 million gallons per day for peak demand. Scenario 1 will also require an increase in capacity to the water treatment plant and additional elevated storage, raw watermain piping and well modifications to meet capacity.

Scenario 2

Scenario 2 is assumed to be an office/warehouse type of industrial development. These buildings typically contain approximately 30% office space, while 70% of the building would be used as warehouse space. For industrial type buildings of this nature, water demands are typically based on the estimated sewer demands for the project. The estimated water demands are based on a flow rate of 274 gallons per day for every 2,400 square feet of office space and 7,000 square feet of warehouse space. For 5 million square feet of building, an estimated water demand would be 310,000 GPD. The watermain extensions as previously outlined would need to be completed, but the additional storage and increased pumping capacity would need further evaluation. Additional water appropriations would be needed from the MnDNR.

If future development of Scenario 2 exceeds these maximum water demand assumptions, then new water demands will need to be provided to the city and re-evaluated as part of an AUAR update.

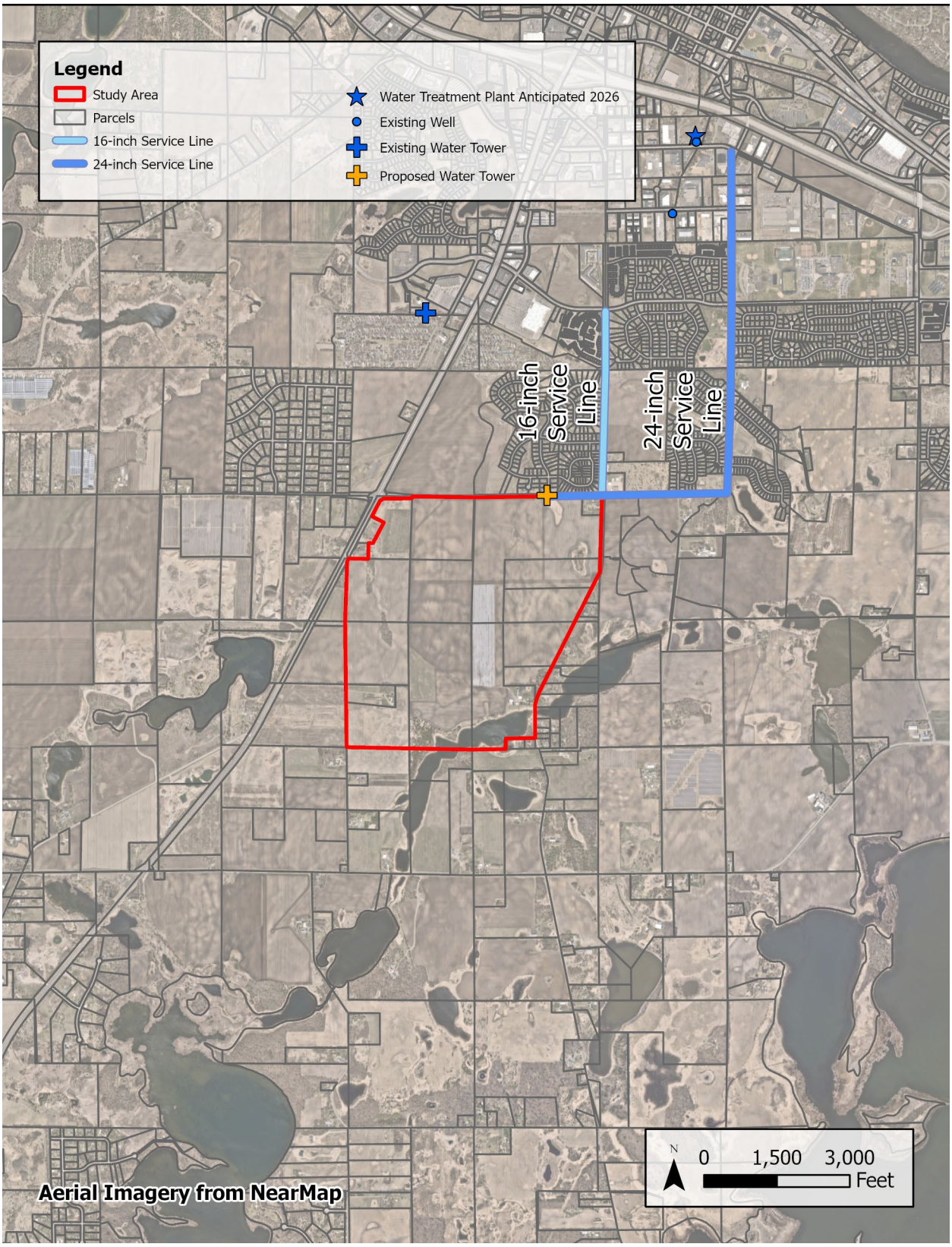
Table 16: Scenario 2 Water Demand Phasing

Year	Demand
2025	0 million gallons per year
Ramp up	Developer dependent
Full build out (approximately 2035)	Up to 113,150,000 gallons per year

Table 17: Scenarios 1 and 2 Water Appropriations Summary

	Scenario 1	Scenario 2
City's Water Appropriation	149 MGY	
Current Property Owner Appropriation	76 MGY	
Demand from Proposed Development	250-300 MGY Net new demand is less 76 MGY of current property owner appropriation It is anticipated that 75 MG will be recharged to the aquifer over time	113.15 Net new demand is less the 76 MGY current property owner appropriation

Figure 18: Proposed Water Infrastructure



iv. Surface Waters

1) Wetlands – Describe any anticipated physical effects or alterations to wetland features, such as draining, filling, permanent inundation, dredging, and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed and identify those probable locations.

The development proposed in Scenarios 1 and 2 would avoid wetland impacts to the extent practicable. The wetland impacts proposed in Table 3 are based on anticipated maximum development capacity impact (worst case) and are dependent on final design for the chosen scenario. The project proposer will be required to comply with all federal, state, and local wetland requirements including avoiding and minimizing impacts to the extent practicable and mitigating any wetland impacts that are unavoidable. If natural flowpaths between wetlands cannot be maintained, piped connections may be installed to maintain hydraulic connectivity.

The City of Monticello requires the following wetland buffers based on anticipated wetland quality:

Table 18. Wetland Buffers[36]

Wetland Quality	Exceptional	High	Medium	Low
Wetland buffer width (minimum)	50 feet	40 feet	10 feet	10 feet
Wetland buffer width (maximum)	100 feet	60 feet	50 feet	50 feet
Wetland buffer average width	75 feet	50 feet	30 feet	25 feet
Structure setback (from buffer)	15 feet	15 feet	15 feet	15 feet
Total (average)	90 feet	65 feet	45 feet	40 feet

These wetland buffers will consist of natural vegetative ground cover and will be incorporated into site design. Wetland investigators anticipate Wetlands 1, 3, 5, 6, and 7 to be low quality and Wetlands 2 and 4 to be medium quality based on the City of Monticello definition, see Figure 12.[37] To ensure the correct buffer size is

[36] City of Monticello. *Code of Ordinances, Chapter 153.046 N.5. "Wetland buffer strips and setbacks".* Available at: https://www.monticellomn.gov/315/City-Ordinances.
[37] City of Monticello. *Code of Ordinances, Chapter 153.012 "Wetlands".* Available at: https://www.monticellomn.gov/315/City-Ordinances.

used, the developer will classify the wetlands using the Minnesota Routine Assessment Method (MnRAM) prior to construction.[38]

The MnDNR maps Wetland 4 as a Public Water Wetland. Impacts to this feature are not anticipated, but if future development requires impact, a Public Waters Work permit will be obtained prior to construction activities. Regulatory coordination with the Minnesota DNR Hydrologist will be conducted to implement appropriate avoidance and mitigation measures, if required. If the city annexes the study area, a reclassification of this basin will occur. The MnDNR anticipates its classification to be "Natural Environment". Upon receiving this classification, the basin would be subject to the Shoreland Overlay Ordinance established by the city.

2) **Other surface waters – Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal, and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.**

AUAR Guidance: Water surface use need only be addressed if the AUAR area would include or adjoin recreational water bodies.

No alterations to other surface waters are anticipated as part of the development scenario. The AUAR study area does not contain and is not adjacent to any recreational water bodies. No industrial development would occur within shoreland, in accordance with city zoning ordinances.

Pelican Lake is less than two miles downstream of the AUAR study area. The MPCA lists this waterbody as an impaired lake. Due to Pelican Lake's hydrologic separation from the AUAR study area, developers are not required to implement further construction-related practices mitigating discharge to this waterbody. However, the developer will design the site with runoff rates and volumes that provide no measurable effects to pollution levels in Pelican Lake. The developer will manage total suspended solids (TSS) and total phosphorus (TP) loading through volume reduction practices or through the City of Monticello's Flexible Treatment Option. With the proposed stormwater management within the study area, the city is not

[38] Available at: https://bwsr.state.mn.us/wetland-functional-assessment.

anticipating negative effects to Pelican Lake, Gilcrist Lake, or Paradise Lake due to the development of the AUAR study area.

13. CONTAMINATION/HAZARDOUS MATERIALS/WASTES

a. Pre-project Site Conditions – Describe existing contamination or potential environmental hazards on or in close proximity to the project site, such as soil or groundwater contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize, or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.

The Minnesota Pollution Control Agency's (MPCA) What's In My Neighborhood (WIMN) database was reviewed to determine if any known contaminated properties or potential environmental hazards are within the study area. During this review, Kimley-Horn identified one WIMN listing within the study area and ten within ¼-mile:

Table 19: MPCA "What's in My Neighborhood?" Sites

Site ID	Site Name	Location	Activity Status	Activities	Program
151878	School Blvd & 85th St Improvements	In Study Area	Inactive	Construction Stormwater	Stormwater
257130	Fritz Companies LLC	Within ¼-mile of Study Area	Active	Construction Stormwater, Wastewater, Industrial NPDES/SDS Permit	Multiple Programs
53396	Jacob DesMarais Farm	Within ¼-mile of Study Area	Active	Feedlots	Feedlots
263645	Haven Ridge West	Within ¼-mile of Study Area	Active	Construction Stormwater	Stormwater
16608	Monticello Township Hall	Within ¼-mile of Study Area	Inactive	Hazardous Waste	Hazardous Waste
96277	Featherstone	Within ¼-mile of Study Area	Active	Construction Stormwater	Stormwater
260340	Monticello Town Hall	Within ¼-mile of Study Area	Active	Construction Stormwater	Stormwater
246632	Edmonson Ridge	Within ¼-mile of Study Area	Inactive	Construction Stormwater	Stormwater

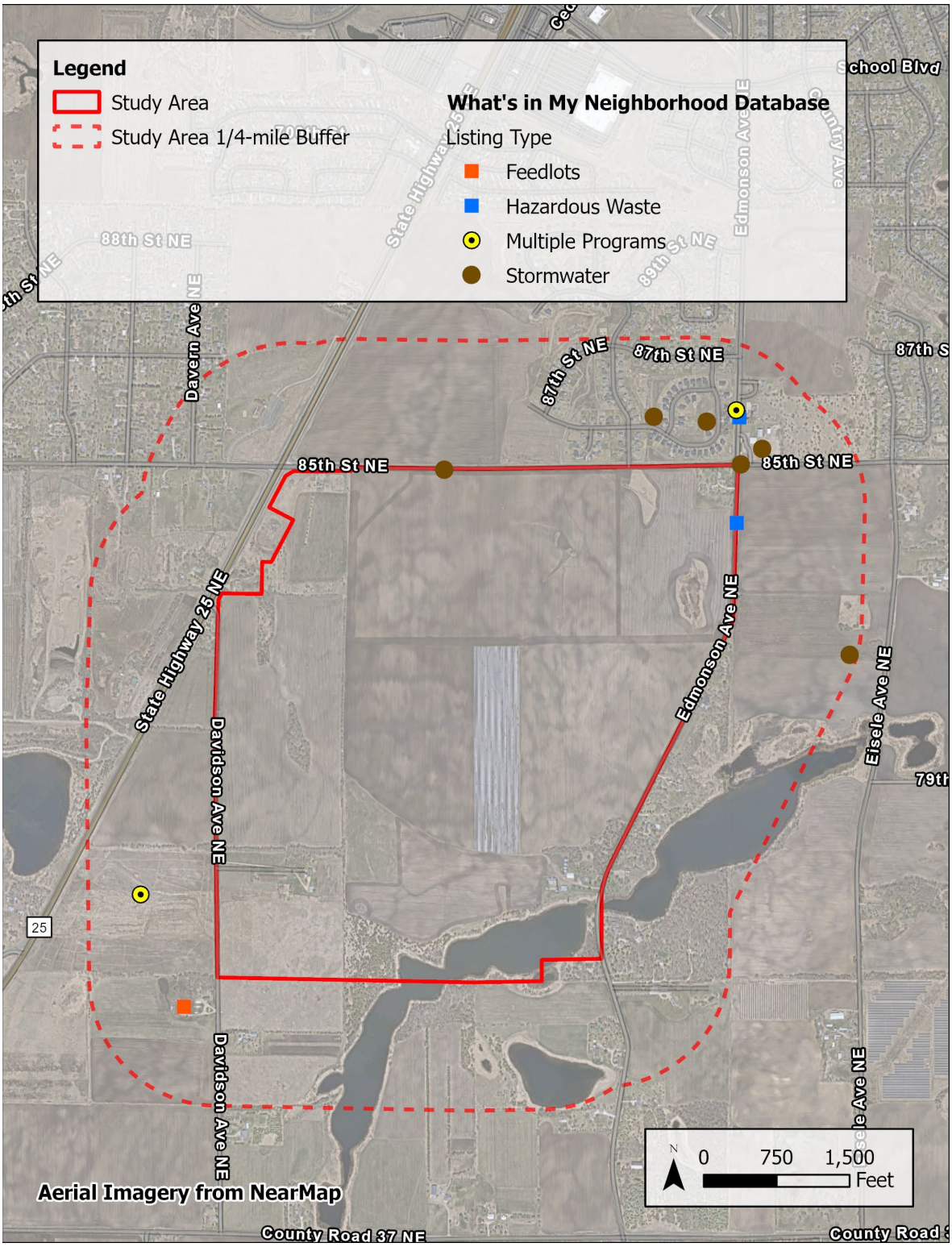
Site ID	Site Name	Location	Activity Status	Activities	Program
229214	Featherstone 4th Add.	Within ¼-mile of Study Area	Active	Construction Stormwater	Stormwater

The School Blvd & 85th St Improvements listing is an inactive stormwater permit that was terminated August 29, 2019. This listing is not anticipated to constitute an environmental hazard to the study area.

A review of MN Department of Agriculture's Chemical Incidents and Agricultural Spills database was completed for the study area and no reports are documented within the study area or within 1/4 mile of the study area.

A Phase I/II Environmental Site Assessment (ESA) should be completed prior to construction under either Scenario and coordinate with the MPCA on safe handling and disposal of any contamination and hazardous materials found on the site prior to and during construction. An asbestos and regulated materials (ARM) assessment would need to be completed prior to the demolition of any structures and a demolition notification will be made to the MPCA/Minnesota Department of Health (MDH) if asbestos containing material (ACM) is identified during the ARM assessment. If ACM and/or other regulated solid waste is identified during the ARM assessment requiring removal, generated solid waste will be disposed of at an MPCA permitted landfill.

Figure 19: What's in My Neighborhood Listings



b. Project Related Generation/Storage of Solid Wastes – Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss

potential environmental effects from solid waste handling, storage, and disposal. Identify measures to avoid, minimize, or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.

AUAR Guidance: Generally, only the estimated total quantity of municipal solid waste generated and information about any recycling or source separation programs of the RGU need to be included.

According to the Wright County Solid Waste Ordinance, the county will ensure compliance with applicable laws, rules, and ordinances related to the management of solid and hazardous waste as required by Minnesota Statutes, section 473.811.

Construction Generated Solid Waste

Construction under either development scenario would generate construction-related waste materials such as wood, packaging, excess materials, and other wastes, which would either be recycled or disposed of in the proper facilities in accordance with state regulations and guidelines.

Operation Generated Solid Waste

Recycling for industrial buildings in the AUAR study area will be conducted in accordance with the 2016 Recycling Law (Minnesota Statutes Chapter 115A, Section 115A.151 and Section 115A.552). Furthermore, Wright County Ordinance 156.026 requires all solid waste haulers to offer recycling services within the county.

The proposed development from both scenarios would generate new demands on solid waste management and sanitation services provided in the study area.

Scenario 1

During operation, it is estimated that the non-residential (office/light industrial) waste stream be approximately 1,630 tons per year for Scenario 1[39]. Types of data center waste typically include paper, plastic, electronic, cardboard, metal, and glass waste. Data centers generally generate more electronic waste (e-waste[40]) compared to a typical office building. This is primarily due to the nature of their operations with high turnover of equipment, the scale of operations, and redundancy and backup systems needed. Functional equipment that is still in good condition is often refurbished and sold on secondary markets. This extends the life of the equipment and reduces waste. Additionally, data centers often partner with certified e-waste recyclers that follow best practices for environmental responsibility and data security. If equipment and other waste is unable to be recycled or re-used, it would go to a regulated landfill.

Scenario 2

[39] Based on the Minnesota Environmental Quality Board's Climate Calculator Tool for a typical light industrial user.
[40] Examples of e-waste include servers, routers, modems, cooling systems, power supplies, computers, storage media and cabling.

During operation, it is estimated that the non-residential (office/light industrial) waste stream be approximately 16,297 tons per year for Scenario 2[41]. Types of light industrial (office and warehouse) waste typically include packaging (cardboard, plastic, wood), paper, organic, electronic, cardboard, metal, glass, textile, and pallet/crate waste. If equipment and other waste is unable to be recycled or re-used, it would go to a regulated landfill.

Scenario 1 and 2

The collection of MSW would be managed by a licensed waste hauler. All MPCA requirements and other regulations pertaining to the use, handling and disposal of solid waste would be adhered to. Recycling areas would be provided in compliance with the Minnesota State Building code. When and where feasible, items will be evaluated for recycling or reused prior to disposal at an offsite regulated landfill.

c. Project Related Use/Storage of Hazardous Materials – Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location, and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spills or releases of hazardous materials. Identify measures to avoid, minimize, or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.

AUAR Guidance: Not required for an AUAR. Potential locations of storage tanks associated with commercial uses in the AUAR should be identified (e.g., gasoline tanks at service stations).

Above ground fuel belly tanks for the back-up generators may be needed for the Scenario 1 for emergency use. Details pertaining to the number, size, and location are unknown at this time and will be determined as site planning advances. Each will be installed and maintained in compliance with applicable state regulations for above ground storage tanks, including:

- New tanks and piping would be designed to applicable industry standards and guidance.
- Tank upgrades and repairs would follow applicable industry standards.
- Tank owners would clearly label all tanks and piping.
- Underground storage tanks of any size will not be used as above ground storage tanks.

It is possible that there may be some above ground storage or back-up generators with Scenario 2, but the quantity would be significantly less than Scenario 1. The developer would prepare an Emergency Action Plan for the use of back-up generators under either scenario, which should include routine maintenance and testing, proper and safe setup during an outage, and fuel management. The plan must emphasize safety protocols, such as operating generators outdoors, away from openings, and never "back-feeding" power through a wall outlet. The developer would also be required to prepare a generators spill prevention plan. The purpose of this plan is to focus on preventing oil/hazardous substance releases and complying with state

[41] Based on the Minnesota Environmental Quality Board's Climate Calculator Tool for a typical light industrial user.

and federal rules for Spill Prevention, Control, and Countermeasures for larger oil storage (over 1,320 gallons aboveground), requiring regular inspections and drills. Regulatory guidance for this plan comes from the MPCA,

If either scenario results in a proposed project that anticipates the need for more than 1,000,000 gallons of fuel storage for backup generators and may exceed the threshold for air emissions, a separate EAW will be required for these components of the project per Minnesota Rules 4410.4300. The specific number of generators that would trigger this requirement for a project is variable based on the type of generator and size of the belly tank; however, typically this would be in the range of 100-200 generators.

d. Project Related Generation/Storage of Hazardous Wastes – Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize, or mitigate adverse effects from the generation/storage of hazardous wastes including source reduction and recycling.

AUAR Guidance: Not required for an AUAR.

Not applicable.

14. FISH, WILDLIFE, PLANT COMMUNITIES, AND SENSITIVE ECOLOGICAL RESOURCES (RARE FEATURES)

a. Describe fish and wildlife resources as well as habitats and vegetation on or near the site.

AUAR Guidance: The description of fish and wildlife resources should be related to the habitat types depicted on the cover types map. Any differences in impacts between development scenarios should be highlighted in the discussion.

Approximately 2% of the land within the study area has been previously disturbed for the construction of residences as well as agricultural facilities and provides little to no habitat. Approximately 81% of the land within the study area has been previously disturbed through farming and provides limited, low-quality habitat. Approximately 13% of the land within the study area is woodland, grassland, or wetland, and provides habitat for wildlife. These habitat types are shown in Figure 7. Wildlife that can be found within the study area includes birds, small mammals, and insects. There is one record of a state-listed species, Blanding's turtle (*Emydoidea blandingii*), within a mile of the study area. No native plant or animal communities under the jurisdiction of the United States Fish and Wildlife Service (USFWS) are located within the study area.[42] There are no areas of biodiversity significance within one mile of the study area. Additionally, there are no regionally significant ecological areas within one mile of the study area. There are no trout streams within a mile of the study area.

[42] USFWS. ND. Critical Habitat for Threatened & Endangered Species. Available at: https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77.

b. Describe rare features such as state-listed (endangered, threatened, or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number and/or correspondence number (ERDB) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe results.

AUAR Guidance: For an AUAR, prior consultation with the DNR Division of Ecological Resources for information about reports of rare plant and animal species in the vicinity is required. Include the reference numbers called for on the EAW form in the AUAR and include the DNR's response letter. If such consultation indicates the need, an on-site habitat survey for rare species in the appropriate portions of the AUAR area is required. Areas of on-site surveys should be depicted on a map, as should any "protection zones" established as a result.

State-Listed Species

Kimley-Horn conducted a review of the DNR Natural Heritage Information System (NHIS) in June 2024 per license agreement LA-2024-006 for the AUAR study area and area within a one-mile buffer for state-listed threatened, endangered, and special concern species (see **Appendix C**). The review identified the Blanding's turtle southwest of the study area. The preferred habitat for this species is upland areas within approximately one mile of wetlands, waterbodies, and watercourses. Another NHIS review was requested in July 2025 and was received in August 2025 from the DNR for any potential changes since 2024. No changes were identified.

Federally-Listed Species

The U.S. Fish and Wildlife (USFWS) Service Information for Planning and Conservation (IPaC) tool was used to identify federally-listed species within or near the AUAR Study Area. This review identified two proposed threatened species, the monarch butterfly (*Danaus plexippus)* and the western regal fritillary (*Argunnis idalia occidentalis*), as well as one experimental population (non-essential), the whooping crane (*Grus americana*). The IPaC species list is included in **Appendix C**.

Monarch Butterfly

The monarch butterfly is designated as a proposed threatened species for official listing by the USFWS. The preferred habitat for this species is prairie where milkweed and flowers are present. If this species is listed as threatened prior to development, effects on the species may need to be reevaluated.

Whooping Crane

The whooping crane is designated as an experimental population, non-essential species by the USFWS. Non-essential experimental populations are treated as threatened species on National Wildlife Refuge and National Park land (require consultation under 7(a)(2) of the ESA) and as a proposed species on private land (no section 7(a)(2) requirements, but Federal agencies must

not jeopardize their existence (section 7(a)(4))). The preferred habitat for the species includes shallow marshes and adjacent, open grasslands.[43]

Western Regal Fritillary

The western regal fritillary is a butterfly species that is known to occur in Minnesota and was identified as potentially occurring within the study area. The species is not federally listed but is proposed threatened. Suitable habitat consists of native grasslands containing violets, nectar sources, and tall vegetation. If this species is listed as threatened prior to development, effects on the species may need to be reevaluated.

Migratory Birds – Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by USFWS. USFWS has the responsibility under the MBTA to prevent the mortality of migratory birds and provide recommendations to mitigate or reduce potential impacts to migratory birds, such as initiating clearing of forested habitats outside of the nesting season (generally March 1 to August 31) or requiring nest surveys to be conducted prior to clearing or other construction related activities to avoid injury to eggs or nestlings.

In addition to the species identified above, the IPaC results indicated that several migratory bird species, including the bald eagle (*Haliateetus leucocephauls*), have the potential to be present in the study area. Bald eagles are protected under the Bald and Golden Eagle Protection Act.

c. Discuss how the identified fish, wildlife, plant communities, rare features, and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.

State Listed Species

Wetland drainage and degradation, vehicle collisions, and development of upland habitat near wetlands can all negatively impact populations of the Blanding's turtle. Both scenarios propose impacts to wetlands, increases in vehicular traffic to the AUAR study area, and development of upland surrounding wetlands; therefore, impacts to the Blanding's turtle are possible given the proximity of a NHIS listing to the AUAR study area.

Federally-listed Species

Monarch Butterfly

Agricultural users have disturbed most of the study area to cultivate crops. Natural prairie vegetation does exist within the study area; however, the proposed scenarios are not expected to appreciably diminish the quality or extent of available suitable habitat in the vicinity of the study area.

Whooping Crane

[43] USFWS. Whopping Crane. Available at: https://ecos.fws.gov/ecp/species/758

No critical habitat has been designated for this species. While potential suitable habitat may be present, the study area is located on land outside of a federal National Wildlife Refuge or National Park.

Western Regal Fritillary

Agricultural users have disturbed most of the study area to cultivate crops. Natural prairie vegetation does exist within the study area; however, the proposed scenarios are not expected to appreciably diminish the quality or extent of available suitable habitat in the vicinity of the study area.

Invasive Species

Invasive species are a major cause of biodiversity loss and are considered biological pollutants by the DNR. Invasive species can be moved on construction equipment, landscaping equipment, and other debris.

Stormwater

Stormwater run-off can cause several environmental problems. When stormwater drains off a construction site, it can carry sediment and pollutants that harm lakes, rivers, streams, and wetlands, which in turn may harm wildlife.

Tree Removal

The AUAR study area contains approximately 26 acres of wooded land. Forests and forested areas provide an important natural resource in Minnesota. Forest clearing and tree removal creates a variety of environmental impacts including habitat destruction, biodiversity impairment, soil erosion, and loss of carbon sinks. Any tree clearing will be conducted in accordance with Ordinance 847 which amends Chapter 153.061 of the Monticello Code of Ordinances.

d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.

State-listed Species

Blanding's Turtle

The MnDNR determined future development within the study area would not likely affect any rare features per letter received on July 17, 2024. This determination is valid for one year; thus, Kimley-Horn submitted a new Natural Heritage Review request to the MnDNR on July 16, 2025. A letter was received on August 14, 2025. The MnDNR determined that Blanding's turtle may be impacted by the proposed project and required the following mitigation efforts for the Blanding's turtle, which include:

- Avoid wetland and aquatic impacts during hibernation season, between September 15 and April 15, if the area is suitable for hibernation.
- Limit erosion and sediment control to wildlife friendly erosion control.
- Check bare ground within construction areas for turtles before the use of heavy equipment or any ground disturbance.

- The Blanding's turtle flyer must be given to all contractors working in the area.
- Report any sightings using the DNR Plant and Animal Observation Form.
- If turtles are in imminent danger, move them by hand out of harm's way; otherwise, they are to be left undisturbed. Directions on how to move turtles safely can be found at Helping Turtles Across the Road.

Federally-listed Species

Monarch Butterfly

The use of native plant species in seed mixes may be used to promote pollinator friendly habitat within the study area.

Whooping Crane

Experimental population, non-essential status does not provide species protection under the ESA listing process outside of federal lands; therefore, negative impacts to this species are unlikely.

Western Regal Fritillary

The use of native plant species in seed mixes may be used to promote pollinator friendly habitat within the study area.

Invasive Species

State requirements necessitate the control and spread of state listed noxious weeds and/or invasive weeds if encountered prior to construction. Disturbed areas would be reestablished using appropriate native and stabilization seed mixes. Methods to avoid spreading noxious weeds and/or invasive species will be incorporated into project specifications (and/or SWPPP when developed). According to the DNR, some methods that can prevent the spread of invasive species during construction include:

- Inspecting construction equipment and removing any visible plant, seeds, mud, dirt clods, and animals when arriving and leaving a site.
- Using certified weed-free products such as weed-free seed or hay whenever possible.
- Using mulch, soil, gravel, etc., that is free of invasive species whenever possible.
- Inspecting soil and plant material during planting for signs of invasive species and removing or destroying the invasive species or the plant and associated soil if the invasive species cannot be separated out.

Tree Removal

Any hardwood tree 6 inches or more in diameter at breast height (DBH), softwood tree 8 inches or more in DBH, or conifer over 12 feet in height must be replaced at a rate of 1:1 aggregate caliper inch (ACI) to removed DBH inches per Ordinance 847 which amends Chapter 153.061 of the Monticello Code of Ordinances. In accordance with this ordinance, the developer will also conduct a tree survey prior to construction. Although some tree removal will be necessary, the

scope of removal will be limited as much as feasible to support the proposed development. Trees will be planted in accordance with requirements in the city of Monticello's Tree Manual.

Stormwater

The proposed development scenarios include stormwater management and treatment of all stormwater runoff within the AUAR study area.

Greenway Corridor

A conceptual greenway corridor is planned within the study area that could provide connections between and among natural open spaces and be a natural area for wildlife.

15. HISTORIC PROPERTIES

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include 1) historic designations; 2) known artifact areas; and 3) architectural features. Attach letter received from the Minnesota State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

AUAR Guidance: For an AUAR, contact with the State Historic Preservation Office and State Archeologist is required to determine whether there are areas of potential impacts to these resources. If any exist, an appropriate site survey of high probability areas is needed to address the issue in more detail. The mitigation plan must include mitigation for any impacts identified.

The Minnesota Statewide Historic Inventory Portal (MnSHIP) was reviewed to identify historic resources. According to MnSHIP, there are three historic sites in the vicinity of the AUAR study area. None of the historic sites are listed on the National Register of Historic Places (NRHP).

Table 20. Historic Sites

Address	Property Name	National Register Listing Status	Distance from Study Area
8817 TH 25 Monticello Township, MN 55362	Nickerson Farm	Inventoried – Not Listed	Approximately 1,700 feet north
7607 TH 25 Monticello Township, MN 55261	Goetzke Property	Inventoried – Not Listed	Approximately 2,000 feet west
N/A	Trunk Highway 25	Not eligible	Adjacent to northwest boundary

According to the Minnesota Office of the State Archeologist (OSA) Public Viewer map, there are known archeological records within and/or in the vicinity of the study area. Prior to construction under either scenario, developers will need to consult with both the OSA and Minnesota Indian Affairs Council.

An archeological consultant (In Situ) conducted a Phase I Archaeological Survey of the study area in 2025. This included a background literature review within and surrounding the study area along with a field survey conducted in March 2025. The field survey consisted of 408 acres of the study area that covered everything except for a few areas on the northeast, northwest and southwest portions of the study area. Field conditions prevented the investigators from evaluating the entire AUAR study area. The remaining area (totaling 142 acres) will be subject to archaeological survey at a later date, unless development is not planned in these areas.

The survey identified three new archaeological sites which were all pre-contact, isolated, lithic finds that the State Historic Preservation Office (SHPO) considers as unevaluated for the National Register of Historic Places. Future coordination with SHPO will be required to determine the eligibility for the three archaeological sites identified in the Phase I Archaeological Survey prepared in April 2025.

If a federal nexus is identified during preparation of project permits (i.e. if a USACE Section 404 permit is required due to impacts to regulated wetlands), the project proposer must also consider potential impacts on historic properties under Section 106, which requires consultation with the State Historic Preservation Officer (SHPO) and other relevant parties to identify any potential mitigation needed. If human remains are recovered at any time during archaeological investigation or development, all activities must stop and consultation initiated with the Office of the State Archaeologist and Minnesota Indian Affairs Council.

Coordination with the State Historic Preservation Office and State Archeologist is ongoing. Both agencies received a copy of the AUAR Scoping Document and the AUAR for review.

16. VISUAL

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

AUAR Guidance: Any impacts on scenic views and vistas present in the AUAR should be addressed. This would include both direct physical impacts and impacts on visual quality or integrity. EAW Guidelines contains a list of possible scenic resources.

If any non-routine visual impacts would occur from the anticipated development, this should be discussed here along with appropriate mitigation.

Scenarios 1 and 2

The AUAR study area includes existing agricultural land and small residential sites that are not near any unique designated scenic views or vistas. Any development of agricultural land will have an impact on the visual look of a property and will be subject to increased regulation under city ordinances. Future development would conform with the city ordinances for building height, building form, landscape screening, outdoor storage areas, and lighting to avoid impacts to neighboring properties and species. No significant visual impacts are anticipated. Future development will need to follow the City of Monticello's landscaping and screening standards applicable to the Scenario development and land uses to provide a visual buffer to neighboring properties. Scenario 1 is expected to have larger buffers and setback requirements between nearby uses around the perimeter of the buildings as compared to Scenario 2. Additionally, tree mitigation and replacement plans would be coordinated with the City as required by the ordinance and incorporated in the development plans.

As building and site designs advance, lighting practices will be selected to address known ecological concerns and prevent avoidable impacts to insects, wildlife, rare plants, and adjacent natural areas.

Guidance from the USFWS to minimize blue light, uplight, and backlight will be adhered to the extent practicable.

17. AIR

a. Stationary Source Emissions – Describe the type, sources, quantities, and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health, or applicable regulatory criteria. Include a discussion of any methods used to assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.

AUAR Guidance: This item is not applicable to an AUAR. Any stationary air emissions source large enough to merit environmental review requires individual review.

Not applicable to an AUAR. If any potential emission generation (e.g., from generators) from future development in either scenario is above the threshold for an air quality permit/environmental review, then that specific project would be subject to additional environmental review beyond what is evaluated in this AUAR. The trigger for this is described in Minn. Rules 4410.4300 Subp. 15:

A. For construction of a stationary source facility that generates 250 tons or more per year or modification of a stationary source facility that increases generation by 250 tons or more per year of any single air pollutant, other than those air pollutants described in item B, after installation of air pollution control equipment, the PCA is the RGU.

B. For construction of a stationary source facility that generates a combined 100,000 tons or more per year or modification of a stationary source facility that increases generation by a combined 100,000 tons or more per year of greenhouse gas emissions, after installation of air pollution control equipment, expressed as carbon dioxide equivalents, the PCA is the RGU.

b. Vehicle Emissions – Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g., traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.

AUAR Guidance: Although the MPCA no longer issues Indirect Source Permits, traffic-related air quality may still be an issue if the analysis in Item 18 indicates that development would cause or worsen traffic congestion. The general guidance from the EAW form should still be followed. Questions about the details of air quality analysis should be directed to MPCA staff.

The Minnesota Department of Transportation (MnDOT) has developed a screening method designed to identify intersections that will not cause a carbon monoxide (CO) impact above state standards. MnDOT has demonstrated that even the 10 highest traffic volume intersections

in the Twin Cities do not experience CO impacts[44]. Therefore, intersections with traffic volumes lower than these 10 highest intersections will not cause a CO impact above state standards. MnDOT's screening method demonstrates that intersections with total daily approaching traffic volumes below 82,300 vehicles per day will not have the potential for causing CO air pollution problems. None of the intersections in the study area exceed the criteria that would lead to a violation of the air quality standards.

Additionally, an estimate of GHG emissions from vehicle traffic both from construction and operation for both scenarios can be found in item 18: Greenhouse Gas Emissions/Carbon Footprint.

c. Dust and Odors – Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under Item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

AUAR Guidance: Dust and odors need not be addressed in an AUAR, unless there is some unusual reason to do so. The RGU might want to discuss as part of the mitigation plan, however, any dust control ordinances in effect.

Scenarios 1 and 2

The proposed development may generate temporary fugitive dust emissions during construction. The City of Monticello regulates dust according to Minnesota pollution control standards. Dust emissions can be controlled by sweeping, watering, sprinkling, as appropriate or as prevailing weather and soil conditions dictate. Dust emissions are not anticipated during operations as all ground surfaces will either be impervious or vegetated.

18. GREENHOUSE GAS (GHG) EMISSIONS/CARBON FOOTPRINT

a. GHG Quantification – For all proposed projects, provide quantification and discussion of project GHG emissions. Include additional rows in the tables as necessary to provide project-specific emission sources. Describe the methods used to quantify emissions. If calculation methods are not readily available to quantify GHG emissions for a source, describe the process used to come to that conclusion and any GHG emission sources not included in the total calculation.

About Greenhouse Gases (GHGs)

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then

[44] Source: MnDOT CO Hot Spot Screening Method. https://www.dot.state.mn.us/project-development/subject-guidance/air-quality/process.html#:~:text=The%20Twin%20Cities%20area%20has,carbon%20monoxide%20(CO)%20violations

emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming.[45]

Project-related GHG Emissions

This section estimates emissions of the following GHGs for each scenario:

- Carbon dioxide (CO_2)
- Nitrous oxide (N_2O)
- Methane (CH_4)

The projected GHG emissions are provided on an average annual basis using the CO_2 equivalent (CO_2e) and include the proposer's best estimate of average annual emissions over the proposed life/design service life of future development. The estimates also include emissions from the construction and operating phases of the scenario. Emissions were estimated using the Minnesota Environmental Quality Board's Climate Calculator Tool[46] and are summarized in Table 21, Table 22, and Appendix D by project phase (i.e., construction and operations) and source type (e.g., material inputs, building energy consumption).

Construction emissions for the two proposed scenarios are based on length of construction and are from material inputs, transport of those material inputs, employee commuting, construction equipment, land use change, and construction waste.

Table 21: Construction Emissions

Emissions Source	Scenario 1 Project-Related CO_{2e} Emissions (total)	Scenario 2 Project-Related CO_{2e} Emissions (total)
Material inputs	117,457.85	197,881.21
Transportation of material inputs	2,383.50	4,049.70

[45] Summarized from U.S. EPA, Overview of Greenhouse Gases: https://www.epa.gov/ghgemissions/overview-greenhouse-gases
[46] Available at: https://www.eqb.state.mn.us/environmental-review/climate-assessments.

Emissions Source	Scenario 1 Project-Related CO_{2e} Emissions (total)	Scenario 2 Project-Related CO_{2e} Emissions (total)
Employee commuting	126,621.97	211,458.70
Construction equipment	19,939.55	19,939.55
Land use change	38.15	43.02
Construction waste	398.93	664.89
Total	**266,839.95**	**434,037.07**

Table 22: Annual Operational Emissions[47]

Emissions Source	Scenario 1 Proposed CO_{2e} Emissions (tons/year)[48]	Scenario 2 Proposed CO_{2e} Emissions (tons/year)
Building energy consumption	127,404.78	190,317.19
Industrial Processes	N/A	2,793,425.57
HFC leakage	247.18	372.73
On-road vehicles	5,626.18	21,190.94
Treatment of waste off-site	913.99	8,269.44
Total	**134,192.13**	**3,013,575.87**

b. GHG Assessment

i. Describe any mitigation considered to reduce the project's GHG emissions.

Scenario 1 and Scenario 2

The following are potential design strategies and sustainability measures that are under consideration for the proposed development to reduce emissions for both scenarios:

- Create new open space with native vegetation and habitat
- Expand urban tree planting
- Require energy efficient appliances

Implementation of the above strategies will be evaluated on a case-by-case basis based on code requirements, feasibility, availability of materials, schedule, and tenant considerations. For Scenario 1, most technology park developers have sustainability goals pertaining to water, energy, carbon, and recycling that would be implemented on this site.

ii. Describe and quantify reductions from selected mitigation, if proposed to reduce the project's GHG emissions. Explain why the selected mitigation was preferred.

[47] While the existing conditions within the AUAR study area do emit GHGs, Kimley-Horn assumed the emissions to be negligible when compared to the emissions of the development scenarios; therefore, Kimley-Horn did not include the annual operational emissions of the existing conditions in Table 22.

[48] Note: Scenario 1's estimated annual emissions are based on the EQB's recommended Climate Calculator Tool and is based on a typical light industrial user.

- By creating new vegetated areas from previously cropped land, the project would sequester carbon dioxide that would not have been captured without the land conversion. Trees and other vegetation also incorporate carbon into their biomass when growing.
- Tree planting can provide shade, which reduces building cooling demands. When this demand is reduced, it also reduces energy consumption and corresponding GHG emissions.
- Selecting energy-efficient appliances reduces energy consumption and corresponding GHG emissions.

The potential mitigation listed in Item 18.b.i. was selected to comply with best management practices for new construction and reduce GHG emissions where practicable during operations.

iii. Quantify the proposed project's predicted net lifetime GHG emissions (total tons per number of years) and how those predicted emissions may affect achievement of the Minnesota Next Generation Energy Act goals and/or other more stringent state or local GHG reduction goals.

The Next Generation Energy Act requires the state to reduce greenhouse gas emissions in the state by 80 percent between 2005 and 2050, while supporting clean energy, energy efficiency, and supplementing other renewable energy standards in Minnesota. The MPCA's biennial GHG emissions reduction report from 2021 identifies strategies for reducing emissions in the three economic sectors with the highest emissions – transportation, electricity generation, and agriculture, forestry, and land use.

The expected lifespan of the project is 50 years, this equates to a total estimated 7,915,791.36 $CO2_e$ metric tons over the lifetime of the development under Scenario 1 and 190,289,315.97 $CO2_e$ metric tons over the lifetime of the development under Scenario 2 (including both construction and operations phases). The proposer will evaluate implementing the sustainability measures listed in Item 18.b.i to reduce operational emissions to the extent practicable. The proposed development will be built in compliance with state regulations and city building codes.

19. NOISE

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area; 2) nearby sensitive receptors; 3) conformance to state noise standards; and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

AUAR Guidance: Construction noise need not be addressed in an AUAR, unless there is some unusual reason to do so. The RGU might want to discuss as part of the mitigation plan, however, any construction noise ordinances in effect.

If the area will include or adjoin major noise sources, a noise analysis is needed to determine if any noise levels in excess of standards would occur, and if so, to identify appropriate mitigation measures. With respect to traffic-generated noise, the noise analysis should be based on the traffic analysis of Item 18.

Existing Noise

The AUAR study area is currently cropland, woodland, wetland, grassland, and some residences. The existing noise sources at the site consist mainly of the surrounding roadways.

Construction Noise

As stated in the AUAR guidelines, construction noise need not be addressed unless there is some unusual reason to do so. No unusual circumstances have been identified for either scenario that would necessitate a detailed construction noise analysis. Construction activities are prohibited between the specific hours as set by ordinance, currently 10:00 p.m. to 7:00 a.m.[49] Construction of the proposed project would comply with these requirements. The City is looking into amending the hours of construction currently set and future development will need to comply with any changes that occur in the future.

Traffic Generated Noise

A sound increase of 3 dBA is barely noticeable by the human ear, a 5 dBA increase is clearly noticeable, and a 10 dBA increase is heard as twice as loud. For example, if the sound energy is doubled (i.e., the amount of traffic doubles), there is a 3 dBA increase in noise, which is just barely noticeable to most people. On the other hand, if traffic increases by a factor of 10, the resulting sound level will increase by about 10 dBA and be heard as twice as loud.

Traffic volumes in the project area are either on roadways that do not have receivers that are sensitive to noise, or the traffic levels attributable to the project are well below the amount that would generate a sound increase that could be noticeable.

The change in traffic noise levels is not anticipated to be readily perceptible.

Operational Noise

Scenario 1

For Scenario 1, the main source of noise, depending on the type of technology park use, could include computers and ventilation/cooling systems within the building, and the testing of generators up to once per month and operating in the case of emergency. Depending on a variety of factors (i.e., equipment manufacturer, operational capacity, etc.), chiller equipment at a typical data center could range from around 65 dB(A) up to around 80 dB(A) at a distance of approximately 30 feet. Given the quantity of chillers needed for a typical data center building, these noise levels would be higher. Manufactures can apply treatments to the equipment to make them quieter, or noise attenuating barriers can be designed and implemented to help reduce noise.

Depending on the manufacturer specifications for the various pieces of operational equipment, it is possible for low frequency noise to be emitted. Similar to chillers, manufacturers offer mitigation

[49] City of Monticello. *Code of Ordinances Chapter 130.09.* Available at: https://www.monticellomn.gov/315/City-Ordinances.

packages that could be applied directly to the equipment. Additionally, absorptive screening barriers can be implemented to assist with reducing operational noise levels, including low frequency noise.

Scenario 2

Light industrial uses like those proposed under Scenario 2 can include outdoor storage areas. Operation of large vehicles in these storage areas could generate unwanted noise.

Scenarios 1 and 2

Operational noise from both scenarios could include emergency generators that are only expected to operate during maintenance and testing as well as during emergency conditions for power outages. When used, generations could range between 75 dB(A) to 85 dB(A). Depending on the specific use for each Scenario, it is expected that Scenario 1 may require more backup generators than Scenario 2. Sensitive receptors within a mile of the study area include residential homes, farmsteads, commercial developments, and churches. In some cases, more robust noise enclosures are needed as well as physical barriers to assist with containing operational noise from emergency generator use.

The site plans developed for specific projects should show the proposed locations and types of mitigation, with the estimated noise reductions for all areas projected to exceed noise standards.

The State of Minnesota regulates industrial operations standards in Chapter 7030 of the Minnesota Administrative Rules (https://www.revisor.mn.gov/rules/7030). The chapter establishes the thresholds in Table 23. Both scenarios are required to abide by these thresholds, in addition to other applicable City ordinances. For Scenario 1, these thresholds will apply whether the cooling system uses just water or a hybrid of air and water.

Table 23. Minnesota Industrial Operations Noise Standards

	Maximum Permissible Hourly Sound Pressure Levels (dBA)	
Noise Area Classification (NAC)	Daytime/Nighttime	
	L_{10}	L_{50}
Residential housing, religious activities, camping and picnicking areas, health services, hotels, educational services	65/55	60/50
Retail, business and government services, recreational activities, transit passenger terminals	70/70	65/65
Manufacturing, fairgrounds and amusement parks, agricultural and forestry activities	80/80	75/75
dBA: An A-weighted decibel is a unit for measuring sound levels that is adjusted to represent how the human ear hears sound L10: sound level, in dBA, which is exceeded ten percent of the time for a one-hour survey L50: sound level, in dBA, which is exceeded fifty percent of the time for a one-hour survey		

Minnesota law permits the Minnesota Pollution Control Agency (MPCA) to enforce the State's noise rules; however, the enforcement of noise rules are generally conducted at the local level. Under either of the scenarios, noise attenuation (the reduction or loss of sound energy as it travels through a medium or structure) measures will be incorporated into the project design to ensure MPCA noise rules and City noise ordinances are followed.[50] As site development progresses, developers would be responsible for assessing whether operational noise exceeds established noise standards which may require studies of ambient and proposed noise conditions and then mitigation for compliance.

The noise study process begins by conducting ambient (existing) noise measurements from the project site. These measurements provide a baseline understanding of the current sound environment. Following the collection of ambient data, a noise model is developed to replicate the existing conditions. This model serves as a tool for evaluating various scenarios by simulating the placement of noise-generating equipment within the proposed building layout.

Through the use of multiple scenarios, the model assists in determining optimal locations for equipment in order to minimize noise impacts on adjacent properties. If the modeling indicates that noise levels may exceed established ordinances, appropriate noise abatement or mitigation measures are identified and incorporated into the project design. This approach ensures the project remains in compliance with all applicable noise regulations.

20. TRANSPORTATION

a. Describe traffic-related aspects of project construction and operation. Include 1) existing and proposed additional parking spaces; 2) estimated total average daily traffic generated; 3) estimated maximum peak hour traffic generated and time of occurrence; 4) source of trip generation rates used in the estimates; and 5) availability of transit and/or other alternative transportation modes.

Parking

Minimum off-street parking and loading requirements listed in Section 153.067 and 153.068 of the City of Monticello Code of Ordinances will be adhered to.

Existing Conditions

The following provides a description of the public roadways within the AUAR area:

85th Street NE (or CR 106 West of Minnesota State Highway 25) is an east-west roadway that serves as the northern boundary of the AUAR area. It is a two-lane undivided roadway with dedicated right- and left-turn lanes at the intersection with Minnesota State Highway 25 (MN 25). 85th Street NE is classified as a major collector, according to the *Monticello 2040 Vision + Plan*. According to the MnDOT Traffic Mapping Application, the existing Annual Average Daily Traffic (AADT) along 85th Street is approximately 1,797 vehicles per day (vpd) west of MN 25, as of 2024. No AADT data is available east of MN 25. The posted speed limit is 45 mph west of MN 55 and unposted east of MN 55, with a statutory speed limit of 55 mph.

[50] MPCA Noise Pollution Rules Available at: https://www.revisor.mn.gov/rules/7030/.

Minnesota State Highway 25 (MN 25) is a generally north-south state highway that runs west of the AUAR area. It is a two-lane undivided roadway about 1000' south of 85th Street, where it transitions to a four-lane divided roadway to the north. There are dedicated left and right turn lanes along MN 25 at the intersections with 85th street NE and CSAH 37. MN 25 is classified as Principal Arterial - other, according to the *Monticello 2040 Vision + Plan*. According to the MnDOT Traffic Mapping Application, the existing Annual Average Daily Traffic (AADT) along MN 25 is approximately 15,009 vehicles per day (vpd) north of 85th Street, as of 2024. The posted speed limit is 60 mph.

Edmonson Avenue NE (CR 117) is a north-south roadway that serves as the eastern boundary of the AUAR area. It is a two-lane undivided roadway that connects to the AUAR site via 85th Street NE. There are no existing turn lanes along this road. Edmonson Avenue NE is classified as a minor collector according to the *Monticello 2040 Vision + Plan*. Edmonson Avenue NE has an AADT of 1,808 vpd north of CSAH 37 and 1,930 vpd north of 85th Street NE. The posted speed limit is 55 mph.

CSAH 37 is an east-west County State Aid Highway (CSAH) located south of the AUAR area. It is a two-lane undivided roadway and is classified as a major collector south of the AUAR area according to page 99 of the 2045 Monticello Comprehensive Plan. According to the MnDOT Traffic Mapping Application, the road has an AADT of approximately 4,873vpd west of MN 25 as of 2024. The posted speed limit is 55 mph.

Davidson Avenue NE is a north-south roadway that serves as the western boundary of the AUAR area. It is a two-lane undivided local roadway with no turn lanes. There is no AADT data available for Davidson Avenue NE and there is no posted speed limit. The speed limit was assumed to be 45 mph for analysis purposes.

School Boulevard is a three-lane undivided east-west roadway with one travel lane in each direction and a shared left turn lane. School Boulevard is classified as a minor arterial, according to the Monticello 2040 Plan. MnDOT reports an AADT of 5,994 west of Edmonson Avenue and 6,464 west of Fenning Avenue, as of 2024. The posted speed limit is 40 mph, with a school speed limit of 30 mph enforced when children are present.

Fallon Avenue is a two-lane undivided north-south roadway. Fallon Avenue is classified as a local road according to the Monticello 2040 Plan. MnDOT reports an AADT of 3,847 north of School Boulevard, as of 2024. The posted speed limit is 30 mph.

Traffic Generation

The trip generation of the two previously shown development scenarios were estimated based on data from the ITE Trip Generation Manual, 11th Edition. Scenario 1 utilized the Land Use Code (LUC) for Data Center (LUC 160) as the best available representation of the number of trips generated, while Scenario 2 utilized the code Industrial Park (LUC 130). Note that a significant portion of site trips in Scenario 2 are anticipated to be heavy vehicle trips. The trip generation is shown below in Table 24. The full traffic study conducted for the AUAR can be found in **Appendix E**.

Table 24: Trip Generation Forecasts

Scenario	AM Peak Hour			PM Peak Hour			Daily
	Total	In	Out	Total	In	Out	
Scenario 1	330	182	148	270	81	189	2,970
Scenario 2	1,700	1,377	323	1,700	373	1,327	16,850

Availability of Transit

There are no transit services available near the site. It is not anticipated that there will be significant change in transit usage.

b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: http://www.dot.state.mn.us/accessmanagement/resources.html) or a similar local guidance.

AUAR Guidance: For AUAR reviews, a detailed traffic analysis will be needed, conforming to the MnDOT guidance as listed on the EAW form. The results of the traffic analysis must be used in the response to Items 16 and 17.

A Traffic Impact Analysis (TIA) was completed in August 2025 based on the projected trip generation of the proposed scenarios. The results of this study can be found in Appendix E. Based on the detailed findings of the Monticello Industrial TIA, the area's transportation network is expected to support development within the AUAR study area with mitigation. The TIA identified improvements that could be constructed to mitigate possible future traffic impacts associated with development within the AUAR study area. Metrics for traffic analysis include intersection delay as measured by Level of Service (LOS) and queue lengths.

The traffic analysis report includes intersection capacity analyses for intersections at the site access points as well as intersection operations within the vicinity of the project (see locations identified in Figure 20). Access to the study area is anticipated to be provided via three locations:

- North Access (along 85th Street NE)
- East Access (along Edmonson Avenue NE)
- West Access (Scenario 2 only; along Davidson Avenue NE / via future connection to MN 25)

The location of the proposed access points will adhere to the access management standards outlined in the City of Monticello's *2040 Transportation Plan*.

Based on the results of the Traffic Impact Analysis, all study intersections are anticipated to operate at an overall LOS D or better under Existing and No-Build (2030 and 2045) scenarios. Some

movements at signalized intersections are anticipated to operate at LOS E, but all intersections are anticipated to operate acceptably overall.

Under Scenario 1 conditions, delays see a minor increase, but all analyzed intersections are expected to remain at generally acceptable LOS through the analyzed design year (2045). A southbound right turn lane is recommended at Edmonson Avenue NE & East Access and a northbound right turn lane at Edmonson Avenue & 85th Street.

Under Scenario 2 conditions, delays see a larger increase than Scenario 1 conditions, and some study area intersections are anticipated to experience operational issues if left unmitigated. A traffic signal or roundabout is anticipated to be required at MN 25 & Future Roadway (proposed collector). Analysis also indicates that a roundabout or traffic signal will be required at School Boulevard & Fallon Avenue by the opening year (the city is planning to construct a roundabout here in the long term). All other study intersections are anticipated to operate acceptably with some turn lane improvements.

Table 25 shows the LOS for the study area intersections in each analysis scenario. Mitigated conditions results (where applicable) are shown after a slash. With mitigation, all intersections are expected to operate at generally acceptable levels of service in all scenarios.

Bike and Pedestrian Infrastructure

For both scenarios, pedestrian access will be provided via the greenway corridor proposed to be located along the southern portion of the study area. Connections to external pathway and/or sidewalk systems will be required for both scenarios, to be constructed along all directly adjacent roadways. For Scenario 2, sidewalks are required along all internal public streets. These improvements would be provided by the developer(s).

Table 25: Existing and Projected Intersection LOS

Intersection	Existing LOS	No-Build LOS		Scenario 1 LOS		Scenario 2 LOS	
	2025	2030	2045	2030	2045	2030	2045
AM Peak Hour							
MN 25 & 85th Street	A	A	A	A	B	B	B
Edmonson Avenue & 85th Street	A	A	A	A	A	B	C
MN 25 & CSAH 37	B	A	A	A	A	A	B
CSAH 37 & Davidson Avenue	A	A	A	A	A	A	A
CSAH 37 & Edmonson Avenue	B	B	B	B	B	B	B
MN 25 & Davidson Avenue / Proposed Collector	A	A	C	B	B	C	D / A
School Boulevard & Fallon Avenue	A	A	A	B	A	D / A	B
85th Street & North Access	-	-	-	A	A	C	C
Edmonson Avenue & East Access	-	-	-	A	A	B	B
PM Peak Hour							
MN 25 & 85th Street	A	A	B	B	B	B	B
Edmonson Avenue & 85th Street	A	A	A	A	B	C	D
MN 25 & CSAH 37	B	A	C	A	C	B	C
CSAH 37 & Davidson Avenue	A	A	A	A	A	A	B
CSAH 37 & Edmonson Avenue	B	B	C	B	C	C	**F** / **E**
MN 25 & Davidson Avenue / Proposed Collector	A	-	D	-	**E**	**F**	**F** / B
School Boulevard & Fallon Avenue	A	A	A	B	A	C / A	B

Intersection	Existing LOS	No-Build LOS		Scenario 1 LOS		Scenario 2 LOS	
	2025	2030	2045	2030	2045	2030	2045
85th Street & North Access	-	-	-	A	A	C	C
Edmonson Avenue & East Access	-	-	-	A	A	B	C

Construction Conditions Analysis for Scenario 1

In addition to the traffic study, a construction conditions analysis will also be completed with a focus on Scenario 1 (Technology Park) as the construction period is anticipated to see significantly higher trip generation than what will occur at full build out during typical operations of this type of development. No construction analysis will be conducted for Scenario 2, as the construction is anticipated to be less trip-intensive than the typical operations of this development type and the peak trip generation would be the same for both scenarios during construction. However, length of construction is anticipated to vary between the two scenarios due to Scenario 2 being higher density and would likely be developed by multiple developments. The analysis was conducted to determine if additional mitigation would be required during the initial construction phase of the development for Scenario 1. The analysis indicated that all study intersections operate at LOS A or B with the addition of the estimated Scenario 1 construction traffic (see **Appendix E** for more information).

Future Road Network

As shown on Figure 3: Development Scenario 1 and Figure 4: Development Scenario 2, it is anticipated that both development scenarios will include a future road network within the study area. Scenario 1 is expected to have a new public road connection off 85th Street NE into the site with only private roads internal to the site (not shown as these are developer dependent). Scenario 2 is anticipated to have a grid system of internal public roads to facilitate traffic between various tenants.

c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

The following provides a summary of mitigation improvements that were identified as part of the traffic analysis for the Monticello Industrial development. It should be noted that mitigation measures noted in the mitigation plan are only the mitigation measures that are the direct result of the development in addition to the background mitigation. The planned single-lane roundabouts at MN 25 & County Road 37 and School Boulevard & Fallon Avenue are assumed to be in place in the analysis years 2030 and 2045, respectively.

Existing (2025) Conditions

- No Mitigation Necessary

Opening Year (2030) No-Build Conditions

- No Mitigation Necessary

Opening Year (2030) Build Scenario 1 Conditions

- Install a dedicated eastbound right-turn lane at 85th Street & North Access
- Install a northbound left turn lane at Edmonson Avenue & 85th Street
- Install side street stop control at site access points (one approach lane is acceptable for each)
- Install pedestrian pathways along all arterial and collector roadways impacted by the project. As parcels begin to develop on the AUAR area, install sidewalk and trail connections to connect to existing pedestrian and bicycle infrastructure.

Construction Conditions (2030) Scenario 1

- Install an eastbound right turn lane at 85th Street & North Access
- Install northbound left and southbound right turn lanes at Edmonson Avenue & East Access
- Install a northbound right turn lane at Edmonson Avenue & 85th Street
- Install side street stop control at site access points (one approach lane is acceptable for each)
- Reconstruction of roads heavily impacted by construction (i.e., 85th Street) will be required.

Opening Year (2030) Build Scenario 2 Conditions

- Install dedicated right and left-turn lanes at 85th Street & North Access
- Install dedicated right and left-turn lanes at Edmonson Avenue & East Access
- Install northbound left- and right-turn lanes at Edmonson Avenue & 85th Street
- Install Side Street Stop control at all site access points (single-lane approaches are acceptable)
- Install pedestrian pathways along all arterial and collector roadways impacted by the project. As parcels begin to develop on the AUAR area, install sidewalk and trail connections to connect to existing pedestrian and bicycle infrastructure
- Install a single-lane roundabout at School Boulevard & Fallon Avenue

Design Year (2045) No-Build Conditions

- Install a southbound left turn lane at MN 25 & Future Roadway (proposed collector) and install a side street stop control at the intersection.

Design Year (2045) Build Scenario 1 Conditions

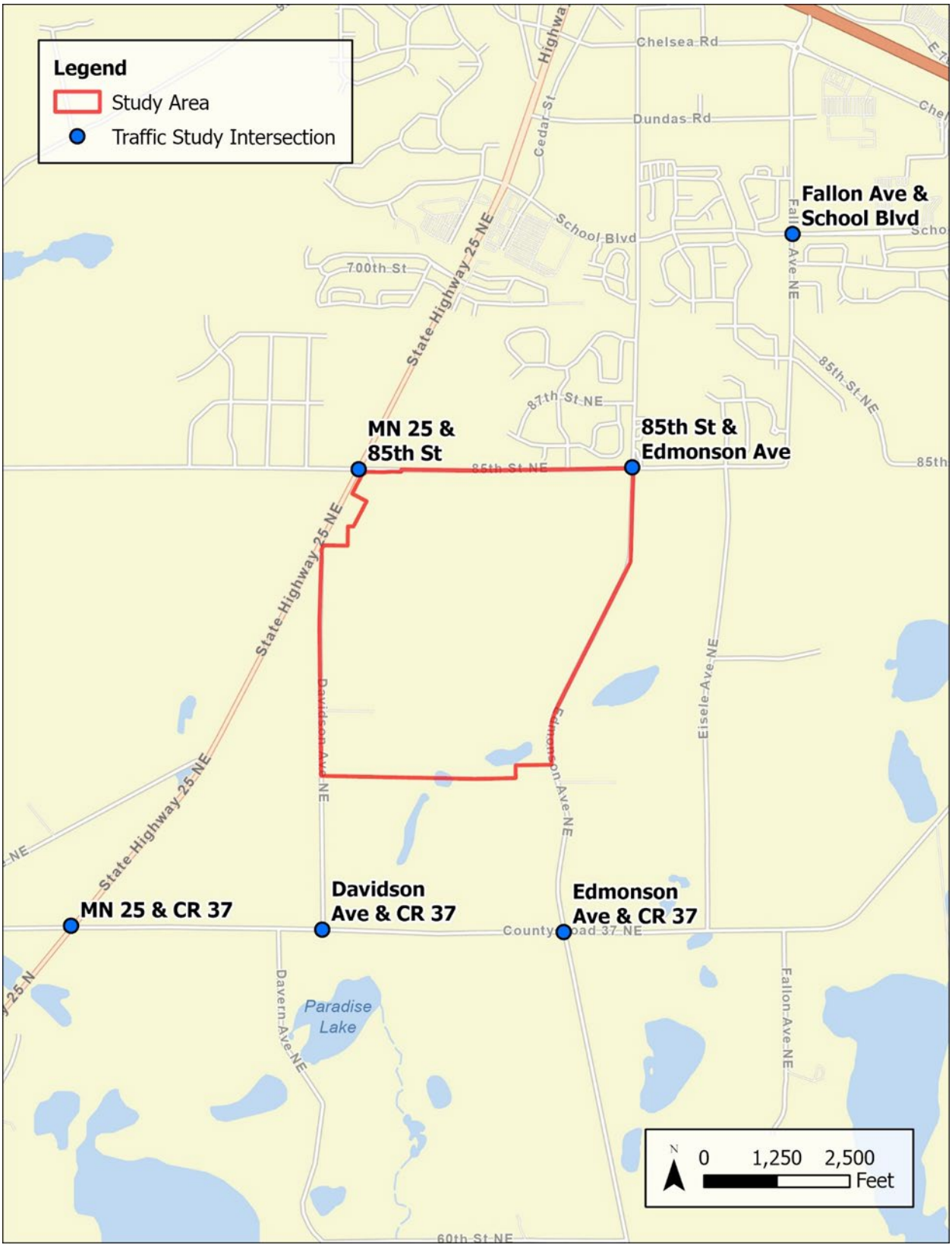
- All modifications from Opening Year (2030) Scenario 1 Condition
- Install a southbound left turn lane at MN 25 & Future Roadway (proposed collector) and install a side street stop control at the intersection.

Design Year (2045) Build Scenario 2 Conditions

- All modifications from Opening Year (2030) Scenario 2 Conditions
- Install a traffic signal or roundabout at MN 25 & Future Roadway (proposed minor collector). Install a northbound right-turn lane at this intersection.
    - Alternatively, the intersection could be installed as a right-in/right-out or a three-quarter access intersection to minimize side street delays.
- Install a southbound right turn lane at Edmonson Avenue & 85th Street NE
- Install northbound and southbound left turn lanes at CSAH 37 & Edmonson Avenue and monitor the intersection for further mitigation needs.

- Install a northbound bypass lane for right turns at MN 25 & CSAH 37.

Figure 20: Traffic Study Intersections



21. CUMULATIVE POTENTIAL EFFECTS

AUAR Guidance: Because the AUAR process by its nature is intended to deal with cumulative potential effects from all future developments within the AUAR area, it is presumed that the responses to all items on the EAW form automatically encompass the impacts from all anticipated developments within the AUAR area.

However, the total impact on the environment with respect to any of the items on the EAW form may also be influenced by past, present, and reasonably foreseeable future projects outside of the AUAR area. The cumulative potential effect descriptions may be provided as part of the responses to other appropriate EAW items, or in response to this item.

a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

Cumulative effects are defined as the "effect on the environment that results from the incremental effects of a project in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources, including future projects actually planned or for which a basis of expectation has been laid, regardless of what person undertakes the other projects or what jurisdictions have authority over the projects."[51] The geographic areas considered for cumulative effects are those areas adjacent to the AUAR study area, and the timeframe considered includes projects that would be constructed in the reasonably foreseeable future (by 2030) by other private and public entities that have made future project plans and timelines publicly available.

b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

There is one reasonably foreseeable project that may interact with the environmental effects of the development scenarios. The second of five phases of the Haven Ridge West housing development is currently under construction approximately 0.5 miles east of the study area. This includes approximately 300 single family homes. The remaining two phases are yet to be completed and timing is dependent on the developers plans and the market.

c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

Based on the information obtained for the future phase of the Haven Ridge West housing development summarized in Item 21.b, potential cumulative effects may include transportation, water resources (wastewater and water appropriation), and utilities. In addition to this project, other future public and private projects are likely to occur in the city of Monticello and nearby

[51] Minnesota Rules, part 4410.0200, subpart 11a

municipalities that may affect these same resources. The potential for adverse cumulative effects is described for each of these items in the following paragraphs.

Water Resources (wastewater and water appropriation)

Item 12.b.i and iii outlines the wastewater generation and water demand estimates that would be associated with the development scenarios described in this AUAR. It is anticipated that the City's current sewer system has sufficient capacity to accommodate the proposed development for Scenario 2 with the extension of the sanitary sewer trunk main and an amendment to water appropriations may be needed in the future.

The city has completed an initial study analyzing the capacity of the local aquifer. This assessment considered the potential effects of future development under both Scenario 1 and Scenario 2 and future city growth. Based on the results of this analysis, the aquifer does not appear to be impacted, even when accounting for other anticipated growth within the city. Therefore, adverse cumulative impacts related to wastewater and water appropriation are not anticipated.

Traffic

A traffic analysis for the development scenarios studied in this AUAR was completed and identifies mitigation strategies to improve traffic movement as described in Item 20 (Transportation) and Appendix E. The traffic study takes into account cumulative traffic growth with the future phases of known projects such as the Haven Ridge residential development and other potential growth from unknown future projects by applying a background growth rate calculation to align with the City of Monticello's anticipated population growth to determine appropriate transportation mitigation for the next 20 years. Future development in the surrounding areas that are anticipated to increase traffic congestion would also be required to individual traffic impact studies and identify mitigation measures to address the impacts. Therefore, adverse cumulative impacts related to traffic congestion are not anticipated.

Other Technology Park/Data Center Projects

For regional impacts associated with these facilities, it is expected that review by state agencies will be coordinated to study and address expected impacts. These types of projects would also be required to complete an environmental review and if developed, coordinate with state and local agencies for the applicable permits and approvals, which would have the authority to determine if there were adequate resources available at the time of application and will be individually mitigated to ensure minimal cumulative impacts occur.

22. OTHER POTENTIAL ENVIRONMENTAL EFFECTS

AUAR Guidance: If the project may cause any additional environmental effects not addressed by Items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

Power Needs (Scenario 1)

The proposed development scenarios will have a higher power need and consumption than what is currently required for the existing land uses within the AUAR study area. Future power needs for any proposed development would need to be coordinated with the current power provider for the AUAR study area.

Under Scenario 1, the project proposer would request the utility company complete a System Impact Study on the existing grid network to understand the existing capacity and future infrastructure needs to provide sufficient capacity for the proposed development scenarios while maintaining the grid system for the surrounding area. After that step, a Facilities Study would be completed and look at what improvements would be needed (i.e. substation/transmission lines). This Facilities Study would also include the cost associated with needed improvements (which would be paid for by the project proposer) and how those improvements would support larger grid improvements beyond this study area. For Scenario 1, the cost of these improvements would not affect current rate payers. The utility company's model would be coordinated with the Midcontinent Independent System Operator's model to ensure the project properly integrates into the broader energy system.

After the studies are completed, additional permits, environmental reviews, and approvals would be identified specific to power lines, transmission lines, and substations for onsite and offsite improvements under Scenario 1. Typically, the utility company will design and permit the grid infrastructure projects through the MN Public Utilities Commission (PUC) and apply for associated development permits/approvals needed then construct the improvements.

Site Security (Scenario 1)

Depending on the chosen scenario and developer, security measures could include fencing, buffering from public roads, private roads, and security personnel. These measures would address anti-terrorism and other safety concerns.

Electromagnetic Field Radiation (Scenario 1 and 2)

Electromagnetic field (EMF) radiation refers to the waves of the electromagnetic field produced by electrically charged objects. These waves propagate through space carrying electromagnetic radiant energy. EMF radiation can come from both natural sources such as the Earth's magnetic field and manmade sources, such as electronics/electronic appliances, cell phones, and power lines.

Types of EMF Radiation

Non-ionizing Radiation: This includes extremely low-frequency (60Hz) EMFs (like those from power lines) and low frequency (up to 1015Hz) optical radiation (like visible light, infrared, and ultraviolet). Non-ionizing radiation is generally considered less harmful, as it does not have enough energy to remove tightly bound electrons from atoms.

Ionizing Radiation: This includes ultraviolet rays (part of it), X-rays, and gamma rays, which have higher frequencies (greater than 1015Hz) and the energy to ionize atoms and molecules, potentially causing damage to cells and DNA.

Potential Impacts of EMF Radiation

The health and environmental impacts of EMF radiation have been a subject of extensive study. According to the World Health Organization (WHO), low-frequency EMF exposures from power lines and electrical appliances are far below the levels that can produce significant heating or long-term tissue damage. A committee of the National Research Council, the operating arm of the National Academy of Sciences, reported in 1996 that it had found no persuasive evidence that household appliances or power transmission lines presented a threat.[52]

Project Related EMF Radiation

Scenario 1 and Scenario 2

Both scenarios propose new electronics and utilities that would emit EMF levels. Scenario 1 would emit EMF levels typical of industrial and utility applications and Scenario 2 would emit EMF levels typical of office and warehouse applications. Under Scenario 1, potential for new high voltage transmission lines servicing a data center could be constructed. The EMFs generated by these transmission lines are within the non-ionizing range and would comply with federal regulatory standards to ensure public safety including the National Electrical Safety Code, which sets forth guidelines for the installation and operation of power lines to control EMF exposure.

The project's design would include EMF mitigation strategies to ensure that the EMF radiation levels remain well within the safety thresholds. These strategies include maintaining safe distances from residential areas, using EMF shielding techniques where necessary, and adhering to the recommended exposure limits set by health and safety regulatory bodies. Additionally, the EMF emissions from high voltage transmission lines are closely monitored and regulated to prevent any adverse environmental or health impacts.

MITIGATION PLAN

This Mitigation Plan is submitted as part of the AUAR to provide reviewers and regulators with an understanding of the actions that are advisable, recommended, or necessary to protect the environment and minimize potential impacts by the proposed development scenarios. This Mitigation Plan will be revised and updated based on comments received during the AUAR comment period.

This Mitigation Plan is intended to satisfy the AUAR rules that require the preparation of a mitigation plan that specifies measures or procedures that will be used to avoid, minimize, or mitigate the potential impacts of development within the AUAR study area. Although mitigation strategies are discussed throughout the AUAR document, this plan will be formally adopted by the RGU as their action plan to prevent potentially significant environmental impacts.

The primary mechanism for mitigation of environmental impacts is the effective use of ordinances, rules, and regulations. The plan does not modify the regulatory agencies' responsibilities for implementing their respective regulatory programs nor create additional regulatory requirements. The

[52] World Health Organization (2014). Electromagnetic fields and public health. Retrieved from WHO website. Available at: https://www.who.int/news-room/fact-sheets/detail/electromagnetic-fields-and-public-health-mobile-phones

plan specifies the legal and institutional arrangements that will assure that the adopted mitigation measures are implemented.

In addition to the anticipated permits and approvals listed in Table 6, the mitigation measures developed in the AUAR process are outlined in Table 26. The mitigation items identified are regulatory requirements and/or mitigation measures that reduce the level of potential impact of development within the study area. The plan is formatted consistent with the sections of the AUAR for ease of reference.

Table 26: Mitigation Plan

Resource Area	Mitigation	Responsible Party
Climate Adaption and Resilience	**Scenario 1:** Most technology park developers have sustainability goals pertaining to water, energy, carbon, and recycling that would be implemented on this site.	Developer[53]
	Scenarios 1 and 2: Water efficient irrigation design will be considered for any landscape irrigation systems.	Developer
	Scenarios 1 and 2: Energy efficient building shells, appliances, equipment and lighting will be incorporated into the building design.	Developer
	Scenarios 1 and 2: Retention of existing and planting of native trees and landscaping will reduce runoff and mitigate heat island effect.	Developer
	Scenarios 1 and 2: Parking areas will be evaluated to potentially reduce impervious areas within the AUAR study area.	Developer
	Scenarios 1 and 2: Green infrastructure such as infiltration basins, infiltration trenches, rainwater gardens, bioretention areas without underdrains, vegetated swales with impermeable check dams will be implemented for both scenarios.	Developer
	Scenarios 1 and 2: A chloride management plan will be implemented per any state and local guidelines or requirements. Chloride conscious design will be considered to minimize salt usage by the development. This could include considering potential locations of snow melt, ice formation, and tree shading.	Developer
	Scenarios 1 and 2: Addition of pathways and planned future roundabouts at Minnesota State Highway 25 and 85th Street and the intersection of Fallon Avenue and School Boulevard will reduce vehicle emissions from	Developer / City

[53] Where "Developer" is noted as responsible party, this could be one or several developers depending on how development occurs throughout the study area.

Resource Area	Mitigation	Responsible Party
	stalling vehicles (that would typically occur at a stop sign or signal) and encourage pedestrian activity.	
Land Use	**Scenarios 1 and 2:** For development as described in the Project Description, the city would annex the AUAR study area prior to development and incorporate it into an applicable zoning district and overlay districts, subject to land use permit review.	City
	Scenario 1: Future development would be required to comply with the list of review requirements as described in Table 7 for a data center or similar technology campus use and comply with the future Data Center PUD Zoning requirements.	Developer
	Scenarios 1 and 2: Incorporate the Natural Resource Inventory & Assessment conceptual future greenway corridor as site planning advances.	Developer
	Scenarios 1 and 2: The project proposer will use native plants in landscape design and will maintain existing significant floodplain, woodland, and wetland complexes as feasible.	Developer
Geology, Soils, and Topography	**Scenarios 1 and 2:** A National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit will be obtained prior to any earthwork or grading activities within the AUAR study area. A Stormwater Pollution Prevention Plan (SWPPP) will be provided as a part of the permit.	Developer
	Scenarios 1 and 2: Where required, slope stabilization will be provided by means of vegetation establishment, erosion control blankets, or other standard methods of erosion and sediment control. The proposed development within the AUAR study area will require compliance with the City of Monticello's erosion and sediment control standards as well as stormwater management requirements.	Developer
Water Resources - Stormwater	**Scenarios 1 and 2:** Infrastructure will be built within the AUAR study area to convey stormwater to stormwater management areas to help achieve the appropriate water quality treatment. Design of the site and stormwater management facilities will be used to reduce the risk of flooding in the AUAR study area. Infiltration areas will be used to improve water quality and reduce stormwater runoff in the project vicinity.	Developer

Resource Area	Mitigation	Responsible Party
	Scenarios 1 and 2: Maintenance and monitoring of the stormwater management areas will be performed to ensure long term effectiveness of the facilities.	Developer (if regional stormwater basins are determined then City)
	Scenarios 1 and 2: Best management practices pertaining to stormwater management will be adhered to during construction.	Developer
	Scenarios 1 and 2: Stormwater Best Management Practices (BMP) shall meet criteria for Minnesota Pollution Control Agency (MPCA) water quality requirements.	Developer
	Scenarios 1 and 2: Stormwater BMPs shall be designed to meet the City of Monticello's criteria for rate control as well as runoff volume reduction and will be designed to maintain stormwater runoff rates at or below the level of existing conditions.	Developer
	Scenarios 1 and 2: The use of native plants will be considered for landscaping and stormwater features to absorb water, reduce water demand for irrigation, and protect water resources from pollution.	Developer
	Scenarios 1 and 2: The impact of more severe precipitation events on offsite flows will be evaluated with conveyance and/or storage of offsite flow. Conservative design principals will be incorporated.	Developer
	Scenarios 1 and 2: A stormwater management plan will be prepared during development plan review for each proposed development with existing and proposed drainage figures, narrative describing onsite stormwater management and offsite conveyance, as well as applicable hydrologic and hydraulic modeling. Detailed basin information (normal water level, water quality volume, high water level) will also be provided in the stormwater management plan.	Developer
	Scenarios 1 and 2: Future stormwater BMPs would manage stormwater runoff and limit the volume of discharge to existing landlocked areas. Adequate freeboard would be maintained for stormwater BMPs and landlocked areas.	Developer

Resource Area	Mitigation	Responsible Party
Water Resources - Surface Water	**Scenarios 1 and 2:** Avoidance measures will be taken to avoid impacts to the wetlands within the AUAR study area to the extent practicable. As design plans advance and if impacts to wetlands are found necessary, the project proposer will obtain appropriate permits and purchase wetland banking credits. Buffers will also be installed around wetlands to protect water quality from adjacent development per City Wetland Overlay ordinance.	Developer
	Scenarios 1 and 2: Future development would need to comply with the city's Shoreland Ordinance, which applies to the 1,000-foot area surrounding the OHWL of the DNR Public Water Wetland in the southeast corner of the study area.	Developer / City
Water Resources – Water Appropriation	**Scenarios 1 and 2:** Technology Park and Light Industrial land use water demands can be highly variable depending upon the business operation or manufacturing process used at each property. At the time of the five year AUAR update evaluation, water demands from individual properties should be evaluated and estimated future demands revised, if necessary.	Developer / City
	Scenarios 1 and 2: The presence or absence of unverified wells will be confirmed and any existing wells will be sealed according to MDH requirements.	Developer
	Scenario 1: The City will need to install a new well to serve the entirety of the study area and satisfy City-wide water demands and shall be constructed in accordance with local ordinances and Minnesota Statutes Chapter 103I and Minnesota Rules Chapter 4725. This will also include additional elevated storage, raw watermain piping and well modifications to meet capacity. The City would also implement monitoring wells after the City drills the new well. The water data from these monitoring wells would be sent to the MnDNR to evaluate if there is additional mitigation needed for adjacent private wells.	City
	Scenarios 1 and 2: Both scenarios would require the City to request an amendment to water appropriations from the MnDNR.	City
	Scenario 1: The City would need to increase the capacity of the future water treatment plant that the city is constructing in 2026.	City
	Scenarios 1 and 2: Construct the extension of the water supply and distribution system according to the site according to Figure 18 and in accordance with Minnesota Department of Health standards.	City

Resource Area	Mitigation	Responsible Party
	Scenarios 1 and 2: Construct infrastructure improvements needed to expand the capacity of the wastewater system to the site as shown on Figure 14.	City
	Scenarios 1 and 2: If the specific project that requires an expansion, modification or replacement of a municipal sewage collection system resulting in an increase in design average daily flow of any part of that system by 1,000,000 gallons per day or more if the discharge is to a wastewater treatment facility with a capacity less than 20,000,000 gallons per day, then an EAW would need to be completed per Minn. R. 4410.4300, subp. 18(A) with MPCA as the RGU.	Developer
Water Resources - Wastewater	**Scenario 1:** If cooling water discharge is permitted to be treated through a Rapid Infiltration Basin (RIB) system through the MPCA it will be designed to meet MPCA and MDH standards. As part of the MPCA review, the permit application will undergo an EAW process and 30 day public comment process prior to any issuance of a permit. Additionally, a full water quality analysis of the effluent will be provided as part of the RIB permit process and a hydrogeological study would be conducted, including soil testing, to determine any limitations for a RIB within the study area. These studies would address the rate of infiltration to the proposed RIBs, the rate of recharge to the aquifer, as well as the required size of RIBs. Through the permitting process, any pre-treatment requirements, including existing minerals in the water system, would be determined by the MPCA prior to discharge to the RIBs. The system acts as a large filter, trapping most impurities at the surface. Maintenance will involve periodic removal of the top few inches of mineral deposit-laden soil, which will be disposed of in a landfill. Monthly Discharge Monitoring Reports will be required according to the NPDES permit. The developer will be responsible for hiring a licensed professional to prepare these reports and send them to the MPCA. Monitoring will occur monthly to dispose of any sediment build up.	Developer
	Scenario 1: The proposed RIB will follow the DWSMA guidelines set by the MDH.	Developer

Resource Area	Mitigation	Responsible Party
Water Resources - Groundwater	**Scenario 1:** If a future development requires 310,000 GPD or less of non-contact cooling water and domestic wastewater then that discharge could go to the city's municipal sanitary sewer collection system. This would not require any improvements to the WWTP. Biological operational adjustments would be needed to accommodate the slight decrease in organic loading from the non-contact cooling water.	Developer / City
	Scenario 1: Other alternative options that could be investigated include re-use of non-contact cooling water for spray irrigation for crop fields or obtaining a surface discharge permit for non-contact cooling water discharge. Both require a permit and review from the MPCA.	Developer
	Scenario 1: The RIB system is a natural filtration of water into the ground and will allow the water to be naturally cleaned by the soil to less any adverse impact on the ground water. This will also allow for the aquifer to become recharged from the cooling water system infiltration. The infiltration process through the RIB system will not immediately recharge the aquifer but will occur over the next 10-20 years.	Developer
	Scenario 1: If using groundwater for cooling, water reuse systems, such as cycling water, will be implemented to reduce water usage.	Developer
	Scenarios 1 and 2: The City would complete a well capacity and aquifer pumping plan in coordination with the DNR.	City
	Scenario 1: The wellhead protection boundary area as part of the DWSMA will need to be increased with any new wells.	City
	Scenario 1: A future hydrogeological analysis would be needed to site the RIB system, which would include soil testing, to understand any limitations for a RIB system within the study area.	Developer
	Scenario 1: The city will monitor post construction for any contaminants that exist in the current drinking water system that may enter the RIB system, as required by MPCA through the review and permitting process.	Developer and City
Contamination/ Hazardous Waste	**Scenarios 1 and 2:** Ensure compliance with applicable laws, rules, and ordinances related to the management of solid and hazardous waste as required by Minnesota Statutes 2020, section 473.811, subdivision 5c.	Developer
	Scenarios 1 and 2: Coordinate with the MPCA regarding the required plans, material handling, and disposal.	Developer

Resource Area	Mitigation	Responsible Party
	Scenarios 1 and 2: Development would both generate construction-related waste materials such as wood, packaging, excess materials, and other wastes, which will be either recycled or disposed in the proper facilities.	Developer
	Scenarios 1 and 2: An Emergency Action Plan will be created for any backup generators if installed. See Item 13 for more information.	Developer
	Scenarios 1 and 2: A Phase I/II Environmental Site Assessment (ESA) should be completed prior to construction and coordinate with the MPCA on safe handling and disposal of any contamination and hazardous materials found on the site prior to and during construction.	Developer
	Scenarios 1 and 2: If either scenario results in a proposed project that anticipates the need for more than 1,000,000 gallons of fuel storage for backup generators and may exceed the threshold for air emissions, an EAW will be required for these components of the project per Minnesota Rules 4410.4300. As part of the EAW process, a 30-day agency and public review and comment period will occur.	Developer
	Scenarios 1 and 2: The placement of any potential storage of hazardous materials and wastes will not be in floodplain areas.	Developer
	Scenario 1: Developer would be required to prepare a generators spill prevention plan per MPCA guidance.	Developer
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources	**Scenarios 1 and 2:** Invasive species will be controlled during site construction. Additionally, appropriate measures will be taken to control the spread of invasive species will be controlled during construction and landscaping: • Inspecting construction equipment and removing any visible plant, seeds, mud, dirt clods, and animals when arriving and leaving a site. • Using certified weed-free products such as weed-free seed or hay whenever possible. • Using mulch, soil, gravel, etc., that is free of invasive species whenever possible. • Inspecting soil and plant material during planting for signs of invasive species and removing or destroying the invasive species or the plant and associated soil if the invasive species cannot be separated out. • Native and drought-tolerant species will be utilized in landscaped areas.	Developer

Resource Area	Mitigation	Responsible Party
	Scenarios 1 and 2: Wildlife friendly erosion control methods will be utilized within the study area to minimize impacts to wildlife using the site during construction.	Developer
	Scenarios 1 and 2: The use of native plant species, including flowering plants, in seed mixes may be used to promote pollinator friendly habitat within the study area.	Developer
	Scenarios 1 and 2: Climate-appropriate native plantings and stormwater BMPs will provide suitable habitat for small mammals, insects, and bird species.	Developer
	Scenarios 1 and 2: The developer will conduct a tree survey prior to construction and tree replacement will comply with the City's tree protection ordinance.	Developer
	Scenarios 1 and 2: A future greenway corridor will be incorporated as site planning advances.	Developer / City
	Scenarios 1 and 2: The DNR required specific mitigation measures to avoid impacts to the state-listed threatened Blanding's turtle. These efforts include:. • Avoid wetland and aquatic impacts during hibernation season, between September 15 and April 15, if the area is suitable for hibernation. • Limit erosion and sediment control to wildlife friendly erosion control. • Check bare ground within construction areas for turtles before the use of heavy equipment or any ground disturbance. • The Blanding's turtle flyer must be given to all contractors working in the area. • Report any sightings using the DNR Plant and Animal Observation Form. • If turtles are in imminent danger, move them by hand out of harm's way; otherwise, they are to be left undisturbed. Directions on how to move turtles safely can be found at Helping Turtles Across the Road.	Developer
	Scenarios 1 and 2: The developer will coordinate development details with the DNR as project(s) advance. Avoidance plans will be submitted for review and approval in advance of construction.	Developer
Historic Properties	**Scenarios 1 and 2:** If a federal nexus is identified during preparation of project permits additional coordination with SHPO and other relevant parties may be required.	Developer
	Scenarios 1 and 2: The remaining area not previously surveyed will be subject to archaeological survey prior to construction, unless development is not planned in these areas.	Developer

Resource Area	Mitigation	Responsible Party
	Scenario 1 and 2: Further coordination with SHPO will be required to determine the eligibility for the three archaeological sites identified in the Phase I Archaeological Survey prepared in April 2025.	Developer
	Scenarios 1 and 2: If human remains are recovered at any time during archaeological investigation or development, all activities must stop and consultation initiated with the Office of the State Archaeologist and Minnesota Indian Affairs Council.	Developer
Visual	**Scenarios 1 and 2:** Lighting practices will be selected to address known ecological concerns and prevent avoidable impacts to insects, wildlife, rare plants, and adjacent natural areas. Guidance from the USFWS that recommends a lighting system that minimizes uplight and backlight would be adhered to the extent practicable. City ordinance requirements are also applicable.	Developer
	Scenarios 1 and 2: Through the development review process, the City will review future site and building plans to ensure is it conforming with city ordinances for building height, form, material, landscape screening and lighting. Note: site buffering requirements related to Scenario 1 will be defined in the Data Center PUD Zoning Ordinance once this has been finalized.	Developer / City
Air	**Scenarios 1 and 2:** Fugitive dust emissions from construction will be controlled by sweeping, watering, sprinkling, as appropriate or as prevailing weather and soil conditions dictate.	Developer
	Scenarios 1 and 2: An air permit and additional environmental reviewmay be required from the MPCA for backup generators. The trigger for this is described in Minn. Rules 4410.4300 Subp. 15: A. For construction of a stationary source facility that generates 250 tons or more per year or modification of a stationary source facility that increases generation by 250 tons or more per year of any single air pollutant, other than those air pollutants described in item B, after installation of air pollution control equipment, the PCA is the RGU.	Developer

Resource Area	Mitigation	Responsible Party
	B. For construction of a stationary source facility that generates a combined 100,000 tons or more per year or modification of a stationary source facility that increases generation by a combined 100,000 tons or more per year of greenhouse gas emissions, after installation of air pollution control equipment, expressed as carbon dioxide equivalents, the PCA is the RGU. This process will include a public review and comment period as part of the environmental review.	
GHG Emissions/Carbon Footprint	**Scenarios 1 and 2:** The following are potential design strategies and sustainability measures that are under consideration for the proposed development to reduce emissions for both scenarios: • Create new open space with native vegetation and habitat • Expand urban tree planting • Require energy efficient appliances	Developer
Noise	**Scenarios 1 and 2:** Construction activities may result in temporarily elevated noise levels. To the extent possible, construction activities will be conducted to minimize noise levels and nighttime construction activities. Construction will not occur between 10:00 PM and 7:00 AM.	Developer
	Scenarios 1 and 2: Further noise evaluation may be conducted as required to demonstrate compliance with local and state regulations. Noise attenuation measures will be incorporated into the project design to ensure MPCA noise rules and city noise ordinances are followed. The site plans developed for specific projects should show the proposed locations and types of mitigation, with the estimated noise reductions for all areas projected to exceed noise standards.	Developer
	Scenario 1: More robust noise enclosures are needed as well as physical barriers to assist with containing operational noise from emergency generator use.	Developer
Transportation	**Opening Year (2030) Scenario 1 Conditions** • Install a dedicated eastbound right-turn lane at 85th Street & North Access • Install a northbound left turn lane at Edmonson Avenue & 85th Street • Install side street stop control at site access points (one approach lane is acceptable for each)	Developer

Resource Area	Mitigation	Responsible Party
	• Install pedestrian pathways along all arterial and collector roadways impacted by the project (85th Street, Fallon Avenue, and Edmonson Avenue). As parcels begin to develop on the AUAR area, install sidewalk and trail connections to connect to existing pedestrian and bicycle infrastructure	
	Construction Conditions (2030) Scenario 1 • Install an eastbound right turn lane at 85th Street & North Access • Install northbound left and southbound right turn lanes at Edmonson Avenue & East Access • Install a northbound right turn lane at Edmonson Avenue & 85th Street • Install side street stop control at site access points (one approach lane is acceptable for each)	Developer
	Opening Year (2030) Scenario 2 Conditions • Install dedicated right and left-turn lanes at 85th Street & North Access • Install dedicated right and left-turn lanes at Edmonson Avenue & East Access • Install northbound left- and right-turn lanes at Edmonson Avenue & 85th Street • Install Side Street Stop control at all site access points (single-lane approaches are acceptable) • Install pedestrian pathways along all arterial and collector roadways impacted by the project (85th Street, Fallon Avenue, and Edmonson Avenue). As parcels begin to develop on the AUAR area, install sidewalk and trail connections to connect to existing pedestrian and bicycle infrastructure • Install a single-lane roundabout at School Boulevard & Fallon Avenue	Developer (to be determined at a later date for the roundabout)
	Design Year (2045) No-Build Conditions • Install a southbound left turn lane at MN 25 & Future Roadway (proposed collector) and install a side street stop control at the intersection.	Developer
	Design Year (2045) Scenario 1 Conditions • All modifications from Opening Year (2030) Scenario 1 Condition • Install a southbound left turn lane at MN 25 & Future Roadway (proposed collector) and install a side street stop control at the intersection.	Developer
	Design Year (2045) Scenario 2 Conditions	Developer (to be determined at a

Resource Area	Mitigation	Responsible Party
	• All modifications from Opening Year (2030) Scenario 2 Conditions • Install a traffic signal or roundabout at MN 25 & Future Roadway (proposed minor collector). Install a northbound right-turn lane at this intersection. ○ Alternatively, the intersection could be installed as a right-in/right-out or a three-quarter access intersection to minimize side street delays. • Install a southbound right turn lane at Edmonson Avenue & 85th Street NE • Install northbound and southbound left turn lanes at CSAH 37 & Edmonson Avenue and monitor the intersection for further mitigation needs. • Install a northbound bypass lane for right turns at MN 25 & CSAH 37.	later date for the roundabout)
	Scenarios 1 and 2: Connections to external pathway and/or sidewalk systems will be required for both scenarios, to be constructed along all directly adjacent roadways. For Scenario 2, sidewalks are required along all internal public streets. These improvements would be provided by the developer(s). Any reconstruction of public roadways necessary for site construction purposes will also be provided by the developer(s).	Developer

Appendix A:
Wetland Notice of Decisions (NODs)

BOARD OF WATER AND SOIL RESOURCES

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit: Wright SWCD	**County:** Wright
Applicant Name: Frattalone Development Company **Representative:** Keller Leet-Otley	**Applicant**
Project Name: Frattalone Development Wetland Delineation **Project No. (if any):**	**LGU**
Date Complete Application Received by LGU: 9-10-24	
Date of LGU Decision: 10-30-24	
Date this Notice was Sent: 10-30-24	

WCA Decision Type - check all that apply

☒ Wetland Boundary/Type ☐ Sequencing ☐ Replacement Plan ☐ Bank Plan (not credit purchase)
☐ No-Loss (8420.0415) ☐ Exemption (8420.0420)
Part: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H Subpart: ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Wetland Impact Area:
Wetland Replacement Type: ☐ Project Specific Credits: ☐ Bank Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

☒ Approve ☐ Approve w/Conditions ☐ Deny ☐ No TEP Recommendation

LGU Decision

☐ Approved with Conditions (specify below)[1] ☒ Approved[1] ☐ Denied
List Conditions:

Decision-Maker for this Application: ☒ Staff ☐ Governing Board/Council ☐ Other:

Decision is valid for: ☒ 5 years (default) ☐ Other (specify):

[1] *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision[1].

☐ Attachment(s) (specify):
☒ Summary: The LGU and TEP conducted a site visit on 9-19-24 to review the wetland boundaries as described within the application and flagged on-site. The LGU and TEP recommended that the applicant review additional aerial photos to verify the boundary of "Wetland 3" and "Wetland 2" due to the lack of crop stress observed during a year of abnormally high precipitation. The LGU and TEP also requested additional review of a possible wetland area located just northwest of "SP-19" to confirm the stockpiling of brush in this area didn't occur in a wetland. The applicant provided an addendum including new boundaries for "Wetland

3" and "Wetland 2" as well as supporting information confirming the area of brush stockpiling didn't occur in a historic wetland area. The LGU and TEP concur with the revised wetland boundary as shown on the attached "Delineated Resources Map".

[1] *Findings must consider any TEP recommendations.*

Attached Project Documents

☒ Site Location Map ☒ Project Plan(s)/Descriptions/Reports (specify): **Delineated Resources Map**

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for $500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

☐ Yes[1] ☒ No

[1]*If yes, all appeals must first be considered via the local appeals process.*

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Notice Distribution (include name)

Required on all notices:

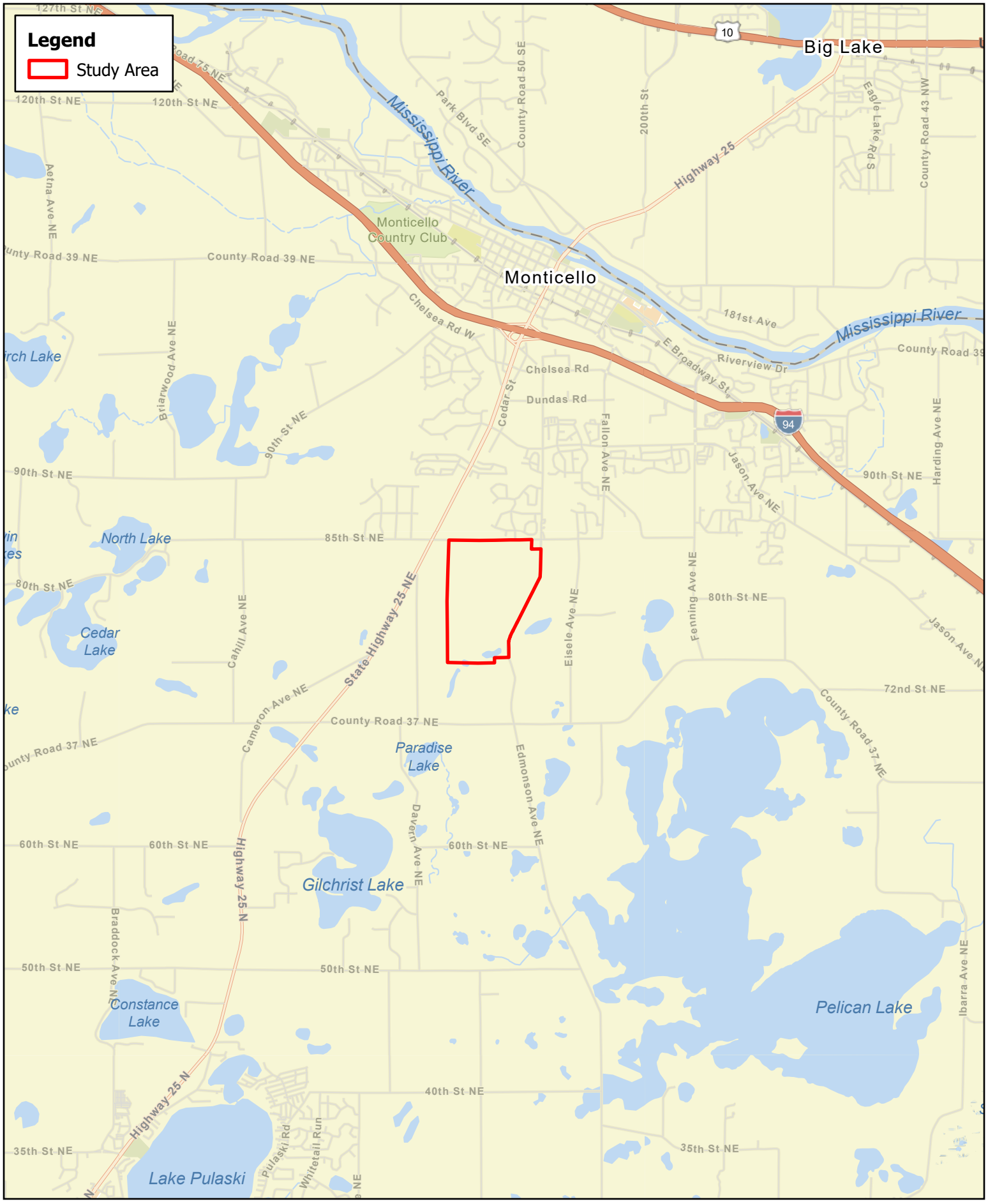
☒ SWCD & LGU TEP Member: Andrew Grean – andrew.grean@usda.gov ☒ BWSR TEP Member: Cade Steffenson – cade.steffenson@state.mn.us
☒ Wright County Delegated TEP Member: Jeremy Carlson - jeremy.carlson@co.wright.mn.us
☒ DNR Representative: James Bedell – james.bedell@state.mn.us
☐ Watershed District or Watershed Mgmt. Org.:
☒ Applicant: Frattalone Development Company, nickf@frattaloneco.com ☒ Agent/Consultant: Keller Leet-Otley, keller.leet-otley@kimley-horn.com

Optional or As Applicable:

☒ Corps of Engineers: usace_requests_mn_usace.army.mil
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):
☒ Members of the Public (notice only): Frank Svoboda - fjsvoboda@gmail.co, ☒ Other: Scott Glup, USFWS – scott_glup@fws.gov Jeremy Donabauer, jeremydonabauer@hotmail.com

Signature:	**Date:** 10-30-24

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.



Kimley»Horn

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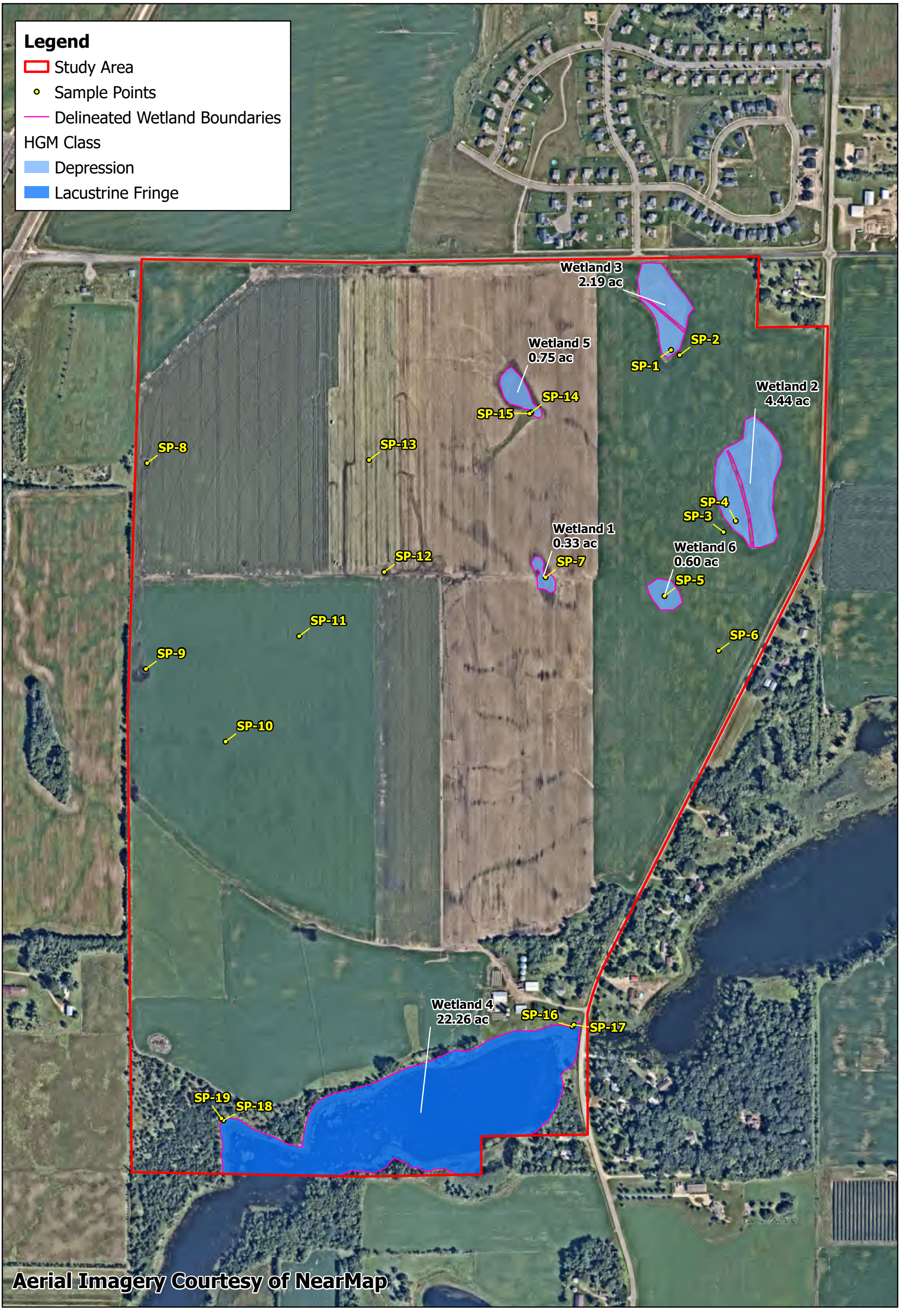
0 0.5 1 Miles

Figure 1. Project Location
Frattalone Development Company
Monticello, MN



Kimley»Horn

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0 250 500 US Feet

Figure 3. Delineated Resources Map
Frattalone Development Company
Monticello, MN

BOARD OF WATER AND SOIL RESOURCES

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit: Wright SWCD	**County:** Wright
Applicant Name: Pamela Gregorski	**Applicant Representative:** Ashley Payne, Kilmey-Horn
Project Name: Project Groundhog Wetland Boundary/Type **Project No. (if any):**	**LGU**
Date Complete Application Received by LGU: 6-20-25	
Date of LGU Decision: 8-18-25	
Date this Notice was sent: 8-18-25	

WCA Decision Type - check all that apply

☒ Wetland Boundary/Type ☐ Sequencing ☐ Replacement Plan ☐ Bank Plan (not credit purchase)
☐ Exemption ☐ No-Loss (8420.0415)
MN Rules 8420.0420 Part: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H
Subpart: ☐ 4 ☐ 5 ☐ 7 ☐ 9
MN Statutes 103G.2241
Subdivision: : ☐ 1 ☐ 2 ☐ 6 ☐ 9

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Wetland Impact Area:
Wetland Replacement Type: ☐ Project Specific Credits - Number of Credits: ☐ Bank Credits – Number of Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

☒ Approve ☐ Approve w/Conditions ☐ Deny ☐ No TEP Recommendation

LGU Decision

☐ Approved with Conditions (specify below)[1] ☒ Approved[1] ☐ Denied
List Conditions:

Decision-Maker for this Application: ☒ Staff ☐ Governing Board/Council ☐ Other:

Decision is valid for: ☒ 5 years (default) ☐ Other (specify):

[1] *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision[1].

☐ Attachment(s) (specify):
☒ Summary: The LGU conducted a site review with the applicant's representatives on 7-15-25. During the site review "Wetland 2" (0.99 acre Fresh Wet Meadow) was observed to lack hydrophytic vegetation and hydrology indicators. Based on the observations made during the LGU site review, the applicant's representatives provided a revised application with additional documentation supporting the fact that

"Wetland 2" does not meet the required criteria for being a wetland. Members of the TEP conducted another site visit on 7-31-25 and concur with this conclusion. The final wetland boundary figure is included as an attachment to this decision.

[1] *Findings must consider any TEP recommendations.*

Attached Project Documents

☐ Site Location Map ☒ Project Plan(s)/Descriptions/Reports (specify): **Final Wetland Boundary Figure**

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for $500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

☐ Yes[1] ☒ No

[1]*If yes, all appeals must first be considered via the local appeals process.*

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Notice Distribution (include name)

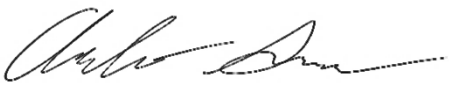
Required on all notices:

☒ SWCD and LGU TEP Member: Andrew Grean, andrew.grean@usda.gov Member: Cade Steffenson, cade.steffenson@state.mn.us	☒ BWSR TEP
☒ TEP Member (if different than LGU contact): Jeremy Carlson, Jeremy.carlson@co.wright.mn.us	
☐ DNR Representative: James Bedell, james.bedell@state.mn.us	
☐ Watershed District or Watershed Mgmt. Org.:	
☒ Applicant: Pamela Gregorski, pamela.gregorski@cscglobal.com Agent/Consultant: Ashley Payne, Ashley.payne@kimley-horn.com	☒

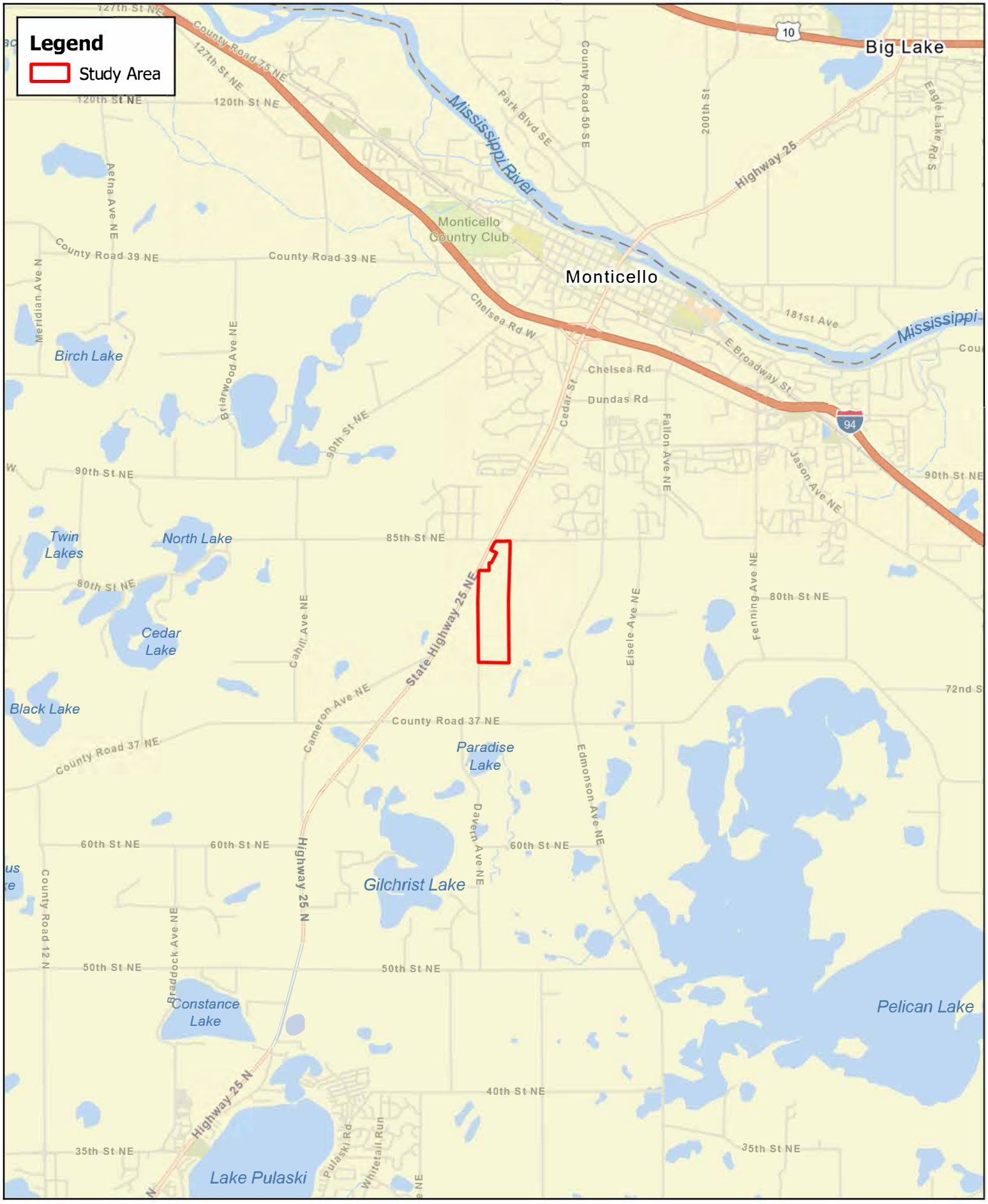
Optional or As Applicable:

☒ Corps of Engineers: usace_requests_mn@usace.army.mil
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):
☒ Members of the Public (notice only): Jeremy Donabauer, jeremydonabauer@hotmail.com Frank Svoboda, fjsvoboda@gmail.com

Todd_Boonstra@fws.gov	☐ Other:

Signature: 	**Date:** 8-18-25

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.



Kimley»Horn

Figure 1. Project Location
Township of Monticello, Wright County
Bergram LLC

Kimley»Horn

0 300 600 Feet

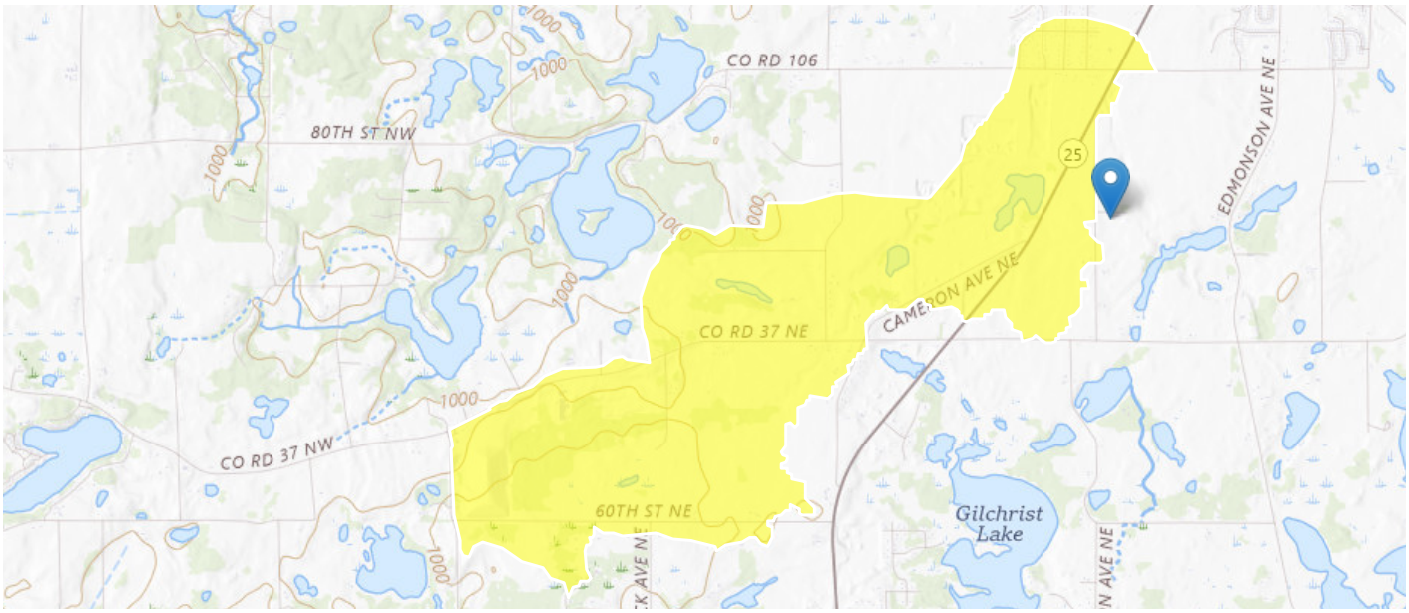
N

Photo Locations
Township of Monticello, Wright County
Bergram LLC

Appendix B:
StreamStats Report

StreamStats Report

Region ID: MN
Workspace ID: MN20251016182031220000
Clicked Point (Latitude, Longitude): 45.26190, -93.81562
Time: 2025-10-16 13:20:51 -0500



Offsite drainage area does not actually appear to flow onto the site based on public Lidar. No visible culverts exist at the site boundary that would convey flows. The roadway elevation at the site boundary is higher than adjacent overflows. Flow would be captured in multiple different landlocked basins west of MN 25.

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	8.09	feet per mi
DRNAREA	Area that drains to a point on a stream	4.35	square miles
LAKEAREA	Percentage of Lakes and Ponds	0.77	percent
LAT_OUT	Latitude of Basin Outlet	45.261915	degrees
PFLATLOW	Flat lands lower than median elevation from Wolock 2003 unpublished data	22	percent
PMPE	Precipitation minus potential evaporation from Wolock 2003 unpublished data	81.9	millimeters

General Disclaimers

This watershed has been edited, computed flows and basin characteristics may not apply. For more information, submit a support request from the 'Help' button in the upper-right of the screen, attach a pdf of this report and request assistance from your local StreamStats regional representative.

Peak-Flow Statistics

Peak-Flow Statistics Parameters [Minnesota Peakflow D 2023 5079]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CSL10_85	Stream Slope 10 and 85 Method	8.09	feet per mi	1.493468411	75.17007505
DRNAREA	Drainage Area	4.35	square miles	0.147080646	1870.067115
LAKEAREA	Percent Lakes and Ponds	0.77	percent	0	13.46002046
LAT_OUT	Latitude of Basin Outlet	45.261915	decimal degrees	43.51441115	46.0944041

Peak-Flow Statistics Flow Report [Minnesota Peakflow D 2023 5079]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	PIL	PIU	SE	ASEp
66.7-percent AEP flood	33.5	ft^3/s	14.5	77.3	51.7	53.8
50-percent AEP flood	47.8	ft^3/s	22.6	101	45.7	47.6
20-percent AEP flood	95	ft^3/s	48.9	185	40.3	42.2
10-percent AEP flood	134	ft^3/s	67.3	267	41.2	43.2
4-percent AEP flood	192	ft^3/s	93.1	396	43.8	46.1
2-percent AEP flood	240	ft^3/s	111	517	46.4	48.9
1-percent AEP flood	292	ft^3/s	129	661	49.8	52.5
0.2-percent AEP flood	428	ft^3/s	168	1090	58.1	61.4

Peak-Flow Statistics Citations

Christopher A. Sanocki and Sara B. Levin2023, Techniques for Estimating the Magnitude and Frequency of Peak Flows on Small Streams in Minnesota, excluding the Rainy River Basin, Based on Data through Water Year 2019, U.S. Geological Survey Scientific Investigations Report 2023-5079, 15 p. (https://doi.org/10.3133/sir20235079)

Flow-Duration Statistics

Flow-Duration Statistics Parameters [Flow duration Region D 2015 5170]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.35	square miles	7.65	2640
PFLATLOW	Flat_Lands_Below_Median_Elevation	22	percent	4.88	56.9
PMPE	Precip_Minus_Potential_Evap	81.9	millimeters	-132	203

Flow-Duration Statistics Disclaimers [Flow duration Region D 2015 5170]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Flow-Duration Statistics Flow Report [Flow duration Region D 2015 5170]

Statistic	Value	Unit
0.01 Percent Duration	218	ft^3/s
0.1 Percent Duration	100	ft^3/s

Statistic	Value	Unit
2 Percent Duration	17.9	ft^3/s
5 Percent Duration	8.17	ft^3/s
10 Percent Duration	3.95	ft^3/s
25 Percent Duration	1.14	ft^3/s
50 Percent Duration	0.219	ft^3/s
75 Percent Duration	0.0271	ft^3/s
90 Percent Duration	0.0126	ft^3/s
95 Percent Duration	0.0138	ft^3/s
99 Percent Duration	0.00604	ft^3/s
99.9 Percent Duration	0.000304	ft^3/s
99.99 Percent Duration	0.000335	ft^3/s

Flow-Duration Statistics Citations

Ziegeweid, J.R., Lorenz, D.L., Sanocki, C.A., and Czuba, C.R.,2015, Methods for estimating flow-duration curve and low-flow frequency statistics for ungaged locations on small streams in Minnesota: U.S. Geological Survey Scientific Investigations Report 2015–5170, 23 p. (http://dx.doi.org/10.3133/sir20155170)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.29.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Appendix C: *Agency Correspondence*

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793

In Reply Refer To: 07/16/2025 18:38:06 UTC
Project Code: 2025-0122601
Project Name: Monticello Industrial AUAR

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

Threatened and Endangered Species
The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance
Please refer to refer to our Section 7 website for guidance and technical assistance, including step-by-step instructions for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A demonstration video showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of “no effect” or “may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species’ biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a “Not Likely to Adversely Affect” (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a “May Affect” determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for “May Affect” determinations unless otherwise indicated in your output letter.

Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review. If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain Life History Information for Listed and Candidate Species on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

Northern Long-Eared Bats
Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected. For bat activity dates, please review Appendix L in the Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC

species list report for your records.

If any of the above activities are proposed, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the northern long-eared bat and tricolored bat range-wide D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter. Additional information about available tools can be found on the Service's northern long-eared bat website.

Whooping Crane
Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States."

Other Trust Resources and Activities
Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. It is the responsibility of the project proponent to survey the area for any migratory bird nests. If there is an eagle nest on-site while work is on-going, eagles may be disturbed. We recommend avoiding and minimizing disturbance to eagles whenever practicable. If you cannot avoid eagle disturbance, you may seek a permit. A nest take permit is always required for removal, relocation, or obstruction of an eagle nest. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

State Department of Natural Resources Coordination
While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. **Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.**

Minnesota
Minnesota Department of Natural Resources - Endangered Resources Review Homepage
Email: Review.NHIS@state.mn.us

Wisconsin
Wisconsin Department of Natural Resources - Endangered Resources Review Homepage
Email: DNRERReview@wi.gov

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
(952) 858-0793

PROJECT SUMMARY

Project Code: 2025-0122601
Project Name: Monticello Industrial AUAR
Project Type: Mixed-Use Construction
Project Description: The AUAR study area encompasses an area totaling approximately 546 acres on 15 parcels in Monticello Township, Wright County, Minnesota. Monticello Tech, LLC is proposing to develop the study area from existing farmland to a technology park or light industrial uses.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@45.26542395,-93.80850254796702,14z

Counties: Wright County, Minnesota

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Western Regal Fritillary *Argynnis idalia occidentalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and

activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

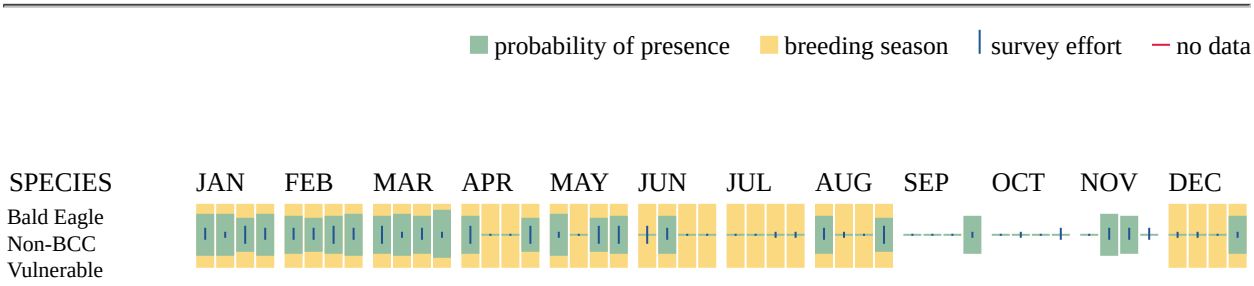
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9643	Breeds May 20 to Aug 10
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Golden-winged Warbler *Vermivora chrysoptera* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

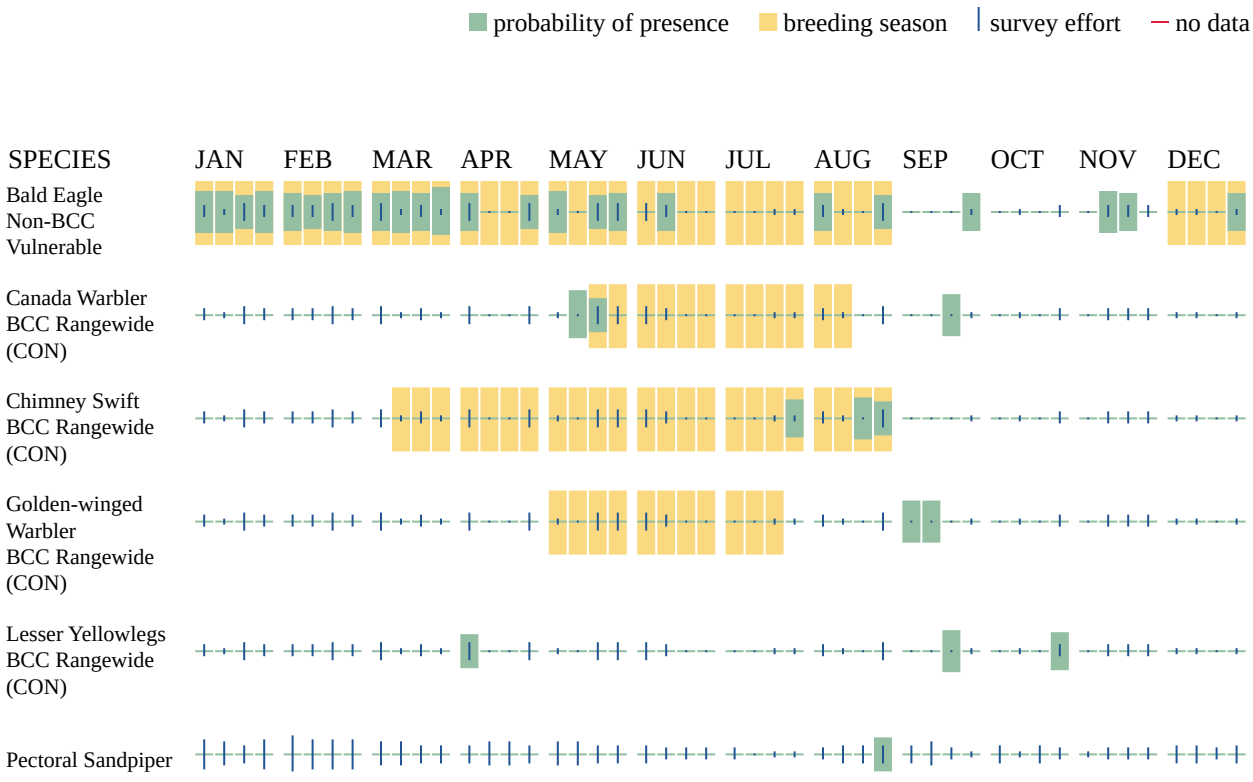
Probability of Presence (■)

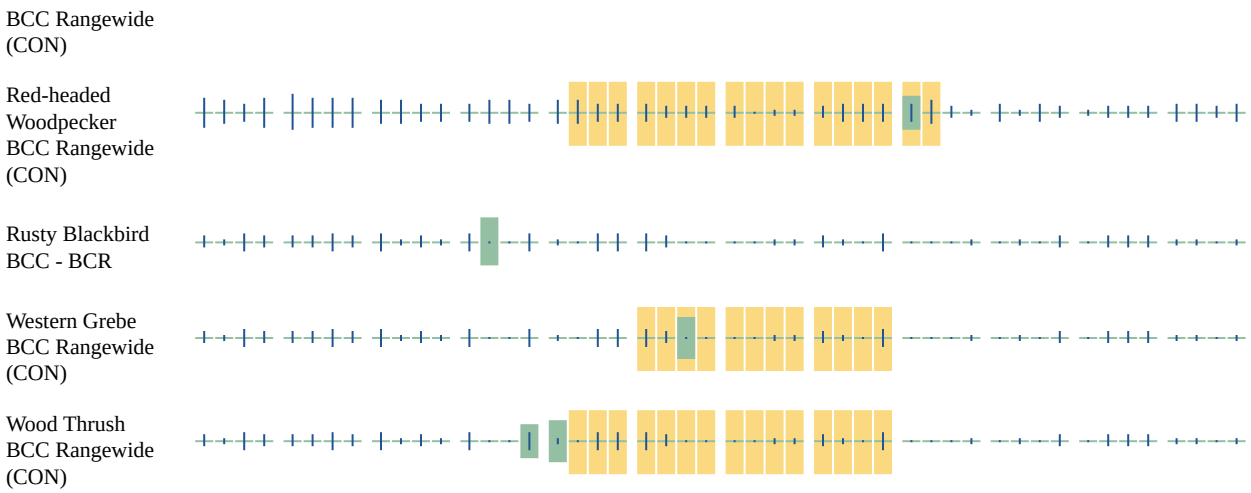
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

IPAC USER CONTACT INFORMATION

Agency:	Private Entity
Name:	Jacob Ackerman
Address:	767 N Eustis St
Address Line 2:	Suite 100
City:	St. Paul
State:	MN
Zip:	55114
Email	jake.ackerman@kimley-horn.com
Phone:	6514568135

Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

Project Name: Monticello Industrial

Project Proposer: Frattalone

Project Type: Development, Commercial/Institutional/Industrial

Project Type Activities: Tree Removal;Wetland impacts (e.g., dewatering, tiling, drainage, discharge, excavation, fill, runoff, sedimentation, changes in hydrology)

TRS: T121 R25 S22, T121 R25 S23, T121 R25 S26, T121 R25 S27

County(s): Wright

DNR Admin Region(s): Central

Reason Requested: State EAW

Project Description: The project would involve the construction of an industrial development.

Existing Land Uses: Agricultural

Landcover / Habitat Impacted: Cultivated crops, grassland, potential wetland impacts

Waterbodies Affected: There may be potential impacts to wetlands on site.

Groundwater Resources Affected: N/A

Previous Natural Heritage Review: No

Previous Habitat Assessments / Surveys: No

SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
Project Details	Comments	Tree Removal - Recommendations
Ecologically Significant Area	No Comments	No Further Review Required
State-Listed Endangered or Threatened Species	No Comments	No Further Review Required
State-Listed Species of Special Concern	No Comments	No Further Review Required
Federally Listed Species	No Records	Visit IPaC For Federal Review

DEPARTMENT OF NATURAL RESOURCES

Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

July 17, 2024

Project ID: MCE #2024-00577

Twin Cities - Environmental (Kimley-Horn)
Kimley-Horn and Associates, Inc.
767 Eustis Street, Suite 100
St. Paul, MN 55114

RE: Automated Natural Heritage Review of the proposed Monticello Industrial
See Cover Page for location and project details.

Dear Twin Cities - Environmental (Kimley-Horn),

As requested, the above project has been reviewed for potential effects to rare features. Given the project details provided on the cover page, I do not believe the proposed project will negatively affect any known occurrences of rare features. To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) tool.

Project Type and/or Project Type Activity Comments

- The Natural Heritage Information System (NHIS) tracks bat roost trees and hibernacula plus some acoustic data, but this information is not exhaustive. Even if there are no bat records listed below, all of Minnesota's bats, including the federally endangered northern long-eared bat (*Myotis septentrionalis*), can be found throughout Minnesota. During the active season (approximately April-November) bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying roosting habitat, especially during the pup rearing season when females are forming maternity roosting colonies and the pups cannot yet fly. To minimize these impacts, the DNR recommends that tree removal be avoided from June 1 through August 15.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and the project description provided on the cover page. If project details change or construction has not occurred within one year, please resubmit the project for review before initiating project activities.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. For information on the environmental review process or other natural resource concerns, you may contact your DNR Regional Environmental Assessment Ecologist.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources.

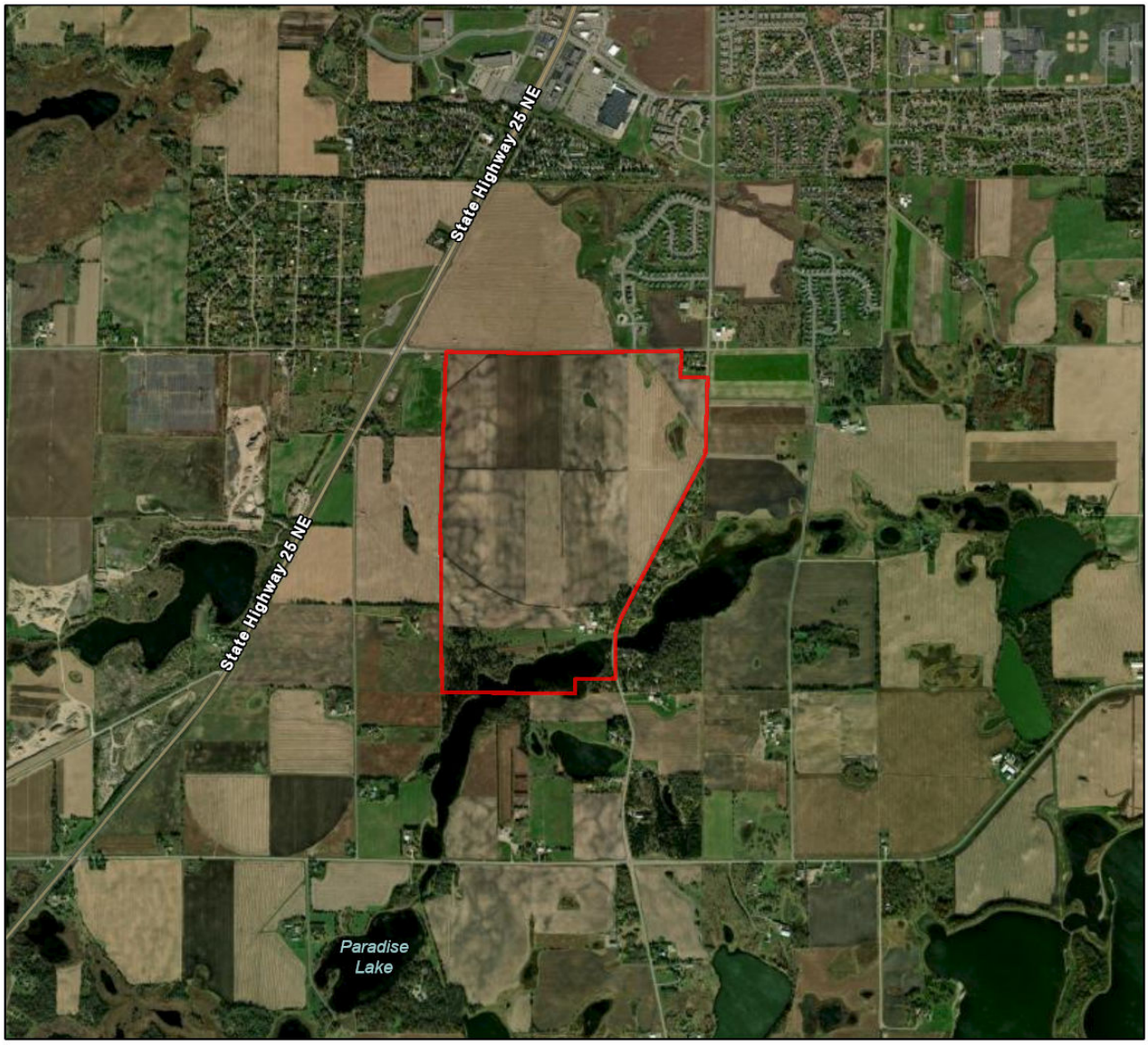
Sincerely,

Jim Drake Jim Drake
Natural Heritage Review Specialist
James.F.Drake@state.mn.us

Links: USFWS Information for Planning and Consultation (IPaC) tool
Information for Planning and Consultation (IPaC) tool
DNR Regional Environmental Assessment Ecologist Contact Info
https://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html

Monticello Industrial

Aerial Imagery With Locator Map



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Miles

Project_Boundary

Project Type: Development, Commercial/Institutional/Industrial

Project Size (acres): 404.11

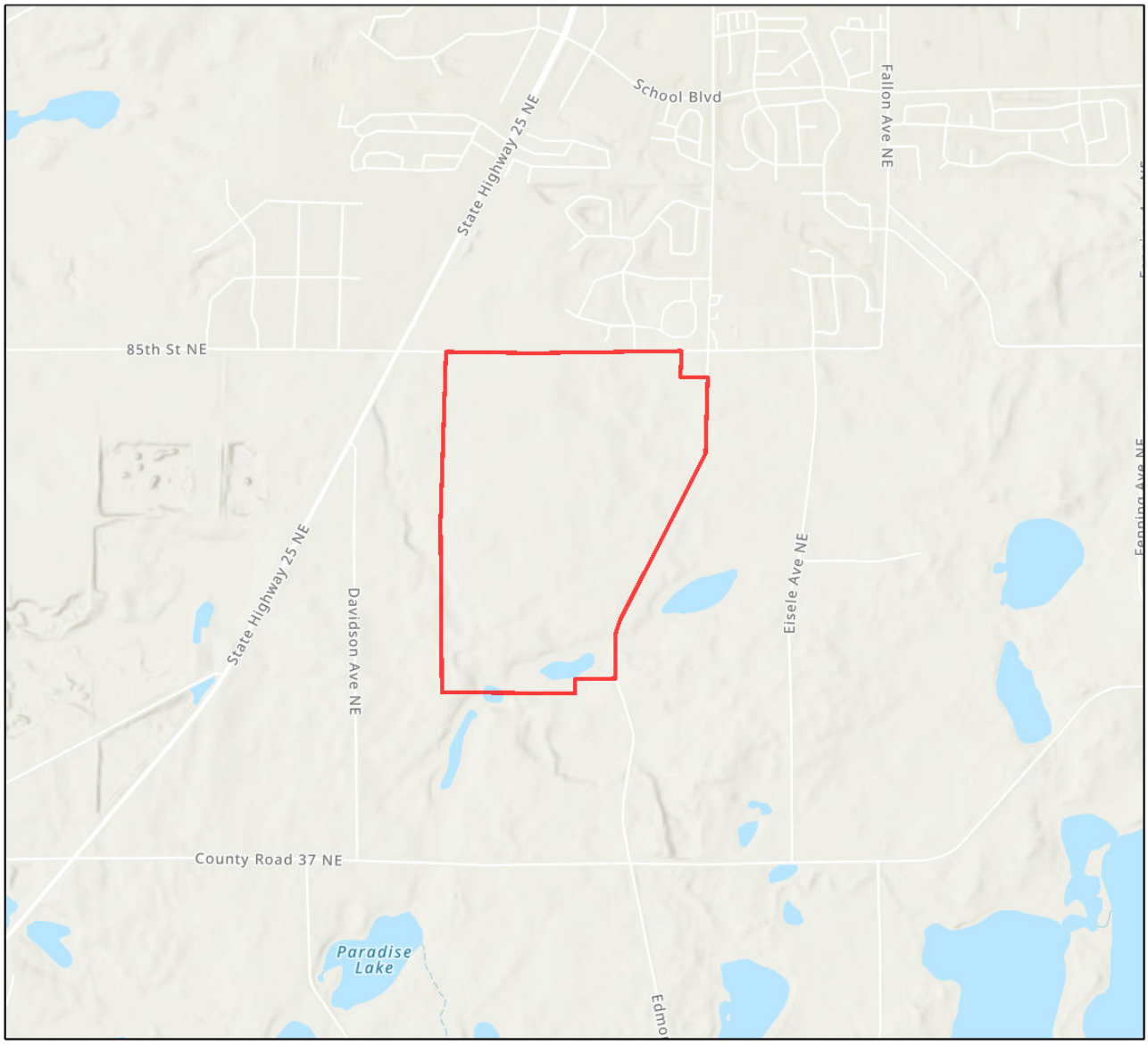
County(s): Wright

TRS: T121 R25 S22, T121 R25 S23, T121 R25 S26, T121 R25 S27

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Earthstar Geographics
Metropolitan Council, MetroGIS, Esri, TomTom, Garmin, SafeGraph,

Monticello Industrial

USA Topo Basemap With Locator Map



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Project_Boundary

Project Type: Development, Commercial/Institutional/Industrial

Project Size (acres): 404.11

County(s): Wright

TRS: T121 R25 S22, T121 R25 S23, T121 R25 S26, T121 R25 S27

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
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Metropolitan Council, MetroGIS, Esri, TomTom, Garmin, SafeGraph,

Formal Natural Heritage Review - Cover Page

See next page for results of review. A draft watermark means the project details have not been finalized and the results are not official.

Project Name: Monticello Industrial AUAR

Project Proposer: Monticello Tech, LLC

Project Type: Development, Commercial/Institutional/Industrial

Project Type Activities: Wetland impacts (e.g., dewatering, tiling, drainage, discharge, excavation, fill, runoff, sedimentation, changes in hydrology);Tree Removal;Grading

TRS: T121 R25 S22, T121 R25 S23, T121 R25 S26, T121 R25 S27

County(s): Wright

DNR Admin Region(s): Central

Reason Requested: State EAW

Project Description: The city of Monticello is preparing an AUAR for the Monticello Industrial Development. The city is proposing two development scenarios. One is for 3,000,000 ...

Existing Land Uses:

Landcover / Habitat Impacted:

Waterbodies Affected:

Groundwater Resources Affected:

Previous Natural Heritage Review: Yes, ERDB#: 2024-00577

Previous Habitat Assessments / Surveys: No

SUMMARY OF AUTOMATED RESULTS

Category	Results	Response By Category
Project Details	Comments	Tree Removal - Recommendations
Ecologically Significant Area	No Comments	No Further Review Required
State-Listed Endangered or Threatened Species	Needs Further Review	State-protected Species - Needs Further Review
State-Listed Species of Special Concern	No Comments	No Further Review Required
Federally Listed Species	No Records	Visit IPaC For Federal Review

DEPARTMENT OF NATURAL RESOURCES

July 16, 2025

Project Name: Monticello Industrial AUAR
Project Proposer: Monticello Tech, LLC
Project Type: Development, Commercial/Institutional/Industrial
Project ID: MCE #2025-00610

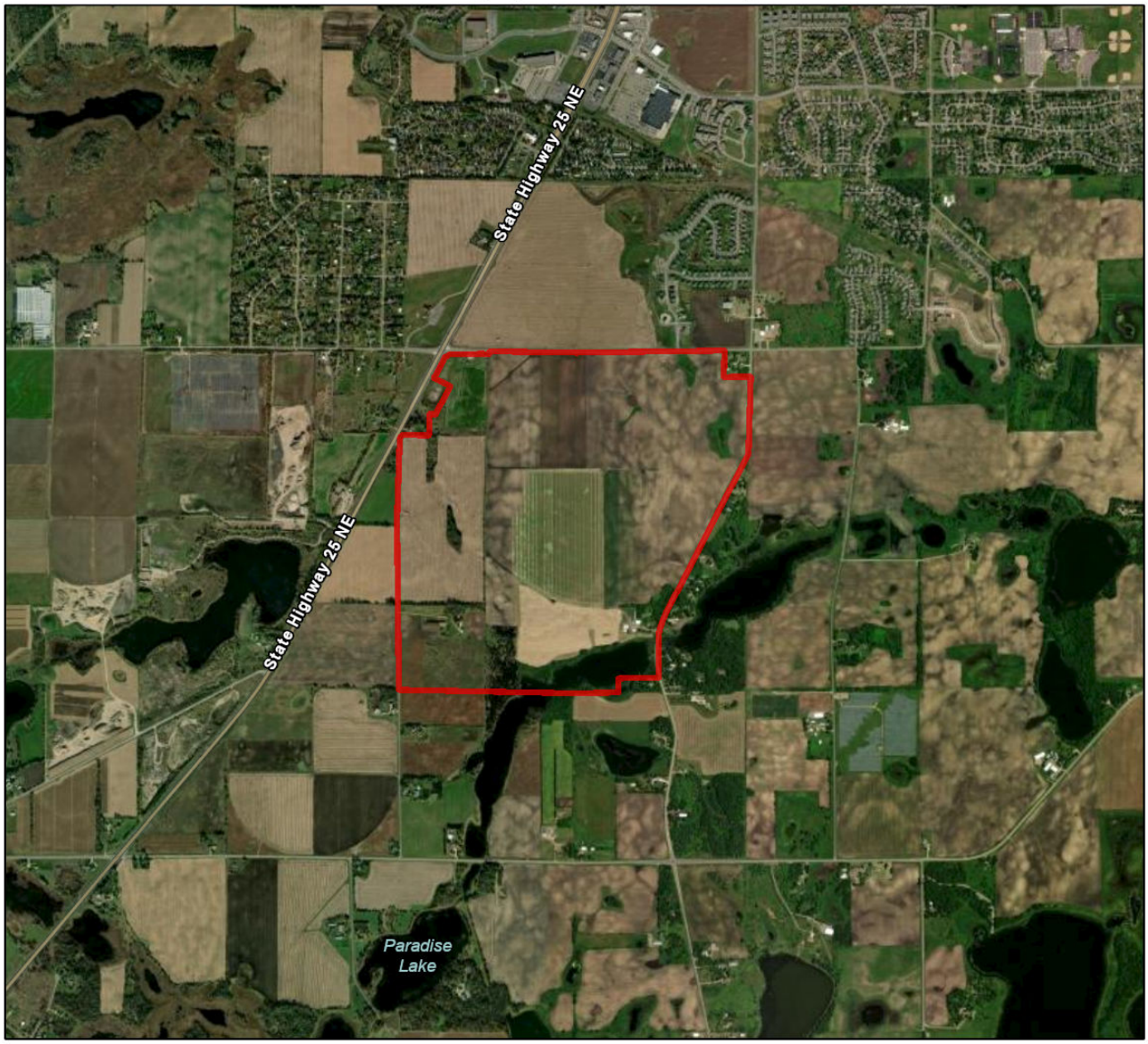
AUTOMATED RESULTS: FURTHER REVIEW IS NEEDED
As requested, the above project has undergone an automated review for potential impacts to rare features. Based on this review, one or more rare features may be impacted by the proposed project and further review by the Natural Heritage Review Team is needed. You will receive a separate notification email when the review process is complete and the Natural Heritage Review letter has been posted.

Please refer to the table on the cover page of this report for a summary of potential impacts to rare features. For additional information or planning purposes, use the Explore Page in Minnesota Conservation Explorer to view the potentially impacted rare features or to create a Conservation Planning Report for the proposed project.

If you have additional information to help resolve the potential impacts listed in the summary results, please attach related project documentation in the Edit Details tab of the Project page. Relevant information includes, but is not limited to, additional project details, completed habitat assessments, or survey results. This additional information will be considered during the project review.

Monticello Industrial AUAR

Aerial Imagery With Locator Map



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Project Boundary

Project Type: Development, Commercial/Institutional/Industrial

Project Size (acres): 545.75

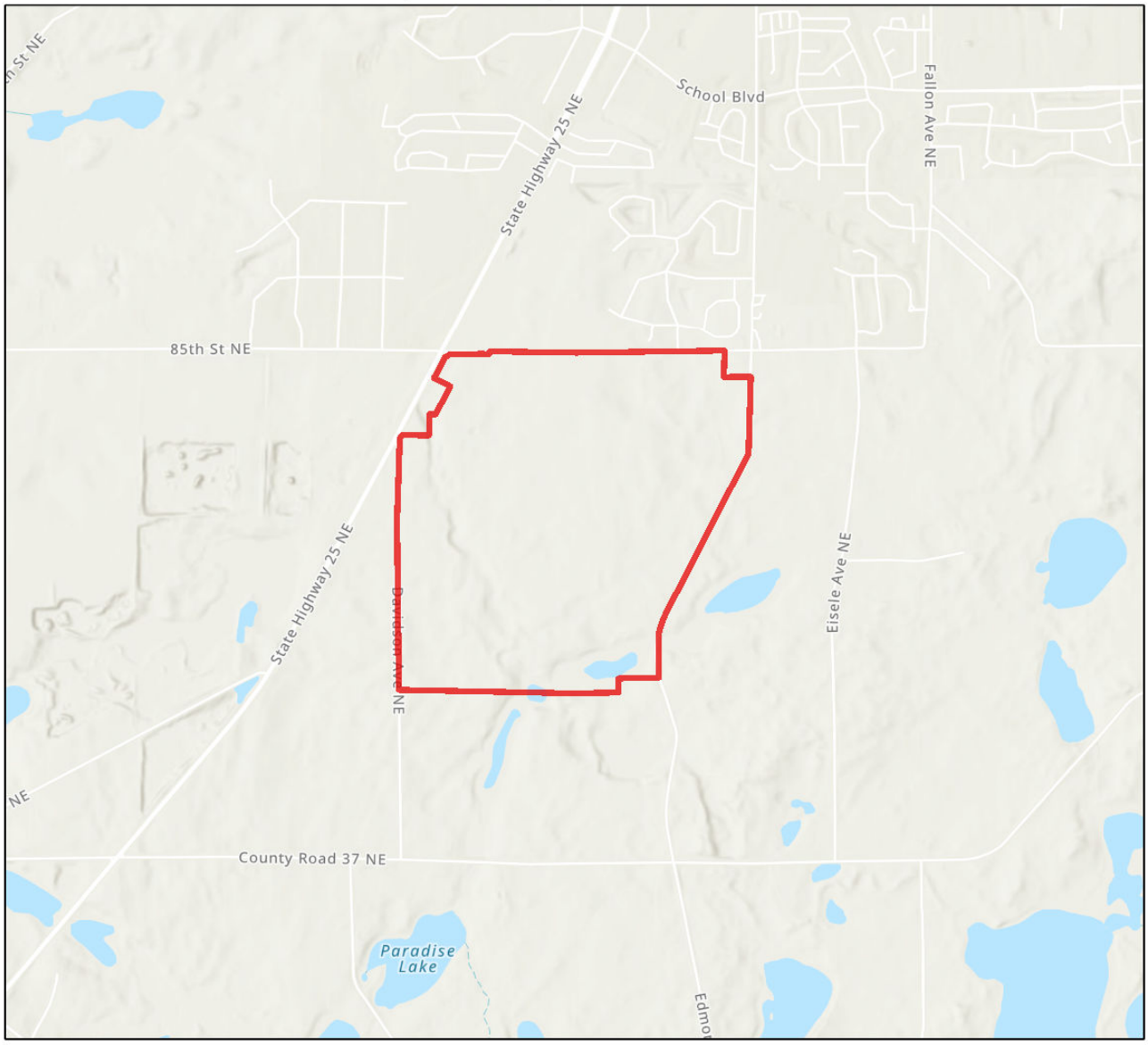
County(s): Wright

TRS: T121 R25 S22, T121 R25 S23, T121 R25 S26, T121 R25 S27

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Earthstar Geographics
Metropolitan Council, MetroGIS, Esri, TomTom, Garmin, SafeGraph,

Monticello Industrial AUAR

USA Topo Basemap With Locator Map



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Miles

Project Boundary

Project Type: Development, Commercial/Institutional/Industrial

Project Size (acres): 545.75

County(s): Wright

TRS: T121 R25 S22, T121 R25 S23, T121 R25 S26, T121 R25 S27

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Esri, NASA, NGA, USGS, FEMA
Metropolitan Council, MetroGIS, Esri, TomTom, Garmin, SafeGraph,

DEPARTMENT OF NATURAL RESOURCES

Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

August 14, 2025

Twin Cities - Environmental (Kimley-Horn)
Kimley-Horn and Associates, Inc.

RE: Natural Heritage Review of the proposed **Monticello Industrial AUAR**,
T121N R25W Sections 22-23 and 26-27; Wright County

Dear Twin Cities - Environmental (Kimley-Horn),

For all correspondence regarding the Natural Heritage Review of this project please include the project ID **MCE-2025-00610** in the email subject line.

As requested, the Minnesota Natural Heritage Information System has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request, the following rare features may be impacted by the proposed project:

State-listed Species

- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been documented in the vicinity of the proposed project. Blanding's turtles use upland areas up to and over a mile distant from wetlands, waterbodies, and watercourses. Uplands are used for nesting, basking, periods of dormancy, and traveling between wetlands. Factors believed to contribute to the decline of this species include collisions with vehicles, wetland drainage and degradation, and the development of upland habitat. Any added mortality can be detrimental to populations of Blanding's turtles, as these turtles have a low reproduction rate that depends upon a high survival rate to maintain population levels.

  This project has the potential to impact this rare turtle through direct fatalities and habitat disturbance/destruction due to activities associated with the proposed project. Minnesota's Endangered Species Statute (Minnesota Statutes, section 84.0895) and associated Rules (Minnesota Rules, part 6212.1800 to 6212.2300 and 6134) prohibit the take of threatened or endangered species without a permit. **As such, please contact** Review.NHIS@state.mn.us **to confirm that the following measures will be implemented:**
  - Avoid wetland and aquatic impacts during hibernation season, between September 15 and April 15, if the area is suitable for hibernation.
  - Limit erosion and sediment control to wildlife friendly erosion control.
  - Check bare ground within construction areas for turtles before the use of heavy equipment or any ground disturbance.
  - The Blanding's turtle flyer must be given to all contractors working in the area.

- Report any sightings using the DNR Plant and Animal Observation Form.
- If turtles are in imminent danger, move them by hand out of harm's way; otherwise, they are to be left undisturbed. Directions on how to move turtles safely can be found at Helping Turtles Across the Road.

If the above measures are not feasible, please contact Review.NHIS@state.mn.us as a project-specific avoidance plan will likely be needed to demonstrate avoidance.

Additional Blanding's turtle avoidance measures may include, but are not limited to, the following recommendations:

- Recommendations from List 1 of the Blanding's turtle fact sheet. If greater protection for turtles is desired, implement recommendations from List 2.
  - For examples of wildlife friendly roads, see "Curb Design and Small Animals" (Ch. 1 Species Protection, P. 24) in the Best Practices for Meeting DNR General Public Waters Work Permit manual.
- Avoid hydro-mulch products that contain any materials with synthetic (plastic) fiber additives, as the fibers can re-suspend and flow into waterbodies.
- Nesting occurs in open (grassy or brushy) sandy uplands. Blanding's turtles have been known to nest in residential areas, farm fields, and areas of exposed soil/sand/sediment (including soil stockpiles and gravel pads). To minimize impacts:
  - Avoid impacts to potential nesting habitat from June 1 through September 15, **or**
  - Exclude Blanding's turtles from potential nesting habitat from May 15 through July 15. To exclude turtles from potential nesting habitat: Install a barrier, buried 10 inches, around suitable nesting habitat.
  - See the Blanding's turtle fact sheet for more information regarding nesting.
- Buffer wetlands and waterbodies.
- Disturbed ground should be restored to pre-construction contours and re-vegetated with native species suitable to the local habitat.

- The Natural Heritage Information System (NHIS) tracks bat roost trees and hibernacula plus some acoustic data, but this information is not exhaustive. Even if there are no bat records listed nearby, all of Minnesota's bats, including the federally endangered northern long-eared bat (*Myotis septentrionalis*), can be found throughout Minnesota. During the active season (approximately April-November) bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying roosting habitat, especially during the pup rearing season when females are forming maternity roosting colonies and the pups cannot yet fly. To minimize these impacts, **the DNR recommends that tree removal be avoided from June 1 through August 15.**

- Please visit the DNR Rare Species Guide for more information on the habitat use of state-listed species and recommended measures to avoid or minimize impacts.

- Please report incidental sightings of state-listed species via the DNR Plant and Animal Observation Form.

Federally Protected Species

- To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) tool.

Environmental Review and Permitting

- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

- Given the potential presence of state protected species, we encourage submission of Natural Heritage Review requests to ensure avoidance of take for these species and to determine survey needs as individual projects are planned for the Alternative Urban Areawide Review (AUAR).

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available and is the most complete source of data on Minnesota's native plant communities, rare species, and other rare features. However, the NHIS is not an exhaustive inventory and does not contain the locations of all rare features in the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and project description provided with the request. **If project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.** Resubmit by selecting *Clone Project as Draft* on the project page in MCE.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit Natural Heritage Review for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, please contact your DNR Regional Environmental Assessment Ecologist.

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

Molly Barrett

Natural Heritage Review Specialist
molly.barrett@state.mn.us

Cc: Melissa Collins, Regional Environmental Assessment Ecologist, Central (Region 3)
Cc: Catherine Plank, Assistant Regional Environmental Assessment Ecologist, Central (Region 3)

Appendix D:
Greenhouse Gas Analysis

Minnesota Climate Calculator: Project Summary Report

Date Prepared: 10/20/2025

The results shown below were generated using the Minnesota Climate Calculator. The emissions quantified account for the full greenhouse gas impact of a potential project throughout the construction and operational phases of the project. This includes emissions from project activities that occur on-site as well as emissions that occur upstream and downstream of the project. The results are based on user inputs and assumptions; actual project emissions may vary.

Background Information

Project Name	Monticello Industrial AUAR - Scenario 1
Project Category (primary)	Subp. 14, Industrial, commercial, institutional facilities
Project Category (secondary)	
Location (County)	Wright
Construction Start Date	4/1/2027
Operational Year	2034
Operational Lifetime (Years)	50

Electricity Provider	Grid Average
Portion of Building Electricity Consumption to be Generated On-Site via Renewables or Supplied through the Purchase of Renewable Energy Credits (RECs)	0%
Portion of Building Natural Gas Consumption to be Supplied from Renewable Sources	0%

Building Construction Project?	Yes

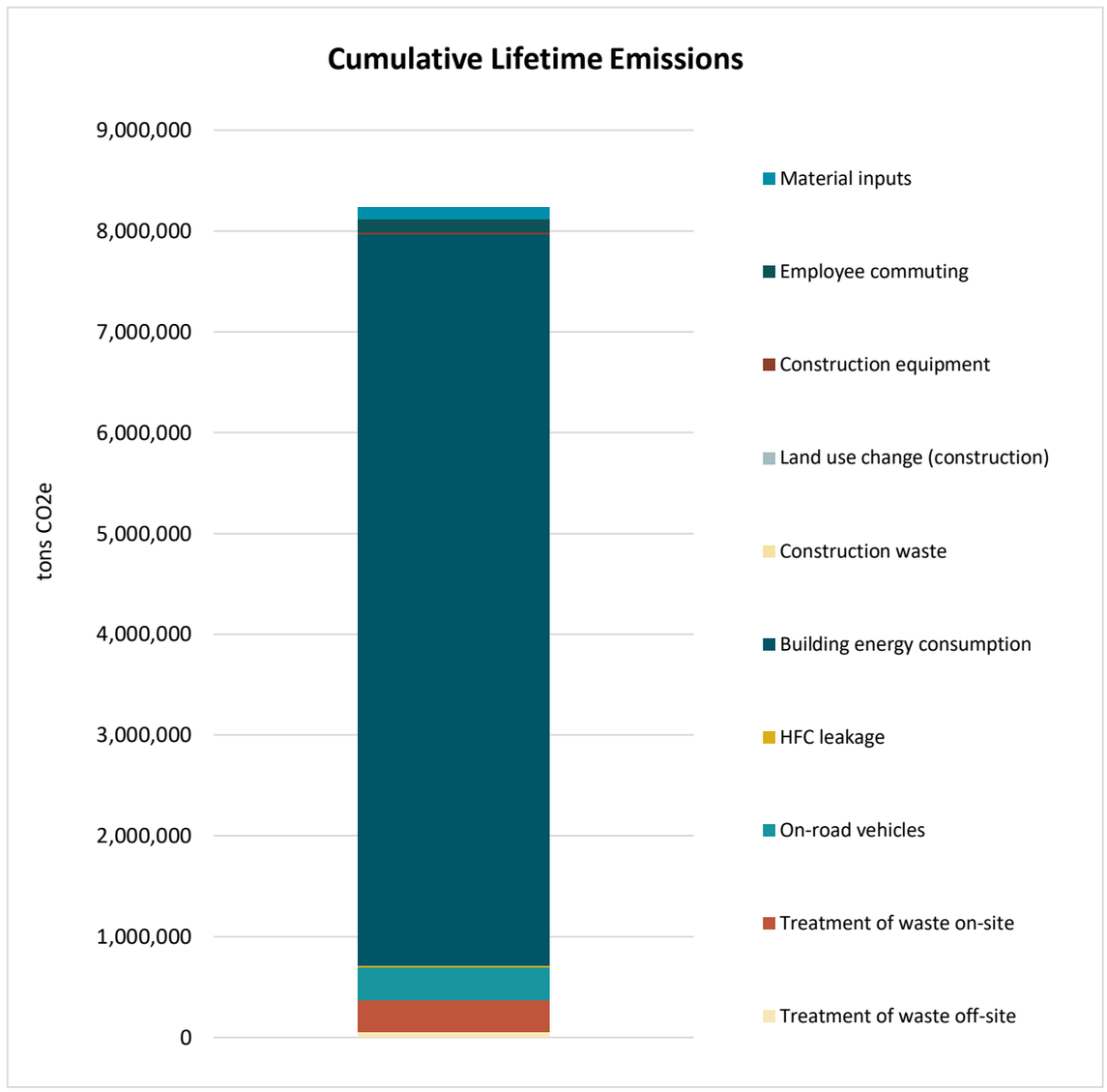
Construction Stage	Duration (Days)
Demolition	546
Site Preparation	328
Grading	846
Building Construction	8,463
Architectural Coatings	601
Paving and Landscaping	601

Summary Results

Project Lifetime	57
Unit	tons

Phase	CO_2e Emissions	
	Cumulative	Annualized
Construction		
Material inputs	117,457.85	2,060.66
Transportation of material inputs	2,383.50	41.82
Employee commuting	126,621.97	2,221.44
Construction equipment	19,939.55	349.82
Land use change (construction)	44.57	0.78
Construction waste	398.93	7.00
Operation		
Building energy consumption	7,262,072.29	127,404.78
Coal production	NA	NA
Natural gas and oil products	NA	NA
Industrial processes	NA	NA
HFC leakage	14,089.12	247.18
Land use change (operations)	NA	NA
On-road vehicles	320,692.54	5,626.18
Treatment of waste on-site	NA	NA
Treatment of wastewater on-site	NA	NA
Treatment of waste off-site	52,097.45	913.99
Enteric fermentation	NA	NA
Manure management	NA	NA
Total	**7,915,797.78**	**138,873.65**

Note: NA indicates that emissions were not quantified and/or are not applicable.



User Inputs

Note: NA indicates that emissions were not quantified and/or activity is not applicable.

Material Inputs

Material Type	Quantity	Unit	Geographical Sourcing
Aluminum	375.00	Tons	Unknown
Asphalt	12,068.00	Tons	Domestic
Brick	150.00	Tons	Unknown
Concrete	600,000.00	Tons	Domestic
Glass	750.00	Tons	Unknown
Insulation (residential)	0.00	Tons	Unknown
Insulation (commercial)	30.00	Tons	Unknown
Steel	9,000.00	Tons	Unknown
Wood Products	150.00	Tons	Unknown

Employee Commuting

Construction Stage	Daily Average Number of Employees Commuting
Demolition	500
Site Preparation	100
Grading	500
Building Construction	1400
Architectural Coatings	400
Paving and Landscaping	100

Transportation Mode	Percent of Employees
Single Occupancy Vehicle	82%
Carpool	11%
Motorcycle	0%
Bus	2%
Transit Rail	2%
Bike/Walk	3%

Average One-Way Commute Length (miles)	13.2

Construction Equipment

Equipment Type	Fuel Type	Number of Hours per Day by Construction Stage					
		Demolition	Site Preparation	Grading	Building Construction	Architectural Coatings	Paving and Landscaping
Air Compressors	Diesel	0	0	0	0	6	0
Cement and Mortar Mixers	Diesel	0	0	0	0	0	0
Concrete/Industrial Saws	Diesel	8	0	0	0	0	0
Cranes	Diesel	0	0	0	7	0	0
Excavators	Diesel	24	0	16	0	0	0
Forklifts	Diesel	0	0	0	24	0	0
Generator Sets	Diesel	0	0	0	8	0	0
Graders	Diesel	0	0	8	0	0	0
Pavers	Diesel	0	0	0	0	0	16
Paving Equipment	Diesel	0	0	0	0	0	16
Rollers	Diesel	0	0	0	0	0	16
Rubber Tired Dozers	Diesel	16	24	8	0	0	0
Scrapers	Diesel	0	0	16	0	0	0
Tractors/Loaders/Backhoes	Diesel	0	32	16	21	0	0
Welders	Diesel	0	0	0	8	0	0

Land Use Change

Land Use Type	Acres		
	Pre-Construction	Post-Construction	Post-Operation
Wetlands, forested	0.00	0.00	NA
Wetlands, not forested	30.75	22.26	NA
Forest	28.00	25.25	NA
Rivers and streams	0.00	0.00	NA
Brush and grassland	36.25	1.00	NA
Cropland	444.00	0.00	NA
Livestock rangeland/pastureland	0.00	0.00	NA
Lawn/landscaping	0.00	289.49	NA
Green Infrastructure: Constructed wetlands, paved	0.00	0.00	NA
Green Infrastructure: Constructed wetlands, vegetated	0.00	32.00	NA
Green Infrastructure: Constructed green roofs	0.00	0.00	NA
Green Infrastructure: Constructed permeable pavements	0.00	0.00	NA
Impervious surface	11.00	170.00	NA
Stormwater pond (wet sedimentation basin)	0.00	10.00	NA

Trees	Number
Number of mature trees removed	15
Number of new trees planted	15

Construction Waste

Material Type	Quantity (tons)
Aluminum	0.00
Asphalt	0.00
Brick	6.00
Concrete	18000.00
Glass	22.50
Insulation	3.00
Steel	0.00
Wood Products	7.50
Mixed Waste	0.00

Building Energy Consumption

Building Type	Energy Intensity (Btu/sq ft/year)			
	Electricity	Natural Gas	Propane	Kerosene or Fuel Oil
Residential	18,096.91	24,460.01	3,619.38	233.51
Commercial	30,766.13	35,534.88	0.00	1,661.56
Industrial	229,952.20	656,392.90	0.00	8,191.66
Institutional	46,860.06	48,219.03	0.00	3,659.93
Other	0.00	0.00	0.00	0.00

Emissions from Coal Production

Coal Type	Incremental Production (tons/year)
Mixed Coal	NA
Anthracite Coal	NA
Bituminous Coal	NA
Subbituminous Coal	NA
Lignite Coal	NA
Coal Coke	NA

Emissions from Natural Gas and Oil Products

Fuel Type	Incremental Throughput	Unit
Natural Gas	NA	Cubic Feet/year
Renewable Natural Gas	NA	Cubic Feet/year
Propane	NA	Gallons/year
Gasoline	NA	Gallons/year
Distillate Fuel Oil No. 1	NA	Gallons/year
Distillate Fuel Oil No. 2	NA	Gallons/year
Distillate Fuel Oil No. 4	NA	Gallons/year
Residual Fuel Oil No. 5	NA	Gallons/year
Residual Fuel Oil No. 6	NA	Gallons/year
Liquified Petroleum Gas (LPG)	NA	Gallons/year
Kerosene	NA	Gallons/year
Kerosene Jet Fuel	NA	Gallons/year
Biodiesel 100	NA	Gallons/year
Biodiesel 20	NA	Gallons/year
Renewable Diesel	NA	Gallons/year

Natural Gas Assumptions

Percent Reduction in Leakage and Venting Emissions	NA
Leakage and Venting Emissions ($kgCO_2e$/MMBtu)	NA

Industrial Processes

Product Type	Quantity (tons/year)	Emission Factor ($kgCO_2e$/ton)
Cement	NA	NA
Lime	NA	NA
Limestone Use	NA	NA
Magnesium	NA	NA
Iron and Steel	NA	NA
Ammonia	NA	NA
Aluminum	NA	NA
Nitric Acid	NA	NA

HFC Leakage

Building Type	Percent of Building Area Utilized
Residential	100%
Commercial	100%
Industrial	100%
Institutional	100%

On-Road Vehicles

Speed Bin (miles/hr)	Additional VMT (miles/year)
Fleet Average	23400000
0-30	0
31-55	0
56-75	0

Treatment of Waste On-Site

Waste Treatment Practice	Quantity of Waste Treated (tons/year)
	NA
	NA
	NA

Treatment of Wastewater On-Site

Population Served by Treatment Plant	NA

Product Type	Production (MT/year)
	NA

Treatment of Waste Off-Site

Activity	Quantity	Waste Generation Rate	Unit
Number of single family households	0	7.00	lb/household/day
Number of employees (commercial)	0	10.53	lb/employee/day
Number of employees (industrial)	1000	8.93	lb/employee/day
Number of employees (institutional)	0	3.55	lb/employee/day
Visitors per year (public venues)	0	1.72	lb/visitor

Waste Treatment Practice	Percent of Waste
Recycled	0%
Composted	0%
Landfilled	100%
Combusted	-

Enteric Fermentation and Manure Management

Livestock Type	Population	Percentage of Manure Management System											
		Anaerobic digester	Anaerobic lagoon - liquid	Cattle deep litter	Composting	Daily spread	Deep pit	Dry lot	Liquid/ slurry	Pasture, range, paddock	Poultry with litter	Poultry without litter	Solid storage
Bulls	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beef cows	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beef heifers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Steer stockers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heifer stockers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feedlot beef	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beef calves	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dairy heifers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dairy cows	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dairy calves	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Swine, <55 lbs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Swine 55-330 lbs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Swine 330+ lbs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poultry, layers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poultry, pullets	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poultry, chickens	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poultry, broilers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turkeys	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Percent of manure applied or sold for application to agricultural soils (pasture or cropland) as fertilizer	0%

Notes

General Notes	
Material inputs	
Transportation of material inputs	
Employee commuting	
Construction equipment	
Land use change (construction)	
Construction waste	
Building energy consumption	
Coal production	
Natural gas and oil products	
Industrial processes	
HFC leakage	
Land use change (operations)	
On-road vehicles	
Treatment of waste on-site	
Treatment of wastewater on-site	
Treatment of waste off-site	
Enteric fermentation	
Manure management	
Mitigation Measures	
Adaptation Strategies	

Minnesota Climate Calculator: Project Summary Report

Date Prepared: 10/20/2025

The results shown below were generated using the Minnesota Climate Calculator. The emissions quantified account for the full greenhouse gas impact of a potential project throughout the construction and operational phases of the project. This includes emissions from project activities that occur on-site as well as emissions that occur upstream and downstream of the project. The results are based on user inputs and assumptions; actual project emissions may vary.

Background Information

Project Name	Monticello Industrial AUAR - Scenario 2
Project Category (primary)	Subp. 14, Industrial, commercial, institutional facilities
Project Category (secondary)	
Location (County)	Wright
Construction Start Date	4/1/2027
Operational Year	2040
Operational Lifetime (Years)	50

Electricity Provider	Grid Average
Portion of Building Electricity Consumption to be Generated On-Site via Renewables or Supplied through the Purchase of Renewable Energy Credits (RECs)	0%
Portion of Building Natural Gas Consumption to be Supplied from Renewable Sources	0%

Building Construction Project?	Yes

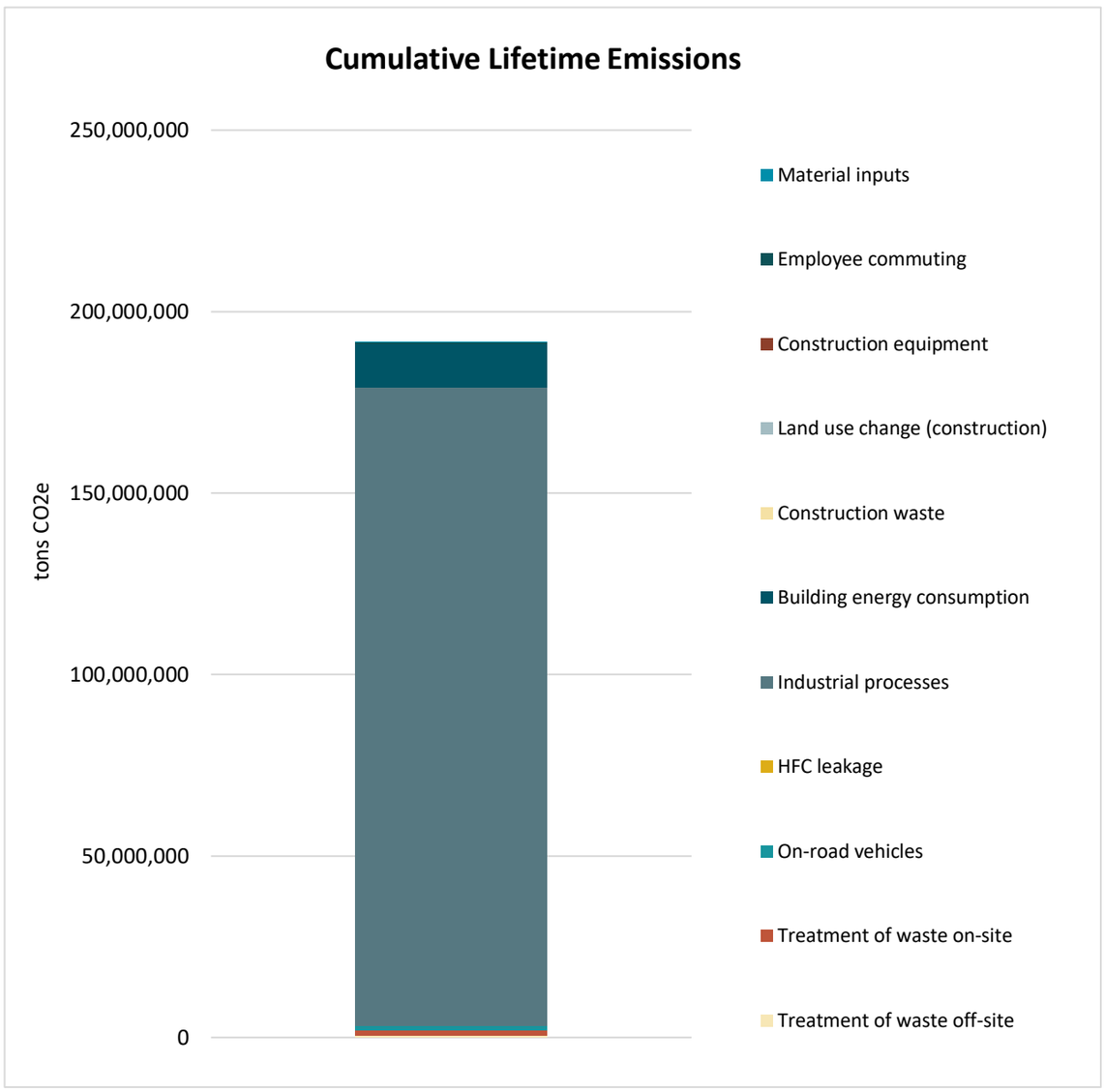
Construction Stage	Duration (Days)
Demolition	546
Site Preparation	328
Grading	846
Building Construction	8,463
Architectural Coatings	601
Paving and Landscaping	601

Summary Results

Project Lifetime	63
Unit	tons

Phase	CO_2e Emissions	
	Cumulative	Annualized
Construction		
Material inputs	197,881.21	3,140.97
Transportation of material inputs	4,049.70	64.28
Employee commuting	211,458.70	3,356.49
Construction equipment	19,939.55	316.50
Land use change (construction)	43.83	0.70
Construction waste	664.89	10.55
Operation		
Building energy consumption	11,989,982.68	190,317.19
Coal production	NA	NA
Natural gas and oil products	NA	NA
Industrial processes	175,985,810.72	2,793,425.57
HFC leakage	23,481.87	372.73
Land use change (operations)	NA	NA
On-road vehicles	1,335,029.14	21,190.94
Treatment of waste on-site	NA	NA
Treatment of wastewater on-site	NA	NA
Treatment of waste off-site	520,974.50	8,269.44
Enteric fermentation	NA	NA
Manure management	NA	NA
Total	**190,289,316.78**	**3,020,465.35**

Note: NA indicates that emissions were not quantified and/or are not applicable.



User Inputs

Note: NA indicates that emissions were not quantified and/or activity is not applicable.

Material Inputs

Material Type	Quantity	Unit	Geographical Sourcing
Aluminum	625.00	Tons	Unknown
Asphalt	47,485.68	Tons	Domestic
Brick	250.00	Tons	Unknown
Concrete	1,000,000.00	Tons	Domestic
Glass	1,250.00	Tons	Unknown
Insulation (residential)	0.00	Tons	Unknown
Insulation (commercial)	50.00	Tons	Unknown
Steel	15,000.00	Tons	Unknown
Wood Products	250.00	Tons	Unknown

Employee Commuting

Construction Stage	Daily Average Number of Employees Commuting
Demolition	835
Site Preparation	167
Grading	835
Building Construction	2338
Architectural Coatings	668
Paving and Landscaping	167

Transportation Mode	Percent of Employees
Single Occupancy Vehicle	82%
Carpool	11%
Motorcycle	0%
Bus	2%
Transit Rail	2%
Bike/Walk	3%

Average One-Way Commute Length (miles)	13.2

Construction Equipment

Equipment Type	Fuel Type	Number of Hours per Day by Construction Stage					
		Demolition	Site Preparation	Grading	Building Construction	Architectural Coatings	Paving and Landscaping
Air Compressors	Diesel	0	0	0	0	6	0
Cement and Mortar Mixers	Diesel	0	0	0	0	0	0
Concrete/Industrial Saws	Diesel	8	0	0	0	0	0
Cranes	Diesel	0	0	0	7	0	0
Excavators	Diesel	24	0	16	0	0	0
Forklifts	Diesel	0	0	0	24	0	0
Generator Sets	Diesel	0	0	0	8	0	0
Graders	Diesel	0	0	8	0	0	0
Pavers	Diesel	0	0	0	0	0	16
Paving Equipment	Diesel	0	0	0	0	0	16
Rollers	Diesel	0	0	0	0	0	16
Rubber Tired Dozers	Diesel	16	24	8	0	0	0
Scrapers	Diesel	0	0	16	0	0	0
Tractors/Loaders/Backhoes	Diesel	0	32	16	21	0	0
Welders	Diesel	0	0	0	8	0	0

Land Use Change

Land Use Type	Acres		
	Pre-Construction	Post-Construction	Post-Operation
Wetlands, forested	0.00	0.00	NA
Wetlands, not forested	30.75	29.49	NA
Forest	28.00	25.25	NA
Rivers and streams	0.00	0.00	NA
Brush and grassland	36.25	1.00	NA
Cropland	444.00	0.00	NA
Livestock rangeland/pastureland	0.00	0.00	NA
Lawn/landscaping	0.00	205.26	NA
Green Infrastructure: Constructed wetlands, paved	0.00	0.00	NA
Green Infrastructure: Constructed wetlands, vegetated	0.00	38.00	NA
Green Infrastructure: Constructed green roofs	0.00	0.00	NA
Green Infrastructure: Constructed permeable pavements	0.00	0.00	NA
Impervious surface	11.00	233.00	NA
Stormwater pond (wet sedimentation basin)	0.00	18.00	NA

Trees	Number
Number of mature trees removed	25
Number of new trees planted	20

Construction Waste

Material Type	Quantity (tons)
Aluminum	0.00
Asphalt	0.00
Brick	10.00
Concrete	30000.00
Glass	37.50
Insulation	5.00
Steel	0.00
Wood Products	12.50
Mixed Waste	0.00

Building Energy Consumption

Building Type	Energy Intensity (Btu/sq ft/year)			
	Electricity	Natural Gas	Propane	Kerosene or Fuel Oil
Residential	18,096.91	24,460.01	3,619.38	233.51
Commercial	30,766.13	35,534.88	0.00	1,661.56
Industrial	229,952.20	656,392.90	0.00	8,191.66
Institutional	46,860.06	48,219.03	0.00	3,659.93
Other	0.00	0.00	0.00	0.00

Emissions from Coal Production

Coal Type	Incremental Production (tons/year)
Mixed Coal	NA
Anthracite Coal	NA
Bituminous Coal	NA
Subbituminous Coal	NA
Lignite Coal	NA
Coal Coke	NA

Emissions from Natural Gas and Oil Products

Fuel Type	Incremental Throughput	Unit
Natural Gas	NA	Cubic Feet/year
Renewable Natural Gas	NA	Cubic Feet/year
Propane	NA	Gallons/year
Gasoline	NA	Gallons/year
Distillate Fuel Oil No. 1	NA	Gallons/year
Distillate Fuel Oil No. 2	NA	Gallons/year
Distillate Fuel Oil No. 4	NA	Gallons/year
Residual Fuel Oil No. 5	NA	Gallons/year
Residual Fuel Oil No. 6	NA	Gallons/year
Liquified Petroleum Gas (LPG)	NA	Gallons/year
Kerosene	NA	Gallons/year
Kerosene Jet Fuel	NA	Gallons/year
Biodiesel 100	NA	Gallons/year
Biodiesel 20	NA	Gallons/year
Renewable Diesel	NA	Gallons/year

Natural Gas Assumptions

Percent Reduction in Leakage and Venting Emissions	NA
Leakage and Venting Emissions ($kgCO_2e/MMBtu$)	NA

Industrial Processes

Product Type	Quantity (tons/year)	Emission Factor ($kgCO_2e/ton$)
Cement	0.00	863.12
Lime	0.00	1,162.63
Limestone Use	0.00	8.59
Magnesium	0.00	16,178.31
Iron and Steel	1000000.00	1,326.60
Ammonia	0.00	937.36
Aluminum	200000.00	9,332.16
Nitric Acid	0.00	1,804.37

HFC Leakage

Building Type	Percent of Building Area Utilized
Residential	100%
Commercial	100%
Industrial	100%
Institutional	100%

On-Road Vehicles

Speed Bin (miles/hr)	Additional VMT (miles/year)
Fleet Average	104000000
0-30	0
31-55	0
56-75	0

Treatment of Waste On-Site

Waste Treatment Practice	Quantity of Waste Treated (tons/year)
	NA
	NA
	NA

Treatment of Wastewater On-Site

Population Served by Treatment Plant	NA

Product Type	Production (MT/year)
	NA

Treatment of Waste Off-Site

Activity	Quantity	Waste Generation Rate	Unit
Number of single family households	0	7.00	lb/household/day
Number of employees (commercial)	0	10.53	lb/employee/day
Number of employees (industrial)	10000	8.93	lb/employee/day
Number of employees (institutional)	0	3.55	lb/employee/day
Visitors per year (public venues)	0	1.72	lb/visitor

Waste Treatment Practice	Percent of Waste
Recycled	0%
Composted	0%
Landfilled	100%
Combusted	-

Enteric Fermentation and Manure Management

Livestock Type	Population	Percentage of Manure Management System											
		Anaerobic digester	Anaerobic lagoon - liquid	Cattle deep litter	Composting	Daily spread	Deep pit	Dry lot	Liquid/ slurry	Pasture, range, paddock	Poultry with litter	Poultry without litter	Solid storage
Bulls	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beef cows	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beef heifers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Steer stockers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heifer stockers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feedlot beef	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beef calves	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dairy heifers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dairy cows	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dairy calves	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Swine, <55 lbs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Swine 55-330 lbs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Swine 330+ lbs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poultry, layers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poultry, pullets	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poultry, chickens	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poultry, broilers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turkeys	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Percent of manure applied or sold for application to agricultural soils (pasture or cropland) as fertilizer	0%

Notes

General Notes	
Material inputs	
Transportation of material inputs	
Employee commuting	
Construction equipment	
Land use change (construction)	
Construction waste	
Building energy consumption	
Coal production	
Natural gas and oil products	
Industrial processes	
HFC leakage	
Land use change (operations)	
On-road vehicles	
Treatment of waste on-site	
Treatment of wastewater on-site	
Treatment of waste off-site	
Enteric fermentation	
Manure management	
Mitigation Measures	
Adaptation Strategies	

Mitigation Measures (Step 5)

Use the filters in the table below to identify potential mitigation measures to reduce GHG emissions from the proposed project. Use the column on the far left to select measures you plan to implement. Select Generate PDF button once you've made your desired selections.

Generate PDF

Select All Unhidden Measures

Reset all Selected Measures

Select	Emissions Source	Phase	ID	Measure Title	Measure Description
Yes	Land use change	Construction	M-1E-01	Create New Open Space with Native Vegetation and Habitat	Convert previously developed areas to vegetated open spaces. By creating new vegetated areas from previously settled land, the project would sequester carbon dioxide that would not have been captured without the land conversion. Trees and other vegetation also incorporate carbon into their biomass during their growth phase (stored carbon). Prior to establishing new vegetation, conduct information gathering to assess the site history, soil type, hydrology, topography, and wildlife populations to determine appropriate native vegetation that will be well adapted to the local environment. Establish project goals, including GHG emission reduction and restoration native pollinator and/or native habitat. Other important goals may include expanding contiguous habitat and wildlife corridors for threatened or endangered species or increasing biodiversity. Create a detailed planting and management plan that describes actions for site preparation, planting, habitat enhancement, water management, and invasive species control. Maximize long-term establishment success by conducting regular monitoring. This may involve tracking plant growth, soil conditions, and wildlife movement. Utilize the monitoring data to perform regular maintenance. Adjust the management plan as needed to keep the site healthy and ensure attainment of project goal(s).
Yes	Land use change	Construction	M-1E-02	Expand Urban Tree Planting	Require tree planting in urban areas. Planting trees sequesters carbon dioxide while the trees are actively growing, thereby reducing GHGs. The amount of carbon dioxide sequestered depends on the type of tree and the duration of the active growing period. Urban trees may also provide shade, which can reduce the urban heat island effect and building cooling demands. Buildings that use less electricity for air conditioning reduce energy consumption and associated indirect GHG emission. The selection of tree type is critical to minimize the use of additional water. Trees that have high water demands that are met through GHG-intensive water (such as water transported over long distances) can impact the amount of GHG reductions achieved by this measure.
No	Land use change	Construction	M-1E-03	Clear Vegetation from Area to be Flooded	Reduce the amount of organic material flooded during construction. Flooded areas can result in organic decomposition, which can contribute to methane emissions.
No	Land use change	Construction	M-1E-04	Land Agreements for Tree Removal	Engage landowners to develop a strategy for composting, chipping, processing, or reusing trees removed from their properties. The strategy should prioritize cost-effective options that minimize GHG emissions from stored tree carbon. If appropriate, consider retaining stumps or logs on the project site to improve soil health and support wildlife habitat.
No	Land use change	Construction	M-1E-05	Wetland Restoration	Restore wetlands to improve their function and ability to sequester GHG emissions. For example, rewet drained wetlands, remove non-native plans, exclude livestock, and plant native wetland species. Because wetlands can also represent a GHG source, ensure the restored wetland and selected restoration strategies will effectively reduce GHG emissions.
No	Land use change	Construction	M-1E-06	Afforestation	Plant trees on previously deforested land.
No	Land use change	Construction	M-1E-07	Establish a Carbon Sequestration Project	Establish a carbon sequestration project. Carbon emissions are sequestered by embedding the carbon in a structure that will hold the emissions and keep them out of the atmosphere. Sequestration can happen through biological, chemical, or physical processes.
Yes	Building energy consumption	Operation	M-2A-01	Require Energy Efficient Appliances	Install ENERGY STAR-certified appliances that exceed the energy efficiency of conventional appliances. By committing to more efficient appliances, the building's energy use is reduced, thereby reducing GHG emissions.
No	Building energy consumption	Operation	M-2A-02	Install Alternative Type of Water Heater in Place of Gas Storage Tank Heater	Install water heaters that are less emissions intensive than a natural gas conventional storage tank water heater. Alternatives may include electric conventional storage tanks, solar water heaters with natural gas backup, or solar water heaters with electric backup. Each alternative reduces GHG emissions in a slightly different way. An electric storage tank heater displaces natural gas consumption with electricity use, replacing more emissions-intensive natural gas with less emissions-intensive electricity. A solar water heater with electric backup reduces GHG emissions by displacing natural gas with zero-emission solar energy when water is heated by the system's solar collectors and grid electricity when the back-up function is utilized. A solar water heater with natural gas backup reduces emissions by displacing natural gas with solar energy when water is heated by the solar collectors.
No	Building energy consumption	Operation	M-2A-03	Limit Wood Burning Devices and Natural Gas/Propane Fireplaces	Prohibit installation of any wood burning devices (i.e., woodstoves and fireplaces) or natural gas or propane fireplaces. This avoids the combustion of biomass, natural gas, and propane, thereby reducing associated biogenic and non-biogenic GHG emissions. The most efficient alternatives to wood burning devices or gas fireplaces are electric fireplace inserts and electric heat pumps.
No	Building energy consumption	Operation	M-2A-04	Install Electric Ranges in Place of Gas Ranges	Install electric ranges (i.e., cooktop plus oven) in place of gas ranges. An electric range displaces natural gas consumption with electricity use, replacing a more emissions-intensive fossil fuel-based source of energy with electricity from the grid that is increasingly transitioning to renewable sources.

No	Building energy consumption	Operation	M-2A-05	Install Electric Heat Pumps	Install electric heat pumps as alternatives to conventional furnaces or air conditioners. Electric heat pumps use electricity to transfer heat between cool and warm spaces to either provide cooling or heating. When cooling is needed during the summer months, the pumps move warmer inside air to outside. The pumps operate in reverse during the winter, moving warmer outdoor air into the building to provide heat. Because heat pumps move warm air instead of generating heat, they are more efficient than conventional heating and cooling systems. When electric heat pumps replace fossil-fuel heating or cooling sources, they achieve a dual efficiency and decarbonization benefit. The most common types of heat pumps collect heat from the air (are air-to-air), water (water-to-air), or ground (geothermal-to-air). The performance and emissions reductions achieved by electric heat pumps depend heavily on the system type, cooling and heating loads, climate zone, season, and other project-specific variables.
No	Building energy consumption	Operation	M-2A-06	Require Energy Efficient Boilers	Install boilers with higher energy efficiencies than what is required by regulation. Improving boiler efficiency decreases fuel consumption for the same amount of energy output, thereby reducing associated GHG emissions
No	Building energy consumption	Operation	M-2A-07	Install Whole-House Fans	Install whole-house fans in new construction. Whole-house fans draw cooler outdoor air through open windows, exhaust the warmer air into the attic, and then expel the air outside through attic vents. Whole-house cooling using a whole house fan can substitute for an air conditioner most of the year in most climates, resulting in a reduction in emissions associated with building energy use. Whole-house fans may be inappropriate in locations near sources that generate air pollutants during the evening hours, such as major roads and freeways.
No	Building energy consumption	Operation	M-2A-08	Install Cool Roofs and/or Cool Walls	Install cool roofs and/or walls in place of dark roofs and/or conventional walls. Cool roofs have been designed to reflect more sunlight and absorb less heat than a standard roof, keeping buildings cooler in the summertime and thus reducing air-conditioning loads. Complementary to cool roofs, cool walls achieve a similar result through using more reflective paints or materials. This reduces the electricity needed to provide cooling but can potentially increase the energy needed to provide winter heating, thereby reducing associated GHG emissions depending on the project parameters (e.g., climate, level of implementation, carbon intensity of local electricity provider). However, the winter heating penalty may be small with lower levels of winter sunlight due to shorter daylight hours and more overcast skies.
No	Building energy consumption	Operation	M-2A-09	Install Green Roofs in Place of Dark Roofs	Install green roofs in place of dark roofs. Green roofs consist of a layer of vegetation on top of buildings, which provides natural insulation and climate control benefits. This reduces the electricity and natural gas needed to provide cooling and heating, thereby reducing associated GHG emissions.
No	Building energy consumption	Operation	M-2A-10	Install Cool Pavements	Install cool pavement in place of dark pavement. Cool pavement helps to lower ambient outdoor air temperatures when compared to dark-colored, heat-absorbent pavement such as asphalt. This reduces the electricity needed to provide cooling, thereby reducing associated GHG emissions, depending on the project parameters (e.g., climate, carbon intensity of local utility).
No	Building energy consumption	Operation	M-2A-11	Improve Insulation Standards	Use building insulation that exceeds minimum code standards. Improving insulation reduces energy demand for both heating and cooling and thus reduces GHG emissions from reduced energy consumption. Adequate insulation improves buildings' thermal regulation as it helps avoid extreme heat gains and losses.
No	Building energy consumption	Operation	M-2A-12	Limit Window-To-Wall Ratio	Limit the window-to-wall ratio (WWR) of new buildings. Buildings with fully glazed façades are dependent on heating, ventilation, and air conditioning and tend to be highly exposed to solar. The optimal WWR for energy efficiency depends on the climate and orientation of the building.
No	Building energy consumption	Operation	M-2A-13	Maximize Solar Shading	Maximize building shade during the summer months. Shading is a passive and inexpensive way to reduce summer heat loads, and thus the need for air conditioning. Examples include vegetation with seasonal variation and envelope elements that reflect natural light.
No	Building energy consumption	Operation	M-2A-14	Optimize Natural Ventilation	Maximize natural building ventilation in new construction. Façade design allows natural ventilation at night to cool the building and reduce peak daytime temperatures in summer. This in turn reduces the need for air conditioning, which reduces building electricity consumption and associated emissions.
No	Building energy consumption	Operation	M-2A-15	Obtain Third-party HVAC Commissioning and Verification of Energy Savings	Require third-party review of heating ventilation and air conditioning (HVAC) systems to ensure proper installation and construction of energy reduction features. HVAC commissioning and third-party verification of energy savings may be obtained for thermal efficiency components including HVAC systems, insulation, windows, and water heating.
No	Building energy consumption	Operation	M-2A-16	Require Higher Efficacy Public Street and Area Lighting	Install higher efficacy public street and area lighting in place of typical or existing lamps. Installing more efficacious lamps, such as light-emitting diodes, will use less electricity while producing the same amount of light, thereby reducing the associated indirect GHG emissions.
No	Building energy consumption	Operation	M-2A-17	Replace Incandescent Traffic Lights with LED Traffic Lights	Replace incandescent traffic lights with more energy-efficient light-emitting diode (LED) traffic lights. Installing LEDs reduces electricity demand and thus results in a reduction in indirect GHG emissions.
No	Building energy consumption	Operation	M-2A-18	Procure Electricity from Lower Carbon Intensity Power Supply	Procure electricity with a lower carbon intensity than the primary product offered by the local provider (often an investor-owned utility). This would displace the electricity demand that would ordinarily be supplied by the local electricity provider's energy mix. Electricity provided by local electricity providers has varying carbon intensities based on the portfolio of energy sources. Procurement of electricity of a lower carbon intensity would displace the emissions that would have been produced had the electricity been supplied by the default energy mix and thus results in a reduction in GHG emissions. Green power supply options include utility green power products, community choice aggregation, shared renewables (e.g., community solar), and power purchase agreements.
No	Building energy consumption	Operation	M-2A-19	Require All-Electric Development	Install all-electric appliances and end uses. Using electric instead of natural gas-powered appliances and end uses replaces a more emissions-intensive fossil fuel source of energy with a less emissions-intensive source of energy, electricity from the grid that is increasingly transitioning to renewable sources.

No	Building energy consumption	Operation	M-2A-20	Require Zero Net Energy Buildings	Design and construct zero net energy (ZNE) buildings. A ZNE building foremost reduces GHG emissions by reducing energy use through more efficient design. Further, the building avoids GHG emissions either by using no emissions-generating energy sources or offsetting the building energy emissions by exporting emission-free energy (typically from onsite renewables).
No	Building energy consumption	Operation	M-2A-21	Require Renewable-Surplus Buildings	Install onsite renewable energy in an amount that offsets more emissions than the amount generated from the development's electricity use and onsite fuel consumption. Installing zero-emission renewable energy displaces emissions from grid electricity that would otherwise be used, thereby reducing GHG emissions. Implementation of this measure would result in buildings that reduce more GHG emissions than they generate through surplus generation of energy from renewables, sometimes known as carbon-negative buildings. The amount of renewable energy required for a building to have net negative GHG emissions is largely determined by the number of emissions from onsite fuel consumption and the carbon intensity of the local electricity provider.
No	Building energy consumption	Operation	M-2A-22	Establish Onsite Renewable Energy Systems	Generate electricity from an onsite renewable or zero-emission power system. This displaces the electricity demand that would ordinarily be supplied by the local electricity provider. Electricity generation provided by local electricity providers have varying carbon intensities based on the portfolio of energy sources. Some renewable energy systems, such as fuel cells, may not be completely GHG emissions-free, but may still have lower emissions than the electricity provided by the local electricity provider (unless the electricity provider has a relatively high renewable portfolio), thereby reducing GHG emissions. Zero-emissions power systems, such as solar panels, result in the greatest magnitude of emissions reductions. Onsite renewable systems can also provide back-up power as an alternative to diesel generators in the event of grid power outages or demand response events.
No	Building energy consumption	Operation	M-2A-23	Use Renewable Natural Gas or Green Hydrogen Fuel	Use renewable natural gas (RNG) in buildings instead of traditional natural gas. RNG has much lower carbon emissions and can be used in standard gas appliances like furnaces and water heaters. Alternatively, consider green hydrogen as a primary fuel source. Use of hydrogen would likely require some buildings retrofits or updates to appliances.
No	Building energy consumption	Operation	M-2A-24	Encourage Residential Participation in Existing Demand Response Program(s)	Market and promote the local utility's manual (i.e., behavioral) demand response program(s) to encourage participation from residents in the project area. During demand response events, program users shift or conserve electricity, thereby reducing the associated indirect GHG emissions. Methods of engaging customers in demand response efforts include offering time-based rates, such as time-of-use pricing, critical peak pricing, variable peak pricing, real-time pricing, and critical peak rebates. Users are encouraged to respond to time-based rates or other forms of financial incentives with smart phone app, email, phone call, and/or text notifications.
No	Building energy consumption	Operation	M-2A-25	Use Microgrids and Energy Storage	Design, install, and manage a microgrid. Microgrids offer the opportunity to deploy more zero-emission electricity sources, thereby reducing GHG emissions. The microgrid manager (e.g., local energy management system) can balance generation from non-controllable renewable power sources, such as solar, with distributed, controllable generation, such as natural gas-fueled combustion turbines. They can also use energy storage and batteries in electric vehicles to balance energy distribution and usage within the microgrid.
No	Building energy consumption	Operation	M-2A-26	Provide Battery Storage	Strategically deploy battery storage. While energy storage has no direct emissions effect, when deployed strategically, energy storage can make the grid more flexible, unlocking renewable energy and reducing GHG emissions. When deployed non-strategically, owners of energy storage assets are more likely to charge their facilities during off-peak periods when power prices are lower, in order to supply power during more expensive peak hours. Off-peak generation times such as nighttime hours are more likely to be dominated by conventional power sources, which, except for nuclear and hydropower, are likely to be more emissions intensive.
No	Building energy consumption	Operation	M-2A-27	Utilize a Combined Heat and Power System	Use combined heat and power (CHP) systems in place of separate heat and power (SHP) systems. For the same level of power output, CHP systems use less input energy than traditional SHP generation, resulting in lower GHG emissions. In traditional SHP systems, heat created as a by-product is wasted as it is released into the surrounding environment. CHP systems harvest thermal energy and use it to heat onsite uses or for processes in proximity, which reduces the amount of natural gas or other fuel that would otherwise be combusted for heating or for use in those processes. CHP systems also result in a reduced demand for electricity from the grid, which displaces the GHG emissions from the production of electricity from the grid.
No	Building energy consumption	Operation	M-2A-28	Utilize Biomass Energy	Install new biomass or biofuel electricity generation (or cogeneration). Although the direct combustion emissions for biofuels are generally on-par with other forms of fossil fuel energy, biofuels have a lower life-cycle carbon intensity due to the uptake of carbon from plants used to produce that fuel. A reasonable reference point for this carbon intensity would be the average carbon intensity of the electricity in the utility that would receive power from this new biomass plant.
No	Land use change	Operation	M-2F-01	Implement Management Practices to Improve the Health and Function of Natural and Working Lands	Implement management strategies aimed at improving the overall health and functionality of natural and working lands as a mechanism for increasing carbon sequestration and reducing GHG emissions. Management practices may include those that change ecosystem carbon exchange rates (e.g., cultivated land soil conservation, use of biochar) and those that involve land cover changes. If land conversion is deemed appropriate, refer to Measure M-1E-1 for recommended implementation and management strategies.
No	Land use change	Operation	M-2F-02	Wildfire Resilience and Management	Implement fuel treatments in forested areas to minimize the likelihood of severe or catastrophic wildfire behavior, thereby minimizing pyrogenic carbon emissions during a wildfire event. Fuel treatments have the short-term effect of releasing more carbon emissions as understory, ladder fuels, and forest fuel loads are burned. However, in the long term, treated stands produce fewer emissions compared to untreated stands because treated stands produce low to moderate fire severity that does not disturb the carbon stock in the overstory canopy. Untreated stands are far more likely to experience sever behavior that ignites the canopy and releases the stored carbon in the overstory.
No	Land use change	Operation	M-2F-03	Use Rotational Grazing	Regularly move cattle between different grazing areas to promote healthy pasture regrowth before resuming grazing.

No	Land use change	Operation	M-2F-04	Reduce Livestock Stocking Density	Decrease the amount of cattle stocked per pasture to reduce grazing pressure, which in turn reduces plant defoliation and soil disturbance, which can mitigate soil carbon loss. Reducing the stocking density also reduces methane emissions by decreasing the animal population.
No	Land use change	Operation	M-2F-05	Plant Cover Crops	Plant cover crops during fallow periods to enhance soil carbon storage.

Adaptation Strategies (Step 6)

Use the checkboxes below to identify adaptation strategies relevant to selected climate trends and project characteristics. The list of adapation strategies will filter to show strategies that align with both the climate trends and project characteristics selected. Ensure Macros are enabled for filters to work (see the User Guide tab for instructions on enabling macros). Use the column on the far left to select strategies you plan to implement as part of your proposed project. Select Generate PDF button once you've made your desired selections.

Step 1: Select Climate Trends

- ☑ Heavier, more damaging rain
- ☑ Average annual precipitation increasing
- ☑ Average annual temperature increasing
- ☑ Increasing risk of extreme heat and heatwaves
- ☑ Early thawing (cold weather warming)
- ☑ Increasing risk of drought

Step 2: Select Project Characteristics

- ☑ Hazardous waste
- ☐ Agriculture
- ☐ Livestock
- ☑ Critical infrastructure
- ☑ Waste management
- ☑ New or upgraded buildings
- ☑ Subsurface infrastructure
- ☑ Water management
- ☑ Construction
- ☑ Increased impervious surface
- ☐ New, expanded, or rebuilt transportation route

Reset Climate Trends | Reset Project Characteristics | Select All Unhidden Strategies | Reset all Selected Strategies | Generate PDF

Selection	ID	Adaptation Strategies	Additional Information
Yes	S-1A-01	Clear floodplains and other areas subject to flooding of hazardous contaminants in advance of a flood event from extreme precipitation.	Develop a coordination plan to clear hazardous contaminants ahead of and/or after a flood event.
No	S-1A-02	Conduct ongoing and pre-event stormwater infrastructure maintenance.	Clean out the storm drains and culverts; Ensure that all maintenance equipment are readily available and working for extreme events (e.g., generators).
Yes	S-1A-05	Enhance/develop adaptive stormwater management practices and technologies.	Implement natural buffers and green infrastructure (e.g., bioswales, tree trench; blue roof; vegetated roof; bioretention; green and blue roofs; preserve or build natural features/ecosystems; Use certified/qualified green infrastructure contractors and engineers; Maintain and/or expand the urban tree canopy); Ensure adequate culvert sizing and/or replace undersized culverts; Remove impervious surfaces and/or install permeable surfaces; Ensure sufficient water storage capacity for extreme flooding; Install underground storage systems to detain runoff in underground receptacles (e.g., culverts, engineered stormwater detention vaults, or perforated pipes); Build a retention pond to manage stormwater; Implement enhanced roof access to inspect and maintain roof and drainage system; Install oversized roof drains; use smart ponds.
No	S-1A-06	Incorporate flood-proofing measures into new or upgraded facilities/assets.	Dry or wet-proof facilities (e.g., apply a waterproof veneer); Waterproof key equipment; Install back-up power; Conduct pre-flood event sandbagging; Install hard flood protection structures (e.g., floodwall, levees, dikes); Install removable barriers; Have movable assets; Seal buildings; Place critical equipment in waterproof containers or foundation systems; Consider elevation when selecting the site (e.g., Elevate the facilities and/or assets to be above the flood level).
No	S-1A-07	Flood-proof facilities/assets using natural buffers and green infrastructure.	Maintain and/or expand the urban tree canopy; Use green roofs; Preserve or build natural features/ecosystems; Use certified/qualified green infrastructure contractors and engineers.
Yes	S-1A-10	Ensure there is adequate redundancy and/or backup energy resources available to maintain necessary operations during extreme precipitation events.	Implement renewable energy and smart grid technology to optimize energy distribution and reduce outages; Develop off-grid sources for redundant power supply; Install easy hookups for temporary power; Install backup generators; Diversify energy sources such as by installing renewable energy; Install battery storage; Incorporate multiple power supplies; Implement a microgrid with integrated energy storage systems; Join a community energy project to pool resources; Utilize a combined heat and power (CHP) system; Ensure these systems are designed to be resilient during a projected extreme flood event.
No	S-1A-11	Harden the energy infrastructure systems to withstand extreme precipitation events.	Bury distribution lines; Elevate critical infrastructure above flood levels; Waterproof or seal equipment; Improve drainage systems around critical infrastructure.
No	S-1A-14	Ensure waste management facilities are prepared for extreme precipitation events.	Waterproof waste storage (e.g., sealed containers; protective barriers); Improve drainage systems around the facility; Elevate the weigh station area to allow continued receipt of waste deliveries; Ensure access roads to the facility do not flood; When siting the facility, consider location (e.g., avoid floodplains; elevate the facility).
No	S-1A-15	Ensure water infrastructure can withstand projected increases in average and extreme precipitation.	Install stormwater outfall pumps/lift stations to drain water from the system if outfalls were to become submerged; Implement strong pumps for backflow prevention; Ensure adequate capacity for wastewater and stormwater collection or treatment; Increase water treatment capabilities; Incorporate backup generators and fuels sources, as applicable, in a location safe from flooding, for the water infrastructure system to provide a sustained minimal level of water services in the event of a power outage.
No	S-1A-16	Prepare for worst case scenarios regarding extreme precipitation.	Stockpile response materials and store them near areas that will likely need rapid repairs after an extreme rainfall event (e.g., pre-position emergency power generation capacity, portable pumps, and debris removal equipment); Implement early warning systems for extreme weather events.
No	S-1A-17	When siting and orienting a facility or asset, consider flood risk from increased precipitation and extreme precipitation events.	Avoid development in erosion zones and floodplains; Select a site at higher elevation.
Yes	S-1A-18	Maintain or improve ecosystem health to act as a natural barrier to increasing precipitation and extreme precipitation events.	Avoid or minimize development on key ecosystem areas (e.g., wetlands, trees) to maintain natural barriers; Revegetate with native and/or deep rooted plants to improve stormwater drainage and flooding; Develop a plan for future ecosystem health; If there is tree planting, plant tree species that are adapted to current and/or future climate conditions (see: https://extension.umn.edu/creating-climate-ready-woodlands/recommended-trees).
No	S-1A-19	Incorporate stormwater green infrastructure into site plans to mimic the water storage of natural systems.	Plan installation of bioswales, tree trenches, bioretention cells, raingardens, etc. sized to better address more frequent intense precipitation events.
No	S-1A-20	Develop post-storm plans for the construction site.	Develop a coordination plan to clear roads and drainage systems from debris after extreme precipitation events.
No	S-1B-01	Ensure hazardous materials are stored in temperature-controlled environments to accommodate for high temperatures and heatwaves.	Insulate storage areas; Install temperature monitoring systems with alarms to alert staff; Conduct regular inspections and maintenance of storage facilities.
No	S-1B-02	Consider alternative pavement surfaces and materials that are more heat-resistant to reduce heat impacts and surface temperatures.	Use light-colored asphalt pavement to reduce heat absorption and reflect radiation; Use materials for railway tracks and stations that are resistant to higher heat to prevent buckling and kinks; Install permeable surfaces especially for low-traffic areas such as roadside parking (along curbs) and parking lots.
No	S-1B-03	Incorporate flexible pavement design to accommodate thermal expansion and prevent buckling from high temperatures and heatwaves.	Design roads with additional thermal expansion joints; Incorporate polymer-modified asphalt in the pavement mix; Apply reflective coatings.
No	S-1B-05	Retain mature trees as part of design and during construction.	Inventory trees; mark boundaries around trees to avoid compaction and damage to trunks and roots.
No	S-1B-06	Use cooling technologies to reduce surface temperatures during periods of high temperatures and/or heatwaves.	Use reflective coating; Use high-reflectivity hardscape; Decrease impervious surfaces and/or install permeable surfaces; Incorporate green infrastructure (e.g., green roofs); Maintain and/or expand urban tree canopy.
No	S-1B-07	Consider and adjust to changes in the distribution and prevalence of heat-tolerant pests by incorporating changes into pest management for buildings and infrastructure.	Resist intrusion of termites as hardiness zones move north.
No	S-1B-08	Use building construction materials that maintain indoor temperatures and/or are resilient to increasing temperatures during high heat conditions and heatwaves.	Update building insulation for higher heat thresholds; Use reflective roofing materials; Install energy efficient windows (e.g., double-glazed windows); Install green roofs and/or green walls; Use light-colored building materials (e.g., cool roofing and sliding materials); Optimize natural ventilation.
No	S-1B-12	Consider how higher temperatures and heatwaves may increase decomposition rates and the need to improve waste management practices.	Install a temperature monitoring system to detect and manage heat build-up; Install waste infrastructure that can withstand higher temperatures such as landfill liners, odor control strategies for organics composting.
No	S-1B-13	Ensure subsurface infrastructure (e.g., pipes, SSTA installation) can withstand high temperatures and heatwaves.	Install sensors to monitor ground temperatures; Use thermal insulation; Implement cooling systems (e.g., ventilation shafts, cooling pipes); Install temperature sensors for monitoring.
Yes	S-1B-14	Ensure there is adequate redundancy and/or backup energy resources available to maintain necessary operations during increased cooling demand and/or an extreme heat event.	Implement renewable energy and smart grid technology to optimize energy distribution and reduce outages; Develop off-grid sources for redundant power supply; Install easy hookups for temporary power; Install backup generators; Diversify energy sources such as by installing renewable energy; Install battery storage; Incorporate multiple power supplies; Implement a microgrid with integrated energy storage systems; Join a community energy project to pool resources; Utilize a combined heat and power (CHP) system.
No	S-1B-15	Harden the energy infrastructure systems to withstand projected increasing temperatures and heatwaves.	Increase tension in transmission lines to reduce sag; Add external coolers to transformers; Use more heat-resistant materials (e.g., high-temperature conductors); Bury lines/cables.
No	S-1B-16	Upgrade the electrical systems to handle increased cooling demand especially from extreme heat events.	Consider renewable energy and smart grid technology to optimize energy distribution and reduce outages.
No	S-1B-17	Provide cooling systems for critical infrastructure or equipment sensitive to overheating during periods of high temperatures and/or heatwaves.	Install back up air conditioning units; Use battery-powered equipment which is less prone to overheating than gas-powered machinery.
No	S-1B-18	Implement cooling strategies for construction equipment vulnerable to high temperatures.	Provide cooling systems for equipment sensitive to overheating; Use battery-powered equipment which is less prone to overheating than gas-powered machinery.
No	S-1B-19	Increase the frequency of maintenance checks to ensure construction equipment is functioning optimally in high temperatures and during heatwaves.	Regularly check fluid levels, tire pressure, and hydraulic systems.
No	S-1B-20	Use cooling technologies to reduce heat impact on waste management systems during periods of high temperatures and/or heatwaves.	Implement cooling systems for waste facility; Install heat-resistant and sealed containers to store waste; Install green infrastructure on the facility (e.g., green roof; increased vegetation).
Yes	S-1B-21	Maintain or improve ecosystem health to mitigate heat from increasing temperatures and heatwaves.	Avoid or minimize development on key ecosystem areas (e.g., wetlands, trees) to maintain natural cooling systems; Develop a plan for future ecosystem health; If there is tree planting, plant tree species that are adapted to current and/or future climate conditions (see: https://extension.umn.edu/creating-climate-ready-woodlands/recommended-trees).

No	S-1B-22	Provide heat protective measures for construction staff who may be exposed to heat during work duties.	Consider different attire/uniforms, more breaks, more shade, more hydration stations, or telecommuting options.
No	S-1C-01	Consider impact of increased freeze/thaw cycles for design and construction of building and road foundations.	Use frost-resistant materials (e.g., frost-resistant concrete and asphalt) to minimize damage like cracking; Insulate foundations; Construct deeper foundations; Conduct regular maintenance and monitoring to inspect and repair damage.
No	S-1C-02	Consider changing thawing conditions when selecting or upgrading pipes.	Install PVC water pipes (rather than metal cast iron pipes) which are less expensive and easier to install than iron, to minimize breaks and ensure structural integrity.
No	S-1C-03	Regularly monitor the conditions of the construction site, roadway, etc. and conduct maintenance to reduce any degradation from increased temperatures and/or freeze/thaw cycles.	Implement regular monitoring and maintenance of potholes; Track thawing with sensors.
No	S-1D-01	For landscaping, use drought-tolerant plants or xeriscaping.	Plant more drought-tolerant options (e.g., succulents); Apply mulch around plants; Incorporate hardscaping (e.g., rocks).
Yes	S-1D-04	Install water storage to retain rainfall on the land for use to meet agricultural and irrigation needs.	Convert low spots that are currently in crop production but prone to flooding / washout into water storage areas.
No	S-1D-05	Incorporate water-efficient practices/technology into the waste management facility to account for drought conditions.	Use greywater for cleaning; Install rainwater harvesting systems; Use alternative water sources (e.g., reclaimed water).
No	S-1D-06	Ensure water infrastructure can withstand drought conditions.	Build infrastructure needed for aquifer storage and recovery; Diversify sources of water supply.
No	S-1D-07	Use technologies and strategies that recycle water for water management systems to account for drought conditions.	Establish systems to recycle water and use reclaimed water; Plumb buildings for greywater separation and reuse; Install wastewater treatment technology (e.g., a Living Machine) to recycle wastewater; Install greywater purification and reuse systems; Develop a closed-loop system.
No	S-1D-08	Install water-saving technologies indoors to account for drought conditions.	Use water-efficient household appliances (e.g., low-flow toilets, showerheads, and front-loading washers); Install water meters.
No	S-1D-09	Install water-saving technologies outdoors to account for drought conditions.	Install rainwater harvesting tanks; Plant native, deep-rooted, and/or drought-tolerant plants.

Appendix E:
Traffic Study

Traffic Impact Analysis

Monticello Industrial

MONTICELLO, MINNESOTA

NOVEMBER 2025

Prepared By:

Kimley»Horn

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1. INTRODUCTION

Kimley-Horn and Associates, Inc., (Kimley-Horn) was retained to prepare a Traffic Impact Analysis for a proposed industrial development in Monticello, MN, as the site undergoes the Alternative Urban Areawide Review (AUAR) process. The existing site is currently not zoned and will need to be annexed by the city of Monticello. An aerial view of the study location and surrounding roadway network is presented in **Exhibit 1**. All exhibits for this report are included in the appendix.

Two development scenarios are included in the AUAR. Scenario 1 consists of a 3 million square-foot Technology Park while Scenario 2 consists of a 5 million square-foot Industrial Park. As part of this study, the existing roadway network was analyzed to determine the current operations at the study intersections. In order to assess the potential impact of the development scenarios on the area roadway network, site-generated trips were established and added to the background traffic volumes. Future traffic conditions were evaluated for the approximate Opening Year of the proposed development (2030) and a long term "Design Year" (2045).

This report presents and documents data collection, summarizes the evaluation of existing and projected future traffic conditions on the surrounding roadways, and identifies recommendations to address the potential impact of site-generated traffic on the adjacent roadway network for Scenario 1 and Scenario 2.

1.1 Report Purpose and Objectives

The purpose of this study is to address traffic and transportation impacts of the proposed development on surrounding streets and intersections. This traffic impact study was prepared based on criteria set forth by the AUAR guidelines. The following specific information, per AUAR recommended content, should be provided:

- A description and map of the existing and proposed roadway system, including state, regional, and local roads to be affected by the development of the AUAR area. This information should include existing and proposed roadway capacities and existing and projected background (i.e. without the AUAR development) traffic volumes;
- Trip generation data – trip generation rates and trip totals – for each major development scenario broken down by land use zones and/or other relevant subdivisions of the area. The projected distributions onto the roadway system must be included;
- Analysis of impacts of the traffic generated by the AUAR area on the roadway system, including: comparison of peak period total flows to capacities and analysis of Level of Service and delay times at critical points (if any);
- A discussion of structural and non-structural improvements and traffic management measures that are proposed to mitigate problems.

Note: in the above analyses the geographical scope must extend outward as far as the traffic to be generated would have a significant effect on the roadway system and traffic measurements and projections should include peak days and peak hours, or other appropriate measures related to identifying congestion problems, as well as ADTs (average daily traffic).

2. EXISTING CONDITIONS

Kimley-Horn conducted a review of the AUAR area including existing land uses in the surrounding area, the adjacent street system, current traffic volumes and operating conditions, lane configurations and traffic controls at nearby intersections, and other key roadway characteristics. This section of the report details information on the existing conditions. An aerial view of the existing conditions and lane movements are shown in **Exhibit 2**.

2.1 Area Land Uses & Connectivity

The land uses of the site and the surrounding area are primarily agricultural, with some residential land north of 85th Street. The AUAR area is located in Wright County, just south of the City of Monticello's current boundary. Minnesota State Highway 25 (MN 25) connects the area to a full interchange with Interstate 94 (I-94) approximately 1.7 miles north of the site. I-94 provides regional east-west connectivity to major population centers such as the Twin Cities to the east and Saint Cloud to the west.

2.2 Existing Roadway Characteristics

The following provides a description of the public roadways within the AUAR area:

85th Street NE (or CR 106 west of MN 25**)** is an east-west roadway that serves as the northern boundary of the AUAR area. It is a two-lane undivided roadway with dedicated right- and left-turn lanes at the intersection with MN 25. 85th Street NE is classified as a major collector, according to the *Monticello 2040 Vision + Plan*. According to the MnDOT Traffic Mapping Application, the existing Annual Average Daily Traffic (AADT) along 85th Street is approximately 1,797 vehicles per day (vpd) west of MN 25, as of 2024. No AADT data is available east of MN 25. The posted speed limit is 45 mph west of MN 25. There is no posted speed limit east of MN 25, and therefore the statutory speed limit is 55 mph.

Minnesota State Highway 25 (MN 25) is a generally north-south state highway that runs west of the AUAR area. It is a two-lane undivided roadway about 1000' south of 85th Street, where it transitions to a four-lane divided roadway to the north. There are dedicated left and right turn lanes at the intersections with 85th street NE and CSAH 37. MN 25 is classified as Principal Arterial - other, according to the *Monticello 2040 Vision + Plan*. According to the MnDOT Traffic Mapping Application, the existing Annual Average Daily Traffic (AADT) along MN 25 is approximately 15,009 vehicles per day (vpd) north of 85th Street, as of 2024. The posted speed limit is 60 mph.

Edmonson Avenue NE (CR 117) is a north-south roadway that serves as the eastern boundary of the AUAR area. It is a two-lane undivided roadway that connects to the AUAR site via 85th Street NE. There are no existing turn lanes along this road. Edmonson Avenue NE is classified as a minor collector according to the *Monticello 2040 Vision + Plan*. Edmonson Avenue NE has an AADT of 1,808 vpd north of CSAH 37 and 1,930 vpd north of 85th Street NE. The posted speed limit is 55 mph.

CSAH 37 is an east-west County State Aid Highway (CSAH) located south of the AUAR area. It is a two-lane undivided roadway. CSAH 37 is classified as a major collector south of the AUAR area according to page 99 of the 2040 Monticello Comprehensive Plan. According to the MnDOT Traffic Mapping Application, the road has an AADT of approximately 4,873 vpd west of Edmonson Avenue as of 2024. The posted speed limit is 55 mph.

Davidson Avenue NE is a north-south roadway that serves as the western boundary of the AUAR area. It is a two-lane undivided local roadway with no turn lanes. There is no AADT data available for Davidson

Avenue NE and there is no posted speed limit. The speed limit was assumed to be 45 mph for analysis purposes.

School Boulevard is a three-lane undivided east-west roadway with one travel lane in each direction and a shared left turn lane. School Boulevard is classified as a minor arterial, according to the *Monticello 2040 Plan.* MnDOT reports an AADT of 5,994 west of Edmonson Avenue and 6,464 west of Fenning Avenue, as of 2024. The posted speed limit is 40 mph, with a school speed limit of 30 mph enforced when children are present.

Fallon Avenue is a two-lane undivided north-south roadway. Fallon Avenue is classified as a local road according to the *Monticello 2040 Plan*. MnDOT reports an AADT of 3,847 north of School Boulevard, as of 2024. The posted speed limit is 30 mph.

The existing geometry and intersection control for the intersections in the study area that will be included in this analysis are shown in **Exhibit 2**.

2.4 Traffic Count Data

Turning movement count data was collected during the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (4:00 PM to 6:00 PM). Data was collected at each study intersection, as listed below.

- MN 25 & 85th Street NE (Signal)
- Edmonson Avenue NE & 85th Street NE (Side-Street Stop)
- MN 25 & County Road 37 (Signal/Planned Roundabout)
- County Road 37 & Davidson Avenue (Side-Street Stop)
- County Road 37 & Edmonson Avenue (Side-Street Stop)
- School Boulevard & Fallon Avenue (All-Way Stop/Planned Roundabout)

Turning movement counts at the intersections of MN 25 & 85th Street NE and Edmonson Avenue & 85th Street NE were conducted on Thursday, July 11, 2024. Turning movement counts at MN 25 & County Road 37, County Road 37 & Davidson Avenue, and County Road 37 & Edmonson Drive were conducted on Wednesday, July 16, 2025. Traffic Volumes for MN 25 & Davidson Avenue were determined using the traffic counts from surrounding intersections. Count data from 2024 was grown with one year of background growth to conform with the newer traffic data. TMC data for School Boulevard & Fallon Avenue was collected when schools were in session on Tuesday, April 8, 2025.

The traffic count data indicates that peak traffic volumes occur within the study area from 7:00 to 8:00 AM and 4:00 to 5:00 PM on a typical weekday. Existing peak hour traffic volumes are summarized on **Exhibit 3**. A summary of the traffic count data is provided in the appendix.

2.3 Pedestrian and Bicycle Infrastructure

There is currently a shared use path located north of 85th Street NE but no pedestrian or bicycle facilities within the AUAR Area. The intersection of MN 25 & 85th Street NE has pedestrian crosswalks at the north and west legs of the intersection.

3. BACKGROUND CONDITIONS ANALYSIS

Analysis of the future background conditions was carried out to determine the baseline operating conditions for the Opening Year (2030) and Design Year (2045) of the proposed AUAR developments. A review of future traffic growth and planned geometric changes for the study roadways was conducted for the analysis.

3.1 Future Roadway Improvements

A corridor study for Highway 25 between Buffalo and Monticello was completed in 2022. The study identified multiple short-term and long-term improvements to the roadway within the study area. Some of the short term improvements identified by this corridor study are planned for construction in 2026. The most notable of these improvements is the installation of a single-lane roundabout at MN 25 & CSAH 37.

The corridor study also identified the potential removal of access to Davidson Avenue as a potential improvement. Additionally, a new full-access intersection along MN 25 south of the existing Davidson Avenue intersection was identified as a long-term improvement. The *Monticello 2040 Vision + Plan* identifies a future minor collector roadway passing through the southern portion of the site and connecting from MN 25 to Edmonson Avenue.

For the sake of analysis, a roundabout at MN 25 & CSAH 37 was assumed to be in place by the Opening Year (2030). Removal of access from Davidson Avenue and the addition of a new full-access intersection along MN 25 were assumed under the Opening Year (2030) conditions. For this analysis, through traffic was not included at this potential roadway connection.

The City of Monticello is preliminarily planning to construct a roundabout at the intersection of School Boulevard & Fallon Avenue. Because there is no clear timeline for this improvement, it was assumed that this would be a long term project and would be completed by 2045.

3.2 Future Background Growth

The *Wright County Long Range Transportation Plan* gives future traffic projections in a broad range of values for each roadway and therefore it is difficult to determine the level of growth from projected AADT growth. Furthermore, review of historical AADT data revealed no clear trends in traffic patterns for the adjacent roadways. Instead, the background growth rate was calculated to align with the City of Monticello's anticipated population growth. With a 2019 population of about 13,747 people, the city is anticipated to grow to a population of 19,738 by 2045, based on the preferred growth scenario outlined in the *Monticello 2040 Vision + Plan*. This represents about a 1.7% annual growth rate.

A nearby residential development, Haven Ridge, is located east of Fallon Avenue near the study area. This development includes 59 single-family residences and is currently under construction. Traffic to/from this development were applied to the School Boulevard & Fallon Avenue intersection to account for development traffic.

The Future (2030) No-Build traffic projections are presented in **Exhibit 4**. The Future (2045) No-Build traffic projections are presented in **Exhibit 5**.

3.3 Existing (2025) Capacity Analysis

Synchro/SimTraffic 12th edition capacity software was used to evaluate existing operational conditions at the signalized and stop-controlled intersections. Operations of the future roundabout at MN 25 & CSAH 37 were evaluated using roundabout analysis software Rodel.

The capacity of an intersection quantifies its ability to accommodate traffic volumes and is expressed in terms of level of service (LOS), measured in average delay per vehicle. LOS grades range from A to F, with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions).

The LOS grades shown below, which are provided in the Transportation Research Board's Highway Capacity Manual (HCM), quantify and categorize the driver's discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 3-1**.

Table 3-1 : Level of Service Grading Descriptions

Level of Service	Description[1]
A	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	Minor control delay at signalized intersections; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.
C	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.
D	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	High control delay; average travel speed no more than 33 percent of free flow speed.
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

[1]*Highway Capacity Manual, 6th Edition.*

The range of control delay for each rating (as detailed in the HCM) is shown in **Table 3-2**. HCM considers roundabouts to be unsignalized intersections when determining LOS.

Table 3-2: Level of Service Grading Criteria

Level of Service[1]	Average Control Delay (s/veh) at:	
	Unsignalized Intersections	Signalized Intersections
A	0 – 10	0 – 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F[2]	> 50	> 80

[1]*Highway Capacity Manual, 6th Edition*

[2]*All movements with a Volume to Capacity (v/c) ratio greater than 1 receive a rating of LOS F.*

For the purposes of this study, the worst individual movement delay was reported as the overall intersection delay at side street stop control intersections. The results of capacity analysis for existing conditions are

summarized in **Table 3-3**. The results are based on SimTraffic within Synchro, 12th Edition. Copies of the SimTraffic reports are provided in the appendix.

Based on the analysis, all study intersections operate at LOS B or better during the AM and PM peak hours. Under Existing Year (2025) Conditions, some side street movements at MN 25 & 85th Street NE are anticipated to operate at LOS E during the PM peak hour. The long cycle lengths employed during the PM peak hour ensure very low levels of delay for through movements along MN 25, resulting in overall low delays at the intersection. LOS E for side street turning movements is not an issue in itself and the intersection operates with very low delays overall; therefore, no mitigation is recommended. The 95th percentile queues were reviewed at the study intersections. All 95th percentile queues are anticipated to be accommodated within their respective storage bays.

Table 3-3: Existing Year (2025) Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall[1]	Left	Through	Right	Overall[1]
MN 25 & 85th Street	Signal	EB	C (33)	C (25)	A (3)	**A (8)**	E (60)	D (53)	A (2)	**A (9)**
		WB	C (30)	C (31)	A (3)		E (55)	D (44)	A (3)	
		NB	A (4)	A (3)	A (0)		A (4)	A (3)	A (1)	
		SB	A (6)	A (8)	A (1)		A (7)	A (8)	A (2)	
Edmonson Avenue & 85th Street	Side Street Stop	EB	A (3)	A (7)	A (1)	**A (8)**	A (4)	A (5)	A (2)	**A (9)**
		WB	A (4)	A (8)	A (1)		A (4)	A (9)	A (3)	
		NB	A (0)	A (1)	A (0)		A (1)	A (1)	A (0)	
		SB	A (0)	A (0)	A (0)		A (1)	A (1)	A (0)	
MN 25 & CSAH 37	Signal	EB	B (10)	B (13)	A (4)	**B (10)**	B (18)	B (19)	A (5)	**B (12)**
		WB	B (13)	B (13)	A (7)		B (17)	B (19)	A (5)	
		NB	B (16)	A (9)	A (2)		C (21)	B (12)	A (3)	
		SB	C (21)	B (10)	A (4)		C (26)	B (13)	A (5)	
CSAH 37 & Davidson Avenue	Side Street Stop	EB	A (6)	A (5)	-	**A (6)**	A (3)	A (3)	-	**A (4)**
		WB	-	A (2)	A (1)		-	A (2)	A (2)	
		NB	-	-	-		-	-	-	
		SB	A (3)	A (0)	A (2)		A (4)	A (0)	A (3)	
CSAH 37 & Edmonson Avenue	Side Street Stop	EB	A (1)	A (2)	A (2)	**B (11)**	A (2)	A (3)	A (2)	**B (13)**
		WB	A (1)	A (1)	A (1)		A (1)	A (1)	A (0)	
		NB	A (5)	B (11)	A (3)		A (9)	B (13)	A (4)	
		SB	A (3)	A (5)	A (3)		A (5)	A (5)	A (3)	
MN 25 & Davidson Avenue	Side Street Stop	EB	-	-	-	**A (3)**	-	-	-	**A (4)**
		WB	A (4)	A (0)	A (3)		B (15)	-	A (4)	
		NB	-	A (1)	A (0)		-	A (1)	A (0)	
		SB	A (1)	A (1)	-		A (3)	A (1)	-	

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall[1]	Left	Through	Right	Overall[1]
School Boulevard & Fallon Avenue	All-Way Stop	EB	A (7)	B (12)	A (7)	**A (9)**	A (6)	B (11)	A (6)	**A (9)**
		WB	A (7)	B (11)	A (6)		A (7)	B (12)	A (7)	
		NB	A (8)	A (9)	A (6)		A (7)	A (8)	A (4)	
		SB	A (7)	A (8)	A (5)		A (8)	A (9)	A (5)	

[1]Worst movement delay reported in place of overall delay at side street stop intersections. Excludes minor movements (<5 vph).

3.4 Opening Year (2030) No-Build Capacity Analysis

The Opening Year (2030) No-Build Condition analysis was completed to develop an understanding of the baseline operating conditions for the study area in the opening year without the addition of the development traffic. Capacity results for the Opening Year (2030) No-Build conditions are provided in **Table 3-4**. Roundabout analysis software Rodel was used to evaluate the traffic operations at the planned MN 25 & CSAH 37 roundabout. SimTraffic and Rodel analysis reports are provided in the appendix.

Under Opening Year (2030) No-Build conditions, all intersections are anticipated to continue operating at LOS C or better and all individual movements/approaches at LOS E or better. Delays are generally anticipated to see very minor changes compared to the Existing (2025) conditions and all intersections are expected to operate acceptably. The 95th percentile queue lengths were reviewed, and all queues are anticipated to remain within their respective storage bays.

Table 3-4: Opening Year (2030) No-Build Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall[1]	Left	Through	Right	Overall[1]
MN 25 & 85th Street	Signal	EB	C (33)	C (33)	A (3)	**A (8)**	E (64)	E (59)	A (3)	**A (10)**
		WB	C (27)	C (28)	A (3)		D (51)	D (51)	A (3)	
		NB	A (8)	A (3)	A (0)		A (5)	A (3)	A (1)	
		SB	A (7)	A (9)	A (1)		A (7)	A (8)	A (2)	
Edmonson Avenue & 85th Street	Side Street Stop	EB	A (3)	A (7)	A (2)	**A (8)**	A (5)	A (6)	A (2)	**A (9)**
		WB	A (3)	A (8)	A (1)		A (5)	A (9)	A (2)	
		NB	A (0)	A (1)	A (0)		A (1)	A (1)	A (0)	
		SB	A (0)	A (0)	A (0)		A (1)	A (1)	A (0)	
MN 25 & CSAH 37	Round-about	EB	A (5)			**A (5)**	A (5)			**A (7)**
		WB	A (4)				A (6)			
		NB	A (5)				A (9)			
		SB	A (5)				A (7)			
CSAH 37 & Davidson Avenue	Side Street Stop	EB	A (4)	A (5)	-	**A (5)**	A (4)	A (3)	-	**A (5)**
		WB	-	A (2)	A (2)		-	A (2)	A (1)	
		NB	-	-	-		-	-	-	
		SB	A (4)	A (0)	A (1)		A (5)	A (0)	A (1)	

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall[1]	Left	Through	Right	Overall[1]
CSAH 37 & Edmonson Avenue	Side Street Stop	EB	A (2)	A (2)	A (2)	**B (12)**	A (3)	A (3)	A (2)	**B (14)**
		WB	A (1)	A (1)	A (0)		A (2)	A (1)	A (0)	
		NB	A (6)	B (12)	A (3)		A (10)	B (14)	A (5)	
		SB	A (6)	A (6)	A (2)		A (9)	A (5)	A (4)	
School Boulevard & Fallon Avenue	All-Way Stop	EB	A (7)	B (14)	A (8)	**A (9)**	A (7)	B (12)	A (7)	**A (10)**
		WB	A (8)	B (11)	A (6)		A (8)	B (12)	A (7)	
		NB	A (9)	A (10)	A (7)		A (8)	A (8)	A (5)	
		SB	A (8)	A (10)	A (6)		A (8)	A (10)	A (6)	

[1]Worst movement delay reported in place of overall delay at side street stop intersections. Excludes minor movements (<5 vph).

3.5 Design Year (2045) No-Build Capacity Analysis

The Design Year (2045) No-Build Condition analysis was completed to develop an understanding of the baseline operating conditions for the study area in the long-term without the addition of the development traffic. Existing geometry and intersection control was assumed for this analysis, with optimized signal timings. Capacity results for the Design Year (2045) No-Build conditions are provided in **Table 3-5**. SimTraffic analysis reports are included in the appendix.

Under Design Year (2045) No-Build conditions, all intersections are anticipated to operate at LOS D or better and all movements at LOS E or better. Compared to the Opening Year (2030) No-Build conditions, delays are anticipated to increase by a few seconds per vehicle at some study area intersections.

All other 95th percentile queues are anticipated to remain within their respective storage bays. The northbound approach at the MN 25 & CSAH 37 roundabout is anticipated to see longer queues during the PM peak (23 vehicle lengths, or about 575'), but these queues are not expected to cause any significant issues downstream.

Table 3-5: Design Year (2045) No-Build Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall	Left	Through	Right	Overall
MN 25 & 85th Street	Signal	EB	C (32)	C (28)	A (3)	**A (10)**	E (68)	D (48)	A (3)	**B (11)**
		WB	C (30)	C (29)	A (3)		E (58)	D (47)	A (3)	
		NB	A (9)	A (4)	A (1)		A (10)	A (4)	A (1)	
		SB	A (7)	B (12)	A (2)		A (8)	B (11)	A (2)	
Edmonson Avenue & 85th Street	Side Street Stop	EB	A (3)	A (7)	A (2)	**A (8)**	A (5)	A (6)	A (3)	**A (10)**
		WB	A (3)	A (8)	A (2)		A (6)	A (10)	A (3)	
		NB	A (1)	A (1)	A (0)		A (1)	A (2)	A (0)	
		SB	A (1)	A (0)	A (0)		A (1)	A (1)	A (1)	
MN 25 & CSAH 37	Round-about	EB	A (5)			**A (6)**	A (6)			**C (16)**
		WB	A (5)				A (7)			
		NB	A (6)				C (25)			
		SB	A (6)				B (11)			
CSAH 37 & Davidson Avenue	Side Street Stop	EB	A (2)	A (1)	-	**A (2)**	A (2)	A (1)	-	**A (2)**
		WB	-	A (2)	A (2)		-	A (2)	A (2)	
		NB	-	-	-		-	-	-	
		SB	A (5)	-	A (2)		A (6)	-	A (3)	
CSAH 37 & Edmonson Avenue	Side Street Stop	EB	A (2)	A (2)	A (2)	**B (12)**	A (3)	A (4)	A (2)	**C (18)**
		WB	A (1)	A (1)	A (0)		A (3)	A (2)	A (0)	
		NB	A (8)	B (12)	A (4)		B (14)	C (18)	A (9)	
		SB	A (8)	A (6)	A (4)		B (11)	A (6)	A (5)	
MN 25 & Future Roadway	Side Street Stop	EB	-	-	-	**C (22)**	-	-	-	**D (32)**
		WB	C (22)	-	A (4)		D (32)	-	A (6)	
		NB	-	A (2)	A (1)		-	A (2)	A (0)	
		SB	A (7)	A (6)	-		A (9)	A (6)	-	
School Boulevard & Fallon Avenue	Round-about	EB	A (9)			**A (7)**	A (10)			**A (8)**
		WB	A (8)				A (10)			
		NB	A (7)				A (7)			
		SB	A (7)				A (9)			

[1]Worst movement delay reported in place of overall delay at side street stop intersections. Excludes minor movements (<5 vph).

4. FUTURE CONDITIONS ANALYSIS - SCENARIO 1

This section of the report outlines the proposed development scenario, summarizes site-specific traffic characteristics, and develops future traffic projections for Scenario 1. The project location is shown in **Exhibit 1.**

4.1 Development Characteristics and Site Access

The Scenario 1 development consists of 3,000,000 square feet of technology park. The studied opening year of the full development is 2030. Two site access points were assumed: one along 85th Street NE ("North Access"), and the other along Edmonson Avenue ("East Access"). The exact location of access points will be determined when a site specific development plan is developed. No turn lanes were assumed at the access points for the capacity analysis.

4.2 Trip Generation

Proposed development traffic was determined based on data from the Institute of Transportation Engineers' (ITE) *Trip Generation*, 11th Edition. The manual provides peak hour trips rates/equations, inbound-outbound percentages that can be attributed to the proposed site. Based on a review of industrial land uses provided in the manual, LUC 160 (Data Center) was determined to be the most appropriate fit for the proposed Scenario 1.

Table 4-1 provides a summary of trip generation for development Scenario 1. Based on the trip generation calculation, the proposed Scenario 1 development is anticipated to generate 2,970 daily trips, including 330 total trips during the AM Peak Hour (182 entering and 148 exiting), and 270 total trips during the PM Peak Hour (81 entering, 189 exiting). Trip generation of trucks is anticipated to be negligible, and all trips are considered to be passenger vehicle trips.

Table 4-1: Trip Generation – Scenario 1

Land Use Description	Intensity / Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Technology Park – ITE LUC 160	3,000 kSF	2,970	182	148	330	81	189	270

4.3 Directional Distribution

The estimated distribution of site-generated traffic on the surrounding roadway network was developed based on a review of the roadway network, area development pattern, and access to the proposed development. The anticipated directional distribution of passenger vehicle site traffic is summarized below.

- 35% to/from the north on MN 25
- 30% to/from the east on School Boulevard
- 20% to/from the east on CSAH 37
- 15% to/from the south on MN 25

Note that the majority of the site traffic is anticipated to come from the east along I-94, but such trips could use many different routes to access the site, resulting in a relatively even spread of site traffic throughout the roadway network. The Scenario 1 site trip distribution is shown in **Exhibit 6**.

The site traffic assignment, representing traffic volumes associated with the proposed development at the study intersections, is a function of the estimated trip generation (Table 4-1) and the directional distribution (Exhibit 6). The site trip assignment is shown in **Exhibit 8**.

Opening Year (2030) Build Scenario 1 traffic projections, shown on **Exhibit 13**, were developed by adding site-generated traffic for the Technology Center (Exhibit 7) to the Opening Year (2030) No-Build volumes (Exhibit 4). Design Year (2045) Build Scenario 1 traffic projections, shown on **Exhibit 15**, were developed by adding site-generated traffic for the Technology Center (Exhibit 7) to the Design Year (2045) No-Build volumes (Exhibit 5).

4.4 Future Pedestrian and Bicycle Infrastructure

The area surrounding the site is largely rural with few pedestrian and bicycle facilities. As the surrounding area develops further, pedestrian connectivity should be a priority.

4.5 Opening Year (2030) Build Scenario 1 Capacity Analysis

The results of the analysis for the Opening Year (2030) Build Scenario 1 are shown in **Table 4-2**. Consistent with the existing conditions analysis, the results are based on Synchro/SimTraffic reports. Copies of the capacity analysis reports are provided in the appendix.

All study intersections and site accesses are anticipated to operate at LOS A or B during the AM and PM peak hours. Additionally, all movements are anticipated to continue operating at LOS E or better. Overall, the study intersections are anticipated to see very little change in delay as a result of the Scenario 1 Build conditions in the Opening Year (2030). The 95th percentile queueing results were reviewed, and all queues are anticipated to remain within their respective storage bays.

Table 4-2: Opening Year (2030) Build Scenario 1 Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall	Left	Through	Right	Overall
MN 25 & 85th Street	Signal	EB	C (31)	C (22)	A (3)	**A (9)**	E (69)	D (44)	A (3)	**B (10)**
		WB	C (31)	C (25)	A (3)		E (57)	D (52)	A (3)	
		NB	A (1)	A (4)	A (1)		A (6)	A (4)	A (1)	
		SB	A (8)	A (10)	A (1)		A (6)	A (9)	A (2)	
Edmonson Avenue & 85th Street	Side Street Stop	EB	A (4)	A (9)	A (2)	**A (9)**	A (5)	A (8)	A (3)	**A (10)**
		WB	A (4)	A (9)	A (3)		A (5)	A (10)	A (3)	
		NB	A (1)	A (1)	A (0)		A (1)	A (1)	A (0)	
		SB	A (0)	A (1)	A (0)		A (1)	A (1)	A (0)	
MN 25 & CSAH 37	Round-about	EB	A (5)			**A (5)**	A (5)			**A (8)**
		WB	A (5)				A (6)			
		NB	A (5)				A (10)			
		SB	A (5)				A (7)			
CSAH 37 & Davidson Avenue	Side Street Stop	EB	A (5)	A (5)	-	**A (5)**	A (5)	A (3)	-	**A (5)**
		WB	-	A (2)	A (1)		-	A (2)	A (2)	
		NB	-	-	-		-	-	-	
		SB	A (4)	A (0)	A (2)		A (5)	A (0)	A (1)	
CSAH 37 & Edmonson Avenue	Side Street Stop	EB	A (2)	A (3)	A (2)	**B (12)**	A (3)	A (3)	A (2)	**B (15)**
		WB	A (1)	A (1)	A (0)		A (2)	A (1)	A (0)	
		NB	A (5)	B (12)	A (3)		B (10)	B (15)	A (5)	
		SB	A (6)	A (7)	A (3)		A (10)	A (6)	A (5)	
85th Street & North Access	Side Street Stop	EB	-	A (2)	A (1)	**A (5)**	-	A (1)	A (1)	**A (6)**
		WB	A (3)	A (3)	-		A (3)	A (3)	-	
		NB	A (5)	-	A (3)		A (6)	-	A (3)	
		SB	-	-	-		-	-	-	
Edmonson Avenue & East Access	Side Street Stop	EB	A (5)	-	A (3)	**A (5)**	A (6)	-	A (3)	**A (6)**
		WB	-	-	-		-	-	-	
		NB	A (1)	A (1)	-		A (1)	A (1)	-	
		SB	-	A (1)	A (0)		-	A (1)	A (0)	
School Boulevard & Fallon Avenue	All-Way Stop	EB	A (7)	B (15)	A (9)	**B (11)**	A (8)	B (13)	A (8)	**B (10)**
		WB	A (9)	B (12)	A (7)		A (8)	B (13)	A (8)	
		NB	B (11)	B (11)	A (8)		A (8)	A (9)	A (6)	
		SB	A (8)	A (10)	A (6)		A (8)	B (10)	A (6)	

[1]Worst movement delay reported in place of overall delay at side street stop intersections. Excludes minor movements (<5 vph).

4.6 Design Year (2045) Build Scenario 1 Capacity Analysis

Capacity analysis results for the Design Year (2045) Scenario 1 conditions are provided in **Table 4-3**. Consistent with the existing conditions analysis, the results are based on Synchro/SimTraffic reports. Copies of the capacity analysis reports are provided in the appendix.

Results of the Design Year (2045) Scenario 1 conditions show that all intersections are anticipated to operate at LOS C or better except for the proposed collector roadway connection to MN 25 which operates at LOS E during the PM peak hour. Overall, the study area intersections are anticipated to see very little change in delay as a result of the proposed Scenario 1 development. The 95th percentile queueing results were reviewed, and all queues are anticipated to remain within their respective storage bays. SimTraffic reports are included in the appendix.

Table 4-3: Design Year (2045) Build Scenario 1 Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall	Left	Through	Right	Overall
MN 25 & 85th Street	Signal	EB	C (33)	C (27)	A (3)	**B (10)**	E (67)	D (47)	A (3)	**B (12)**
		WB	C (31)	C (27)	A (3)		E (66)	E (60)	A (3)	
		NB	A (4)	A (5)	A (1)		B (11)	A (5)	A (0)	
		SB	A (8)	B (12)	A (2)		A (9)	B (12)	A (2)	
Edmonson Avenue & 85th Street	Side Street Stop	EB	A (5)	A (9)	A (3)	**A (9)**	A (7)	A (9)	A (3)	**B (10)**
		WB	A (5)	A (9)	A (3)		A (6)	B (10)	A (5)	
		NB	A (1)	A (1)	A (0)		A (1)	A (2)	A (0)	
		SB	A (1)	A (1)	A (0)		A (1)	A (2)	A (1)	
MN 25 & CSAH 37	Round-about	EB	A (6)			**A (6)**	A (6)			**C (18)**
		WB	A (5)				A (7)			
		NB	A (5)				D (29)			
		SB	A (7)				B (12)			
CSAH 37 & Davidson Avenue	Side Street Stop	EB	A (2)	A (1)	-	**A (2)**	A (2)	A (1)	-	**A (2)**
		WB	-	A (2)	A (2)		-	A (3)	A (2)	
		NB	-	-	-		-	-	-	
		SB	A (6)	-	A (3)		A (6)	-	A (2)	
CSAH 37 & Edmonson Avenue	Side Street Stop	EB	A (3)	A (3)	A (1)	**B (13)**	A (4)	A (4)	A (2)	**C (19)**
		WB	A (1)	A (1)	A (0)		A (3)	A (2)	A (0)	
		NB	A (9)	B (13)	A (4)		C (16)	C (19)	B (11)	
		SB	A (9)	A (8)	A (4)		C (17)	A (8)	A (7)	
MN 25 & Future Roadway	Side Street Stop	EB	-	-	-	**B (10)**	-	-	-	**E (37)**
		WB	B (10)	-	A (3)		E (37)	-	A (8)	
		NB	-	A (2)	A (1)		-	A (2)	A (0)	
		SB	A (7)	A (6)	-		B (11)	A (6)	-	
85th Street & North Access	Side Street Stop	EB	-	A (2)	A (1)	**A (5)**	-	A (2)	A (1)	**A (6)**
		WB	A (4)	A (3)	-		A (3)	A (3)	-	
		NB	A (5)	-	A (3)		A (6)	-	A (3)	
		SB	-	-	-		-	-	-	
Edmonson Avenue & East Access	Side Street Stop	EB	A (6)	-	A (3)	**A (6)**	A (6)	-	A (4)	**A (6)**
		WB	-	-	-		-	-	-	
		NB	A (1)	A (1)	-		A (1)	A (1)	-	
		SB	-	A (1)	A (0)		-	A (1)	A (0)	
School Boulevard & Fallon Avenue	Round-about	EB	A (9)			**A (7)**	A (10)			**A (8)**
		WB	A (9)				B (10)			
		NB	A (8)				A (7)			
		SB	A (7)				A (9)			

[1]Worst movement delay reported in place of overall delay at side street stop intersections. Excludes minor movements (<5 vph).

5. FUTURE CONDITIONS ANALYSIS - SCENARIO 2

This section of the report outlines the proposed development scenario, summarizes site-specific traffic characteristics, and develops future traffic projections for Scenario 2. The project location is shown in **Exhibit 1**.

5.1 Scenario 2 Development Characteristics and Site Access

Scenario 2 is anticipated to include up to 5,000,000 sq ft of industrial park space. For this analysis, the studied Opening Year of the full development is 2030. Three site access points were assumed: one along 85th Street NE ("North Access"), one along Edmonson Avenue ("East Access"), and one along Davidson Avenue ("West Access"). With the Davidson Avenue connection to MN 25 being removed, it is assumed that the West Access will be a collector roadway that connects to MN 25, as included in the City's comp. The exact location of the access points will be determined when a site specific development plan is developed.

5.2 Scenario 2 Trip Generation

Proposed development traffic was based on the Institute of Transportation Engineers' (ITE) *Trip Generation*, 11th Edition. The manual provides peak hour trips rates/equations, inbound-outbound percentages, and truck percentages which were used to estimate the number of daily, peak hour, and truck trips that can be attributed to the proposed site. Based on a review of industrial land uses provided in the manual, Land Use Code (LUC) 130 (Industrial Park) was determined to be the most appropriate fit for the proposed Scenario 2 development.

Table 5-1 provides a summary of trip generation for development Scenario 2. Based on the trip generation calculation, the proposed development is anticipated to generate 16,850 total daily trips, 2,850 of which are truck trips. During the AM Peak Hour, Scenario 2 is anticipated to generate 1,500 passenger vehicle trips (1,287 entering and 213 exiting), and 200 truck trips (90 entering and 110 exiting). During the PM peak hour, Scenario 2 is anticipated to generate 1,500 passenger vehicle trips (297 entering and 1,203 exiting) and 200 truck trips (77 entering and 123 exiting).

Table 5-1: Site-Generated Traffic Projections – Scenario 2

Land Use Description	Trip Type	Intensity / Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Industrial Park - ITE LUC 130	Passenger Vehicle	5,000 kSF	14,000	1,287	213	1,500	297	1,203	1,500
	Truck		2,850	90	110	200	77	123	200
	Total		16,850	1,377	323	1,700	373	1,327	1,700

5.3 Scenario 2 Directional Distribution

Due to the addition of a west access point along Davidson Avenue, trip distribution differs from Scenario 1. Additionally, passenger vehicle traffic and truck traffic are expected to exhibit different global distributions.

Thus, traffic distribution for passenger vehicles and trucks were determined individually, as shown in **Exhibit 8** and **Exhibit 10**, respectively.

Passenger vehicle site trips were determined by applying trip generation (**Table 5-1**) to passenger vehicle distribution (**Exhibit 8**). Passenger vehicle site trips are shown in **Exhibit 9**. Truck site trips were determined by applying trip generation (**Table 5-1**) to truck distribution (**Exhibit 10**). Truck site trips are shown in **Exhibit 11**. The total Scenario 2 site trips are presented in **Exhibit 12**.

Opening Year (2030) Build Scenario 2 traffic projections, shown on **Exhibit 14**, were developed by adding total site-generated traffic for the Industrial Park (**Exhibit 12**) to the Opening Year (2030) No-Build volumes (**Exhibit 4**). Design Year (2045) Build Scenario 2 traffic projections, shown on **Exhibit 16**, were developed by adding total site-generated traffic for the Industrial Park (**Exhibit 12**) to the Design Year (2045) No-Build volumes (**Exhibit 5**).

5.4 Scenario 2 Future Pedestrian and Bicycle Infrastructure

The area surrounding the site is largely rural with few pedestrian and bicycle facilities. As the surrounding area develops further, pedestrian connectivity should be a priority.

5.5 Opening Year (2030) Build Scenario 2 Capacity Analysis

The results of the analysis for the Opening Year (2030) Build Scenario 2 are shown in **Table 5-2**. Consistent with the existing conditions analysis, the results are based on Synchro 12/SimTraffic. Copies of the capacity analysis reports are provided in the appendix. Adjustments were made to the signal timings to account for the added site traffic to the development site. Heavy vehicle volumes were included in the analysis for all Scenario 2 conditions.

Based on the analysis in the Opening Year (2030) Build Scenario 2, all intersections, apart from MN 25 & Davidson Avenue, are expected to operate at LOS D or better in the AM and PM peak hours. The westbound left and right turn movements at MN 25 and Davidson Avenue are expected to operate at LOS F during the PM peak hour. This is due to high traffic in the northbound and southbound directions on MN 25. Because this is an interim operating condition, mitigation is not recommended at Davidson Avenue since the connection to MN 25 is planned to be removed in the near future.

The intersection of School Boulevard & Fallon Avenue is anticipated to operate at LOS D during the AM peak hour with multiple movements operating at LOS E or F. Severe queueing is anticipated to occur during the AM peak hour, with westbound through/right turn queues exceeding 700'. Overall, the intersection is operating near capacity, and mitigation is recommended to reduce delays and queueing. A single lane roundabout is recommended at the intersection to improve traffic operations and safety conditions at the intersection.

All other individual intersection movements are anticipated to operate at LOS E or better. The 95th percentile queueing results were reviewed, and all queues are anticipated to remain within their respective storage bays. Traffic analysis reports are included in **Appendix I**.

Table 5-2: Opening Year (2030) Build Scenario 2 Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall	Left	Through	Right	Overall
MN 25 & 85th Street	Signal	EB	C (33)	C (29)	A (2)	**B (14)**	E (68)	D (54)	A (3)	**B (13)**
		WB	C (34)	C (31)	A (5)		E (64)	D (52)	A (7)	
		NB	A (6)	A (8)	A (2)		A (7)	A (6)	A (1)	
		SB	B (17)	B (16)	A (3)		B (13)	B (11)	A (2)	
Edmonson Avenue & 85th Street	Side Street Stop	EB	A (8)	B (12)	A (6)	**B (13)**	B (13)	C (17)	A (9)	**C (17)**
		WB	A (9)	B (13)	A (7)		B (12)	B (14)	A (7)	
		NB	A (1)	A (2)	A (0)		A (3)	A (4)	A (1)	
		SB	A (1)	A (3)	A (1)		A (2)	A (2)	A (0)	
MN 25 & CSAH 37	Round-about	EB	A (5)			**A (6)**	A (6)			**A (9)**
		WB	A (5)				A (7)			
		NB	A (7)				B (11)			
		SB	A (6)				A (9)			
CSAH 37 & Davidson Avenue	Side Street Stop	EB	A (2)	A (1)	-	**A (3)**	A (2)	A (2)	-	**A (4)**
		WB	-	A (4)	A (2)		-	A (3)	A (2)	
		NB	-	-	-		-	-	-	
		SB	A (8)	A (1)	A (4)		A (9)	A (0)	A (7)	
CSAH 37 & Edmonson Avenue	Side Street Stop	EB	A (4)	A (3)	A (2)	**B (14)**	A (4)	A (4)	A (3)	**D (25)**
		WB	A (2)	A (2)	A (1)		A (3)	A (2)	A (1)	
		NB	A (9)	B (14)	A (4)		B (15)	C (21)	B (11)	
		SB	A (9)	A (8)	A (5)		D (25)	B (10)	C (17)	
MN 25 & Future Roadway (West Access)	Side Street Stop	EB	-	-	-	**C (20)**	-	-	-	**F (87)**
		WB	C (20)	A (0)	A (8)		F (87)	-	F (69)	
		NB	-	A (2)	A (0)		-	A (4)	A (1)	
		SB	A (5)	A (1)	-		A (7)	A (1)	-	
85th Street & North Access	Side Street Stop	EB	-	A (6)	A (4)	**C (18)**	-	A (4)	A (2)	**C (18)**
		WB	A (9)	A (7)	-		A (4)	A (4)	-	
		NB	C (18)	-	B (11)		C (18)	-	B (15)	
		SB	-	-	-		-	-	-	
Edmonson Avenue & East Access	Side Street Stop	EB	B (10)	-	A (4)	**B (10)**	B (15)	-	B (12)	**B (15)**
		WB	-	-	-		-	-	-	
		NB	A (5)	A (5)	-		A (2)	A (3)	-	
		SB	-	A (5)	A (1)		-	A (2)	A (0)	
School Boulevard & Fallon Avenue	All-Way Stop	EB	A (9)	E (44)	E (35)	**D (35)**	A (7)	D (29)	D (26)	**C (18)**
		WB	F (56)	D (29)	C (21)		A (9)	C (17)	B (11)	
		NB	C (19)	C (19)	B (14)		C (20)	C (19)	C (16)	
		SB	B (11)	B (13)	A (10)		B (12)	B (14)	A (9)	

[1]Worst movement delay reported in place of overall delay at side street stop intersections. Excludes minor movements (<5 vph).

5.6 Mitigated Opening Year (2030) Build Scenario 2 Capacity Analysis

An Opening Year (2030) Scenario 2 Mitigated conditions capacity analysis was conducted to measure the effectiveness of the proposed mitigation at the intersection of School Boulevard & Fallon Avenue. This analysis focused on a single-lane roundabout mitigation to provide consistency along the School Boulevard corridor which has multiple roundabouts.

Results of the capacity analysis are given below in **Table 5-3**. The analysis indicates that installation of a roundabout, all approaches at the intersection operate at LOS B or better during the AM and PM peak hours. All 95th percentile queues are less than 200'. No further mitigation is required.

Table 5-3: Opening Year (2030) Build Scenario 2 Mitigated Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall	Left	Through	Right	Overall
School Boulevard & Fallon Avenue	Round-about	EB	A (9)			**A (10)**	A (10)			**A (8)**
		WB	B (14)				A (9)			
		NB	A (7)				A (10)			
		SB	A (8)				A (8)			

5.7 Design Year (2045) Build Scenario 2 Capacity Analysis

Design Year (2045) Scenario 2 conditions analysis was conducted to determine the long-term effects of the proposed Scenario 2 development and determine any resultant mitigation needs at the study intersections. For the analysis, modifications were made to the signal timings to account for the traffic associated with the proposed Scenario 2 development. A northbound left turn lane was assumed at School Boulevard & Fallon Avenue (though a traffic signal was not assumed), in line with the Design Year (2045) Build Scenario 1 conditions analysis. Results of the capacity analysis for the Design Year (2045) Build Scenario 2 conditions are provided in **Table 5-4**.

The results of the capacity analysis show the system has increased delay throughout the roadway network with several movements approaching or at capacity. The intersection of MN 25 & Proposed Collector is expected to operate at LOS F with the westbound left and right turn movement expected to see more than 100 seconds of delay per vehicle in the PM peak hour. Based on this, separate left and right turn lanes are expected to be required at a minimum.

The northbound approach at MN 25 & CSAH 37 is anticipated to operate at LOS E during the PM peak hour with 95th percentile queues in excess of 1,000'. A right-turn bypass should be considered for the roundabout's northbound approach to reduce delays and queueing.

The southbound left and right turn movements at CSAH 37 & Edmonson Avenue are anticipated to operate at LOS F during the PM peak hour with delays exceeding 100 seconds per vehicle. The northbound approach is also nearing its capacity, with all three movements operating at LOS E. Therefore, it is recommended that northbound and southbound left turn lanes be installed at this intersection to reduce delays.

All 95th percentile queues are anticipated to remain within their provided storage bays. Traffic analysis reports are included in **Appendix J**.

Table 5-4: Design Year (2045) Build Scenario 2 Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall	Left	Through	Right	Overall
MN 25 & 85th Street	Signal	EB	C (31)	C (24)	A (3)	**B (16)**	E (73)	E (55)	A (3)	**B (15)**
		WB	C (29)	C (34)	A (5)		E (64)	D (46)	A (9)	
		NB	B (13)	A (10)	A (3)		B (13)	A (8)	A (1)	
		SB	C (26)	B (17)	A (2)		B (17)	B (13)	A (2)	
Edmonson Avenue & 85th Street	Side Street Stop	EB	A (9)	B (12)	A (6)	**B (14)**	C (20)	C (20)	B (12)	**C (20)**
		WB	B (10)	B (14)	B (11)		B (12)	B (15)	A (8)	
		NB	A (2)	A (2)	A (0)		A (3)	A (3)	A (1)	
		SB	A (1)	A (3)	A (1)		A (3)	A (2)	A (1)	
MN 25 & CSAH 37	Round-about	EB	A (6)			**A (7)**	A (7)			**C (24)**
		WB	A (6)				A (10)			
		NB	A (9)				E (36)			
		SB	A (8)				C (21)			
CSAH 37 & Davidson Avenue	Side Street Stop	EB	A (4)	A (1)	-	**A (3)**	A (3)	A (2)	-	**A (4)**
		WB	-	A (4)	A (3)		-	A (4)	A (2)	
		NB	-	-	-		-	-	-	
		SB	A (7)	-	A (5)		B (12)	-	A (9)	
CSAH 37 & Edmonson Avenue	Side Street Stop	EB	A (5)	A (3)	A (3)	**C (18)**	A (5)	A (5)	A (3)	**F (90)**
		WB	A (2)	A (2)	A (1)		A (4)	A (3)	A (1)	
		NB	C (16)	C (18)	A (6)		E (45)	E (43)	E (35)	
		SB	B (13)	B (10)	A (7)		F (90)	E (35)	F (84)	
MN 25 & Future Roadway (West Access)	Side Street Stop	EB	-	-	-	**D (34)**	-	-	-	**F (100+)**
		WB	D (34)	-	B (14)		F (100+)	-	F (100+)	
		NB	-	A (3)	A (1)		-	A (4)	A (1)	
		SB	B (13)	A (8)	-		C (19)	A (8)	-	
85th Street & North Access	Side Street Stop	EB	-	A (7)	A (4)	**C (20)**	-	A (4)	A (2)	**C (25)**
		WB	B (10)	A (8)	-		A (4)	A (4)	-	
		NB	C (20)	-	B (11)		C (25)	-	C (20)	
		SB	-	-	-		-	-	-	
Edmonson Avenue & East Access	Side Street Stop	EB	B (14)	-	A (6)	**B (14)**	B (14)	-	B (11)	**B (14)**
		WB	-	-	-		-	-	-	
		NB	A (5)	A (5)	-		-	A (2)	-	
		SB	-	A (5)	A (1)		-	A (2)	A (0)	
School Boulevard & Fallon Avenue	Round-about	EB	B (11)			**B (13)**	B (13)			**B (11)**
		WB	C (19)				B (12)			
		NB	A (8)				B (12)			
		SB	A (9)				A (10)			

Note: The Overall LOS in side street stop-controlled intersections is reported as the worst movement.

5.8 Mitigated Design Year (2045) Build Scenario 2

In order to determine the impact of the proposed mitigations on the Design Year (2045) Build Scenario 2, a Mitigated Design Year (2045) Build Scenario 2 capacity analysis was conducted. The following mitigations were included in the analysis:

- 250-foot dedicated left turn lanes were added to the northbound and southbound approaches at Edmonson Avenue & CSAH 37.
- A northbound bypass (for right turns) lane was added to the MN 25 & CSAH 37 roundabout
- A traffic signal was added to the intersection of MN 25 & Future Roadway. Northbound right and southbound left turn lanes were assumed, along with separate westbound left and right turn lanes.

Results of the Mitigated Design Year (2045) Build Scenario 2 capacity analysis are shown in **Table 5-5**. The results of the analysis show improvements in delay at all mitigated intersections, particularly in the PM hour, but the intersection of Edmonson Avenue & CSAH 37 is still anticipated to experience some minor operational deficiencies with side street delays up to 44 seconds per vehicle during the PM peak hour. While some long delays are anticipated, none of the movements are anticipated to operate at LOS F. Therefore, no further mitigation is proposed. However, as the parcels develop, the intersection should be monitored for a possible change in traffic control which could include all-way stop control, roundabout, or a traffic signal.

The intersection of MN 25 & Future Roadway is anticipated to operate acceptably with a signal in place, with all individual movements operating at LOS C or better during the AM and PM peak hour.

At MN 25 & CSAH 37, the installation of a northbound bypass lane is anticipated to significantly reduce the anticipated delays at the northbound approach of the intersection during the PM peak hour, improving from LOS E to LOS A during this period. The intersection is anticipated to see acceptable operations overall, operating at LOS A and LOS B during the peak hours with all approaches operating at LOS C or better.

Table 5-5: Mitigated Design Year (2045) Build Scenario 2 Level of Service

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall	Left	Through	Right	Overall
MN 25 & CSAH 37	Round-about	EB	A (6)			**A (6)**	A (7)			**B (13)**
		WB	A (5)				A (10)			
		NB	A (5)				A (9)			
		SB	A (7)				C (21)			
Edmonson Avenue & CSAH 37	Side Street Stop	EB	A (5)	A (3)	A (2)	**C (19)**	A (5)	A (5)	A (3)	**E (44)**
		WB	A (2)	A (2)	A (1)		A (4)	A (2)	A (1)	
		NB	C (16)	C (19)	A (7)		C (24)	E (38)	C (23)	
		SB	C (15)	A (9)	A (6)		E (44)	A (9)	A (9)	
MN 25 & Future Roadway (West Access)	Signal	EB	-	-	-	**B (12)**	-	-	-	**B (17)**
		WB	C (25)	-	A (9)		C (30)	-	C (25)	
		NB	-	B (12)	A (4)		-	B (16)	A (6)	
		SB	B (16)	B (11)	-		C (29)	B (15)	-	

[1]Worst movement delay reported in place of overall delay at side street stop intersections. Excludes minor movements (<5 vph).

6. TURN LANE WARRANT ANALYSIS

Warrant analysis was conducted at the two site access points for Opening Year (2030) and Design Year (2045) of Scenario 1 and Scenario 2 to determine the need for major-road left- and right-turn lanes at the site access points and stop-controlled study intersections. The warrant analysis was carried out using the methodologies outlined in National Cooperative Highway Research Program (NCHRP) Report 457 regarding the need for major-road turn lanes at unsignalized intersections. Results of the analysis are summarized below in **Table 6-1**.

Table 6-1: Turn Lane Warrant Analysis Summary

Intersection	Movement	Turn Lane Warrant Result by Scenario					
		No-Build		Scenario 1		Scenario 2	
		2030	2045	2030	2045	2030	2045
85th Street NE & North Access	WBL	-	-	*Not Met*	*Not Met*	**Met**	**Met**
	EBR	-	-	**Met**	**Met**	**Met**	**Met**
Edmonson Avenue NE & East Access	NBL	-	-	*Not Met*	*Not Met*	**Met**	**Met**
	SBR	-	-	*Not Met*	*Not Met*	**Met**	**Met**
MN 25 & Future Roadway	NBR	-	*Not Met*	-	*Not Met*	-	**Met**
	SBL	-	**Met**	-	**Met**	-	**Met**
Edmonson Avenue & 85th Street NE	NBR	*Not Met*	*Not Met*	**Met**	**Met**	**Met**	**Met**
	NBL	*Not Met*	*Not Met*	*Not Met*	*Not Met*	**Met**	**Met**
	SBR	*Not Met*	*Not Met*	*Not Met*	*Not Met*	*Not Met*	**Met**
	SBL	*Not Met*	*Not Met*	*Not Met*	*Not Met*	*Not Met*	*Not Met*

Results of the warrant analysis indicate that multiple turn lanes will be required under Scenario 2 conditions while three turn lanes will be required under Scenario 1 conditions. A southbound left turn lane along MN 25 at the proposed future collector roadway will be required under the No-Build conditions. Turn lanes shown to be warranted are included in the recommended mitigation listed in the section below.

7. CONCLUSION AND RECOMMENDATIONS

A traffic analysis was performed to quantify the impacts of the proposed development on the adjacent roadway network and study intersections. The proposed site is encompassed by 85th Street, Davidson Avenue and Edmonson Avenue. No-Build, Build Scenario 1, and Build Scenario 2 were analyzed in the Opening Year (2030) and Design Year (2045). An Existing Year (2025) analysis was also conducted.

7.1 Project Characteristics

Two development buildout scenarios were considered; Scenario 1 consists of a 3 million square-foot Technology Park while Scenario 2 consists of a 5 million square-foot Industrial Park. Scenario 1 is anticipated to generate 330 and 270 trips during the AM and PM peak hours, respectively. Scenario 2 is anticipated to generate 1,700 trips in both the AM and PM peak hours.

The study area intersections include the following (side street stop controlled unless otherwise noted):

- MN 25 & 85th Street NE (Signal Controlled)
- Edmonson Avenue NE & 85th Street NE
- MN 25 & County Road 37 (Signal Controlled; planned roundabout)
- County Road 37 & Davidson Avenue
- County Road 37 & Edmonson Avenue
- MN 25 & Davidson Avenue (Intersection to be removed in the future)
- School Boulevard & Fallon Avenue (All-way stop; planned roundabout)

The listed intersections were analyzed in the following scenarios:

- Existing Year (2025)
- Opening Year (2030) No-Build
- Opening Year (2030) Build Scenario 1
- Opening Year (2030) Build Scenario 2
- Design Year (2045) No-Build
- Design Year (2045) Build Scenario 1
- Design Year (2045) Build Scenario 2

Additionally, mitigation scenarios were analyzed for each of the scenarios that were shown to require significant mitigation measures.

7.2 Existing Year (2025) Capacity Analysis Summary

A capacity analysis was conducted for Existing Year (2025) traffic conditions at the study intersections to determine baseline existing conditions. Based on the analysis, all intersections currently operate at acceptable LOS and there are no queuing issues at the study intersections.

7.3 Opening Year (2030) No-Build Capacity Analysis Summary

A capacity analysis was conducted for the Opening Year (2030) No-Build traffic conditions at the study intersections to determine baseline conditions for the 2030 analysis year. A roundabout was assumed to be in place at MN 25 & County Road 37 and the Davidson Avenue connection to MN 25 was assumed to

be removed by 2030. Based on the analysis, all intersections are anticipated to operate at acceptable LOS and there are no queuing issues at the study intersections.

7.4 Opening Year (2030) Build Scenario 1 Capacity Analysis Summary

Scenario 1 consists of a 3 million square foot technology park and was assumed to be fully operational by 2030. With the addition of Scenario 1 site traffic, the roadway system slightly worsen in terms of delay and queues. All intersections are anticipated to operate at LOS B or better and all individual movements are expected to operate at LOS E or better. The roadway system is expected to operate at acceptable LOS and there are no queuing issues at the study intersections.

Turn lane warrants were analyzed at the study intersections and site access points, and it was determined that the eastbound right turn movement at Edmonson Avenue & East Access and northbound right turn movement at Edmonson Avenue & 85th Street are anticipated to meet the warrant for turn lanes.

7.5 Opening Year (2030) Build Scenario 2 Capacity Analysis Summary

Scenario 2 consists of a 5 million square foot industrial park and was assumed to be fully operational by 2030. With the addition of Scenario 2 traffic, the existing system worsens in terms of LOS and queuing. The westbound left movement at MN 25 & Davidson Avenue is expected to operate at LOS F due to heavy traffic with limited openings on MN 25. The movement has low usage with only three (3) vehicles utilizing the movement in both the AM and PM peak hours. Due to this, mitigation was deemed to be unnecessary for the movement.

The intersection of School Boulevard & Fallon Avenue is anticipated to operate poorly during the AM peak hour, and a traffic control change may be necessary. A single-lane roundabout is recommended at the intersection.

All other intersections are expected to operate at LOS D or better and all other individual movements are expected to operate at LOS E or better. No queuing issues are present in the roadway system.

Turn lane warrants were analyzed at the study intersections and site access points, and it was determined that left- and right-turn lanes would be required for the north access point, the east access point, and for the northbound approach of Edmonson Avenue & 85th Street.

7.6 Design Year (2045) No-Build Capacity Analysis Summary

A capacity analysis was conducted for the Design Year (2045) No-Build traffic conditions at the study intersections to determine baseline conditions for the 2045 analysis year. Background geometric changes are anticipated to include a single-lane roundabout at MN 25 & CSAH 37, a single-lane roundabout at School Boulevard & Fallon Avenue, removal of the Davidson Avenue connection to MN 25, and potential construction of a new collector roadway connection to MN 25 south of the existing Davidson Avenue intersection.

Based on the analysis, all other intersections are anticipated to operate at acceptable LOS and there are no queuing issues at the study intersections. The intersection of MN 25 & Future Roadway (proposed minor collector) is anticipated to meet the warrant for a southbound left turn lane.

7.7 Design Year (2045) Build Scenario 1 Capacity Analysis Summary

In the long-term analysis of Scenario 1, the roadway system slightly worsen in terms of delay and queues.

All intersections are anticipated to operate at LOS C or better and all individual movements are expected to operate at LOS E or better. The roadway system is expected to operate at acceptable LOS and there are no queuing issues at the study intersections.

Turn lane warrants were analyzed at the study intersections and site access points, and it was determined that only the in addition to the turn lanes required under Opening Year (2030) Scenario 1 conditions, a southbound left turn lane is at MN 25 & Future Roadway (proposed collector) is anticipated to meet warrants.

The proposed Design Year (2045) Scenario 1 intersection control and geometry is shown in **Exhibit 17**.

7.8 Design Year (2045) Build Scenario 2 Capacity Analysis Summary

The long-term analysis of Scenario 2 reveals that multiple delay issues are expected. At MN 25 & CSAH 37, long delays are expected during the PM peak at the northbound approach of the roundabout. A northbound bypass lane is recommended to reduce these delays. At MN 25 & Future Roadway (proposed minor collector) the westbound left and right movements are expected to operate at LOS F. The intersection is not expected to operate acceptably as a side street stop control under Scenario 2 conditions, and a traffic signal or roundabout are expected to be required if the intersection is full-access. At the intersection of Edmonson Avenue & CSAH 37, long side street delays are anticipated due to the addition of site generated traffic. Installation of northbound and southbound left turn lanes are anticipated to be required to reduce these delays to a reasonable level.

Turn lane warrants were analyzed at the study intersections and site access points, and it was determined that in addition to the turn lanes required under the Design Year (2030) Scenario 2 conditions, left- and right-turn lanes would be required at MN 25 & Future Roadway (proposed collector) and a southbound right turn lane would be required at Edmonson Avenue & 85th Street.

The proposed Design Year (2045) Scenario 2 intersection control and geometry is shown in **Exhibit 18**.

7.9 Mitigation Plan

The following provides a summary of mitigation improvements that were identified as part of the traffic analysis for the proposed development. The Design Year (2045) geometry proposed for the Scenario 1 and Scenario 2 build conditions are also shown in **Exhibit 17** and **Exhibit 18**, respectively.

Existing (2025) Conditions

- No Mitigation Necessary

Opening Year (2030) No-Build Conditions

- No Mitigation Necessary

Opening Year (2030) Build Scenario 1 Conditions

- Install a dedicated eastbound right-turn lane at Edmonson Avenue & North Access
- Install a northbound right turn lane at Edmonson Avenue & 85th Street
- Install Side Street Stop control at site access points (one approach lane is acceptable for each).
- As parcels begin to develop on the AUAR area, install sidewalk and trail connections to connect to existing pedestrian and bicycle infrastructure

Opening Year (2030) Build Scenario 2 Conditions

- Install dedicated right and left-turn lanes at 85th Street & East Access
- Install dedicated right and left-turn lanes at Edmonson Avenue & North Access
- Install northbound left- and right-turn lanes at Edmonson Avenue & 85th Street
- Install Side Street Stop control at all site access points (single-lane approaches are acceptable)
- As parcels begin to develop on the AUAR area, install sidewalk and trail connections to connect to existing pedestrian and bicycle infrastructure
- Install a single-lane roundabout at School Boulevard & Fallon Avenue

Design Year (2045) No-Build Conditions

- Install a southbound left turn lane at MN 25 & Future Roadway (proposed collector) and install a side street stop control at the intersection.

Design Year (2045) Build Scenario 1 Conditions

- All modifications from Opening Year (2030) Scenario 1 Condition
- Install a southbound left turn lane at MN 25 & Future Roadway (proposed collector) and install a side street stop control at the intersection.

Design Year (2045) Build Scenario 2 Conditions

- All modifications from Opening Year (2030) Scenario 2 Conditions
- Install a traffic signal or roundabout at MN 25 & Future Roadway (proposed minor collector). Install a northbound right-turn lane at this intersection.
    - Alternatively, the intersection could be installed as a right-in/right-out or a three-quarter access intersection to minimize side street delays.
- Install a southbound right turn lane at Edmonson Avenue & 85th Street NE
- Install northbound and southbound left turn lanes at CSAH 37 & Edmonson Avenue and monitor the intersection for further mitigation needs.
- Install a northbound bypass (right-turn) lane at the MN 25 & CSAH 37 roundabout.

8. APPENDIX

Appendix A: Exhibits

Appendix B: Turning Movement Counts

Appendix C: Development Scenario Concepts

Appendix D: Existing Year (2025) Capacity Analysis Reports

Appendix E: Opening Year (2030) No-Build Capacity Analysis Reports

Appendix F: Design Year (2045) No-Build Capacity Analysis Reports

Appendix G: Opening Year (2030) Build Scenario 1 Capacity Analysis Reports

Appendix H: Design Year (2045) Build Scenario 1 Capacity Analysis Reports

Appendix I: Opening Year (2030) Build Scenario 2 Capacity Analysis Reports

Appendix J: Design Year (2045) Build Scenario 2 Capacity Analysis Reports

Appendix K: Mitigated Design Year (2045) Build Scenario 2 Capacity Analysis Reports

Appendix L: Turn Lane Warrant Analysis

Appendix A:

Exhibits

Exhibit 1. Project Location Map
Exhibit 2. Existing Geometry and Intersection Control
Exhibit 3. Existing Year (2025) Traffic Volumes
Exhibit 4. Opening Year (2030) No-Build Traffic Volumes
Exhibit 5. Design Year (2045) No-Build Traffic Volumes
Exhibit 6. Traffic Distribution (Scenario 1)
Exhibit 7. Total Peak Hour Site Trips (Scenario 1)
Exhibit 8. Passenger Vehicle Distribution (Scenario 2)
Exhibit 9. Passenger Vehicle Site Trips (Scenario 2)
Exhibit 10. Truck Traffic Distribution (Scenario 2)
Exhibit 11. Truck Site Trips (Scenario 2)
Exhibit 12. Total Peak Hour Site Trips (Scenario 2)
Exhibit 13. 2030 Build Traffic Volumes (Scenario 1)
Exhibit 14. 2030 Build Traffic Volumes (Scenario 2)
Exhibit 15. 2045 Build Traffic Volumes (Scenario 1)
Exhibit 16. 2045 Build Traffic Volumes (Scenario 2)
Exhibit 17. Proposed 2045 Geometry (Scenario 1)
Exhibit 18. Proposed 2045 Geometry (Scenario 2)

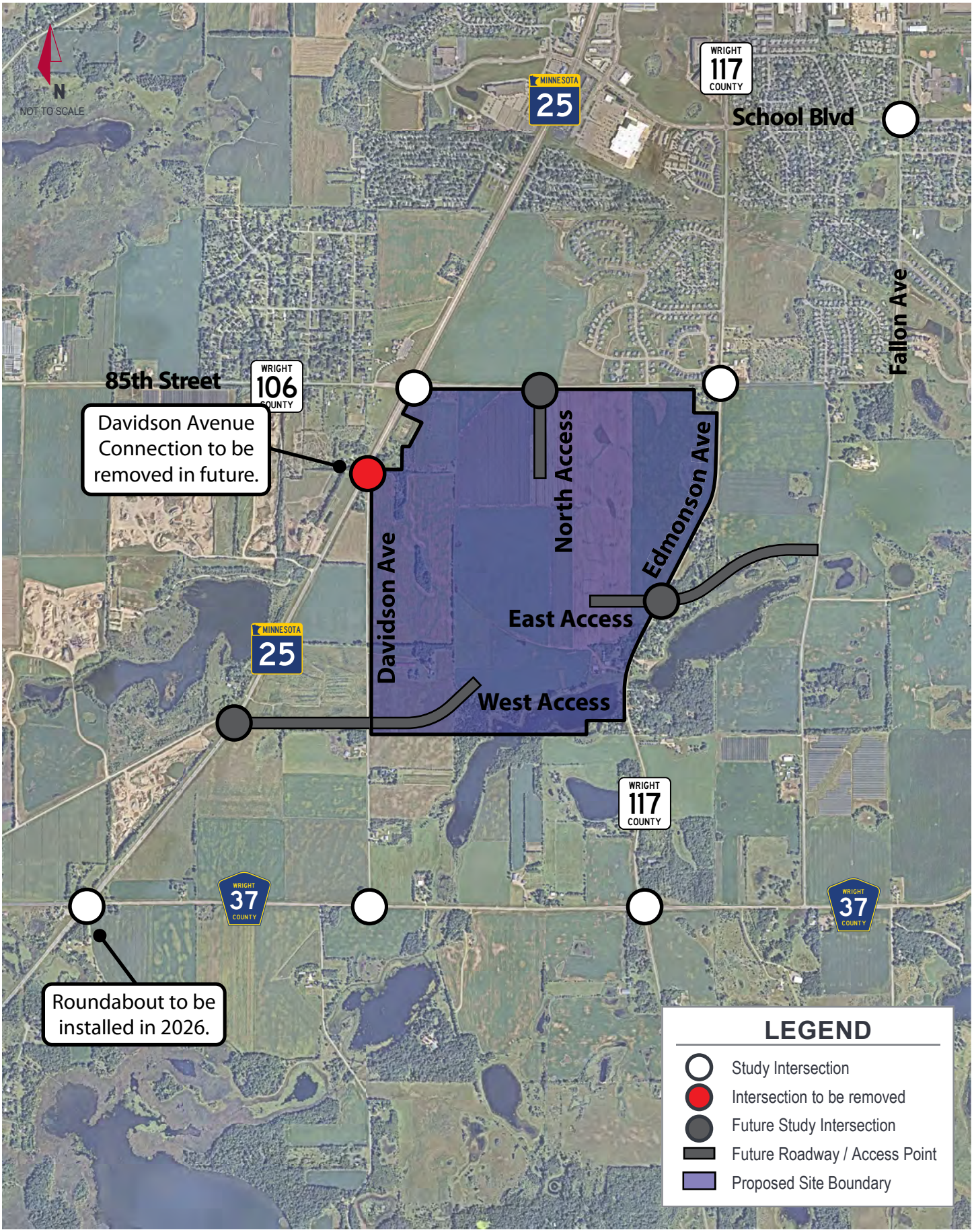

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EXHIBIT 1

PROJECT LOCATION MAP

MONTICELLO INDUSTRIAL

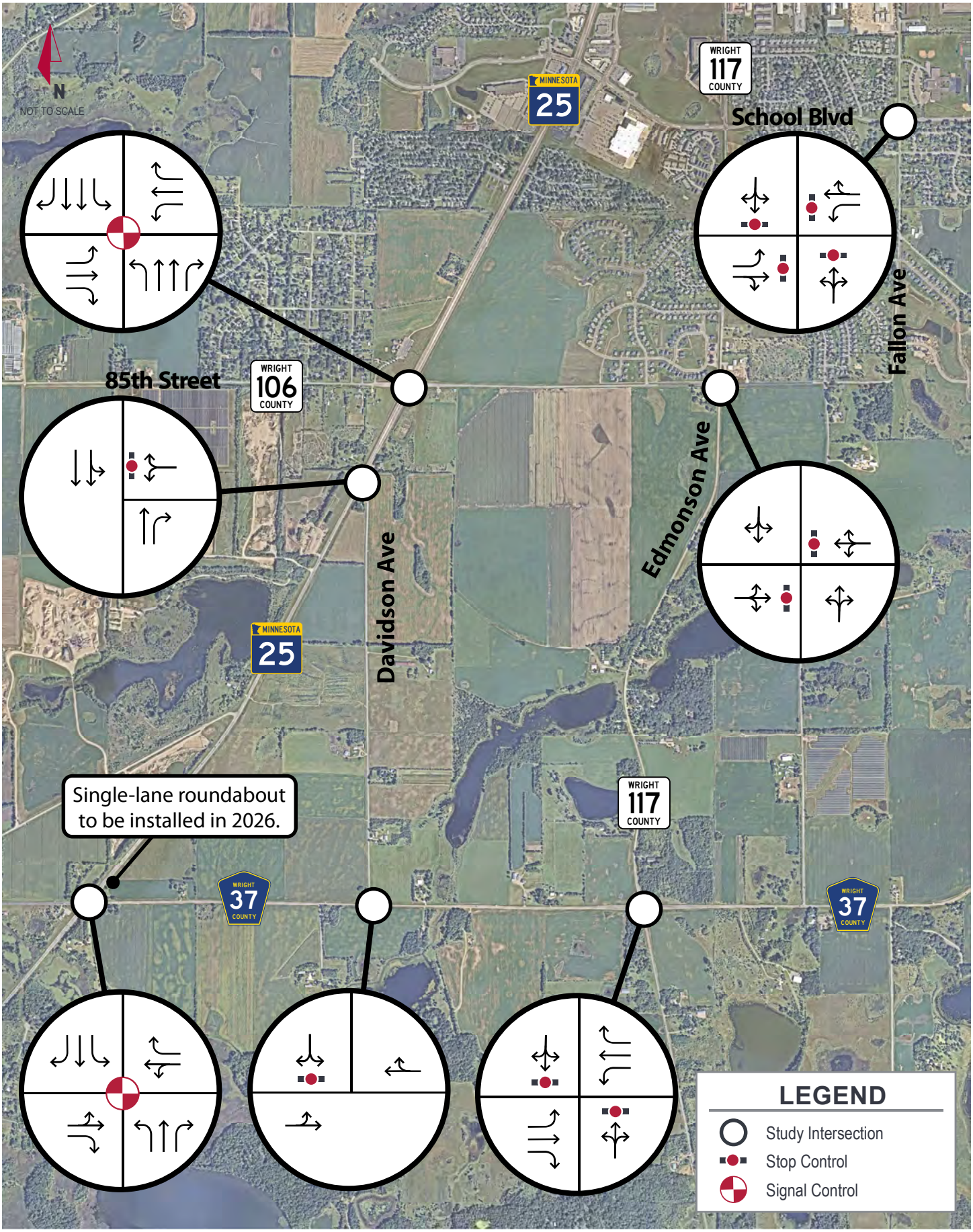

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EXHIBIT 2

EXISTING GEOMETRY AND INTERSECTION CONTROL

MONTICELLO INDUSTRIAL

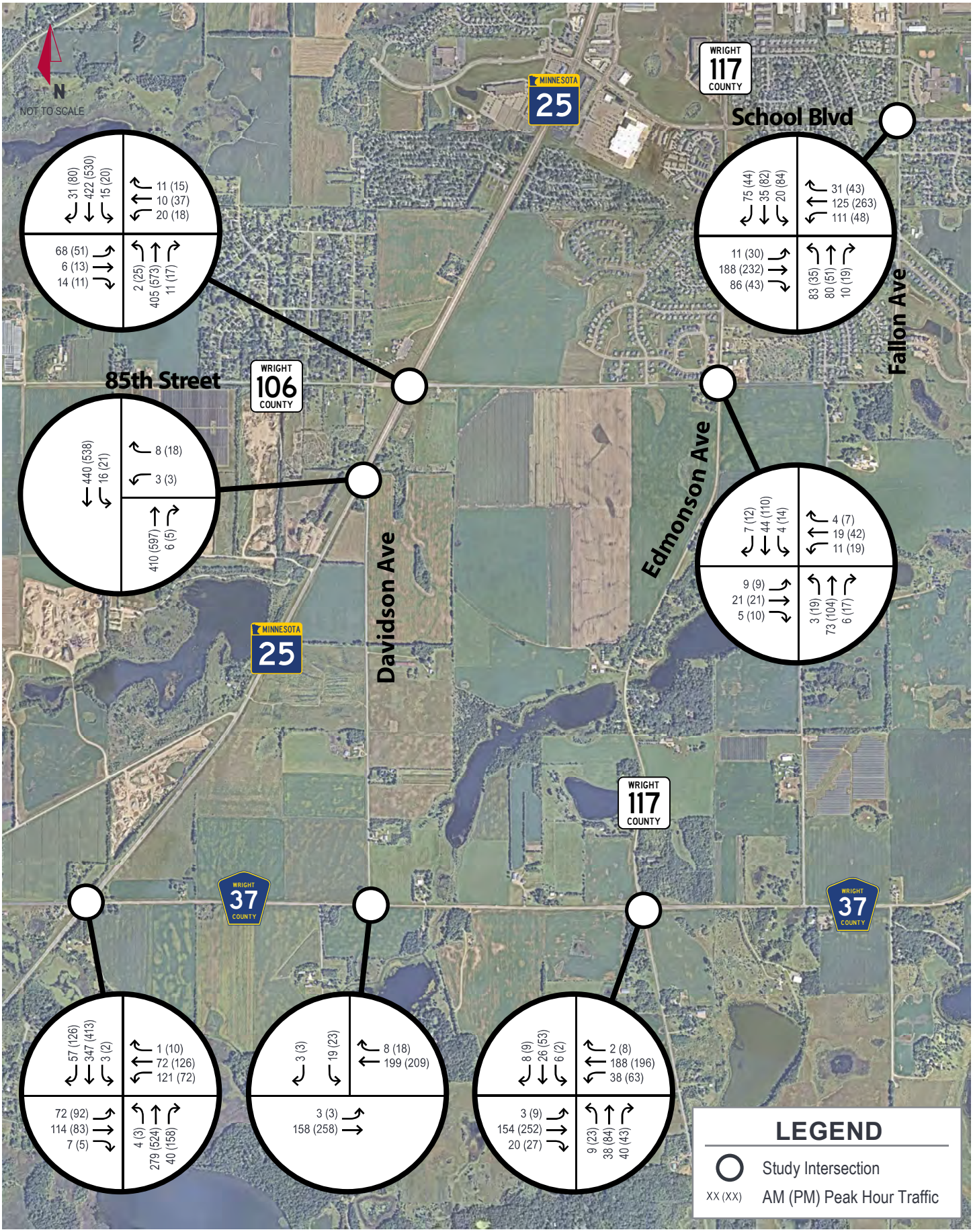

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EXHIBIT 3

EXISTING YEAR (2025) TRAFFIC VOLUMES

MONTICELLO INDUSTRIAL

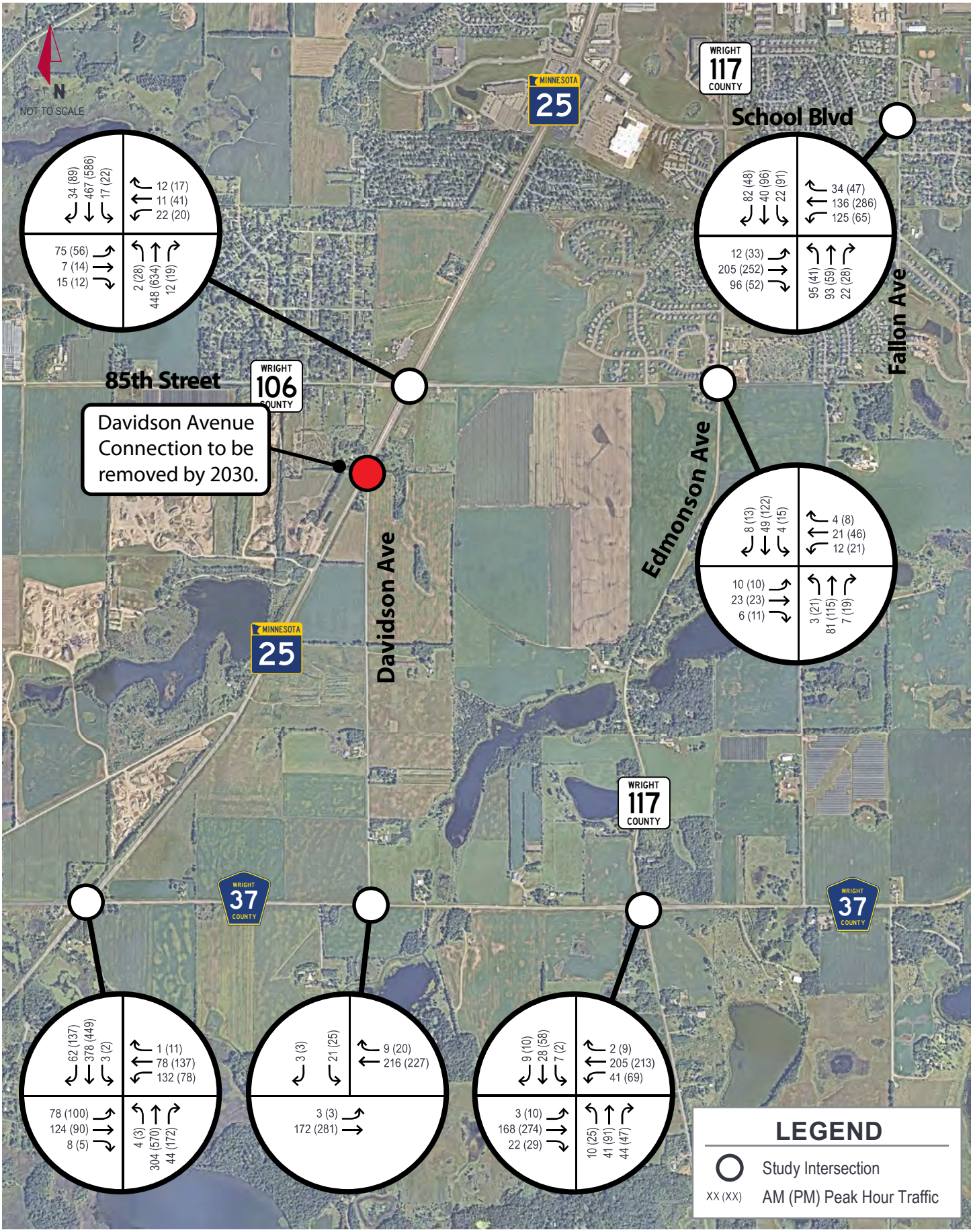

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EXHIBIT 4

OPENING YEAR (2030) NO-BUILD TRAFFIC VOLUMES

MONTICELLO INDUSTRIAL

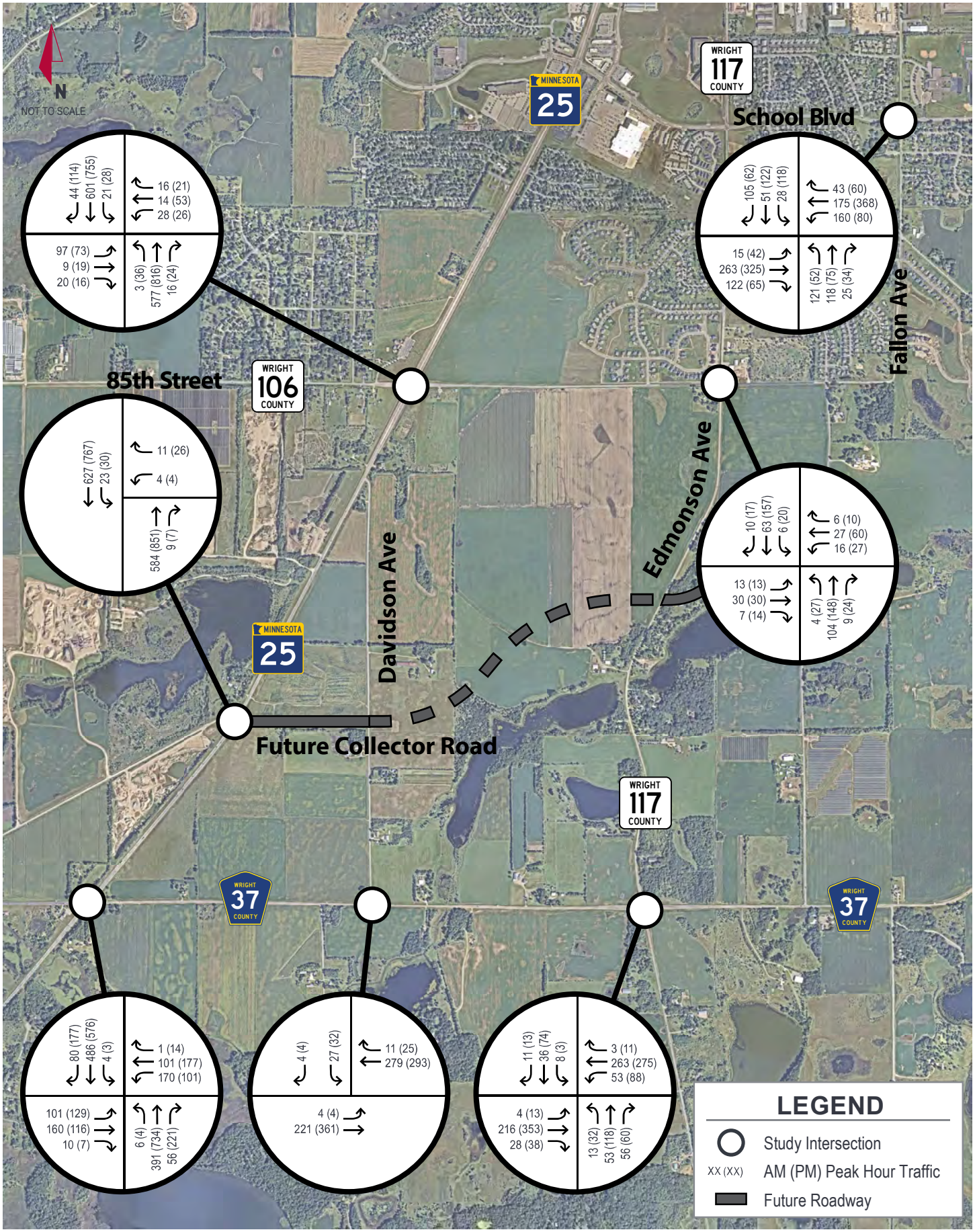

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EXHIBIT 5

DESIGN YEAR (2045) NO BUILD TRAFFIC VOLUMES

MONTICELLO INDUSTRIAL

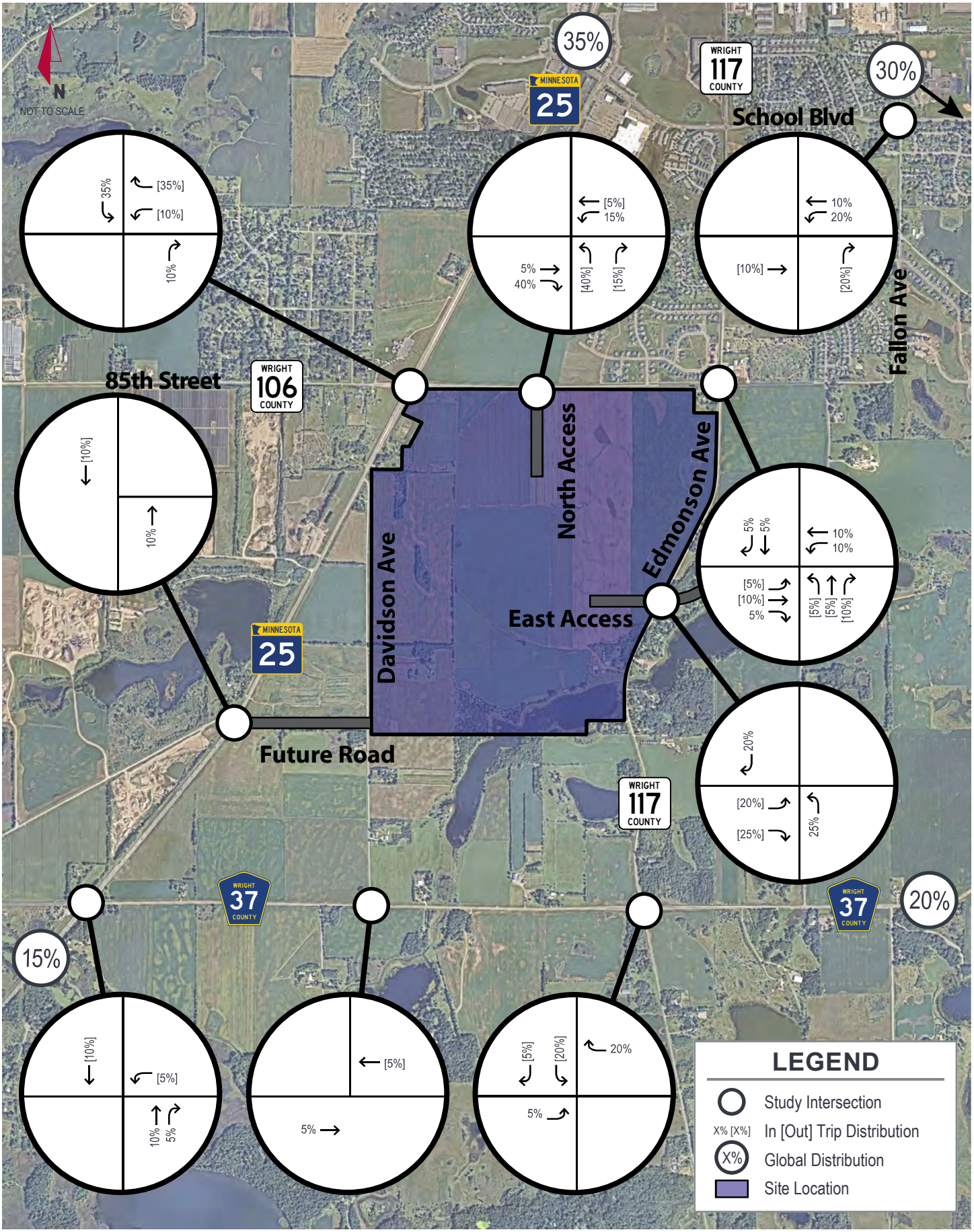

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EXHIBIT 6

SCENARIO 1 TRAFFIC DISTRIBUTION

MONTICELLO INDUSTRIAL

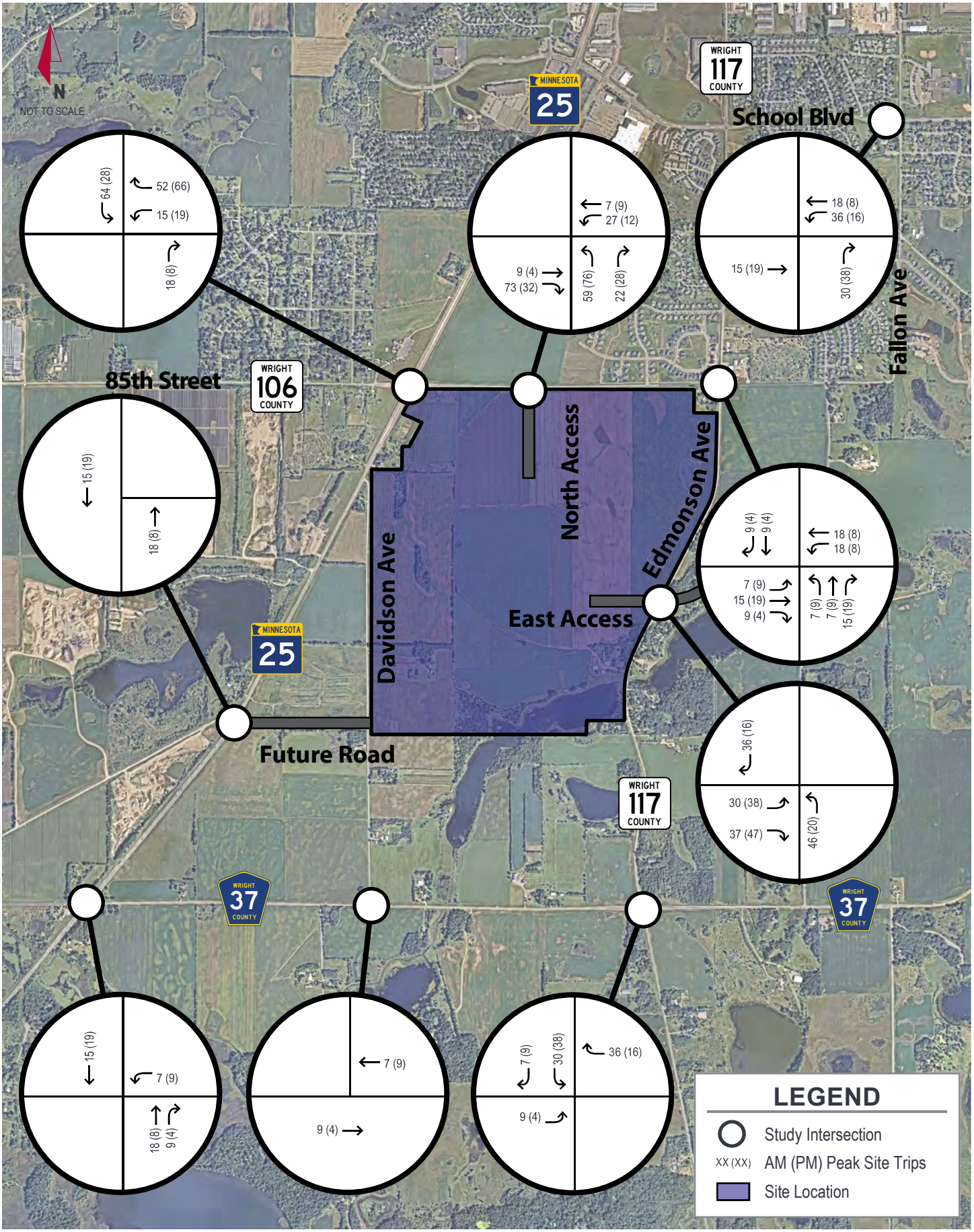

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EXHIBIT 7

TOTAL PEAK HOUR SITE TRIPS (SCENARIO 1)

MONTICELLO INDUSTRIAL

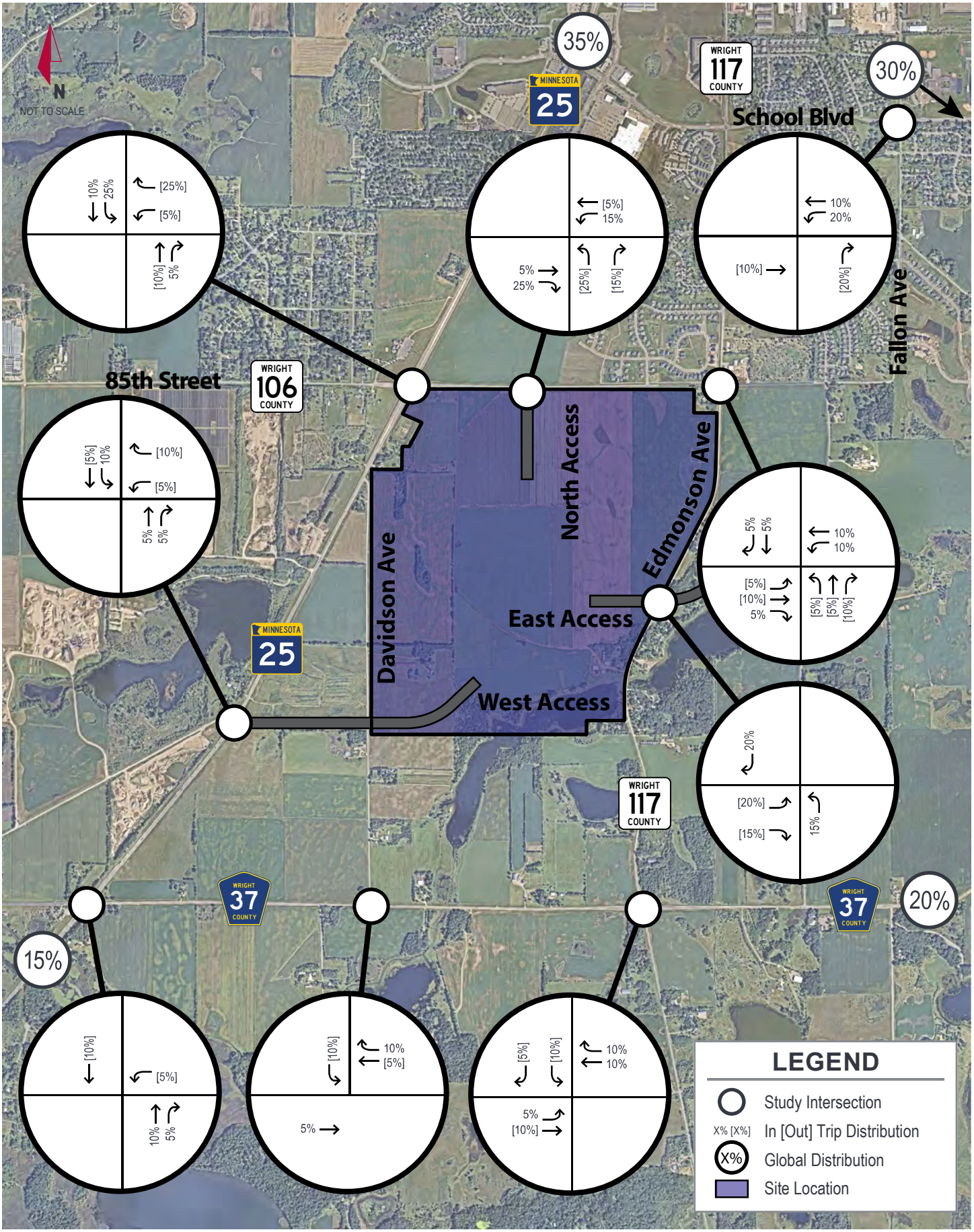

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EXHIBIT 8

PASSENGER VEHICLE DISTRIBUTION (SCENARIO 2)

MONTICELLO INDUSTRIAL

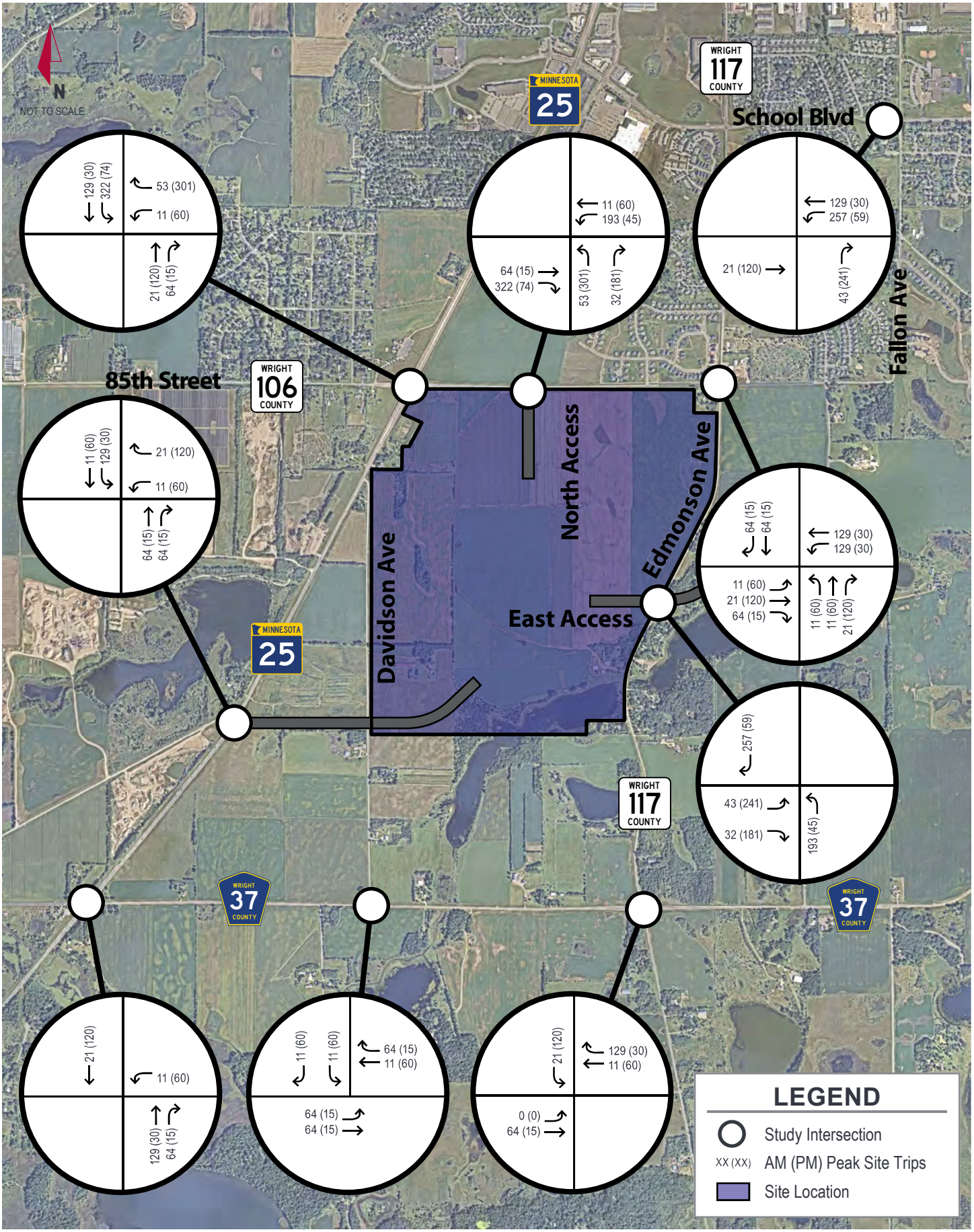

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EXHIBIT 9

PASSENGER VEHICLES SITE TRIPS (SCENARIO 2)

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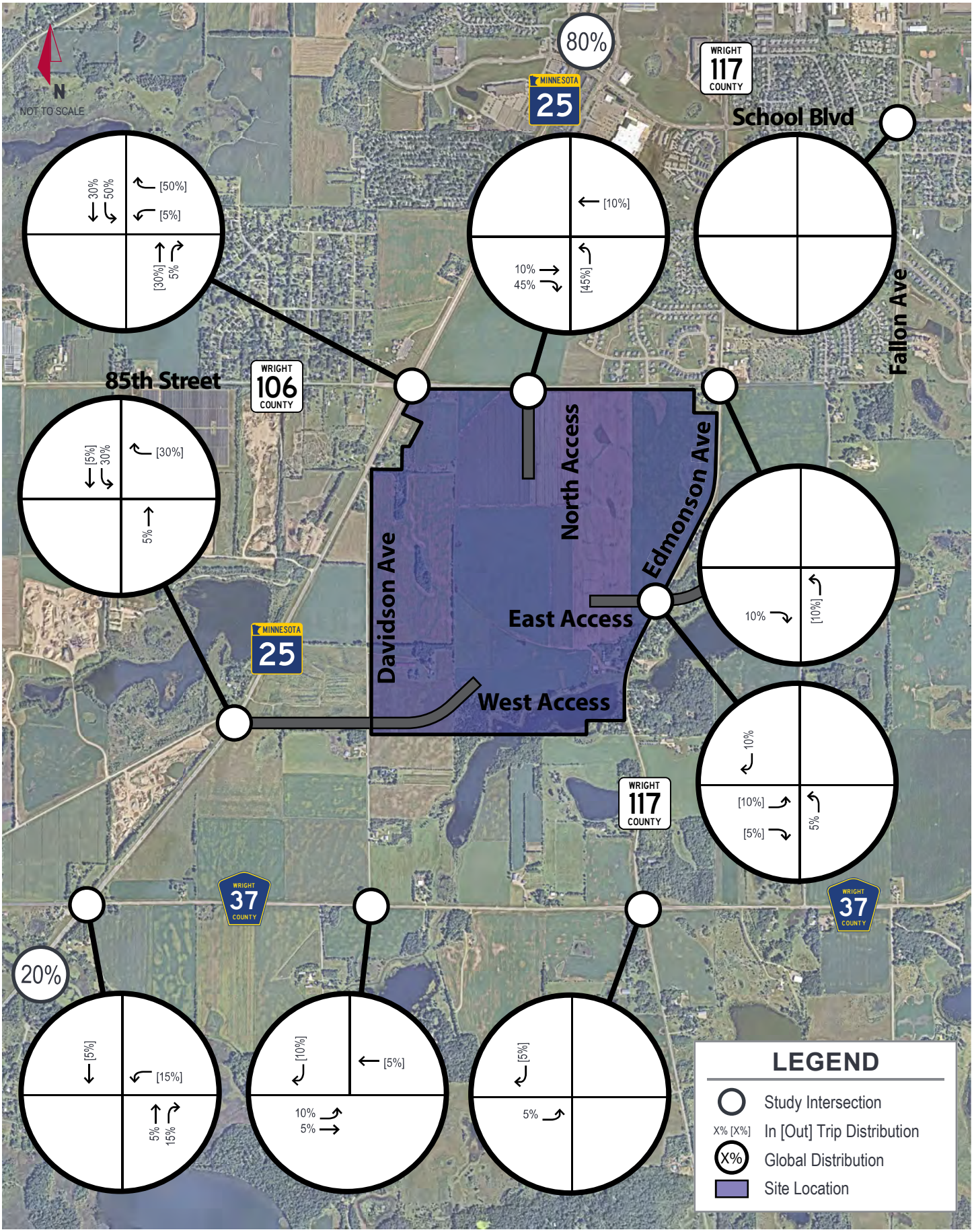

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EXHIBIT 10

TRUCK TRAFFIC DISTRIBTUION (SCENARIO 2)

MONTICELLO INDUSTRIAL

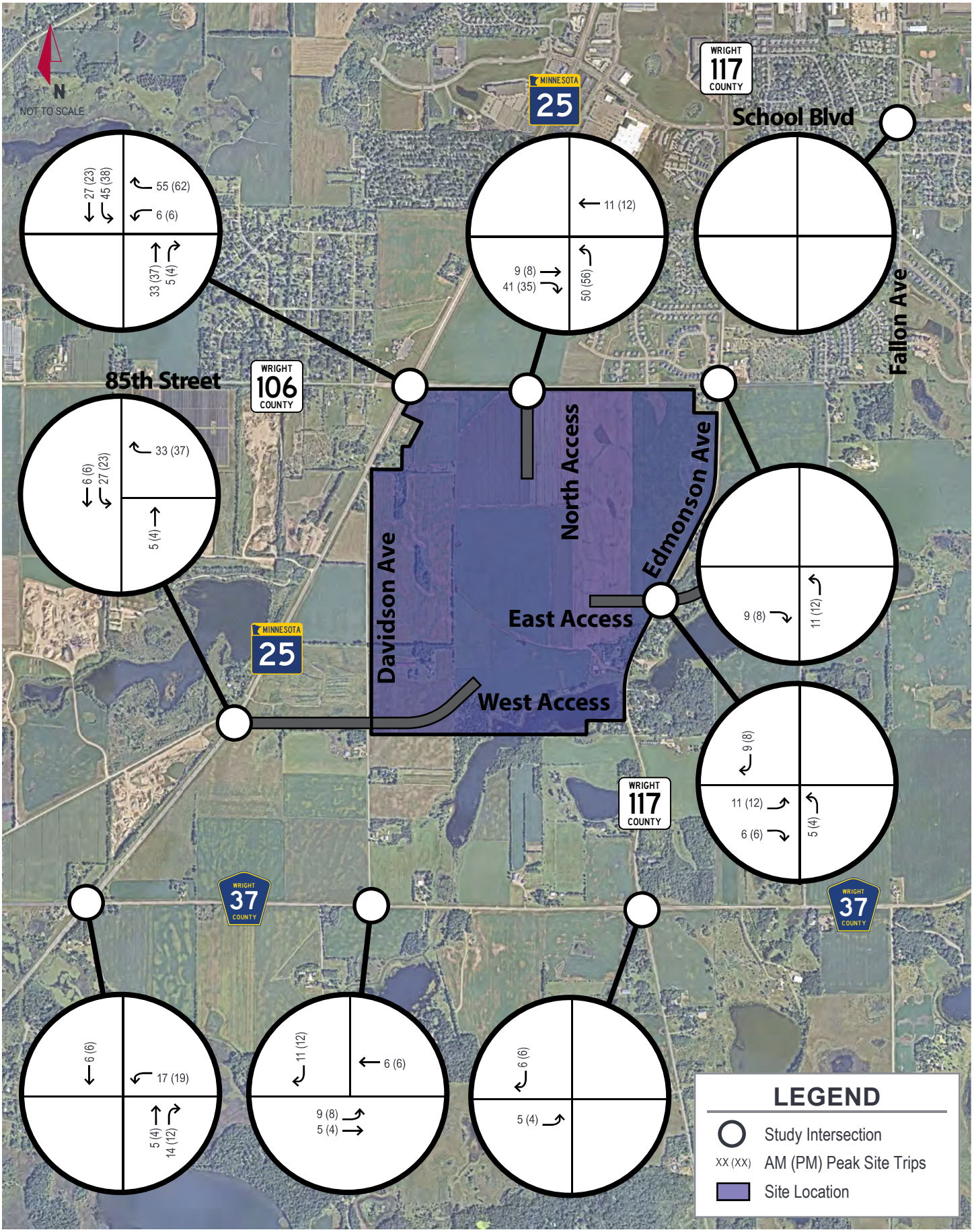

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EXHIBIT 11

TRUCK SITE TRIPS (SCENARIO 2)

MONTICELLO INDUSTRIAL

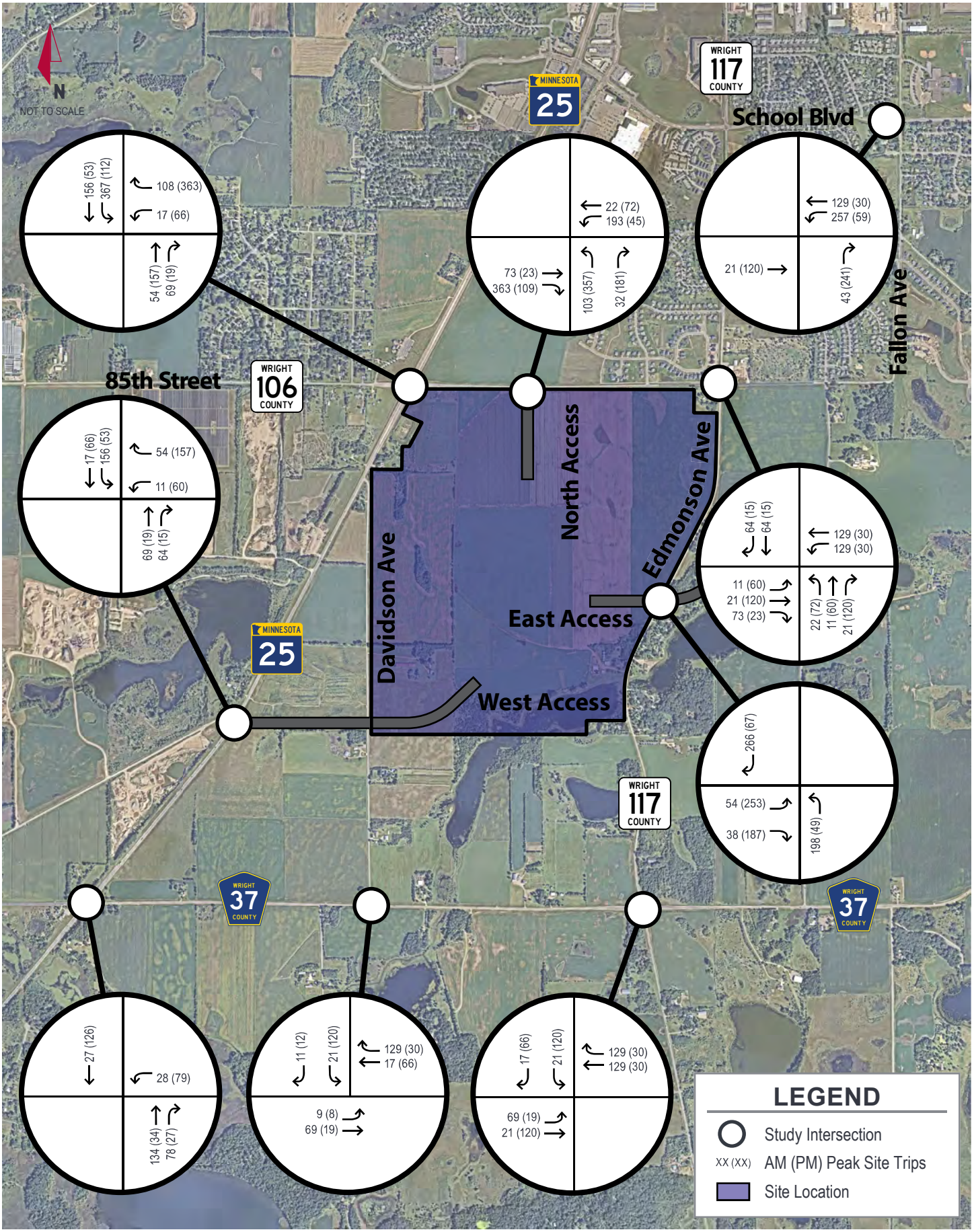

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EXHIBIT 12

TOTAL PEAK HOUR SITE TRIPS (SCENARIO 2)

MONTICELLO INDUSTRIAL

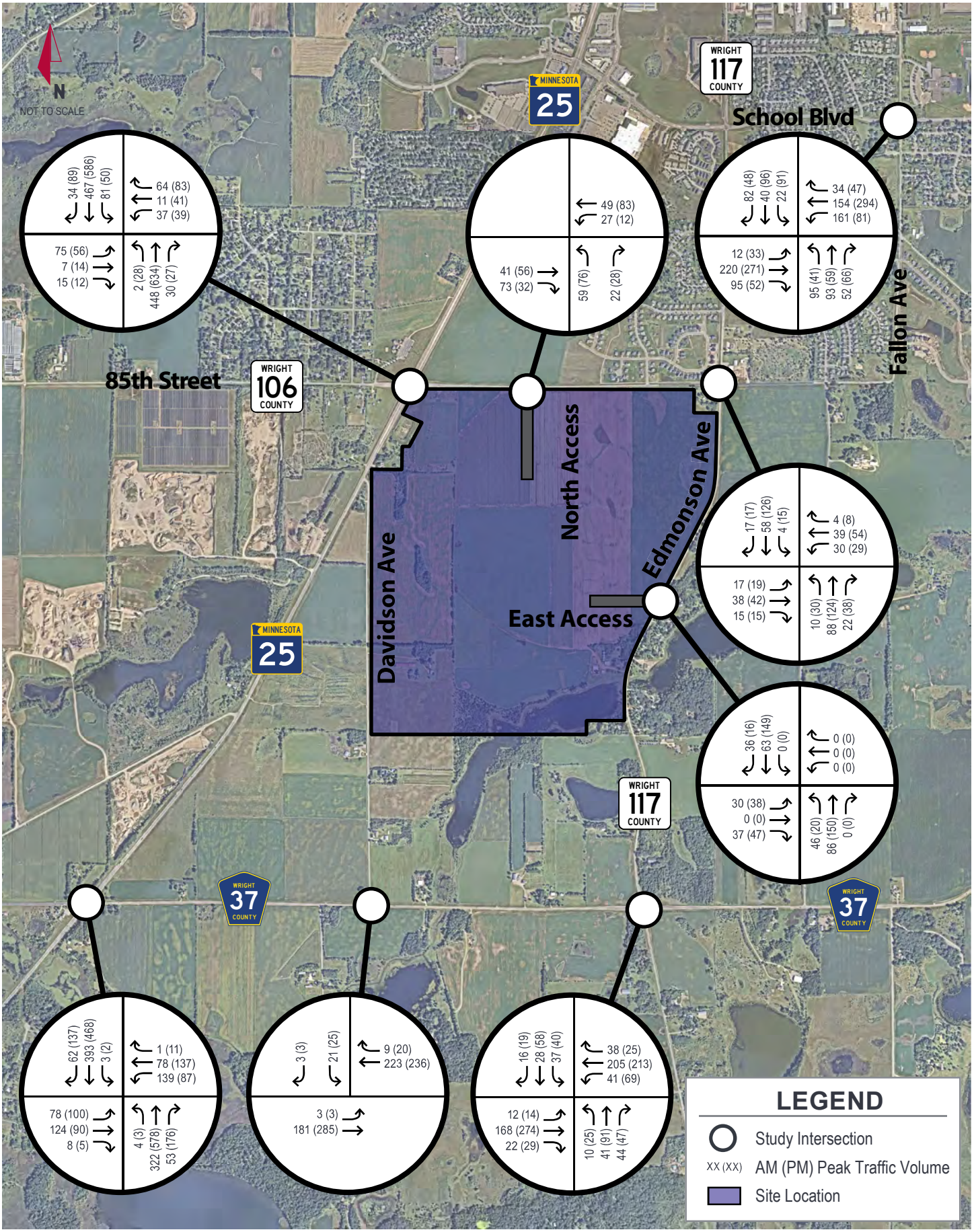

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EXHIBIT 13

2030 BUILD TRAFFIC VOLUMES (SCENARIO 1)

MONTICELLO INDUSTRIAL

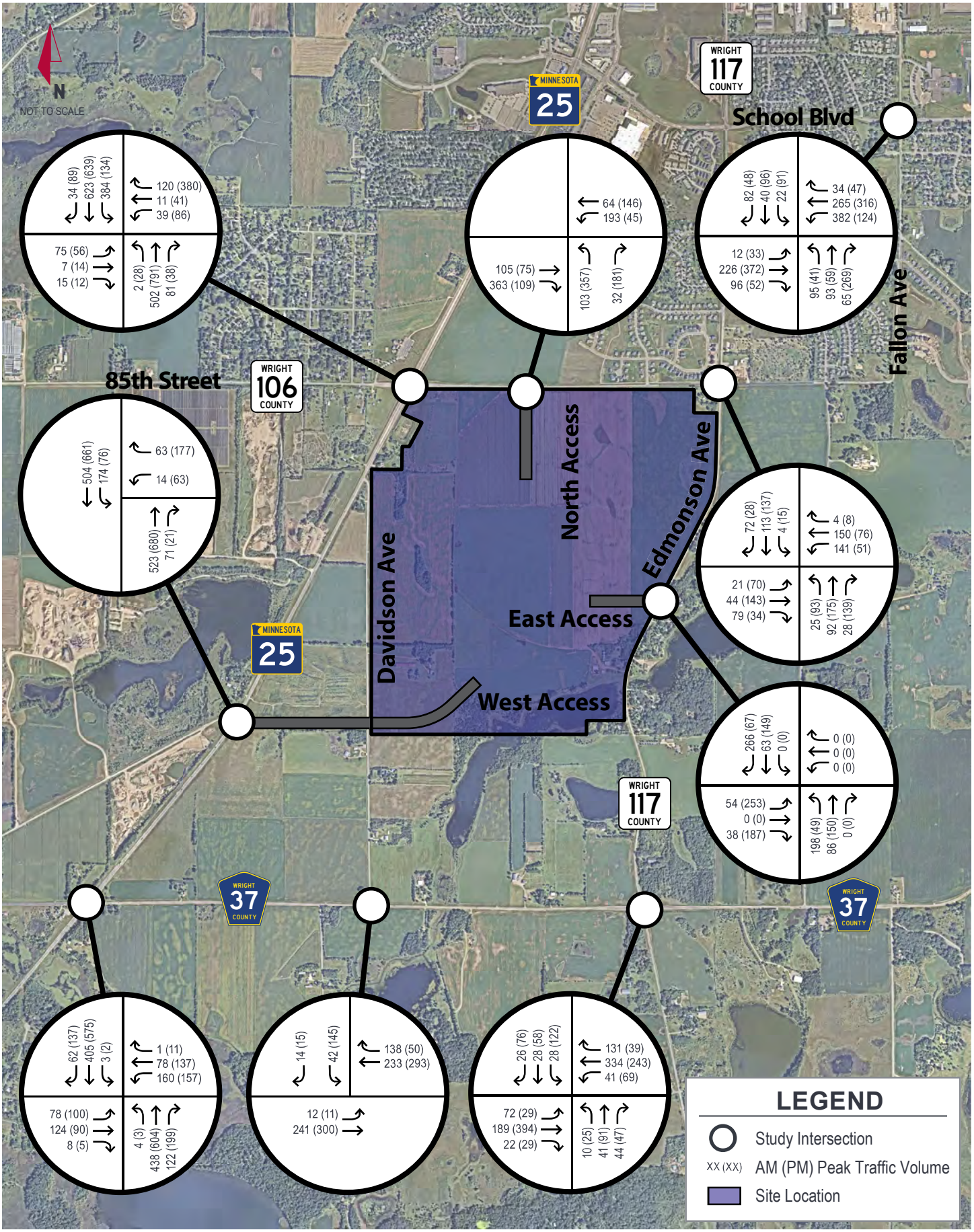

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EXHIBIT 14

2030 BUILD TRAFFIC VOLUMES (SCENARIO 2)

MONTICELLO INDUSTRIAL

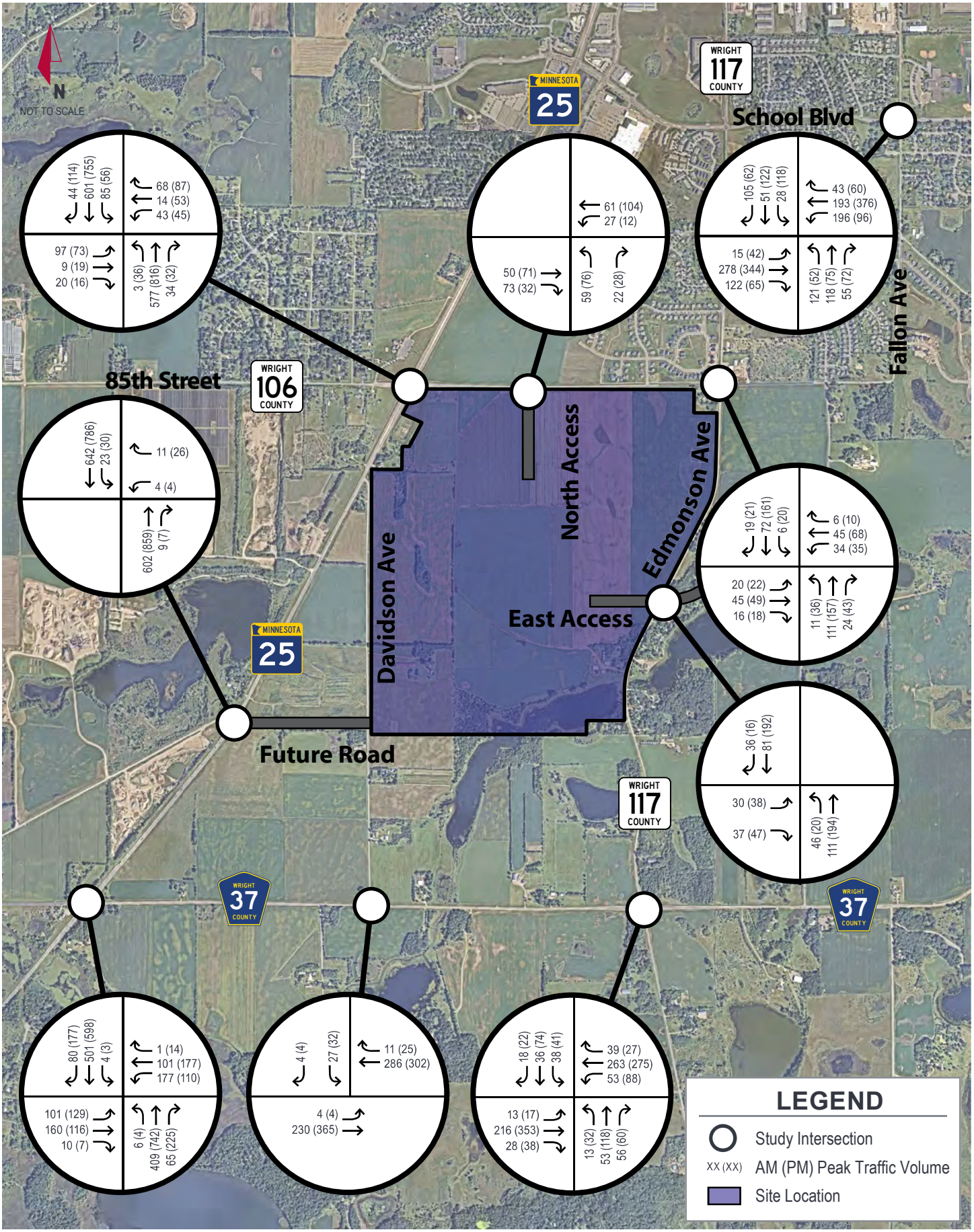

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EXHIBIT 15

2045 BUILD TRAFFIC VOLUMES (SCENARIO 1)

MONTICELLO INDUSTRIAL

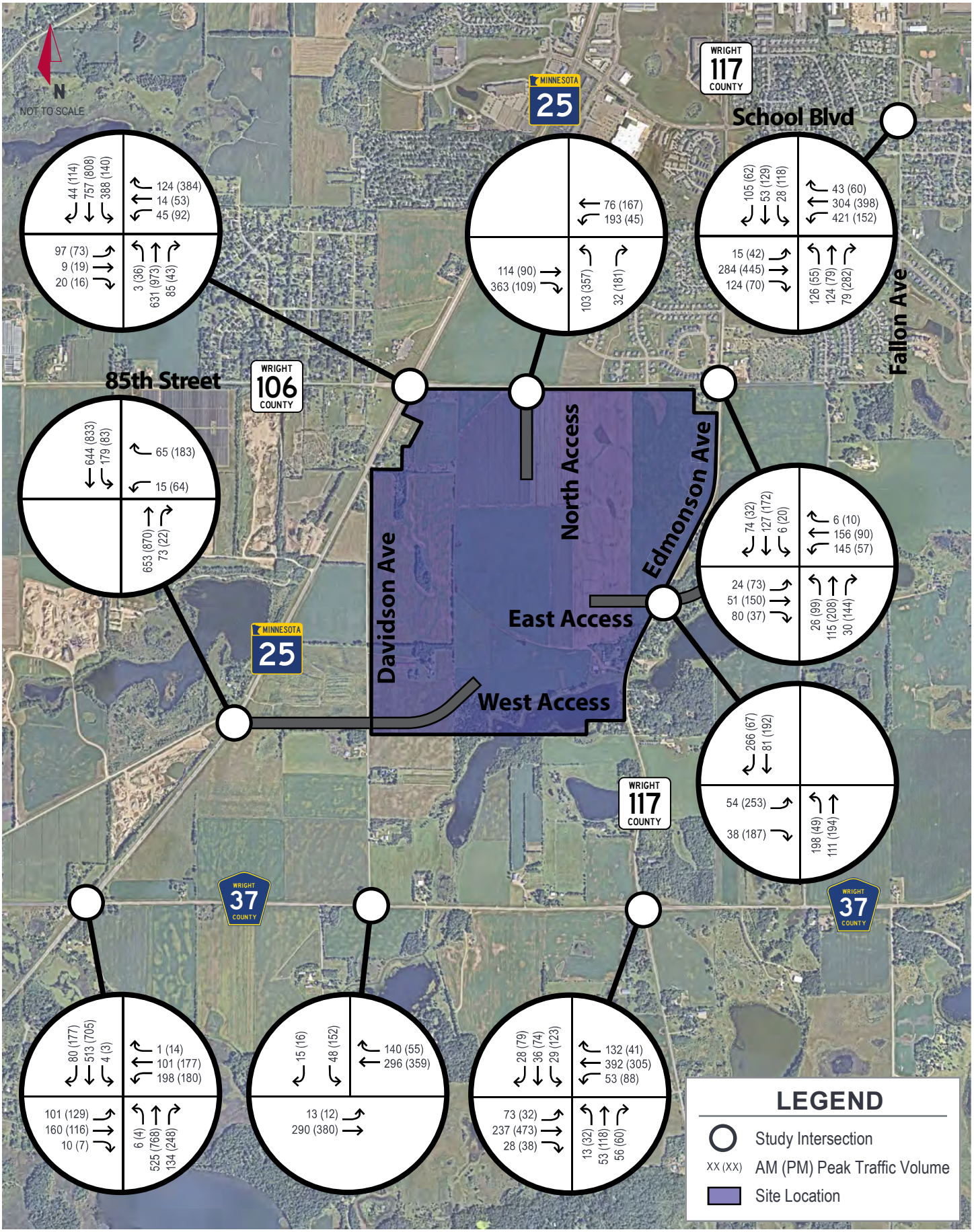

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EXHIBIT 16

2045 BUILD TRAFFIC VOLUMES (SCENARIO 2)

MONTICELLO INDUSTRIAL

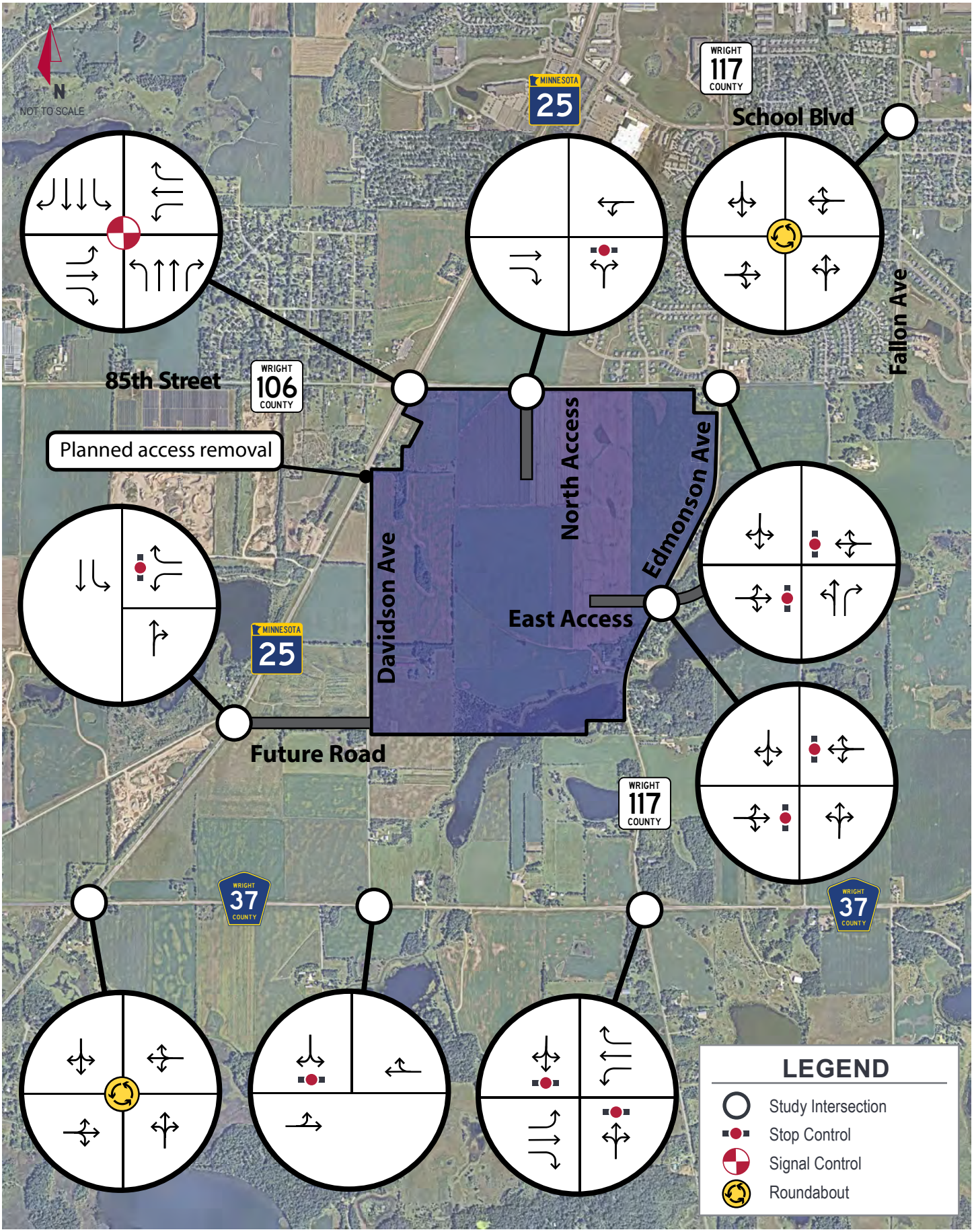

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EXHIBIT 17

PROPOSED 2045 GEOMETRY - SCENARIO 1

MONTICELLO INDUSTRIAL

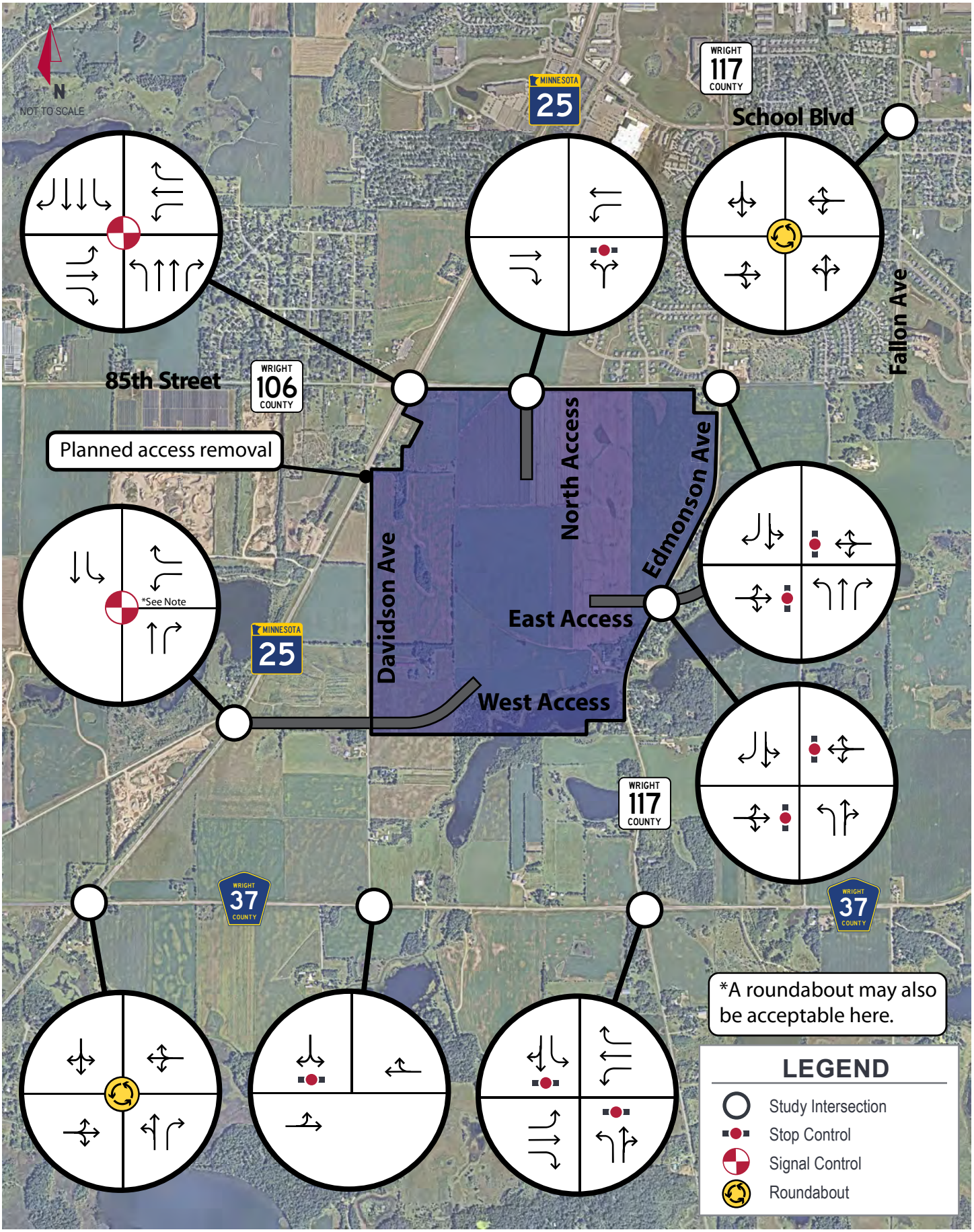

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EXHIBIT 18

PROPOSED 2045 GEOMETRY - SCENARIO 2

MONTICELLO INDUSTRIAL

Appendix B:

Turning Movement Counts

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: MN 25 & 85th Street
Site Code:
Start Date: 07/11/2024

Turning Movement Data

Start Time	85th Street Eastbound					85th Street Westbound					MN 25 Northbound					MN 25 Southbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	18	3	0	0	21	5	5	6	0	16	0	104	1	0	105	6	89	4	0	99	241
7:15 AM	16	2	7	0	25	3	2	2	0	7	0	95	2	0	97	2	119	10	0	131	260
7:30 AM	13	0	3	0	16	7	0	2	0	9	0	96	5	0	101	1	102	8	0	111	237
7:45 AM	19	0	3	0	22	4	2	0	0	6	1	103	2	0	106	5	104	8	0	117	251
Hourly Total	66	5	13	0	84	19	9	10	0	38	1	398	10	0	409	14	414	30	0	458	989
8:00 AM	10	0	5	0	15	3	0	1	0	4	2	105	1	0	108	0	91	11	0	102	229
8:15 AM	15	7	4	0	26	3	0	2	0	5	6	106	1	0	113	0	80	6	0	86	230
8:30 AM	14	0	6	0	20	1	1	2	0	4	0	100	0	0	100	2	80	8	0	90	214
8:45 AM	8	5	1	0	14	4	5	0	0	9	3	77	2	0	82	1	64	7	0	72	177
Hourly Total	47	12	16	0	75	11	6	5	0	22	11	388	4	0	403	3	315	32	0	350	850
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	11	4	4	0	19	3	6	6	0	15	4	138	3	0	145	5	140	19	0	164	343
4:15 PM	10	1	0	0	11	6	12	4	0	22	6	127	3	0	136	3	128	18	0	149	318
4:30 PM	18	5	1	0	24	6	10	3	0	19	7	140	4	0	151	4	134	20	0	158	352
4:45 PM	11	2	5	0	18	2	8	1	0	11	7	158	6	0	171	7	119	21	0	147	347
Hourly Total	50	12	10	0	72	17	36	14	0	67	24	563	16	0	603	19	521	78	0	618	1360
5:00 PM	15	7	3	0	25	4	10	5	0	19	5	118	5	0	128	5	113	19	0	137	309
5:15 PM	2	3	4	0	9	2	9	1	0	12	5	148	5	0	158	4	121	13	0	138	317
5:30 PM	10	5	5	0	20	2	6	3	0	11	4	150	3	0	157	1	111	14	0	126	314
5:45 PM	11	6	1	0	18	1	3	0	0	4	9	99	4	0	112	2	99	10	0	111	245
Hourly Total	38	21	13	0	72	9	28	9	0	46	23	515	17	0	555	12	444	56	0	512	1185
Grand Total	201	50	52	0	303	56	79	38	0	173	59	1864	47	0	1970	48	1694	196	0	1938	4384
Approach %	66.3	16.5	17.2	-	-	32.4	45.7	22.0	-	-	3.0	94.6	2.4	-	-	2.5	87.4	10.1	-	-	-
Total %	4.6	1.1	1.2	-	6.9	1.3	1.8	0.9	-	3.9	1.3	42.5	1.1	-	44.9	1.1	38.6	4.5	-	44.2	-
Lights	201	50	51	-	302	54	79	34	-	167	58	1779	47	-	1884	43	1617	194	-	1854	4207
% Lights	100.0	100.0	98.1	-	99.7	96.4	100.0	89.5	-	96.5	98.3	95.4	100.0	-	95.6	89.6	95.5	99.0	-	95.7	96.0
Mediums	0	0	1	-	1	2	0	4	-	6	1	38	0	-	39	5	35	2	-	42	88
% Mediums	0.0	0.0	1.9	-	0.3	3.6	0.0	10.5	-	3.5	1.7	2.0	0.0	-	2.0	10.4	2.1	1.0	-	2.2	2.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	47	0	-	47	0	42	0	-	42	89
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	2.5	0.0	-	2.4	0.0	2.5	0.0	-	2.2	2.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

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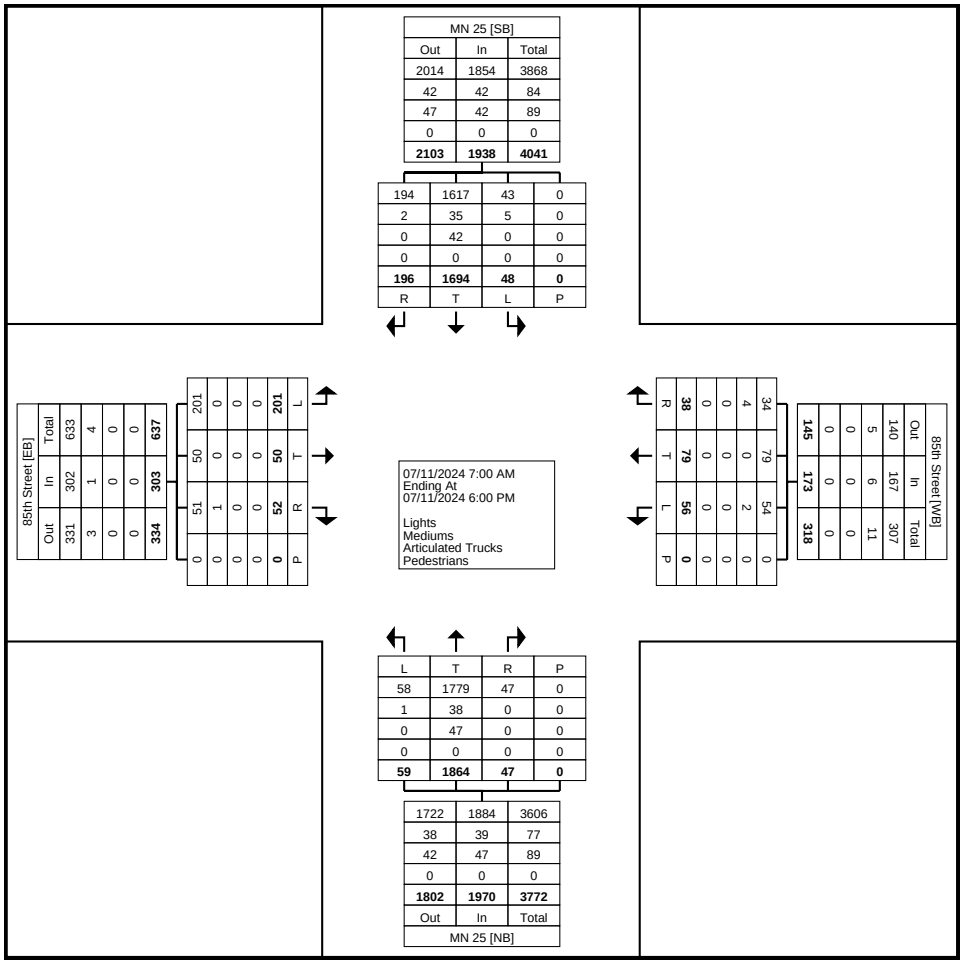
Count Name: MN 25 & 85th Street
Site Code:
Start Date: 07/11/2024



Turning Movement Data Plot

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: MN 25 & 85th Street
Site Code:
Start Date: 07/11/2024

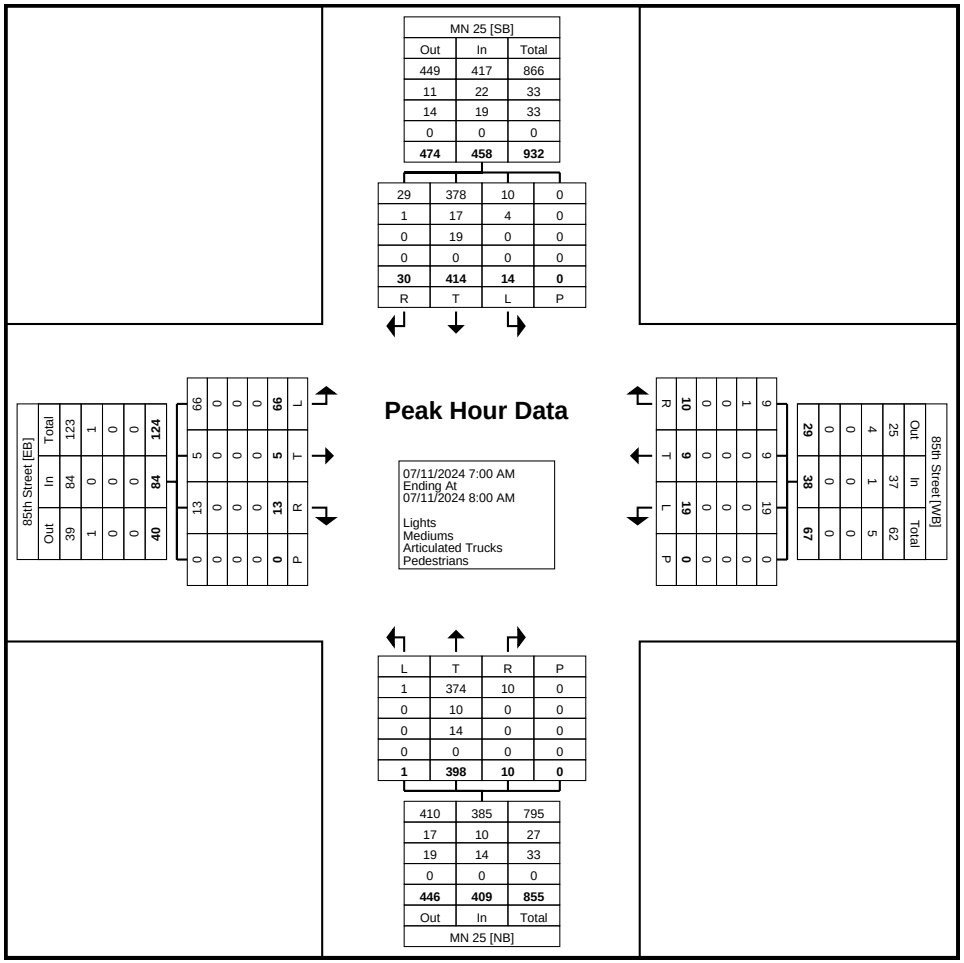
Turning Movement Peak Hour Data (7:00 AM)

Start Time	85th Street Eastbound					85th Street Westbound					MN 25 Northbound					MN 25 Southbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	18	3	0	0	21	5	5	6	0	16	0	104	1	0	105	6	89	4	0	99	241
7:15 AM	16	2	7	0	25	3	2	2	0	7	0	95	2	0	97	2	119	10	0	131	260
7:30 AM	13	0	3	0	16	7	0	2	0	9	0	96	5	0	101	1	102	8	0	111	237
7:45 AM	19	0	3	0	22	4	2	0	0	6	1	103	2	0	106	5	104	8	0	117	251
Total	66	5	13	0	84	19	9	10	0	38	1	398	10	0	409	14	414	30	0	458	989
Approach %	78.6	6.0	15.5	-	-	50.0	23.7	26.3	-	-	0.2	97.3	2.4	-	-	3.1	90.4	6.6	-	-	-
Total %	6.7	0.5	1.3	-	8.5	1.9	0.9	1.0	-	3.8	0.1	40.2	1.0	-	41.4	1.4	41.9	3.0	-	46.3	-
PHF	0.868	0.417	0.464	-	0.840	0.679	0.450	0.417	-	0.594	0.250	0.957	0.500	-	0.965	0.583	0.870	0.750	-	0.874	0.951
Lights	66	5	13	-	84	19	9	9	-	37	1	374	10	-	385	10	378	29	-	417	923
% Lights	100.0	100.0	100.0	-	100.0	100.0	100.0	90.0	-	97.4	100.0	94.0	100.0	-	94.1	71.4	91.3	96.7	-	91.0	93.3
Mediums	0	0	0	-	0	0	0	1	-	1	0	10	0	-	10	4	17	1	-	22	33
% Mediums	0.0	0.0	0.0	-	0.0	0.0	0.0	10.0	-	2.6	0.0	2.5	0.0	-	2.4	28.6	4.1	3.3	-	4.8	3.3
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	14	0	-	14	0	19	0	-	19	33
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	3.5	0.0	-	3.4	0.0	4.6	0.0	-	4.1	3.3
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: MN 25 & 85th Street
Site Code:
Start Date: 07/11/2024



Turning Movement Peak Hour Data Plot (7:00 AM)

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: MN 25 & 85th Street
Site Code:
Start Date: 07/11/2024

Turning Movement Peak Hour Data (4:00 PM)

Start Time	85th Street Eastbound					85th Street Westbound					MN 25 Northbound					MN 25 Southbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
4:00 PM	11	4	4	0	19	3	6	6	0	15	4	138	3	0	145	5	140	19	0	164	343
4:15 PM	10	1	0	0	11	6	12	4	0	22	6	127	3	0	136	3	128	18	0	149	318
4:30 PM	18	5	1	0	24	6	10	3	0	19	7	140	4	0	151	4	134	20	0	158	352
4:45 PM	11	2	5	0	18	2	8	1	0	11	7	158	6	0	171	7	119	21	0	147	347
Total	50	12	10	0	72	17	36	14	0	67	24	563	16	0	603	19	521	78	0	618	1360
Approach %	69.4	16.7	13.9	-	-	25.4	53.7	20.9	-	-	4.0	93.4	2.7	-	-	3.1	84.3	12.6	-	-	-
Total %	3.7	0.9	0.7	-	5.3	1.3	2.6	1.0	-	4.9	1.8	41.4	1.2	-	44.3	1.4	38.3	5.7	-	45.4	-
PHF	0.694	0.600	0.500	-	0.750	0.708	0.750	0.583	-	0.761	0.857	0.891	0.667	-	0.882	0.679	0.930	0.929	-	0.942	0.966
Lights	50	12	10	-	72	16	36	12	-	64	24	545	16	-	585	18	509	78	-	605	1326
% Lights	100.0	100.0	100.0	-	100.0	94.1	100.0	85.7	-	95.5	100.0	96.8	100.0	-	97.0	94.7	97.7	100.0	-	97.9	97.5
Mediums	0	0	0	-	0	1	0	2	-	3	0	5	0	-	5	1	5	0	-	6	14
% Mediums	0.0	0.0	0.0	-	0.0	5.9	0.0	14.3	-	4.5	0.0	0.9	0.0	-	0.8	5.3	1.0	0.0	-	1.0	1.0
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	13	0	-	13	0	7	0	-	7	20
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	2.3	0.0	-	2.2	0.0	1.3	0.0	-	1.1	1.5
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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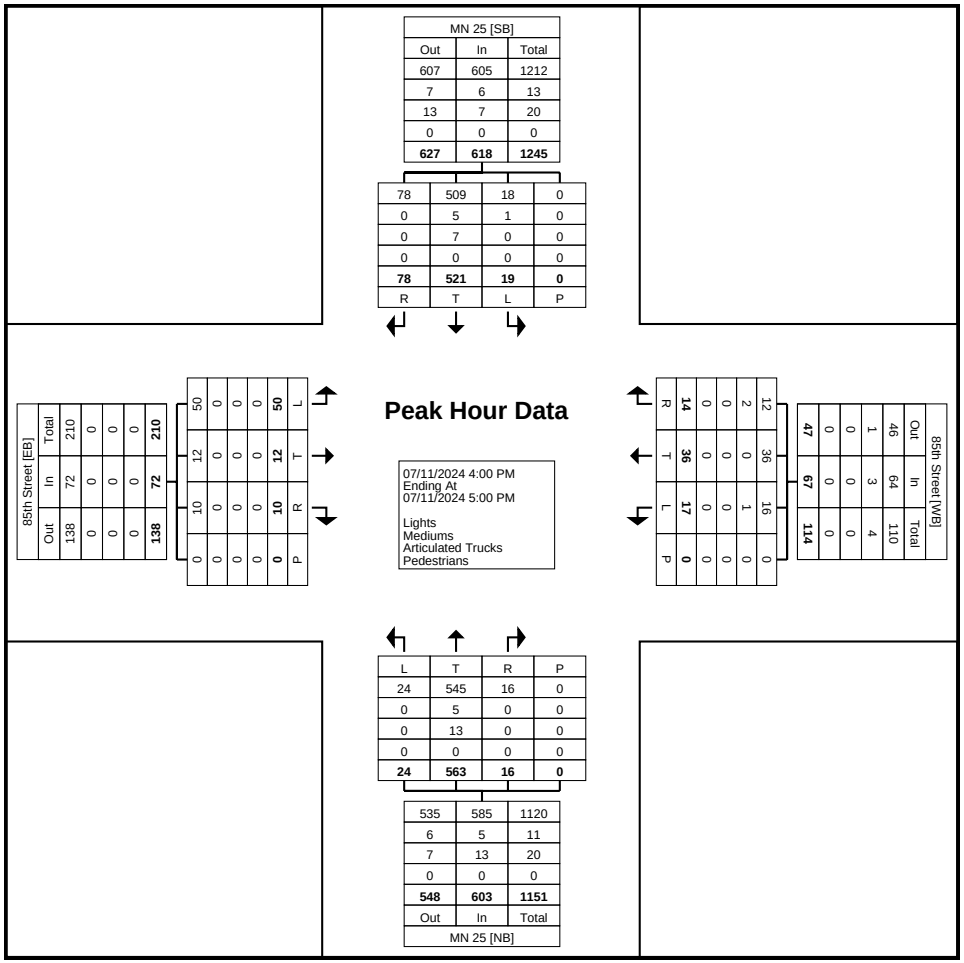
Count Name: MN 25 & 85th Street
Site Code:
Start Date: 07/11/2024



Turning Movement Peak Hour Data Plot (4:00 PM)

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: Edmonson Ave & 85th Street
Site Code:
Start Date: 07/11/2024

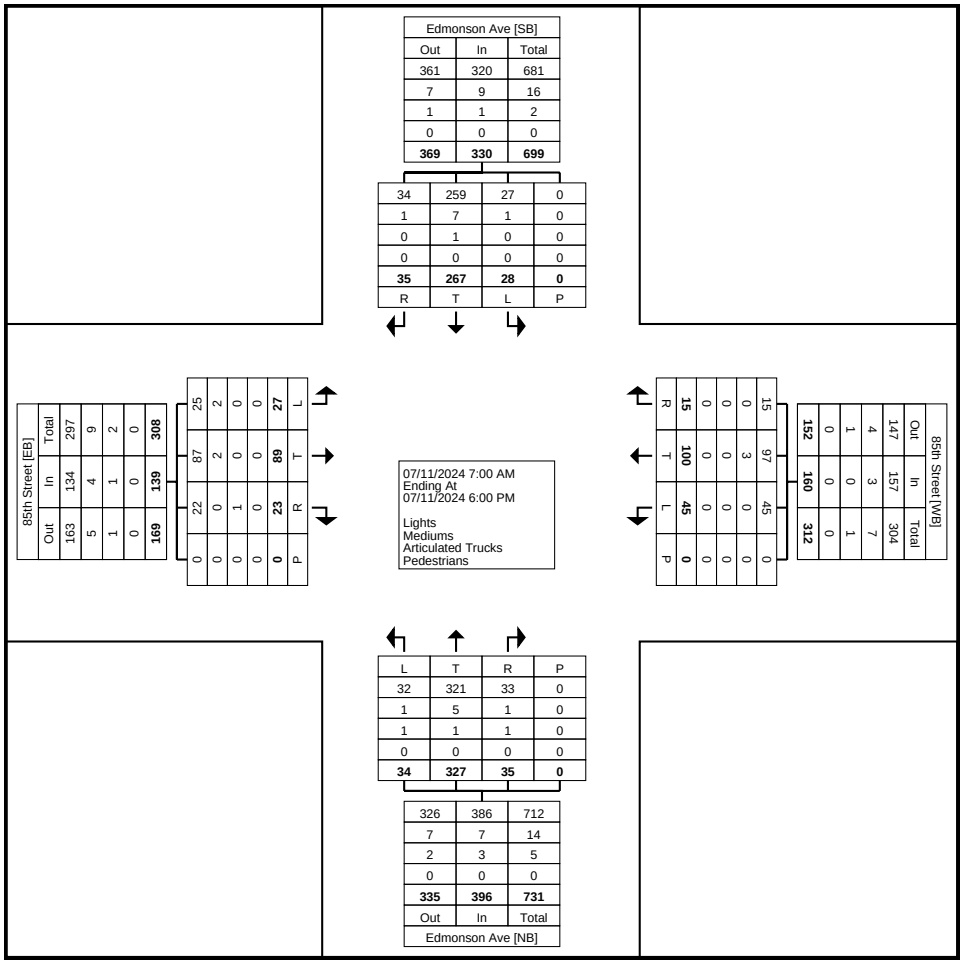
Turning Movement Data

Start Time	85th Street Eastbound					85th Street Westbound					Edmonson Ave Northbound					Edmonson Ave Southbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	2	7	3	0	12	1	5	0	0	6	0	8	1	0	9	1	12	3	0	16	43
7:15 AM	0	4	1	0	5	2	5	1	0	8	1	12	2	0	15	2	8	1	0	11	39
7:30 AM	3	4	0	0	7	3	4	1	0	8	1	20	1	0	22	0	13	1	0	14	51
7:45 AM	3	5	0	0	8	4	4	1	0	9	0	31	1	0	32	0	10	1	0	11	60
Hourly Total	8	20	4	0	32	10	18	3	0	31	2	71	5	0	78	3	43	6	0	52	193
8:00 AM	0	2	1	0	3	5	0	1	0	6	0	16	3	0	19	2	6	0	0	8	36
8:15 AM	1	9	0	0	10	0	2	0	0	2	0	15	0	0	15	0	13	2	0	15	42
8:30 AM	0	2	0	0	2	0	4	0	0	4	1	11	1	0	13	1	13	2	0	16	35
8:45 AM	2	5	1	0	8	1	7	0	0	8	1	13	1	0	15	2	11	1	0	14	45
Hourly Total	3	18	2	0	23	6	13	1	0	20	2	55	5	0	62	5	43	5	0	53	158
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	2	4	2	0	8	3	13	1	0	17	7	20	3	0	30	2	25	2	0	29	84
4:15 PM	2	6	3	0	11	6	9	1	0	16	5	27	4	0	36	5	26	2	0	33	96
4:30 PM	1	4	3	0	8	4	12	2	0	18	3	28	5	0	36	4	32	2	0	38	100
4:45 PM	3	6	1	0	10	5	7	2	0	14	3	27	4	0	34	2	25	5	0	32	90
Hourly Total	8	20	9	0	37	18	41	6	0	65	18	102	16	0	136	13	108	11	0	132	370
5:00 PM	2	12	3	0	17	4	9	4	0	17	2	37	4	0	43	2	22	5	0	29	106
5:15 PM	3	4	4	0	11	4	12	0	0	16	4	26	2	0	32	2	18	4	0	24	83
5:30 PM	1	8	0	0	9	2	3	0	0	5	5	21	2	0	28	1	20	1	0	22	64
5:45 PM	2	7	1	0	10	1	4	1	0	6	1	15	1	0	17	2	13	3	0	18	51
Hourly Total	8	31	8	0	47	11	28	5	0	44	12	99	9	0	120	7	73	13	0	93	304
Grand Total	27	89	23	0	139	45	100	15	0	160	34	327	35	0	396	28	267	35	0	330	1025
Approach %	19.4	64.0	16.5	-	-	28.1	62.5	9.4	-	-	8.6	82.6	8.8	-	-	8.5	80.9	10.6	-	-	-
Total %	2.6	8.7	2.2	-	13.6	4.4	9.8	1.5	-	15.6	3.3	31.9	3.4	-	38.6	2.7	26.0	3.4	-	32.2	-
Lights	25	87	22	-	134	45	97	15	-	157	32	321	33	-	386	27	259	34	-	320	997
% Lights	92.6	97.8	95.7	-	96.4	100.0	97.0	100.0	-	98.1	94.1	98.2	94.3	-	97.5	96.4	97.0	97.1	-	97.0	97.3
Mediums	2	2	0	-	4	0	3	0	-	3	1	5	1	-	7	1	7	1	-	9	23
% Mediums	7.4	2.2	0.0	-	2.9	0.0	3.0	0.0	-	1.9	2.9	1.5	2.9	-	1.8	3.6	2.6	2.9	-	2.7	2.2
Articulated Trucks	0	0	1	-	1	0	0	0	-	0	1	1	1	-	3	0	1	0	-	1	5
% Articulated Trucks	0.0	0.0	4.3	-	0.7	0.0	0.0	0.0	-	0.0	2.9	0.3	2.9	-	0.8	0.0	0.4	0.0	-	0.3	0.5
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: Edmonson Ave & 85th Street
Site Code:
Start Date: 07/11/2024



Turning Movement Data Plot

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: Edmonson Ave & 85th Street
Site Code:
Start Date: 07/11/2024

Turning Movement Peak Hour Data (7:00 AM)

Start Time	85th Street Eastbound					85th Street Westbound					Edmonson Ave Northbound					Edmonson Ave Southbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
7:00 AM	2	7	3	0	12	1	5	0	0	6	0	8	1	0	9	1	12	3	0	16	43
7:15 AM	0	4	1	0	5	2	5	1	0	8	1	12	2	0	15	2	8	1	0	11	39
7:30 AM	3	4	0	0	7	3	4	1	0	8	1	20	1	0	22	0	13	1	0	14	51
7:45 AM	3	5	0	0	8	4	4	1	0	9	0	31	1	0	32	0	10	1	0	11	60
Total	8	20	4	0	32	10	18	3	0	31	2	71	5	0	78	3	43	6	0	52	193
Approach %	25.0	62.5	12.5	-	-	32.3	58.1	9.7	-	-	2.6	91.0	6.4	-	-	5.8	82.7	11.5	-	-	-
Total %	4.1	10.4	2.1	-	16.6	5.2	9.3	1.6	-	16.1	1.0	36.8	2.6	-	40.4	1.6	22.3	3.1	-	26.9	-
PHF	0.667	0.714	0.333	-	0.667	0.625	0.900	0.750	-	0.861	0.500	0.573	0.625	-	0.609	0.375	0.827	0.500	-	0.813	0.804
Lights	7	19	4	-	30	10	18	3	-	31	2	70	5	-	77	2	41	6	-	49	187
% Lights	87.5	95.0	100.0	-	93.8	100.0	100.0	100.0	-	100.0	100.0	98.6	100.0	-	98.7	66.7	95.3	100.0	-	94.2	96.9
Mediums	1	1	0	-	2	0	0	0	-	0	0	1	0	-	1	1	2	0	-	3	6
% Mediums	12.5	5.0	0.0	-	6.3	0.0	0.0	0.0	-	0.0	0.0	1.4	0.0	-	1.3	33.3	4.7	0.0	-	5.8	3.1
Articulated Trucks	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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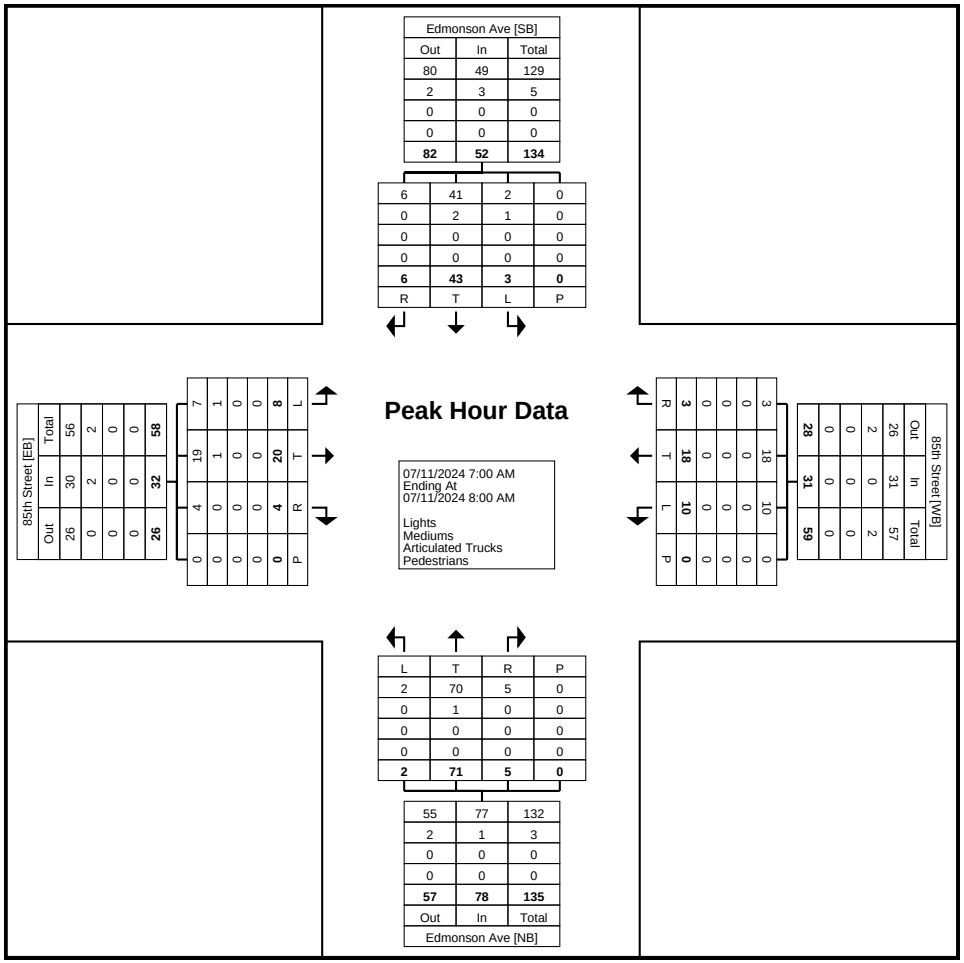
Count Name: Edmonson Ave & 85th Street
Site Code:
Start Date: 07/11/2024



Turning Movement Peak Hour Data Plot (7:00 AM)

Kimley-Horn and Associates, Inc.
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: Edmonson Ave & 85th Street
Site Code:
Start Date: 07/11/2024

Turning Movement Peak Hour Data (4:15 PM)

Start Time	85th Street Eastbound					85th Street Westbound					Edmonson Ave Northbound					Edmonson Ave Southbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
4:15 PM	2	6	3	0	11	6	9	1	0	16	5	27	4	0	36	5	26	2	0	33	96
4:30 PM	1	4	3	0	8	4	12	2	0	18	3	28	5	0	36	4	32	2	0	38	100
4:45 PM	3	6	1	0	10	5	7	2	0	14	3	27	4	0	34	2	25	5	0	32	90
5:00 PM	2	12	3	0	17	4	9	4	0	17	2	37	4	0	43	2	22	5	0	29	106
Total	8	28	10	0	46	19	37	9	0	65	13	119	17	0	149	13	105	14	0	132	392
Approach %	17.4	60.9	21.7	-	-	29.2	56.9	13.8	-	-	8.7	79.9	11.4	-	-	9.8	79.5	10.6	-	-	-
Total %	2.0	7.1	2.6	-	11.7	4.8	9.4	2.3	-	16.6	3.3	30.4	4.3	-	38.0	3.3	26.8	3.6	-	33.7	-
PHF	0.667	0.583	0.833	-	0.676	0.792	0.771	0.563	-	0.903	0.650	0.804	0.850	-	0.866	0.650	0.820	0.700	-	0.868	0.925
Lights	8	28	9	-	45	19	36	9	-	64	12	117	16	-	145	13	101	14	-	128	382
% Lights	100.0	100.0	90.0	-	97.8	100.0	97.3	100.0	-	98.5	92.3	98.3	94.1	-	97.3	100.0	96.2	100.0	-	97.0	97.4
Mediums	0	0	0	-	0	0	1	0	-	1	1	2	0	-	3	0	4	0	-	4	8
% Mediums	0.0	0.0	0.0	-	0.0	0.0	2.7	0.0	-	1.5	7.7	1.7	0.0	-	2.0	0.0	3.8	0.0	-	3.0	2.0
Articulated Trucks	0	0	1	-	1	0	0	0	-	0	0	0	1	-	1	0	0	0	-	0	2
% Articulated Trucks	0.0	0.0	10.0	-	2.2	0.0	0.0	0.0	-	0.0	0.0	0.0	5.9	-	0.7	0.0	0.0	0.0	-	0.0	0.5
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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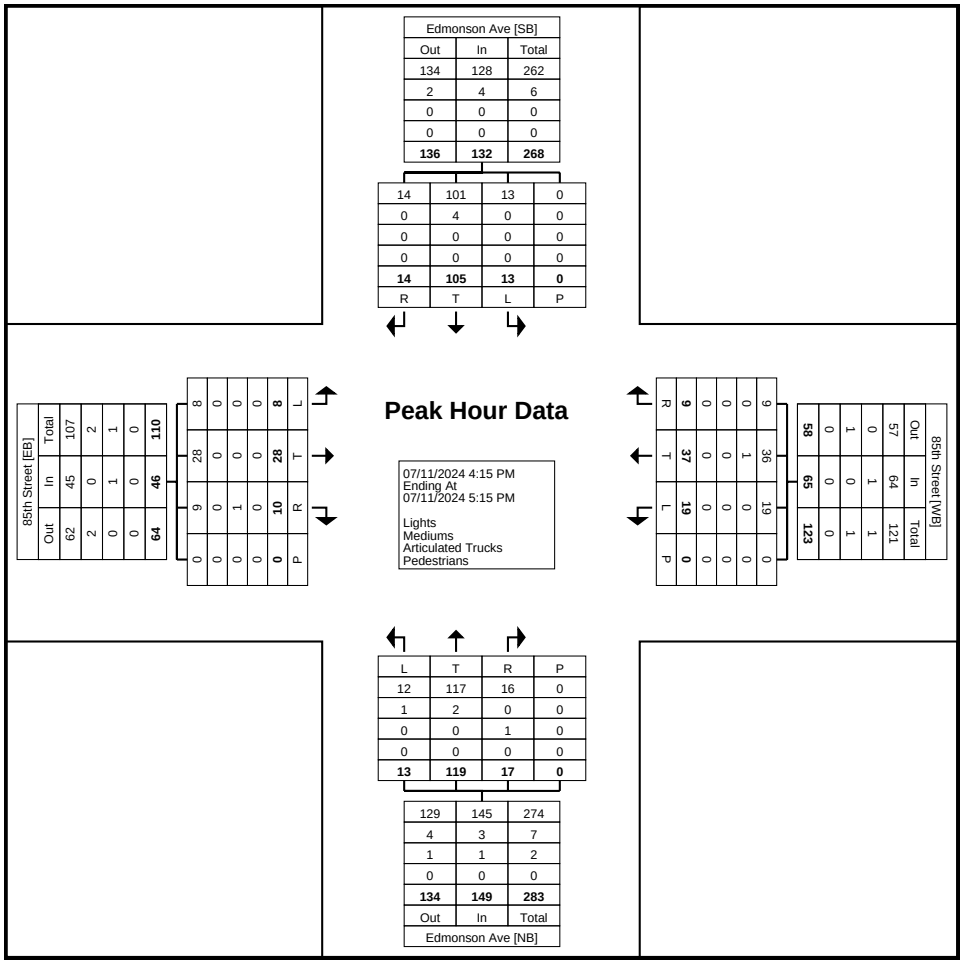
Count Name: Edmonson Ave & 85th Street
Site Code:
Start Date: 07/11/2024



Turning Movement Peak Hour Data Plot (4:15 PM)

Kimley-Horn
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: MN 25 & CR 37
Site Code:
Start Date: 07/16/2025

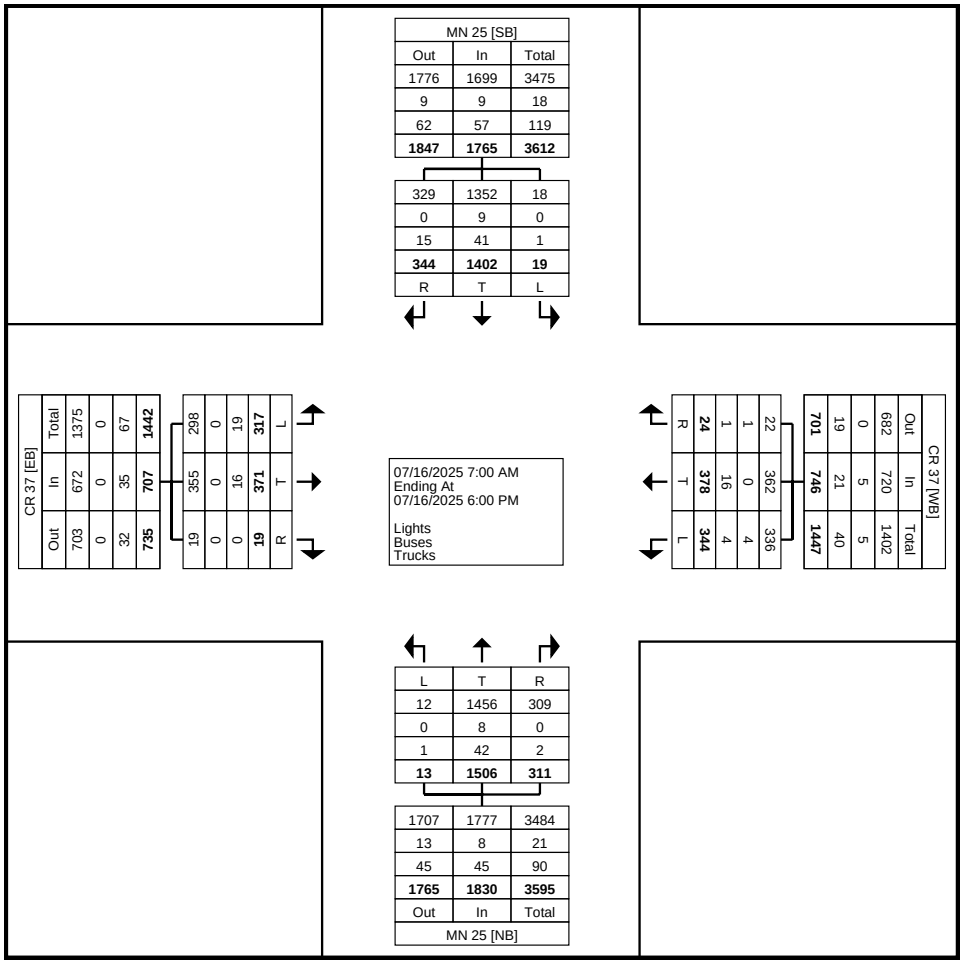
Turning Movement Data

Start Time	CR 37 Eastbound				CR 37 Westbound				MN 25 Northbound				MN 25 Southbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
7:00 AM	16	27	2	45	13	17	0	30	1	70	12	83	0	78	11	89	247
7:15 AM	21	29	1	51	32	16	0	48	2	67	15	84	1	82	17	100	283
7:30 AM	13	29	2	44	31	19	1	51	0	80	7	87	1	94	15	110	292
7:45 AM	22	29	2	53	45	20	0	65	1	62	6	69	1	93	14	108	295
Hourly Total	72	114	7	193	121	72	1	194	4	279	40	323	3	347	57	407	1117
8:00 AM	15	21	2	38	20	13	5	38	1	80	9	90	1	73	16	90	256
8:15 AM	15	22	0	37	18	17	1	36	0	79	8	87	1	73	18	92	252
8:30 AM	13	30	1	44	29	12	1	42	0	70	11	81	3	68	21	92	259
8:45 AM	19	22	0	41	16	21	1	38	0	63	14	77	1	76	8	85	241
Hourly Total	62	95	3	160	83	63	8	154	1	292	42	335	6	290	63	359	1008
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	20	19	1	40	20	22	2	44	1	138	23	162	0	93	31	124	370
4:15 PM	21	25	1	47	18	37	3	58	0	111	35	146	0	96	27	123	374
4:30 PM	22	11	2	35	16	38	1	55	1	148	62	211	1	102	33	136	437
4:45 PM	29	28	1	58	18	29	4	51	1	127	38	166	1	122	35	158	433
Hourly Total	92	83	5	180	72	126	10	208	3	524	158	685	2	413	126	541	1614
5:00 PM	22	23	1	46	14	29	1	44	1	118	20	139	2	118	24	144	373
5:15 PM	20	18	2	40	15	29	3	47	0	115	26	141	1	78	24	103	331
5:30 PM	27	16	1	44	18	30	0	48	1	94	12	107	3	91	28	122	321
5:45 PM	22	22	0	44	21	29	1	51	3	84	13	100	2	65	22	89	284
Hourly Total	91	79	4	174	68	117	5	190	5	411	71	487	8	352	98	458	1309
Grand Total	317	371	19	707	344	378	24	746	13	1506	311	1830	19	1402	344	1765	5048
Approach %	44.8	52.5	2.7	-	46.1	50.7	3.2	-	0.7	82.3	17.0	-	1.1	79.4	19.5	-	-
Total %	6.3	7.3	0.4	14.0	6.8	7.5	0.5	14.8	0.3	29.8	6.2	36.3	0.4	27.8	6.8	35.0	-
Lights	298	355	19	672	336	362	22	720	12	1456	309	1777	18	1352	329	1699	4868
% Lights	94.0	95.7	100.0	95.0	97.7	95.8	91.7	96.5	92.3	96.7	99.4	97.1	94.7	96.4	95.6	96.3	96.4
Buses	0	0	0	0	4	0	1	5	0	8	0	8	0	9	0	9	22
% Buses	0.0	0.0	0.0	0.0	1.2	0.0	4.2	0.7	0.0	0.5	0.0	0.4	0.0	0.6	0.0	0.5	0.4
Trucks	19	16	0	35	4	16	1	21	1	42	2	45	1	41	15	57	158
% Trucks	6.0	4.3	0.0	5.0	1.2	4.2	4.2	2.8	7.7	2.8	0.6	2.5	5.3	2.9	4.4	3.2	3.1

Kimley-Horn
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: MN 25 & CR 37
Site Code:
Start Date: 07/16/2025



Turning Movement Data Plot

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(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: MN 25 & CR 37
Site Code:
Start Date: 07/16/2025

Turning Movement Peak Hour Data (7:15 AM)

Start Time	CR 37 Eastbound				CR 37 Westbound				MN 25 Northbound				MN 25 Southbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
7:15 AM	21	29	1	51	32	16	0	48	2	67	15	84	1	82	17	100	283
7:30 AM	13	29	2	44	31	19	1	51	0	80	7	87	1	94	15	110	292
7:45 AM	22	29	2	53	45	20	0	65	1	62	6	69	1	93	14	108	295
8:00 AM	15	21	2	38	20	13	5	38	1	80	9	90	1	73	16	90	256
Total	71	108	7	186	128	68	6	202	4	289	37	330	4	342	62	408	1126
Approach %	38.2	58.1	3.8	-	63.4	33.7	3.0	-	1.2	87.6	11.2	-	1.0	83.8	15.2	-	-
Total %	6.3	9.6	0.6	16.5	11.4	6.0	0.5	17.9	0.4	25.7	3.3	29.3	0.4	30.4	5.5	36.2	-
PHF	0.807	0.931	0.875	0.877	0.711	0.850	0.300	0.777	0.500	0.903	0.617	0.917	1.000	0.910	0.912	0.927	0.954
Lights	67	104	7	178	125	61	4	190	4	274	36	314	3	329	56	388	1070
% Lights	94.4	96.3	100.0	95.7	97.7	89.7	66.7	94.1	100.0	94.8	97.3	95.2	75.0	96.2	90.3	95.1	95.0
Buses	0	0	0	0	2	0	1	3	0	2	0	2	0	1	0	1	6
% Buses	0.0	0.0	0.0	0.0	1.6	0.0	16.7	1.5	0.0	0.7	0.0	0.6	0.0	0.3	0.0	0.2	0.5
Trucks	4	4	0	8	1	7	1	9	0	13	1	14	1	12	6	19	50
% Trucks	5.6	3.7	0.0	4.3	0.8	10.3	16.7	4.5	0.0	4.5	2.7	4.2	25.0	3.5	9.7	4.7	4.4

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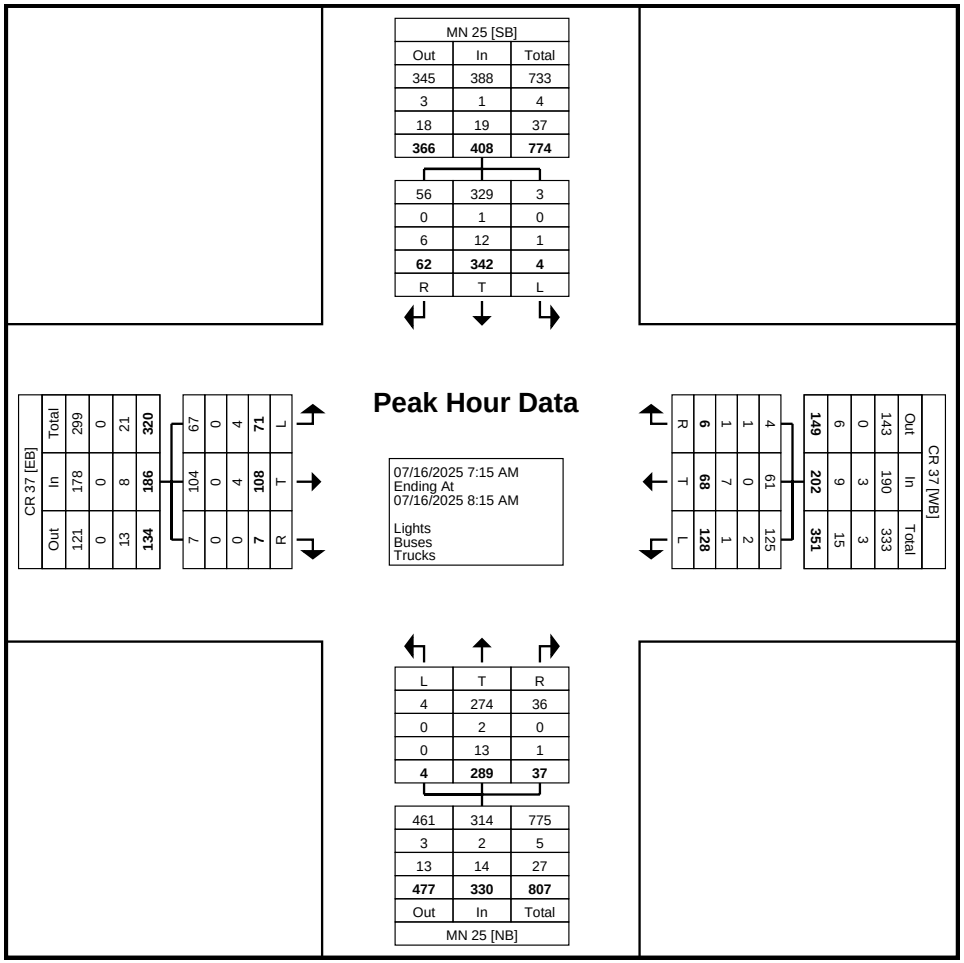
Start Date: 07/16/2025



Turning Movement Peak Hour Data Plot (7:15 AM)

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Count Name: MN 25 & CR 37
Site Code:
Start Date: 07/16/2025

Turning Movement Peak Hour Data (4:15 PM)

Start Time	CR 37 Eastbound				CR 37 Westbound				MN 25 Northbound				MN 25 Southbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
4:15 PM	21	25	1	47	18	37	3	58	0	111	35	146	0	96	27	123	374
4:30 PM	22	11	2	35	16	38	1	55	1	148	62	211	1	102	33	136	437
4:45 PM	29	28	1	58	18	29	4	51	1	127	38	166	1	122	35	158	433
5:00 PM	22	23	1	46	14	29	1	44	1	118	20	139	2	118	24	144	373
Total	94	87	5	186	66	133	9	208	3	504	155	662	4	438	119	561	1617
Approach %	50.5	46.8	2.7	-	31.7	63.9	4.3	-	0.5	76.1	23.4	-	0.7	78.1	21.2	-	-
Total %	5.8	5.4	0.3	11.5	4.1	8.2	0.6	12.9	0.2	31.2	9.6	40.9	0.2	27.1	7.4	34.7	-
PHF	0.810	0.777	0.625	0.802	0.917	0.875	0.563	0.897	0.750	0.851	0.625	0.784	0.500	0.898	0.850	0.888	0.925
Lights	89	84	5	178	64	130	9	203	3	497	155	655	4	423	118	545	1581
% Lights	94.7	96.6	100.0	95.7	97.0	97.7	100.0	97.6	100.0	98.6	100.0	98.9	100.0	96.6	99.2	97.1	97.8
Buses	0	0	0	0	1	0	0	1	0	0	0	0	0	5	0	5	6
% Buses	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.9	0.4
Trucks	5	3	0	8	1	3	0	4	0	7	0	7	0	10	1	11	30
% Trucks	5.3	3.4	0.0	4.3	1.5	2.3	0.0	1.9	0.0	1.4	0.0	1.1	0.0	2.3	0.8	2.0	1.9

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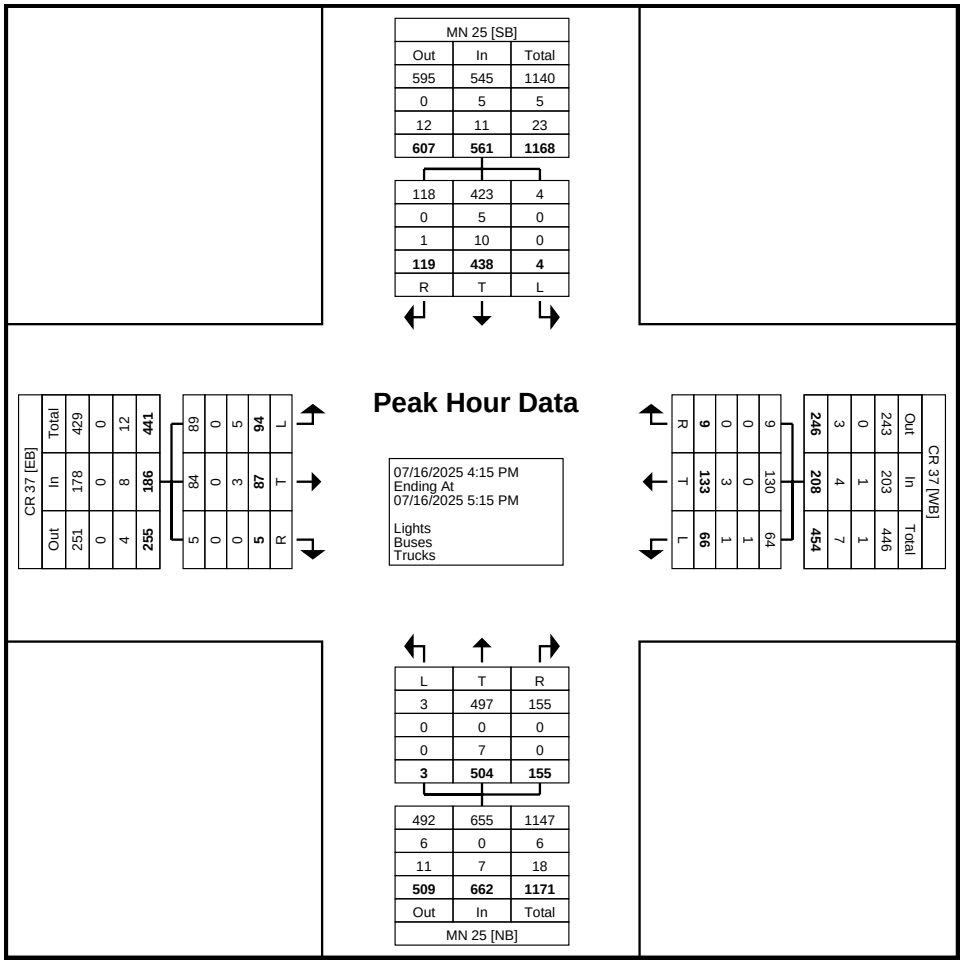
Start Date: 07/16/2025



Turning Movement Peak Hour Data Plot (4:15 PM)

Kimley-Horn
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Warrenville, Illinois, United States 60555
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Count Name: CR 37 & Davidson Ave
Site Code:
Start Date: 07/16/2025

Turning Movement Data

Start Time	CR 37 Eastbound			CR 37 Westbound			Davidson Ave Southbound			Int. Total
	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	
7:00 AM	0	39	39	34	1	35	2	0	2	76
7:15 AM	1	45	46	44	0	44	7	2	9	99
7:30 AM	0	38	38	55	4	59	5	1	6	103
7:45 AM	2	36	38	66	3	69	5	0	5	112
Hourly Total	3	158	161	199	8	207	19	3	22	390
8:00 AM	1	32	33	39	2	41	4	0	4	78
8:15 AM	0	27	27	35	3	38	2	2	4	69
8:30 AM	1	42	43	45	1	46	2	0	2	91
8:45 AM	2	37	39	33	0	33	1	0	1	73
Hourly Total	4	138	142	152	6	158	9	2	11	311
*** BREAK ***	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	55	55	43	5	48	2	2	4	107
4:15 PM	1	58	59	65	5	70	3	0	3	132
4:30 PM	0	73	73	50	4	54	6	1	7	134
4:45 PM	2	72	74	51	4	55	12	0	12	141
Hourly Total	3	258	261	209	18	227	23	3	26	514
5:00 PM	0	43	43	42	6	48	4	1	5	96
5:15 PM	0	44	44	52	2	54	6	1	7	105
5:30 PM	4	28	32	51	1	52	2	2	4	88
5:45 PM	1	34	35	47	4	51	4	0	4	90
Hourly Total	5	149	154	192	13	205	16	4	20	379
Grand Total	15	703	718	752	45	797	67	12	79	1594
Approach %	2.1	97.9	-	94.4	5.6	-	84.8	15.2	-	-
Total %	0.9	44.1	45.0	47.2	2.8	50.0	4.2	0.8	5.0	-
Lights	15	686	701	726	43	769	64	12	76	1546
% Lights	100.0	97.6	97.6	96.5	95.6	96.5	95.5	100.0	96.2	97.0
Buses	0	0	0	4	1	5	1	0	1	6
% Buses	0.0	0.0	0.0	0.5	2.2	0.6	1.5	0.0	1.3	0.4
Trucks	0	17	17	22	1	23	2	0	2	42
% Trucks	0.0	2.4	2.4	2.9	2.2	2.9	3.0	0.0	2.5	2.6

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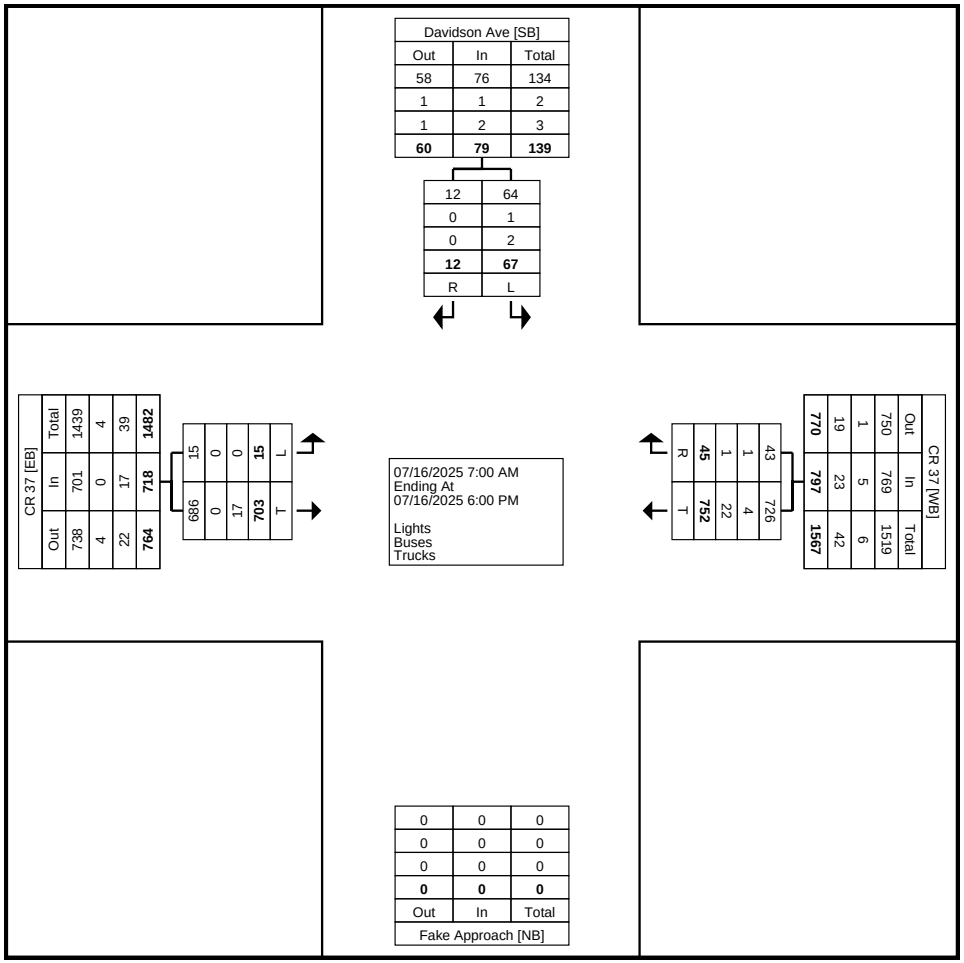
Count Name: CR 37 & Davidson Ave
Site Code:
Start Date: 07/16/2025



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Count Name: CR 37 & Davidson Ave
Site Code:
Start Date: 07/16/2025

Turning Movement Peak Hour Data (7:15 AM)

Start Time	CR 37 Eastbound			CR 37 Westbound			Davidson Ave Southbound			
	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
7:15 AM	1	45	46	44	0	44	7	2	9	99
7:30 AM	0	38	38	55	4	59	5	1	6	103
7:45 AM	2	36	38	66	3	69	5	0	5	112
8:00 AM	1	32	33	39	2	41	4	0	4	78
Total	4	151	155	204	9	213	21	3	24	392
Approach %	2.6	97.4	-	95.8	4.2	-	87.5	12.5	-	-
Total %	1.0	38.5	39.5	52.0	2.3	54.3	5.4	0.8	6.1	-
PHF	0.500	0.839	0.842	0.773	0.563	0.772	0.750	0.375	0.667	0.875
Lights	4	146	150	193	8	201	19	3	22	373
% Lights	100.0	96.7	96.8	94.6	88.9	94.4	90.5	100.0	91.7	95.2
Buses	0	0	0	3	1	4	0	0	0	4
% Buses	0.0	0.0	0.0	1.5	11.1	1.9	0.0	0.0	0.0	1.0
Trucks	0	5	5	8	0	8	2	0	2	15
% Trucks	0.0	3.3	3.2	3.9	0.0	3.8	9.5	0.0	8.3	3.8

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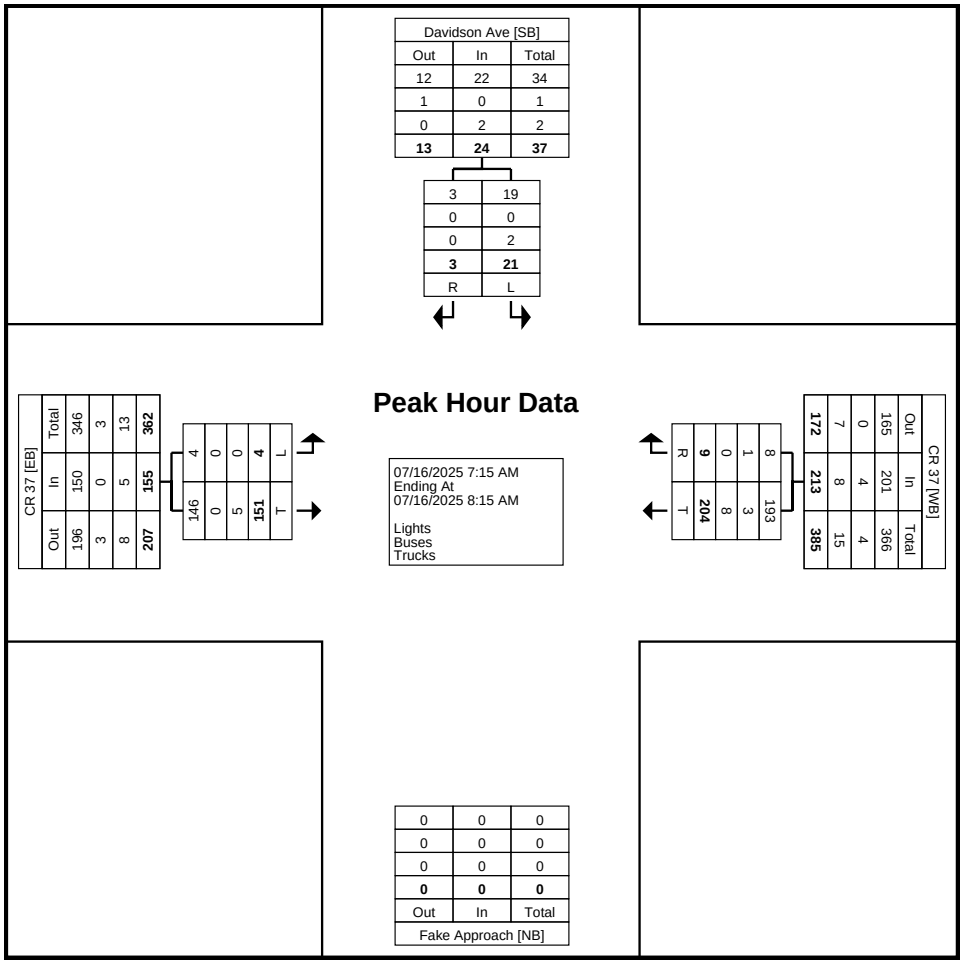
Start Date: 07/16/2025



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Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: CR 37 & Davidson Ave
Site Code:
Start Date: 07/16/2025

Turning Movement Peak Hour Data (4:00 PM)

Start Time	CR 37 Eastbound			CR 37 Westbound			Davidson Ave Southbound			
	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
4:00 PM	0	55	55	43	5	48	2	2	4	107
4:15 PM	1	58	59	65	5	70	3	0	3	132
4:30 PM	0	73	73	50	4	54	6	1	7	134
4:45 PM	2	72	74	51	4	55	12	0	12	141
Total	3	258	261	209	18	227	23	3	26	514
Approach %	1.1	98.9	-	92.1	7.9	-	88.5	11.5	-	-
Total %	0.6	50.2	50.8	40.7	3.5	44.2	4.5	0.6	5.1	-
PHF	0.375	0.884	0.882	0.804	0.900	0.811	0.479	0.375	0.542	0.911
Lights	3	254	257	205	18	223	22	3	25	505
% Lights	100.0	98.4	98.5	98.1	100.0	98.2	95.7	100.0	96.2	98.2
Buses	0	0	0	1	0	1	1	0	1	2
% Buses	0.0	0.0	0.0	0.5	0.0	0.4	4.3	0.0	3.8	0.4
Trucks	0	4	4	3	0	3	0	0	0	7
% Trucks	0.0	1.6	1.5	1.4	0.0	1.3	0.0	0.0	0.0	1.4

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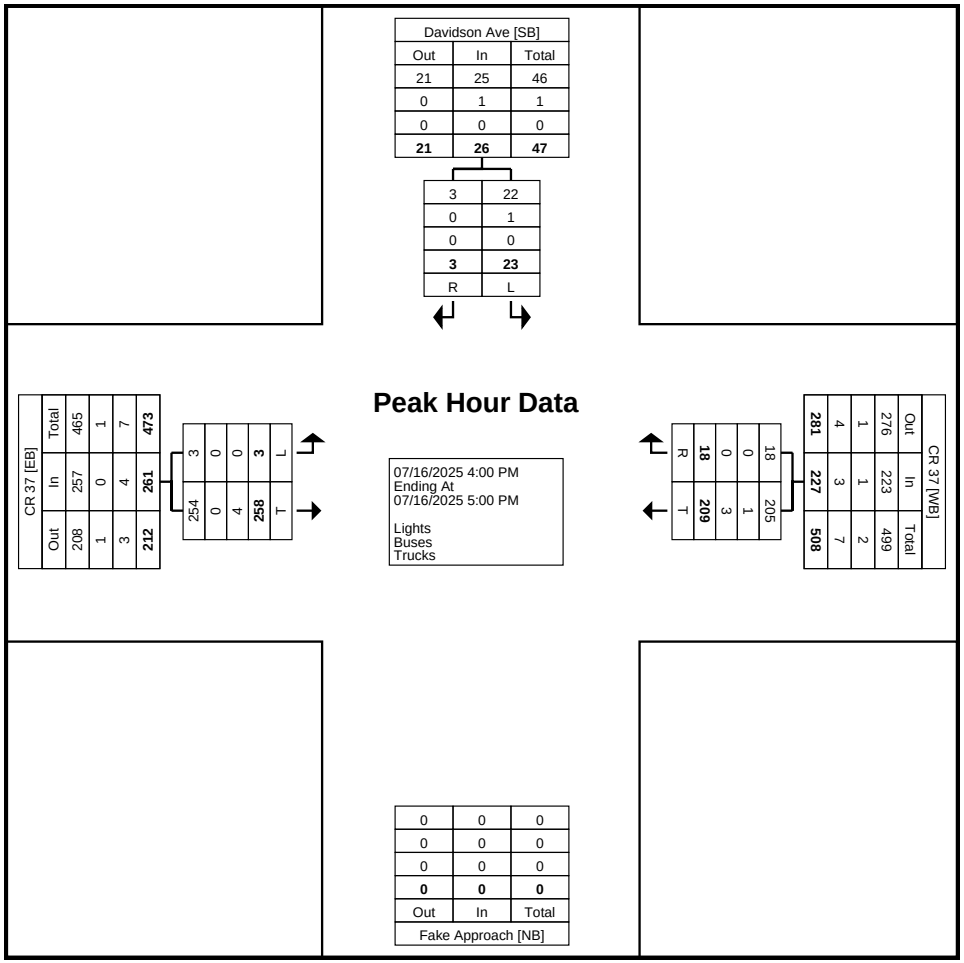
Site Code:
Start Date: 07/16/2025



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Kimley-Horn
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: CR 37 & Edmondson Ave
Site Code:
Start Date: 07/16/2025

Turning Movement Data

Start Time	CR 37 Eastbound				CR 37 Westbound				Edmondson Ave Northbound				Edmondson Ave Southbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
7:00 AM	1	36	2	39	12	30	0	42	0	11	5	16	2	11	0	13	110
7:15 AM	2	46	7	55	9	43	0	52	0	7	10	17	2	6	1	9	133
7:30 AM	0	38	4	42	9	49	1	59	6	9	11	26	1	4	4	9	136
7:45 AM	0	34	7	41	8	66	1	75	3	11	14	28	1	5	3	9	153
Hourly Total	3	154	20	177	38	188	2	228	9	38	40	87	6	26	8	40	532
8:00 AM	0	29	5	34	8	34	2	44	4	6	11	21	1	6	3	10	109
8:15 AM	0	27	4	31	4	35	0	39	1	7	5	13	1	5	1	7	90
8:30 AM	1	38	4	43	10	41	0	51	1	10	6	17	4	7	2	13	124
8:45 AM	1	36	3	40	4	29	1	34	5	8	6	19	1	8	1	10	103
Hourly Total	2	130	16	148	26	139	3	168	11	31	28	70	7	26	7	40	426
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	5	55	6	66	14	45	2	61	6	20	7	33	1	14	2	17	177
4:15 PM	1	52	4	57	13	58	2	73	6	23	9	38	0	15	2	17	185
4:30 PM	1	72	3	76	20	50	2	72	5	17	18	40	0	14	4	18	206
4:45 PM	2	73	14	89	16	43	2	61	6	24	9	39	1	10	1	12	201
Hourly Total	9	252	27	288	63	196	8	267	23	84	43	150	2	53	9	64	769
5:00 PM	1	41	5	47	15	42	2	59	6	18	17	41	0	11	3	14	161
5:15 PM	1	44	6	51	14	49	3	66	3	20	9	32	0	15	0	15	164
5:30 PM	0	26	4	30	7	53	0	60	1	16	13	30	3	8	0	11	131
5:45 PM	1	35	2	38	6	42	1	49	3	11	8	22	1	11	1	13	122
Hourly Total	3	146	17	166	42	186	6	234	13	65	47	125	4	45	4	53	578
Grand Total	17	682	80	779	169	709	19	897	56	218	158	432	19	150	28	197	2305
Approach %	2.2	87.5	10.3	-	18.8	79.0	2.1	-	13.0	50.5	36.6	-	9.6	76.1	14.2	-	-
Total %	0.7	29.6	3.5	33.8	7.3	30.8	0.8	38.9	2.4	9.5	6.9	18.7	0.8	6.5	1.2	8.5	-
Lights	17	665	77	759	166	685	19	870	52	218	155	425	19	147	26	192	2246
% Lights	100.0	97.5	96.3	97.4	98.2	96.6	100.0	97.0	92.9	100.0	98.1	98.4	100.0	98.0	92.9	97.5	97.4
Buses	0	0	1	1	0	4	0	4	2	0	0	2	0	1	0	1	8
% Buses	0.0	0.0	1.3	0.1	0.0	0.6	0.0	0.4	3.6	0.0	0.0	0.5	0.0	0.7	0.0	0.5	0.3
Trucks	0	17	2	19	3	20	0	23	2	0	3	5	0	2	2	4	51
% Trucks	0.0	2.5	2.5	2.4	1.8	2.8	0.0	2.6	3.6	0.0	1.9	1.2	0.0	1.3	7.1	2.0	2.2

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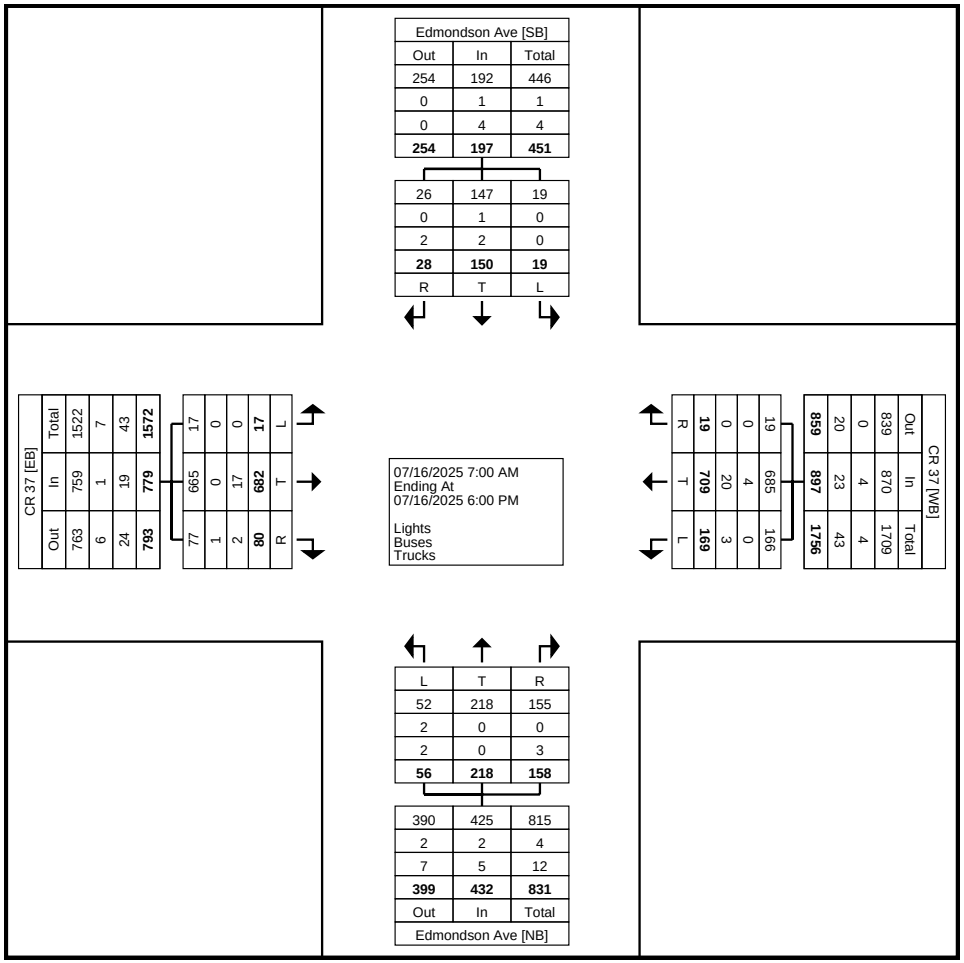
Count Name: CR 37 & Edmondson Ave
Site Code:
Start Date: 07/16/2025



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Count Name: CR 37 & Edmondson Ave
Site Code:
Start Date: 07/16/2025

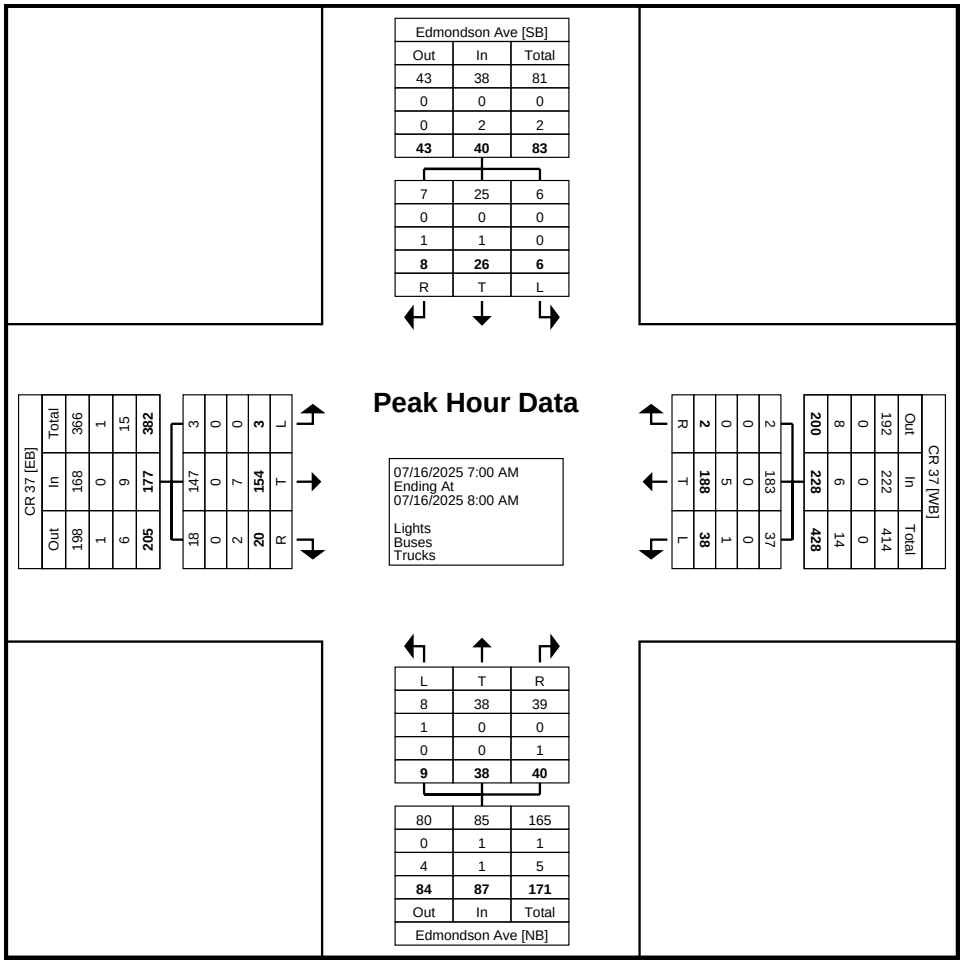
Turning Movement Peak Hour Data (7:00 AM)

Start Time	CR 37 Eastbound				CR 37 Westbound				Edmondson Ave Northbound				Edmondson Ave Southbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
7:00 AM	1	36	2	39	12	30	0	42	0	11	5	16	2	11	0	13	110
7:15 AM	2	46	7	55	9	43	0	52	0	7	10	17	2	6	1	9	133
7:30 AM	0	38	4	42	9	49	1	59	6	9	11	26	1	4	4	9	136
7:45 AM	0	34	7	41	8	66	1	75	3	11	14	28	1	5	3	9	153
Total	3	154	20	177	38	188	2	228	9	38	40	87	6	26	8	40	532
Approach %	1.7	87.0	11.3	-	16.7	82.5	0.9	-	10.3	43.7	46.0	-	15.0	65.0	20.0	-	-
Total %	0.6	28.9	3.8	33.3	7.1	35.3	0.4	42.9	1.7	7.1	7.5	16.4	1.1	4.9	1.5	7.5	-
PHF	0.375	0.837	0.714	0.805	0.792	0.712	0.500	0.760	0.375	0.864	0.714	0.777	0.750	0.591	0.500	0.769	0.869
Lights	3	147	18	168	37	183	2	222	8	38	39	85	6	25	7	38	513
% Lights	100.0	95.5	90.0	94.9	97.4	97.3	100.0	97.4	88.9	100.0	97.5	97.7	100.0	96.2	87.5	95.0	96.4
Buses	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.2
Trucks	0	7	2	9	1	5	0	6	0	0	1	1	0	1	1	2	18
% Trucks	0.0	4.5	10.0	5.1	2.6	2.7	0.0	2.6	0.0	0.0	2.5	1.1	0.0	3.8	12.5	5.0	3.4

Kimley-Horn
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: CR 37 & Edmondson Ave
Site Code:
Start Date: 07/16/2025



Turning Movement Peak Hour Data Plot (7:00 AM)

Kimley-Horn
4201 Winfield Road Suite 600

Warrenville, Illinois, United States 60555
(630) 487-5550 ethan.scowcroft@kimley-horn.com

Count Name: CR 37 & Edmondson Ave
Site Code:
Start Date: 07/16/2025

Turning Movement Peak Hour Data (4:00 PM)

Start Time	CR 37 Eastbound				CR 37 Westbound				Edmondson Ave Northbound				Edmondson Ave Southbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
4:00 PM	5	55	6	66	14	45	2	61	6	20	7	33	1	14	2	17	177
4:15 PM	1	52	4	57	13	58	2	73	6	23	9	38	0	15	2	17	185
4:30 PM	1	72	3	76	20	50	2	72	5	17	18	40	0	14	4	18	206
4:45 PM	2	73	14	89	16	43	2	61	6	24	9	39	1	10	1	12	201
Total	9	252	27	288	63	196	8	267	23	84	43	150	2	53	9	64	769
Approach %	3.1	87.5	9.4	-	23.6	73.4	3.0	-	15.3	56.0	28.7	-	3.1	82.8	14.1	-	-
Total %	1.2	32.8	3.5	37.5	8.2	25.5	1.0	34.7	3.0	10.9	5.6	19.5	0.3	6.9	1.2	8.3	-
PHF	0.450	0.863	0.482	0.809	0.788	0.845	1.000	0.914	0.958	0.875	0.597	0.938	0.500	0.883	0.563	0.889	0.933
Lights	9	247	26	282	61	191	8	260	22	84	43	149	2	51	9	62	753
% Lights	100.0	98.0	96.3	97.9	96.8	97.4	100.0	97.4	95.7	100.0	100.0	99.3	100.0	96.2	100.0	96.9	97.9
Buses	0	0	1	1	0	1	0	1	1	0	0	1	0	1	0	1	4
% Buses	0.0	0.0	3.7	0.3	0.0	0.5	0.0	0.4	4.3	0.0	0.0	0.7	0.0	1.9	0.0	1.6	0.5
Trucks	0	5	0	5	2	4	0	6	0	0	0	0	0	1	0	1	12
% Trucks	0.0	2.0	0.0	1.7	3.2	2.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.6	1.6

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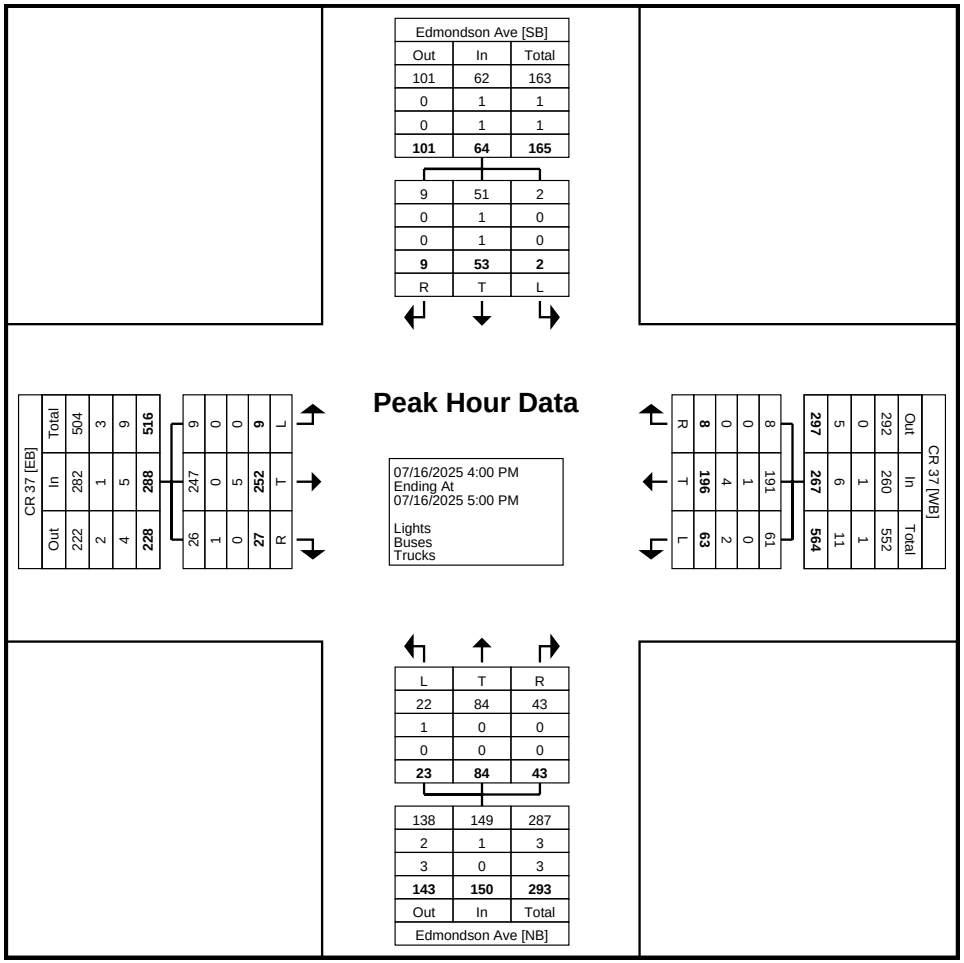
Count Name: CR 37 & Edmondson Ave
Site Code:
Start Date: 07/16/2025



Turning Movement Peak Hour Data Plot (4:00 PM)

wsb

701 Xenia Ave S, Suite 300
Minneapolis, MN 55416

Fallon Ave & School Blvd
6am to 7pm
vehicles, heavy trucks, peds, bikes
Monticello, MN

File Name : Fallon Ave & School Blvd
Site Code : 3
Start Date : 4/8/2025
Page No : 1

Groups Printed- vehicles & peds - heavy trucks & bikes

	Fallon Ave From North					From East					Fallon Ave From South					From West					
Start Time	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Int. Total
06:00 AM	4	2	1	0	7	4	3	0	0	7	5	3	0	0	8	1	21	5	0	27	49
06:15 AM	0	4	0	0	4	1	4	1	0	6	11	9	3	0	23	2	29	4	0	35	68
06:30 AM	0	2	5	0	7	3	7	8	0	18	11	13	2	0	26	2	30	2	0	34	85
06:45 AM	3	2	5	0	10	9	14	4	0	27	17	9	2	0	28	1	31	8	0	40	105
Total	7	10	11	0	28	17	28	13	0	58	44	34	7	0	85	6	111	19	0	136	307
07:00 AM	2	6	7	0	15	15	23	3	0	41	13	14	2	0	29	4	33	12	0	49	134
07:15 AM	3	8	18	0	29	26	24	4	0	54	20	20	4	0	44	4	44	12	0	60	187
07:30 AM	9	8	25	32	74	29	27	11	0	67	20	30	2	0	52	1	41	37	19	98	291
07:45 AM	6	13	25	4	48	41	51	13	0	105	30	16	2	0	48	2	70	25	3	100	301
Total	20	35	75	36	166	111	125	31	0	267	83	80	10	0	173	11	188	86	22	307	913
08:00 AM	6	15	18	2	41	29	34	10	0	73	24	9	2	0	35	1	66	7	2	76	225
08:15 AM	6	3	8	1	18	8	26	1	0	35	5	9	2	0	16	4	37	5	0	46	115
08:30 AM	5	9	3	0	17	2	23	5	0	30	7	7	3	0	17	1	22	3	0	26	90
08:45 AM	7	6	5	0	18	12	23	1	0	36	6	4	1	0	11	2	26	3	0	31	96
Total	24	33	34	3	94	51	106	17	0	174	42	29	8	0	79	8	151	18	2	179	526
09:00 AM	7	3	8	1	19	3	20	4	0	27	5	7	2	0	14	3	19	4	0	26	86
09:15 AM	7	10	3	0	20	8	22	4	0	34	2	5	1	0	8	0	24	6	0	30	92
09:30 AM	7	6	2	0	15	2	13	5	0	20	3	9	2	1	15	4	20	8	0	32	82
09:45 AM	4	5	5	0	14	8	17	3	0	28	5	9	1	1	16	1	19	7	1	28	86
Total	25	24	18	1	68	21	72	16	0	109	15	30	6	2	53	8	82	25	1	116	346
10:00 AM	14	10	6	0	30	3	20	3	0	26	7	9	1	0	17	3	25	5	1	34	107
10:15 AM	8	9	4	0	21	4	28	0	0	32	8	8	0	3	19	3	24	6	5	38	110
10:30 AM	14	7	6	0	27	9	36	4	0	49	7	10	4	0	21	1	26	12	0	39	136
10:45 AM	11	6	3	0	20	4	31	1	0	36	1	6	4	0	11	1	27	7	0	35	102
Total	47	32	19	0	98	20	115	8	0	143	23	33	9	3	68	8	102	30	6	146	455
11:00 AM	8	5	4	1	18	4	33	3	0	40	3	3	1	0	7	4	22	7	0	33	98
11:15 AM	14	11	8	0	33	5	32	5	0	42	3	7	3	0	13	4	32	14	0	50	138
11:30 AM	12	9	6	0	27	7	37	3	0	47	6	4	1	0	11	4	29	8	0	41	126
11:45 AM	16	10	4	1	31	15	51	9	0	75	2	11	2	0	15	3	34	12	0	49	170
Total	50	35	22	2	109	31	153	20	0	204	14	25	7	0	46	15	117	41	0	173	532
12:00 PM	15	9	5	0	29	6	48	2	0	56	8	9	3	0	20	2	35	11	0	48	153
12:15 PM	11	10	6	0	27	5	42	1	0	48	2	5	5	0	12	1	35	11	0	47	134
12:30 PM	15	8	4	0	27	11	24	1	0	36	10	4	7	0	21	4	36	15	0	55	139
12:45 PM	11	10	5	0	26	9	55	8	0	72	7	9	3	1	20	5	37	10	0	52	170
Total	52	37	20	0	109	31	169	12	0	212	27	27	18	1	73	12	143	47	0	202	596
01:00 PM	13	8	10	0	31	6	39	7	0	52	3	5	1	0	9	2	26	12	0	40	132
01:15 PM	15	7	5	2	29	11	35	7	0	53	5	9	0	0	14	2	42	15	0	59	155
01:30 PM	12	13	9	1	35	7	26	9	0	42	4	5	3	1	13	3	35	10	0	48	138
01:45 PM	14	9	19	2	44	11	39	10	0	60	5	19	5	3	32	4	44	17	0	65	201
Total	54	37	43	5	139	35	139	33	0	207	17	38	9	4	68	11	147	54	0	212	626
02:00 PM	18	4	14	0	36	20	42	9	0	71	5	12	4	1	22	3	39	18	0	60	189
02:15 PM	23	19	15	38	95	32	41	5	0	78	7	11	5	0	23	7	34	18	19	78	274
02:30 PM	14	22	11	2	49	4	44	3	0	51	3	9	3	1	16	0	42	10	2	54	170
02:45 PM	16	15	17	1	49	7	57	15	0	79	8	10	3	0	21	8	39	13	1	61	210
Total	71	60	57	41	229	63	184	32	0	279	23	42	15	2	82	18	154	59	22	253	843
03:00 PM	17	19	15	11	62	24	73	29	0	126	9	12	3	1	25	3	60	14	3	80	293
03:15 PM	17	15	10	3	45	11	66	6	0	83	6	8	7	0	21	3	41	13	0	57	206
03:30 PM	22	20	7	3	52	11	42	11	0	64	5	10	4	0	19	7	30	9	2	48	183
03:45 PM	23	15	4	2	44	9	54	10	0	73	3	12	7	2	24	6	41	7	1	55	196
Total	79	69	36	19	203	55	235	56	0	346	23	42	21	3	89	19	172	43	6	240	878
04:00 PM	21	10	11	3	45	10	63	7	0	80	12	8	6	0	26	8	61	15	1	85	236
04:15 PM	16	19	13	0	48	13	68	14	0	95	9	17	3	1	30	8	47	10	2	67	240
04:30 PM	30	29	11	0	70	9	66	6	0	81	4	9	5	2	20	11	54	5	2	72	243
04:45 PM	17	24	9	3	53	16	66	16	0	98	10	17	5	5	37	3	70	13	1	87	275
Total	84	82	44	6	216	48	263	43	0	354	35	51	19	8	113	30	232	43	6	311	994

wsb

701 Xenia Ave S, Suite 300
Minneapolis, MN 55416

Fallon Ave & School Blvd
6am to 7pm
vehicles, heavy trucks, peds, bikes
Monticello, MN

File Name : Fallon Ave & School Blvd
Site Code : 3
Start Date : 4/8/2025
Page No : 2

Groups Printed- vehicles & peds - heavy trucks & bikes

	Fallon Ave From North					From East					Fallon Ave From South					From West					
Start Time	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Int. Total
05:00 PM	23	14	13	1	51	13	54	12	0	79	10	8	6	2	26	6	62	13	1	82	238
05:15 PM	25	20	6	1	52	8	82	16	0	106	7	18	9	1	35	8	59	10	0	77	270
05:30 PM	11	12	6	0	29	8	59	12	0	79	9	11	6	0	26	7	48	9	1	65	199
05:45 PM	9	14	20	2	45	18	78	12	0	108	12	12	6	2	32	7	57	10	2	76	261
Total	68	60	45	4	177	47	273	52	0	372	38	49	27	5	119	28	226	42	4	300	968
06:00 PM	16	13	8	4	41	10	67	12	0	89	6	14	6	0	26	5	46	9	4	64	220
06:15 PM	14	11	9	3	37	11	80	11	0	102	3	11	2	4	20	2	58	12	1	73	232
06:30 PM	15	8	12	2	37	3	47	5	0	55	8	7	5	1	21	12	42	9	0	63	176
06:45 PM	11	9	5	0	25	11	51	6	0	68	6	10	5	1	22	5	49	4	3	61	176
Total	56	41	34	9	140	35	245	34	0	314	23	42	18	6	89	24	195	34	8	261	804
Grand Total	637	555	458	126	1776	565	2107	367	0	3039	407	522	174	34	1137	198	2020	541	77	2836	8788
Apprch %	35.9	31.2	25.8	7.1		18.6	69.3	12.1	0		35.8	45.9	15.3	3		7	71.2	19.1	2.7		
Total %	7.2	6.3	5.2	1.4	20.2	6.4	24	4.2	0	34.6	4.6	5.9	2	0.4	12.9	2.3	23	6.2	0.9	32.3	
vehicles & peds	637	554	457	98	1746	564	2106	367	0	3037	407	522	174	19	1122	198	2020	541	60	2819	8724
% vehicles & peds	100	99.8	99.8	77.8	98.3	99.8	100	100	0	99.9	100	100	100	55.9	98.7	100	100	100	77.9	99.4	99.3
heavy trucks & bikes	0	1	1	28	30	1	1	0	0	2	0	0	0	15	15	0	0	0	17	17	64
% heavy trucks & bikes	0	0.2	0.2	22.2	1.7	0.2	0	0	0	0.1	0	0	0	44.1	1.3	0	0	0	22.1	0.6	0.7

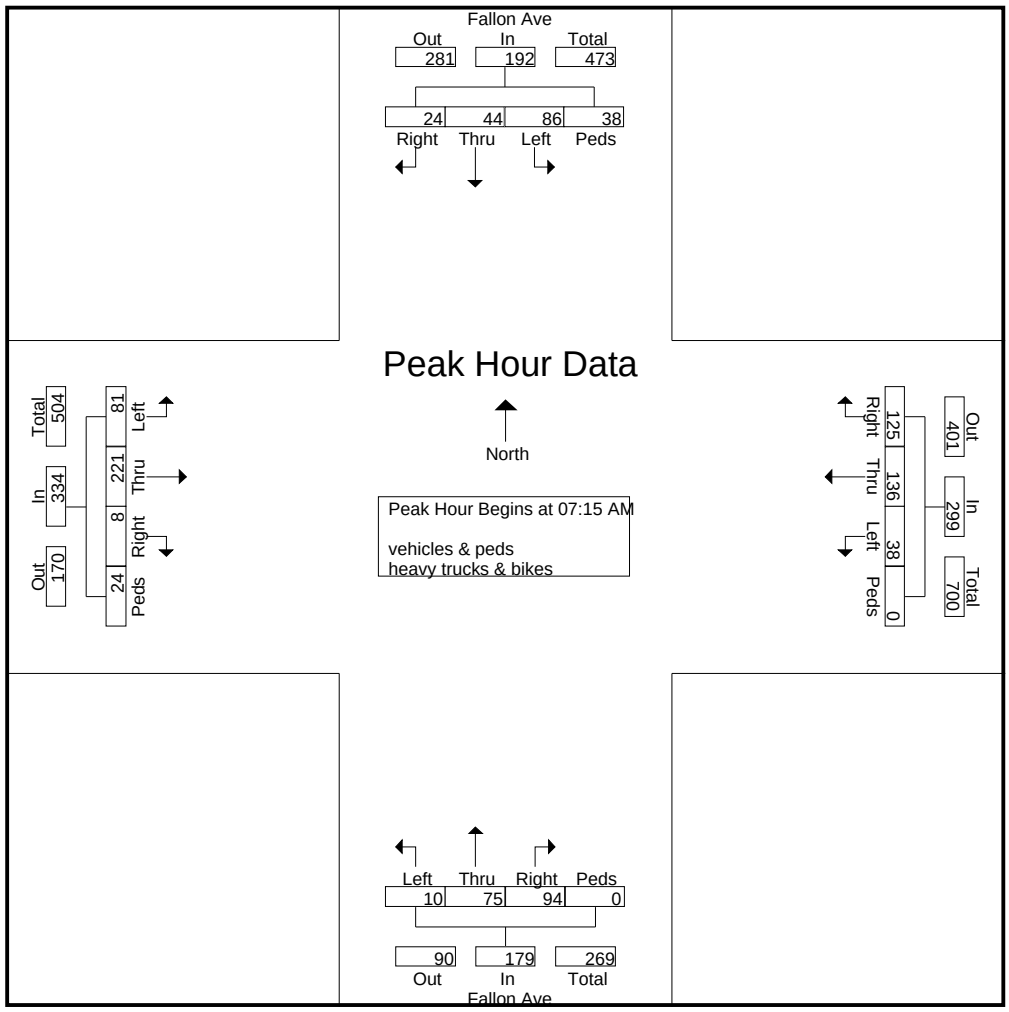
wsb

701 Xenia Ave S, Suite 300
Minneapolis, MN 55416

Fallon Ave & School Blvd
6am to 7pm
vehicles, heavy trucks, peds, bikes
Monticello, MN

File Name : Fallon Ave & School Blvd
Site Code : 3
Start Date : 4/8/2025
Page No : 3

	Fallon Ave From North					From East					Fallon Ave From South					From West					
Start Time	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	3	8	18	0	29	26	24	4	0	54	20	20	**4**	0	44	**4**	44	12	0	60	187
07:30 AM	**9**	8	**25**	**32**	**74**	29	27	11	0	67	20	**30**	2	0	**52**	1	41	**37**	**19**	98	291
07:45 AM	6	13	25	4	48	**41**	**51**	**13**	0	**105**	**30**	16	2	0	48	2	**70**	25	3	**100**	**301**
08:00 AM	6	**15**	18	2	41	29	34	10	0	73	24	9	2	0	35	1	66	7	2	76	225
Total Volume	24	44	86	38	192	125	136	38	0	299	94	75	10	0	179	8	221	81	24	334	1004
% App. Total	12.5	22.9	44.8	19.8		41.8	45.5	12.7	0		52.5	41.9	5.6	0		2.4	66.2	24.3	7.2		
PHF	.667	.733	.860	.297	.649	.762	.667	.731	.000	.712	.783	.625	.625	.000	.861	.500	.789	.547	.316	.835	.834



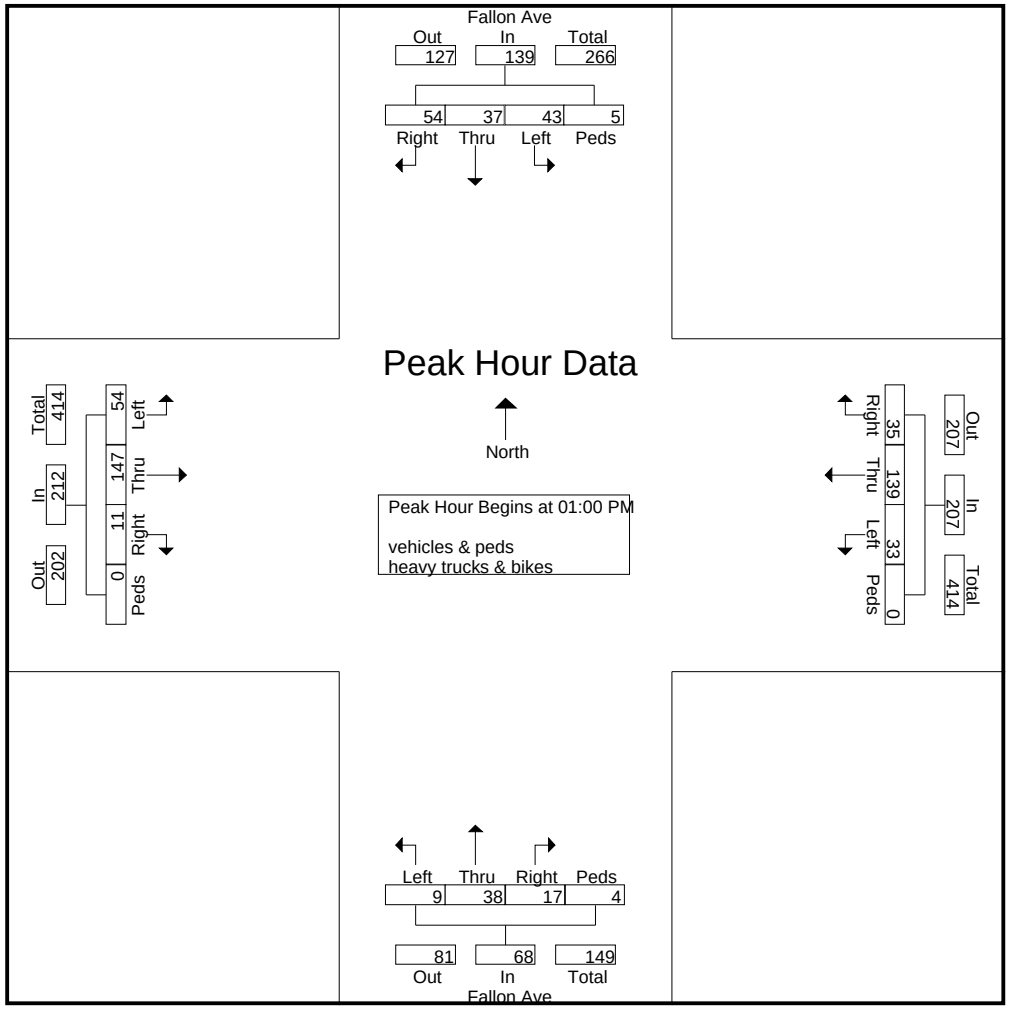
wsb

701 Xenia Ave S, Suite 300
Minneapolis, MN 55416

Fallon Ave & School Blvd
6am to 7pm
vehicles, heavy trucks, peds, bikes
Monticello, MN

File Name : Fallon Ave & School Blvd
Site Code : 3
Start Date : 4/8/2025
Page No : 4

	Fallon Ave From North					From East					Fallon Ave From South					From West					
Start Time	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Int. Total
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	13	8	10	0	31	6	**39**	7	0	52	3	5	1	0	9	2	26	12	0	40	132
01:15 PM	**15**	7	5	**2**	29	**11**	35	7	0	53	**5**	9	0	0	14	2	42	15	0	59	155
01:30 PM	12	**13**	9	1	35	7	26	9	0	42	4	5	3	1	13	3	35	10	0	48	138
01:45 PM	14	9	**19**	2	**44**	11	39	**10**	0	**60**	5	**19**	**5**	**3**	**32**	**4**	**44**	**17**	0	**65**	**201**
Total Volume	54	37	43	5	139	35	139	33	0	207	17	38	9	4	68	11	147	54	0	212	626
% App. Total	38.8	26.6	30.9	3.6		16.9	67.1	15.9	0		25	55.9	13.2	5.9		5.2	69.3	25.5	0		
PHF	.900	.712	.566	.625	.790	.795	.891	.825	.000	.863	.850	.500	.450	.333	.531	.688	.835	.794	.000	.815	.779



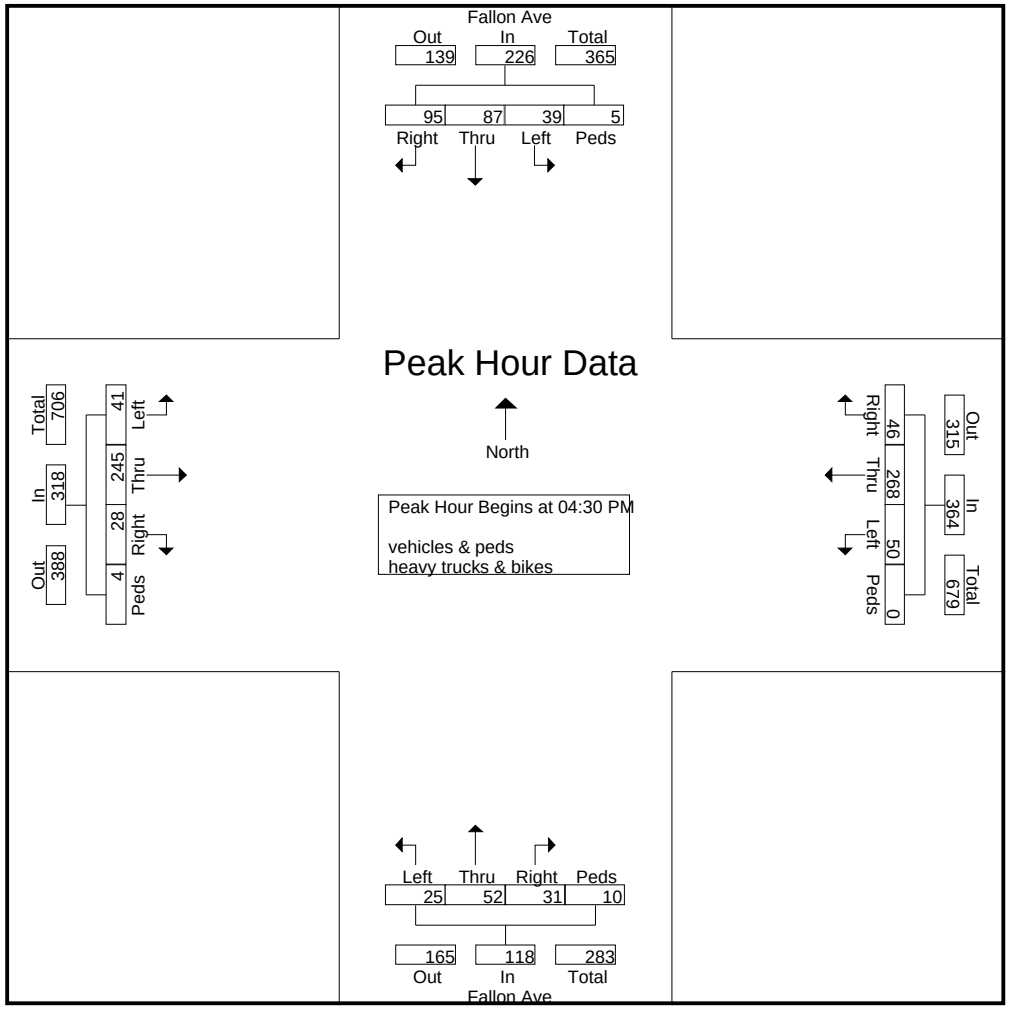
wsb

701 Xenia Ave S, Suite 300
Minneapolis, MN 55416

Fallon Ave & School Blvd
6am to 7pm
vehicles, heavy trucks, peds, bikes
Monticello, MN

File Name : Fallon Ave & School Blvd
Site Code : 3
Start Date : 4/8/2025
Page No : 5

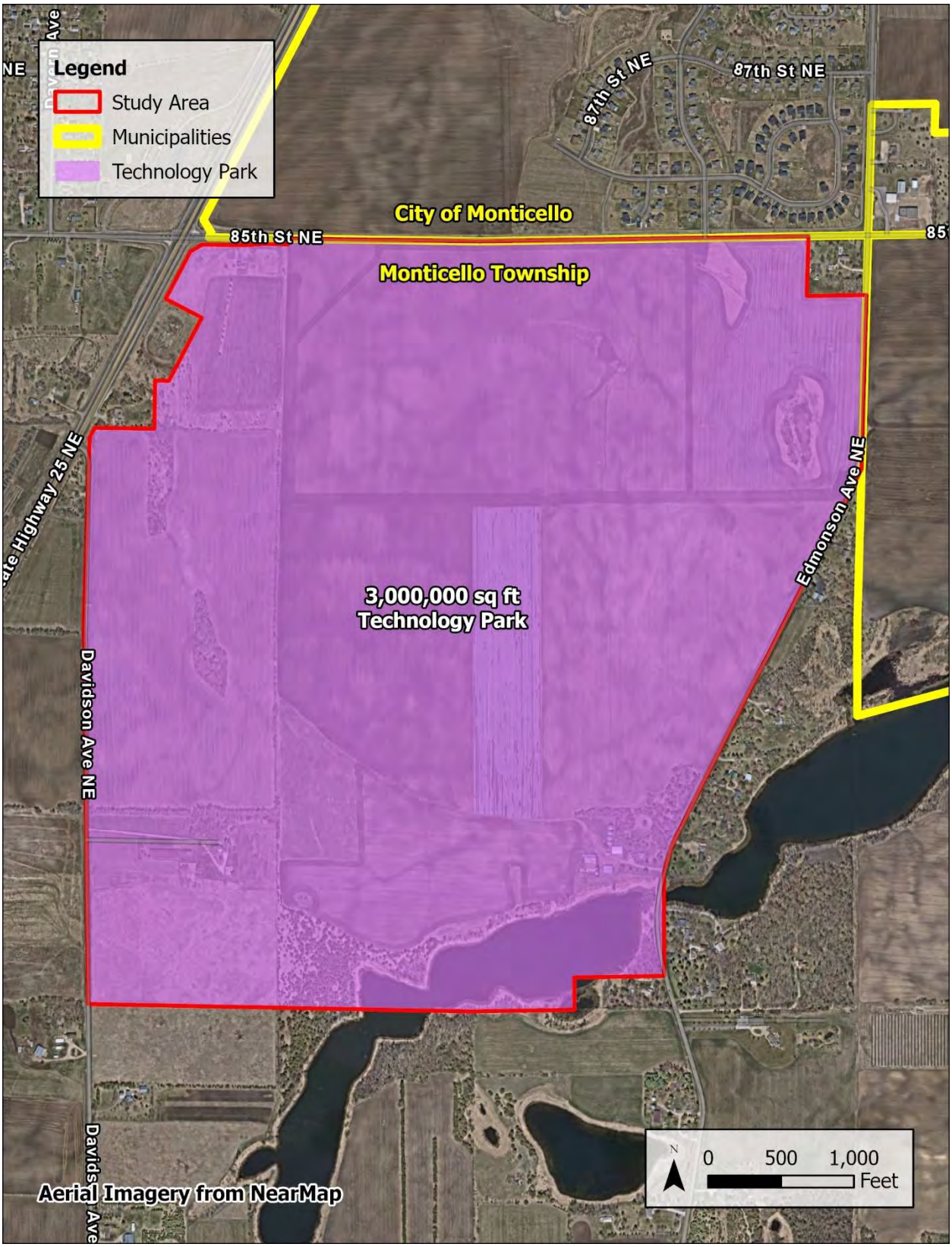
	Fallon Ave From North					From East					Fallon Ave From South					From West					
Start Time	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Right	Thru	Left	bikes	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**30**	**29**	11	0	**70**	9	66	6	0	81	4	9	5	2	20	**11**	54	5	**2**	72	243
04:45 PM	17	24	9	**3**	53	**16**	66	**16**	0	98	**10**	17	5	**5**	**37**	3	**70**	**13**	1	**87**	**275**
05:00 PM	23	14	**13**	1	51	13	54	12	0	79	10	8	6	2	26	6	62	13	1	82	238
05:15 PM	25	20	6	1	52	8	**82**	16	0	**106**	7	**18**	**9**	1	35	8	59	10	0	77	270
Total Volume	95	87	39	5	226	46	268	50	0	364	31	52	25	10	118	28	245	41	4	318	1026
% App. Total	42	38.5	17.3	2.2		12.6	73.6	13.7	0		26.3	44.1	21.2	8.5		8.8	77	12.9	1.3		
PHF	.792	.750	.750	.417	.807	.719	.817	.781	.000	.858	.775	.722	.694	.500	.797	.636	.875	.788	.500	.914	.933



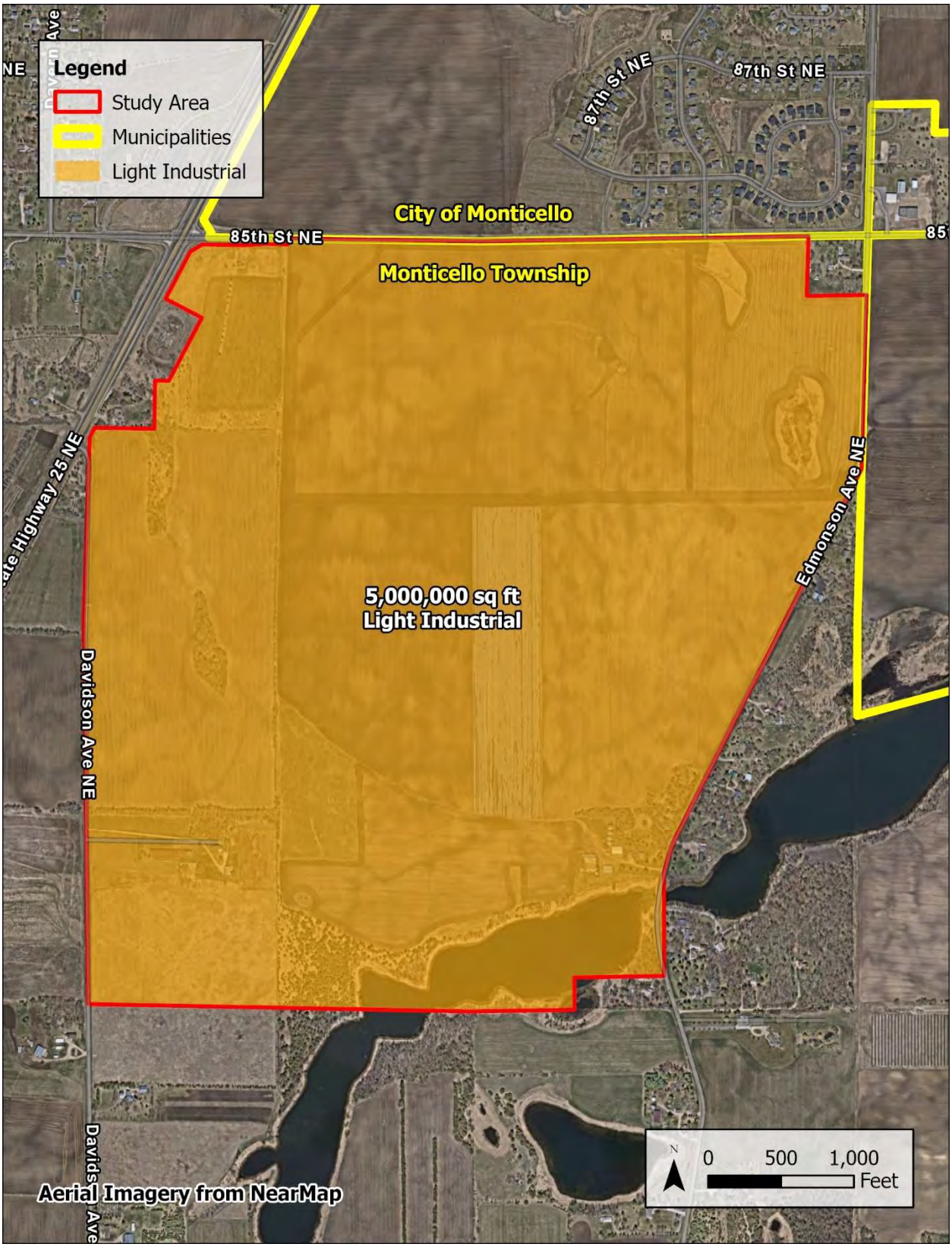
Appendix C:

Development Scenario Concepts

Development Scenario 1



Development Scenario 2



Appendix D:

Existing Year (2025) SimTraffic Report

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.4	4.0	1.2	0.0	0.9	0.0	0.0	0.0	3.1	0.3	3.2
Total Del/Veh (s)	33.0	25.1	2.5	30.3	31.4	2.6	3.6	2.5	0.3	5.8	8.3	1.2

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	8.0

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.2	0.1
Total Del/Veh (s)	3.4	7.0	1.3	3.7	7.7	1.2	0.3	0.6	0.0	0.2	0.3	0.1

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.0

3: MN 25 & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	3.7	0.0	0.0	0.0	3.3	0.4	3.6	0.0	0.0	0.0
Total Del/Veh (s)	10.3	13.1	4.0	13.1	13.2	7.4	16.4	8.9	2.4	20.7	10.4	3.8

3: MN 25 & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	10.2

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.8	4.5	1.5	1.1	3.2	0.0	2.0	2.9

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	3.4	0.2	2.4	0.2	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	1.2	2.2	1.5	0.9	0.7	0.6	4.9	11.4	3.0	3.3	5.1	2.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	2.7

6: MN 25 & Davidson Ave Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.2	0.0	2.9	0.9	0.0	1.4	0.6	0.7

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	20.8

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	100	34	73	33	12	46	68	2	27	145	41	26
Average Queue (ft)	43	2	16	10	1	7	10	0	3	54	4	2
95th Queue (ft)	84	15	47	31	5	28	38	1	16	114	30	13
Link Distance (ft)		910		3490		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	35	39
Average Queue (ft)	18	19
95th Queue (ft)	41	42
Link Distance (ft)	1038	1108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: MN 25 & CSAH 37

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	LT	R	L	T	R	L	T	R
Maximum Queue (ft)	120	152	25	16	92	21	22	119	33
Average Queue (ft)	51	60	1	1	31	2	2	49	4
95th Queue (ft)	92	111	18	8	70	11	11	104	18
Link Distance (ft)	1468	4207			1187			3330	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			100	500		500	500		500
Storage Blk Time (%)	1	2	0						
Queuing Penalty (veh)	0	0	0						

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	25	51
Average Queue (ft)	1	13
95th Queue (ft)	9	38
Link Distance (ft)	4207	4515
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	8	24	64	43
Average Queue (ft)	0	3	30	19
95th Queue (ft)	5	15	49	43
Link Distance (ft)			604	1936
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300	300		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: MN 25 & Davidson Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	25	41
Average Queue (ft)	6	4
95th Queue (ft)	21	22
Link Distance (ft)	1109	220
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.1	0.2	4.0	0.1	0.0	0.2	0.0	0.0	0.0	3.0	0.4	3.1
Total Del/Veh (s)	60.3	52.8	2.4	55.1	43.6	2.7	4.1	2.6	0.5	6.5	7.9	1.6

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	9.0

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)	3.5	4.7	2.0	4.4	9.0	2.8	0.9	1.0	0.1	0.8	0.8	0.2

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.2

3: MN 25 & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.3	0.2	3.9	0.0	0.0	0.0	2.9	0.9	3.1	0.0	0.0	0.1
Total Del/Veh (s)	18.2	19.2	4.7	17.2	19.3	5.3	20.9	11.5	3.0	25.6	12.9	5.2

3: MN 25 & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	12.2

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	2.6	3.2	1.6	1.5	4.2	0.0	2.6	2.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.1	3.4	0.3	3.6	0.2	0.2	0.1	0.0	0.0	0.0
Total Del/Veh (s)	2.2	3.0	2.1	1.4	1.1	0.3	8.5	13.1	4.2	4.7	4.8	2.6

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	3.8

6: MN 25 & Davidson Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	14.8	3.5	0.7	0.0	2.7	0.6	0.7

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	24.3

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	131	55	60	95	33	80	94	8	28	149	128	7
Average Queue (ft)	45	11	16	31	6	11	17	0	6	63	12	1
95th Queue (ft)	99	37	45	76	22	47	59	4	21	123	55	4
Link Distance (ft)		910		3490		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	48	52	25	28
Average Queue (ft)	21	26	2	2
95th Queue (ft)	46	46	12	15
Link Distance (ft)	1038	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: MN 25 & CSAH 37

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	LT	R	L	T	R	L	T	R
Maximum Queue (ft)	143	169	23	16	179	53	16	180	52
Average Queue (ft)	62	70	1	2	69	7	1	61	10
95th Queue (ft)	115	126	17	9	143	24	8	136	33
Link Distance (ft)	1468	4207			1187			3330	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			100	500		500	500		500
Storage Blk Time (%)	2	3	0						
Queuing Penalty (veh)	0	0	0						

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	19	47
Average Queue (ft)	1	16
95th Queue (ft)	8	41
Link Distance (ft)	4207	4534
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	NB	SB
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	15	3	35	80	72
Average Queue (ft)	1	0	7	37	28
95th Queue (ft)	8	2	26	63	55
Link Distance (ft)				604	1936
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: MN 25 & Davidson Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	37	81
Average Queue (ft)	9	8
95th Queue (ft)	26	42
Link Distance (ft)	1096	188
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.5	0.3	0.3	3.7	0.5	0.6	0.2	0.2	0.3	0.1	0.2	0.1
Total Del/Veh (s)	7.3	12.0	7.0	7.1	10.6	5.9	7.5	9.3	6.2	7.2	8.2	5.0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	8.7

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	11.0

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	48	136	95	122	112	94
Average Queue (ft)	9	64	43	52	51	45
95th Queue (ft)	35	108	75	93	87	74
Link Distance (ft)		624		529	597	603
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225		150			
Storage Blk Time (%)			0	0		
Queuing Penalty (veh)			0	0		

Network Summary

Network wide Queuing Penalty: 0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.6	0.4	0.3	3.5	0.4	0.5	0.2	0.1	0.1	0.2	0.2	0.2
Total Del/Veh (s)	6.3	11.4	5.8	7.1	11.8	6.7	6.5	8.1	4.3	7.5	8.7	5.3

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	9.3

Total Network Performance

Denied Del/Veh (s)	0.6
Total Del/Veh (s)	11.9

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	39	105	48	122	71	105
Average Queue (ft)	20	57	24	64	38	51
95th Queue (ft)	43	89	45	103	61	82
Link Distance (ft)		624		529	597	603
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225		150			
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

Network Summary

Network wide Queuing Penalty: 0

Appendix E:

Opening Year (2030) No-Build SimTraffic Report

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.3	3.9	1.0	0.0	1.1	0.0	0.0	0.0	3.3	0.3	3.3
Total Del/Veh (s)	33.4	32.6	2.8	26.8	28.4	2.5	7.7	2.7	0.4	6.5	8.9	1.4

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	8.4

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
Total Del/Veh (s)	3.3	6.8	1.5	3.3	7.7	1.1	0.2	0.7	0.1	0.3	0.3	0.2

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.1

3: MN 25 & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	3.8	0.0	0.0	0.0	3.7	0.4	3.6	0.0	0.0	0.0
Total Del/Veh (s)	13.5	15.0	4.5	14.7	16.9	5.0	18.7	9.3	2.6	19.8	11.1	4.2

3: MN 25 & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.3
Total Del/Veh (s)	11.3

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.3	4.8	1.7	1.5	3.9	0.0	1.4	3.0

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	3.2	0.3	3.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Del/Veh (s)	2.1	2.3	2.0	1.1	0.9	0.1	5.6	11.7	2.6	5.7	5.6	2.0

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	2.6

6: MN 25 & Davidson Ave Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Total Del/Veh (s)	9.1	0.0	2.0	1.0	0.1	2.2	0.7	0.9

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	22.5

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	106	39	66	39	6	44	70	12	36	143	96	16
Average Queue (ft)	49	7	17	9	0	9	13	0	5	59	7	1
95th Queue (ft)	93	29	47	32	3	32	49	8	22	115	44	8
Link Distance (ft)		910		3490		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	47	40	8
Average Queue (ft)	21	19	0
95th Queue (ft)	44	41	4
Link Distance (ft)	1038	1108	1236
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: MN 25 & CSAH 37

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	LT	L	T	R	L	T	R
Maximum Queue (ft)	135	157	16	100	20	17	149	29
Average Queue (ft)	60	75	2	36	2	1	58	5
95th Queue (ft)	107	132	10	82	12	7	128	19
Link Distance (ft)	1468	4207		1187			3330	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			500		500	500		500
Storage Blk Time (%)	2	4						
Queuing Penalty (veh)	0	0						

Intersection: 4: CSAH 37 & Davidson Ave

Movement	SB
Directions Served	LR
Maximum Queue (ft)	52
Average Queue (ft)	15
95th Queue (ft)	40
Link Distance (ft)	4515
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	NB	SB
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	15	6	26	53	52
Average Queue (ft)	1	0	5	27	23
95th Queue (ft)	7	3	20	44	44
Link Distance (ft)				604	1936
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: MN 25 & Davidson Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	19	59
Average Queue (ft)	7	7
95th Queue (ft)	21	35
Link Distance (ft)	1109	220
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.4	4.1	0.2	0.0	0.2	0.0	0.0	0.0	3.0	0.4	2.9
Total Del/Veh (s)	64.2	59.2	3.2	51.3	51.4	2.7	5.0	3.0	0.5	6.8	8.3	1.7

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	9.6

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.2
Total Del/Veh (s)	4.6	5.7	1.5	4.6	9.2	2.4	0.8	1.1	0.1	1.0	0.8	0.1

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.4

3: MN 25 & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.2	3.9	0.0	0.0	0.0	2.9	0.9	3.1	0.0	0.0	0.0
Total Del/Veh (s)	20.4	20.5	4.6	19.4	19.3	5.7	30.1	12.7	3.5	18.0	13.8	5.6

3: MN 25 & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	13.3

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.9	3.0	1.8	1.2	4.6	0.0	1.4	2.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.1	3.3	0.4	3.0	0.2	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	2.6	3.2	1.8	1.6	1.3	0.1	9.8	14.4	5.1	8.7	5.2	3.9

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	4.4

6: MN 25 & Davidson Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	14.7	4.3	0.7	0.0	4.0	1.1	1.0

Total Network Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	26.4

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	119	59	66	97	36	78	98	5	22	185	110	22
Average Queue (ft)	49	12	17	41	7	12	22	0	5	73	10	3
95th Queue (ft)	100	40	49	83	21	49	70	2	18	142	47	12
Link Distance (ft)		910		3490		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	43	58	37	20
Average Queue (ft)	24	29	2	2
95th Queue (ft)	44	50	17	13
Link Distance (ft)	1038	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: MN 25 & CSAH 37

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	LT	R	L	T	R	L	T	R
Maximum Queue (ft)	136	180	50	18	222	41	10	230	46
Average Queue (ft)	72	74	2	2	79	10	1	78	11
95th Queue (ft)	119	137	27	11	158	29	6	166	33
Link Distance (ft)	1468	4207			1187			3330	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			100	500		500	500		500
Storage Blk Time (%)	3	4	0						
Queuing Penalty (veh)	0	0	0						

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	15	46
Average Queue (ft)	1	18
95th Queue (ft)	7	40
Link Distance (ft)	4207	4534
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	NB	SB
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	12	3	41	87	67
Average Queue (ft)	1	0	11	42	30
95th Queue (ft)	9	2	31	72	53
Link Distance (ft)				604	1936
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: MN 25 & Davidson Ave

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	38	124
Average Queue (ft)	10	17
95th Queue (ft)	27	70
Link Distance (ft)	1096	188
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.8	0.3	0.4	3.7	0.6	0.5	0.2	0.2	0.3	0.2	0.2	0.2
Total Del/Veh (s)	6.6	13.7	8.4	7.5	10.8	6.3	8.7	9.8	6.6	7.6	9.5	5.7

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	9.6

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	11.8

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	53	139	96	101	143	97
Average Queue (ft)	10	72	47	55	56	48
95th Queue (ft)	37	119	82	88	100	82
Link Distance (ft)		624		529	597	603
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225		150			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.6	0.4	0.4	3.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.3
Total Del/Veh (s)	7.2	12.2	7.2	7.8	12.4	7.3	7.5	8.4	5.1	8.0	9.7	5.6

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	10.0

Total Network Performance

Denied Del/Veh (s)	0.6
Total Del/Veh (s)	12.5

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	47	120	57	129	80	113
Average Queue (ft)	22	61	29	67	41	58
95th Queue (ft)	46	98	50	109	67	91
Link Distance (ft)		624		529	597	603
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225		150			
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

Network Summary

Network wide Queuing Penalty: 0

Operational Results

2030 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	210		513		144	908		0.2312	
2	NB MN 25	None	352		205		518	1064		0.3308	
3	WB CSAH 37	None	211		386		171	973		0.2170	
4	SB MN 25	None	443		214		383	1059		0.4181	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	4.80		4.80	0.80		A		A
2	NB MN 25	None	4.66		4.66	1.29		A		A
3	WB CSAH 37	None	4.41		4.41	0.74		A		A
4	SB MN 25	None	5.32		5.32	1.87		A		A

Global Results

Performance and Accidents

2030 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1216		1216
Capacity	veh/hr	4004		4004
Average Delay	sec/veh	4.88		4.88
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	1.65		1.65

Operational Results

2030 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	195		529		277	900		0.2166	
2	NB MN 25	None	745		192		532	1071		0.6959	
3	WB CSAH 37	None	226		673		264	828		0.2731	
4	SB MN 25	None	588		218		681	1057		0.5561	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	4.75		4.75	0.76		A		A
2	NB MN 25	None	9.33		9.33	6.02		A		A
3	WB CSAH 37	None	5.54		5.54	1.05		A		A
4	SB MN 25	None	6.80		6.80	3.36		A		A

Global Results

Performance and Accidents

2030 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1754		1754
Capacity	veh/hr	3856		3856
Average Delay	sec/veh	7.49		7.49
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	3.65		3.65

Appendix F:

Opening Year (2030) Build Scenario 1 SimTraffic Report

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.2	4.0	0.1	0.0	0.2	0.0	0.0	0.0	3.1	0.4	3.2
Total Del/Veh (s)	30.7	22.2	2.7	30.5	25.0	3.2	1.3	4.0	0.5	7.6	10.0	1.4

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	8.9

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	3.9	8.5	2.3	4.3	8.6	2.5	0.5	0.7	0.1	0.4	0.7	0.0

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.9

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.5	4.6	1.8	1.1	4.2	0.2	1.6	3.0

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.1	3.5	0.4	3.6	0.1	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	1.9	2.7	1.8	1.2	1.0	0.2	4.5	11.9	3.2	5.8	6.5	3.1

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	3.0

6: MN 25 & Davidson Ave Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	12.5	0.1	2.2	0.9	0.0	1.9	0.3	0.6

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	1.5	1.2	3.2	2.6	5.3	3.3	2.8

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.3	2.9	0.7	0.8	0.7	0.1	1.3

Total Zone Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	213.8

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	99	30	72	39	6	74	87	16	82	146	79	19
Average Queue (ft)	44	6	25	9	0	14	20	1	21	69	6	2
95th Queue (ft)	83	24	59	33	4	43	62	6	56	127	42	9
Link Distance (ft)		910		2183		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	56	59	20	4
Average Queue (ft)	27	29	1	0
95th Queue (ft)	48	49	7	3
Link Distance (ft)	2347	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	9	49
Average Queue (ft)	1	15
95th Queue (ft)	8	40
Link Distance (ft)	4207	4515
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	WB	NB	SB
Directions Served	L	L	LTR	LTR
Maximum Queue (ft)	15	31	69	73
Average Queue (ft)	1	4	28	30
95th Queue (ft)	8	20	52	54
Link Distance (ft)			604	1936
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300	300		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: MN 25 & Davidson Ave

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	19	32
Average Queue (ft)	5	4
95th Queue (ft)	18	21
Link Distance (ft)	1104	220
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: North Access & 85th St NE

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	42	55
Average Queue (ft)	3	33
95th Queue (ft)	20	50
Link Distance (ft)	2347	880
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Edmonson Ave & East Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	57	25
Average Queue (ft)	28	3
95th Queue (ft)	46	17
Link Distance (ft)	825	1968
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.3	4.2	0.1	0.0	0.1	0.0	0.0	0.0	3.2	0.4	3.0
Total Del/Veh (s)	68.7	43.9	2.8	57.1	52.2	3.3	6.1	4.0	0.7	6.2	8.7	1.8

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	10.4

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Total Del/Veh (s)	4.9	7.9	2.6	5.3	9.5	3.2	0.9	1.4	0.3	0.8	1.1	0.3

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.9

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.3	3.0	1.9	1.5	4.5	0.0	1.4	2.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.1	3.3	0.4	3.4	0.1	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	3.0	3.0	1.9	1.5	1.3	0.3	10.3	14.5	5.0	9.5	5.7	4.8

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	4.5

6: MN 25 & Davidson Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.5	5.2	0.8	0.1	4.4	0.3	0.7

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	1.4	1.1	2.8	2.7	5.6	3.3	3.1

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.1	0.0	0.0	0.0
Total Del/Veh (s)	6.3	3.3	0.8	0.9	0.8	0.3	1.6

Total Zone Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	139.4

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	128	49	108	110	35	97	112	8	37	162	126	16
Average Queue (ft)	53	12	35	38	7	20	33	1	11	75	19	2
95th Queue (ft)	108	38	84	85	24	63	93	4	29	144	76	8
Link Distance (ft)		910		2180		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	54	58	31	24
Average Queue (ft)	30	32	3	1
95th Queue (ft)	48	48	17	10
Link Distance (ft)	2349	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	20	42
Average Queue (ft)	1	15
95th Queue (ft)	9	38
Link Distance (ft)	4207	4534
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	EB	WB	NB	SB
Directions Served	L	T	R	L	LTR	LTR
Maximum Queue (ft)	27	9	1	31	84	83
Average Queue (ft)	3	0	0	9	42	40
95th Queue (ft)	15	6	1	27	74	69
Link Distance (ft)		4079			604	1936
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	300		300	300		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 6: MN 25 & Davidson Ave

Movement	WB	NB	SB
Directions Served	LR	T	L
Maximum Queue (ft)	55	4	34
Average Queue (ft)	12	0	6
95th Queue (ft)	34	0	26
Link Distance (ft)	1090	364	188
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: North Access & 85th St NE

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	20	63
Average Queue (ft)	1	35
95th Queue (ft)	10	55
Link Distance (ft)	2349	1028
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Edmonson Ave & East Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	77	25
Average Queue (ft)	33	2
95th Queue (ft)	55	11
Link Distance (ft)	904	1969
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.5	0.3	0.3	3.6	0.7	0.5	0.3	0.3	0.3	0.1	0.2	0.2
Total Del/Veh (s)	6.8	15.0	9.4	9.0	11.9	6.7	11.1	11.2	8.2	7.7	9.9	5.6

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.9
Total Del/Veh (s)	10.7

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	13.0

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	53	196	105	125	155	104
Average Queue (ft)	9	80	57	59	65	48
95th Queue (ft)	35	146	93	97	115	83
Link Distance (ft)		624		529	597	603
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225		150			
Storage Blk Time (%)		0				
Queuing Penalty (veh)		0				

Network Summary

Network wide Queuing Penalty: 0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.5	0.4	0.5	3.5	0.5	0.5	0.2	0.2	0.2	0.3	0.2	0.2
Total Del/Veh (s)	7.5	13.1	8.1	7.8	12.7	7.8	7.7	9.0	5.5	8.4	10.1	5.8

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	10.4

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	12.9

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	47	130	58	142	94	105
Average Queue (ft)	20	70	31	68	47	59
95th Queue (ft)	45	111	53	113	75	91
Link Distance (ft)		624		529	597	603
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225		150			
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

Network Summary

Network wide Queuing Penalty: 0

Operational Results

2030 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	210		535		144	897		0.2340	
2	NB MN 25	None	379		205		540	1064		0.3562	
3	WB CSAH 37	None	218		404		180	963		0.2263	
4	SB MN 25	None	458		221		401	1056		0.4338	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	4.87		4.87	0.82		A		A
2	NB MN 25	None	4.83		4.83	1.45		A		A
3	WB CSAH 37	None	4.50		4.50	0.78		A		A
4	SB MN 25	None	5.47		5.47	1.99		A		A

Global Results

Performance and Accidents

2030 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1265		1265
Capacity	veh/hr	3981		3981
Average Delay	sec/veh	5.01		5.01
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	1.76		1.76

Operational Results

2030 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	195		557		277	886		0.2200	
2	NB MN 25	None	757		192		560	1071		0.7071	
3	WB CSAH 37	None	235		681		268	824		0.2853	
4	SB MN 25	None	607		227		689	1053		0.5765	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	4.84		4.84	0.83		A		A
2	NB MN 25	None	9.75		9.75	7.15		A		A
3	WB CSAH 37	None	5.66		5.66	1.20		A		A
4	SB MN 25	None	7.15		7.15	3.98		A		A

Global Results

Performance and Accidents

2030 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1794		1794
Capacity	veh/hr	3833		3833
Average Delay	sec/veh	7.80		7.80
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	3.89		3.89

Appendix G:

Opening Year (2030) Build Scenario 2 SimTraffic Report

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.3	3.9	0.1	0.0	0.1	0.0	0.0	0.0	2.8	0.4	2.5
Total Del/Veh (s)	33.0	29.4	2.4	33.7	30.7	5.1	5.8	8.4	1.9	16.8	16.3	2.8

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.9
Total Del/Veh (s)	13.5

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.2	0.2	0.2
Total Del/Veh (s)	8.1	11.9	5.5	9.0	13.1	7.4	1.4	1.5	0.3	1.0	2.6	0.7

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.2
Total Del/Veh (s)	6.3

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	2.4	1.1	4.2	2.4	7.7	1.1	3.9	2.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.1	3.1	0.7	3.0	0.2	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	3.8	2.8	1.5	1.7	1.9	0.6	9.1	13.8	3.6	9.1	8.2	4.9

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	3.2

6: MN 25 & Davidson Ave Performance by movement

Movement	WBL	WBT	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.6	3.1	0.0	0.0	0.4
Total Del/Veh (s)	19.8	0.4	7.5	2.2	0.4	5.0	1.0	2.3

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.0
Total Del/Veh (s)	6.1	3.7	9.3	7.3	18.0	10.6	7.5

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.1	4.4	4.8	5.1	4.8	1.3	3.9

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	18.1

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	104	31	101	39	52	12	127	102	46	230	175	185
Average Queue (ft)	40	4	33	8	1	1	54	38	10	104	70	65
95th Queue (ft)	83	20	79	30	18	6	106	88	29	185	145	140
Link Distance (ft)		915		2167			820	820			1229	1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		300	500			500	550		
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: MN 25 & 85th St NE

Movement	SB
Directions Served	R
Maximum Queue (ft)	10
Average Queue (ft)	1
95th Queue (ft)	5
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	500
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	83	130	66	19
Average Queue (ft)	43	60	7	1
95th Queue (ft)	72	100	35	10
Link Distance (ft)	2362	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	40	84
Average Queue (ft)	5	34
95th Queue (ft)	24	67
Link Distance (ft)	2117	4515
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	R	LTR	LTR
Maximum Queue (ft)	55	32	5	64	88
Average Queue (ft)	14	6	0	29	37
95th Queue (ft)	40	22	4	51	70
Link Distance (ft)				604	1936
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: MN 25 & Davidson Ave

Movement	WB	NB	SB
Directions Served	LR	R	L
Maximum Queue (ft)	96	20	121
Average Queue (ft)	43	1	48
95th Queue (ft)	81	8	93
Link Distance (ft)	1104		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		275	150
Storage Blk Time (%)			0
Queuing Penalty (veh)			1

Intersection: 8: North Access & 85th St NE

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	38	93	210
Average Queue (ft)	8	48	83
95th Queue (ft)	29	82	156
Link Distance (ft)	2167	2362	932
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Edmonson Ave & East Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	95	126	30
Average Queue (ft)	47	40	3
95th Queue (ft)	79	90	17
Link Distance (ft)	825	1968	1807
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 1

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.2	3.9	0.1	0.0	0.1	0.0	0.0	0.0	2.9	0.6	2.8
Total Del/Veh (s)	68.4	54.3	2.6	63.5	52.1	7.3	6.6	6.3	1.1	13.3	11.0	1.9

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	12.7

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.2	0.2
Total Del/Veh (s)	13.3	16.6	9.4	11.8	14.0	6.8	2.5	4.3	1.2	1.7	1.9	0.4

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	7.2

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.3	0.0	0.0	0.1	0.0	0.1	0.1
Total Del/Veh (s)	2.1	1.7	3.1	2.2	9.0	0.2	7.2	3.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.0	3.2	0.5	3.2	0.2	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	4.0	4.2	2.7	2.7	2.0	0.5	15.0	20.9	11.2	25.1	10.4	16.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	8.4

6: MN 25 & Davidson Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.9	1.4	0.6	3.0	0.0	0.0	0.4
Total Del/Veh (s)	86.9	69.1	3.8	0.8	7.3	0.7	12.8

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.4	0.4	0.2
Total Del/Veh (s)	3.6	2.1	4.1	4.0	17.8	15.0	11.1

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.4	0.4	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	14.6	11.5	2.0	2.5	2.4	0.4	7.9

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	26.2

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	121	45	174	114	236	32	153	141	30	133	243	222
Average Queue (ft)	52	11	74	38	36	7	50	40	2	54	99	35
95th Queue (ft)	107	36	141	86	158	22	111	102	14	104	191	134
Link Distance (ft)		910		2180			813	813			1229	1229
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		300	500			500	550		
Storage Blk Time (%)					0							
Queuing Penalty (veh)					0							

Intersection: 1: MN 25 & 85th St NE

Movement	SB
Directions Served	R
Maximum Queue (ft)	26
Average Queue (ft)	3
95th Queue (ft)	13
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	500
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	153	103	61	36
Average Queue (ft)	72	47	13	5
95th Queue (ft)	126	82	43	22
Link Distance (ft)	2349	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	57	113
Average Queue (ft)	5	46
95th Queue (ft)	29	81
Link Distance (ft)	2117	4534
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	R	L	R	LTR	LTR
Maximum Queue (ft)	39	1	48	11	118	214
Average Queue (ft)	5	0	14	0	50	90
95th Queue (ft)	23	1	38	6	93	176
Link Distance (ft)					604	1936
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	300	300	300	300		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 6: MN 25 & Davidson Ave

Movement	WB	NB	SB	B14
Directions Served	LR	T	L	T
Maximum Queue (ft)	471	12	96	11
Average Queue (ft)	193	0	37	0
95th Queue (ft)	429	7	73	8
Link Distance (ft)	1091	1332	188	813
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: North Access & 85th St NE

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	15	42	356
Average Queue (ft)	1	9	153
95th Queue (ft)	9	34	287
Link Distance (ft)	2180	2349	1028
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Edmonson Ave & East Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	256	79
Average Queue (ft)	112	11
95th Queue (ft)	205	43
Link Distance (ft)	904	1969
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.0	0.3	0.3	3.5	1.7	1.6	0.3	0.3	0.2	0.1	0.1	0.2
Total Del/Veh (s)	8.7	43.9	35.4	55.7	29.1	20.8	18.7	18.5	13.8	11.4	13.0	9.5

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	1.4
Total Del/Veh (s)	34.8

Total Network Performance

Denied Del/Veh (s)	1.4
Total Del/Veh (s)	37.2

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	52	444	440	751	222	142
Average Queue (ft)	8	155	197	199	81	58
95th Queue (ft)	33	375	426	706	156	106
Link Distance (ft)		1510		1297	966	918
Upstream Blk Time (%)				3		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)	400		400			
Storage Blk Time (%)		4	12	1		
Queuing Penalty (veh)		0	35	3		

Network Summary

Network wide Queuing Penalty: 39

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	2.9	0.4	0.4	2.8	0.6	0.6	0.3	0.2	0.3	0.3	0.2	0.2
Total Del/Veh (s)	7.4	29.1	25.5	8.7	16.5	11.0	19.7	18.5	16.4	12.4	13.7	8.6

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	18.3

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	21.1

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	48	331	80	199	226	141
Average Queue (ft)	23	138	40	84	104	69
95th Queue (ft)	44	267	66	153	189	117
Link Distance (ft)		1407		1499	1054	918
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	400		400			
Storage Blk Time (%)		1				
Queuing Penalty (veh)		0				

Network Summary

Network wide Queuing Penalty: 0

Operational Results

2030 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	SB Fallon Ave	None	144		742		139	719		0.2002	
2	EB School Blvd	None	334		444		442	876		0.3812	
3	NB Fallon Ave	None	253		260		518	973		0.2600	
4	WB School Blvd	None	681		200		313	1005		0.6779	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	SB Fallon Ave	None	7.75		7.75	0.72		A		A
2	EB School Blvd	None	8.89		8.89	1.74		A		A
3	NB Fallon Ave	None	6.87		6.87	0.97		A		A
4	WB School Blvd	None	13.71		13.71	5.77		B		B

Global Results

Performance and Accidents

2030 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1412		1412
Capacity	veh/hr	3573		3573
Average Delay	sec/veh	9.74		9.74
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	3.82		3.82

Operational Results

2030 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	SB Fallon Ave	None	235		481		139	857		0.2743	
2	EB School Blvd	None	457		311		405	946		0.4830	
3	NB Fallon Ave	None	369		496		272	849		0.4348	
4	WB School Blvd	None	487		133		732	1040		0.4683	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	SB Fallon Ave	None	7.67		7.67	1.03		A		A
2	EB School Blvd	None	9.93		9.93	2.48		A		A
3	NB Fallon Ave	None	9.88		9.88	2.08		A		A
4	WB School Blvd	None	9.11		9.11	2.32		A		A

Global Results

Performance and Accidents

2030 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1548		1548
Capacity	veh/hr	3691		3691
Average Delay	sec/veh	8.32		8.32
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	3.58		3.58

Operational Results

2030 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	210		568		144	876		0.2397	
2	NB MN 25	None	564		205		573	1025		0.5505	
3	WB CSAH 37	None	239		520		249	806		0.2966	
4	SB MN 25	None	470		242		517	1038		0.4526	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	5.02		5.02	0.93		A		A
2	NB MN 25	None	6.69		6.69	3.41		A		A
3	WB CSAH 37	None	5.43		5.43	1.15		A		A
4	SB MN 25	None	5.74		5.74	2.40		A		A

Global Results

Performance and Accidents

2030 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1483		1483
Capacity	veh/hr	3745		3745
Average Delay	sec/veh	5.95		5.95
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	2.45		2.45

Operational Results

2030 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	195		734		277	789		0.2473	
2	NB MN 25	None	806		192		737	1112		0.7251	
3	WB CSAH 37	None	305		707		291	786		0.3882	
4	SB MN 25	None	714		297		715	1075		0.6640	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	5.56		5.56	0.97		A		A
2	NB MN 25	None	10.59		10.59	8.44		B		B
3	WB CSAH 37	None	6.66		6.66	1.87		A		A
4	SB MN 25	None	9.36		9.36	6.50		A		A

Global Results

Performance and Accidents

2030 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	2020		2020
Capacity	veh/hr	3761		3761
Average Delay	sec/veh	9.08		9.08
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	5.09		5.09

Appendix H:

Design Year (2045) No-Build SimTraffic Report

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.9	0.4	4.0	1.1	0.0	0.9	0.0	0.0	0.0	3.1	0.4	3.1
Total Del/Veh (s)	32.2	27.7	2.5	29.7	28.9	2.5	8.8	3.7	0.6	6.5	12.0	1.6

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	9.9

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	2.7	7.4	1.6	3.2	7.7	2.1	1.0	0.7	0.0	0.5	0.4	0.1

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.1

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.1	0.1	0.1	0.1
Total Del/Veh (s)	1.7	0.8	2.1	1.8	4.7	2.2	1.7

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.1	3.1	0.3	3.9	0.2	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	2.0	2.2	1.5	1.3	1.0	0.4	7.6	12.4	3.6	8.1	6.0	3.8

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	3.0

6: MN 25 & Future Roadway Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.5	2.0	0.0	0.0	0.2
Total Del/Veh (s)	21.8	4.4	1.6	0.7	7.1	5.5	3.8

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	14.5

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	123	34	74	52	9	81	90	12	38	201	159	23
Average Queue (ft)	59	6	19	11	1	12	27	0	5	91	26	1
95th Queue (ft)	104	24	50	36	6	48	70	1	21	167	108	9
Link Distance (ft)		910		3490		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	54	49	10	5
Average Queue (ft)	23	23	1	0
95th Queue (ft)	46	45	7	3
Link Distance (ft)	1038	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	25	51
Average Queue (ft)	1	20
95th Queue (ft)	12	46
Link Distance (ft)	2117	1313
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	NB	SB
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	16	1	46	70	59
Average Queue (ft)	1	0	7	32	25
95th Queue (ft)	7	1	27	53	49
Link Distance (ft)				604	1936
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: MN 25 & Future Roadway

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	36	42
Average Queue (ft)	10	7
95th Queue (ft)	32	27
Link Distance (ft)	1928	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.3	4.1	0.0	0.0	0.1	0.0	0.0	0.0	2.7	0.5	2.9
Total Del/Veh (s)	68.3	47.6	2.6	58.4	47.1	2.6	9.7	3.7	0.5	8.3	10.9	2.3

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	11.1

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Total Del/Veh (s)	4.5	6.0	2.5	6.4	9.8	2.8	1.1	1.5	0.3	1.1	1.1	0.5

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	2.8

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.5	0.3	0.0	0.0	0.1	0.2	0.2
Total Del/Veh (s)	2.0	1.1	2.2	1.6	5.7	2.6	1.8

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.0	0.1	3.2	0.5	3.3	0.2	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	3.4	3.6	2.3	2.7	1.6	0.4	14.3	18.3	9.1	10.9	6.2	4.9

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	5.5

6: MN 25 & Future Roadway Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.8	3.0	0.1	0.0	0.4
Total Del/Veh (s)	32.3	6.4	1.6	0.3	9.4	6.0	3.9

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	16.3

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	131	63	101	132	55	108	114	16	34	216	177	28
Average Queue (ft)	63	16	25	46	13	22	37	1	9	103	33	3
95th Queue (ft)	119	46	69	104	37	65	88	8	25	177	117	15
Link Distance (ft)		912		3490		823	823			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	54	78	27	25
Average Queue (ft)	26	33	4	2
95th Queue (ft)	47	56	19	13
Link Distance (ft)	1038	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	15	47
Average Queue (ft)	1	19
95th Queue (ft)	11	42
Link Distance (ft)	2117	1923
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	R	L	T	R	LTR	LTR
Maximum Queue (ft)	23	9	58	3	2	121	84
Average Queue (ft)	2	0	18	0	0	60	37
95th Queue (ft)	12	4	41	2	2	105	66
Link Distance (ft)				1804		604	1936
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	300	300	300		300		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 6: MN 25 & Future Roadway

Movement	WB	SB	B3
Directions Served	LR	L	T
Maximum Queue (ft)	54	43	186
Average Queue (ft)	19	13	7
95th Queue (ft)	43	38	136
Link Distance (ft)	1786		823
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)		250	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	1.9	0.4	0.4	2.7	0.5	0.5	0.3	0.3	0.2	0.3	0.2	0.2
Total Del/Veh (s)	17.5	38.8	32.3	10.9	14.0	9.0	14.4	14.9	11.7	11.7	12.2	8.4

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	20.0

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	22.6

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	185	537	118	139	200	145
Average Queue (ft)	23	165	58	69	77	63
95th Queue (ft)	115	436	100	116	144	108
Link Distance (ft)		1892		1581	1695	1502
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225		150			
Storage Blk Time (%)		13	0	0		
Queuing Penalty (veh)		2	0	0		

Network Summary

Network wide Queuing Penalty: 3

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	2.0	0.4	0.5	2.5	0.5	0.5	0.2	0.2	0.2	0.3	0.3	0.2
Total Del/Veh (s)	8.8	17.3	12.9	10.0	17.7	12.7	8.8	9.9	6.1	11.6	12.9	9.4

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	14.1

Total Network Performance

Denied Del/Veh (s)	0.5
Total Del/Veh (s)	17.1

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	58	198	168	242	90	140
Average Queue (ft)	26	95	40	99	51	75
95th Queue (ft)	50	166	98	180	78	119
Link Distance (ft)		2016		1561	1734	1497
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	225		150			
Storage Blk Time (%)		0		4		
Queuing Penalty (veh)		0		3		

Network Summary

Network wide Queuing Penalty: 3

Operational Results

2045 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	271		500		256	915		0.2962	
2	NB MN 25	None	453		265		506	1034		0.4382	
3	WB CSAH 37	None	281		498		220	916		0.3068	
4	SB MN 25	None	570		186		593	1074		0.5309	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	5.17		5.17	1.12		A		A
2	NB MN 25	None	5.63		5.63	2.03		A		A
3	WB CSAH 37	None	5.24		5.24	1.17		A		A
4	SB MN 25	None	6.38		6.38	2.90		A		A

Global Results

Performance and Accidents

2045 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1575		1575
Capacity	veh/hr	3938		3938
Average Delay	sec/veh	5.75		5.75
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	2.52		2.52

Operational Results

2045 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	252		683		358	823		0.3063	
2	NB MN 25	None	959		248		687	1042		0.9201	
3	WB CSAH 37	None	292		866		340	730		0.3999	
4	SB MN 25	None	759		282		876	1025		0.7404	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	5.82		5.82	1.24		A		A
2	NB MN 25	None	24.95		24.95	23.31		C		C
3	WB CSAH 37	None	7.49		7.49	1.89		A		A
4	SB MN 25	None	11.13		11.13	7.49		B		B

Global Results

Performance and Accidents

2045 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	2262		2262
Capacity	veh/hr	3620		3620
Average Delay	sec/veh	15.93		15.93
L.O.S. (Signal)	A – F	B		B
L.O.S. (Unsig)	A – F	C		C
Total Delay	veh.hrs	10.01		10.01

Operational Results

2045 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	SB Fallon Ave	None	184		456		176	870		0.2115	
2	EB School Blvd	None	400		239		401	984		0.4065	
3	NB Fallon Ave	None	264		306		333	949		0.2783	
4	WB School Blvd	None	378		254		316	976		0.3872	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	SB Fallon Ave	None	6.89		6.89	0.75		A		A
2	EB School Blvd	None	8.55		8.55	1.90		A		A
3	NB Fallon Ave	None	7.19		7.19	1.07		A		A
4	WB School Blvd	None	8.34		8.34	1.75		A		A

Global Results

Performance and Accidents

2045 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1226		1226
Capacity	veh/hr	3779		3779
Average Delay	sec/veh	6.95		6.95
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	2.37		2.37

Operational Results

2045 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	SB Fallon Ave	None	302		500		177	847		0.3567	
2	EB School Blvd	None	432		320		482	941		0.4589	
3	NB Fallon Ave	None	161		485		267	855		0.1884	
4	WB School Blvd	None	508		169		477	1021		0.4976	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	SB Fallon Ave	None	8.76		8.76	1.50		A		A
2	EB School Blvd	None	9.58		9.58	2.26		A		A
3	NB Fallon Ave	None	6.68		6.68	0.63		A		A
4	WB School Blvd	None	9.67		9.67	2.60		A		A

Global Results

Performance and Accidents

2045 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1403		1403
Capacity	veh/hr	3663		3663
Average Delay	sec/veh	8.11		8.11
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	3.16		3.16

Appendix I:

Design Year (2045) Build Scenario 1 SimTraffic Report

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.9	0.4	3.9	0.2	0.0	0.2	0.0	0.0	0.0	3.0	0.5	2.8
Total Del/Veh (s)	32.5	26.8	2.6	30.9	26.6	3.2	3.5	5.3	0.6	8.0	11.7	1.9

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	10.2

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.1
Total Del/Veh (s)	4.8	8.9	2.8	4.9	8.7	2.7	0.5	0.9	0.2	0.5	0.7	0.1

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	3.1

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.4	0.2	0.0	0.1	0.1	0.1	0.1
Total Del/Veh (s)	1.7	0.7	2.3	1.7	5.6	3.2	1.8

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	3.2	0.5	3.1	0.1	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	2.7	2.5	1.4	1.4	1.3	0.3	8.6	12.9	4.1	9.0	7.5	3.6

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	3.4

6: MN 25 & Future Roadway Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.5	2.0	0.1	0.0	0.2
Total Del/Veh (s)	10.2	3.2	1.5	0.7	7.2	5.6	3.7

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	1.7	1.0	3.7	2.5	5.4	3.2	2.7

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.1	0.1	0.1	0.0	0.0	0.1
Total Del/Veh (s)	5.7	3.2	0.8	1.1	0.8	0.2	1.5

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	15.0

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	138	43	86	51	9	92	106	10	84	194	142	37
Average Queue (ft)	60	7	28	11	0	23	32	1	23	86	20	3
95th Queue (ft)	114	29	64	36	4	66	81	7	56	157	83	18
Link Distance (ft)		910		2179		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	58	53	15	14
Average Queue (ft)	32	29	1	1
95th Queue (ft)	49	50	8	6
Link Distance (ft)	2351	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	15	60
Average Queue (ft)	1	19
95th Queue (ft)	8	45
Link Distance (ft)	2117	1313
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	NB	SB
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	22	4	33	64	93
Average Queue (ft)	2	0	7	32	36
95th Queue (ft)	13	2	24	54	65
Link Distance (ft)				604	1936
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: MN 25 & Future Roadway

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	26	46
Average Queue (ft)	9	9
95th Queue (ft)	27	31
Link Distance (ft)	1928	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		150
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: North Access & 85th St NE

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	47	67
Average Queue (ft)	4	33
95th Queue (ft)	23	56
Link Distance (ft)	2351	966
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Edmonson Ave & East Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	74	31
Average Queue (ft)	31	4
95th Queue (ft)	56	19
Link Distance (ft)	1116	1968
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.3	4.1	0.2	0.0	0.2	0.0	0.0	0.0	2.7	0.5	2.8
Total Del/Veh (s)	66.8	47.4	2.9	65.8	59.9	3.4	10.7	4.5	0.4	9.2	11.7	2.1

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	12.3

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Total Del/Veh (s)	6.6	8.5	3.0	6.4	10.4	4.8	1.4	1.7	0.3	1.3	1.5	0.5

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	3.5

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.7	0.3	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	2.4	1.1	2.5	2.1	5.8	2.4	1.9

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.1	3.4	0.5	3.1	0.3	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	4.0	3.7	2.4	2.5	1.8	0.3	15.5	19.2	10.7	16.5	7.8	7.4

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	6.2

6: MN 25 & Future Roadway Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.2	0.1	0.8	2.7	0.1	0.0	0.4
Total Del/Veh (s)	36.9	8.1	1.6	0.3	10.5	6.2	4.1

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	1.7	1.4	3.2	2.8	5.5	3.2	3.1

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	5.7	3.8	0.8	1.0	0.9	0.2	1.5

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	17.7

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	152	51	122	139	44	99	134	12	58	226	195	40
Average Queue (ft)	65	16	43	54	12	28	42	1	16	116	51	4
95th Queue (ft)	122	44	97	113	32	80	105	7	41	205	152	19
Link Distance (ft)		912		2210		823	823			1230	1230	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	65	71	43	33
Average Queue (ft)	32	34	5	3
95th Queue (ft)	52	56	25	16
Link Distance (ft)	2320	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	9	52
Average Queue (ft)	0	21
95th Queue (ft)	6	45
Link Distance (ft)	2117	1923
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	NB	SB
Directions Served	L	R	L	LTR	LTR
Maximum Queue (ft)	16	9	55	139	118
Average Queue (ft)	2	0	18	61	49
95th Queue (ft)	11	5	43	111	91
Link Distance (ft)				604	1936
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: MN 25 & Future Roadway

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	63	44
Average Queue (ft)	19	13
95th Queue (ft)	47	37
Link Distance (ft)	1786	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		250
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: North Access & 85th St NE

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	16	63
Average Queue (ft)	1	35
95th Queue (ft)	8	55
Link Distance (ft)	2320	1025
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Edmonson Ave & East Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	65	27
Average Queue (ft)	34	2
95th Queue (ft)	56	14
Link Distance (ft)	846	1969
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Operational Results

2045 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	271		685		187	822		0.3299	
2	NB MN 25	None	480		265		691	1034		0.4644	
3	WB CSAH 37	None	279		516		229	907		0.3076	
4	SB MN 25	None	588		284		511	1024		0.5742	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	6.03		6.03	1.49		A		A
2	NB MN 25	None	5.88		5.88	2.52		A		A
3	WB CSAH 37	None	5.29		5.29	1.31		A		A
4	SB MN 25	None	7.32		7.32	3.97		A		A

Global Results

Performance and Accidents

2045 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1618		1618
Capacity	veh/hr	3786		3786
Average Delay	sec/veh	6.32		6.32
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	2.84		2.84

Operational Results

2045 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	252		711		358	809		0.3117	
2	NB MN 25	None	971		248		715	1042		0.9316	
3	WB CSAH 37	None	301		871		343	727		0.4138	
4	SB MN 25	None	778		291		881	1021		0.7623	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	5.97		5.97	1.37		A		A
2	NB MN 25	None	28.85		28.85	34.09		D		D
3	WB CSAH 37	None	7.70		7.70	2.14		A		A
4	SB MN 25	None	12.28		12.28	9.77		B		B

Global Results

Performance and Accidents

2045 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	2302		2302
Capacity	veh/hr	3599		3599
Average Delay	sec/veh	17.98		17.98
L.O.S. (Signal)	A – F	B		B
L.O.S. (Unsig)	A – F	C		C
Total Delay	veh.hrs	11.50		11.50

Appendix J:

Design Year (2045) Build Scenario 2 SimTraffic Report

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.0	0.4	4.0	0.1	0.0	0.1	0.0	0.0	0.0	2.7	0.9	2.5
Total Del/Veh (s)	31.2	23.9	2.6	28.7	34.1	5.3	13.0	9.7	2.6	26.2	16.9	2.2

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	1.0
Total Del/Veh (s)	15.7

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.3	0.3	0.2	0.0	0.0	0.0	0.3	0.2	0.2
Total Del/Veh (s)	8.9	11.9	5.9	10.4	14.0	10.6	1.5	1.5	0.2	0.9	2.7	0.5

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.2
Total Del/Veh (s)	6.7

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	3.8	1.3	4.4	2.8	7.2	4.5	3.1

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	3.0	0.8	3.0	0.2	0.2	0.1	0.0	0.0	0.0
Total Del/Veh (s)	4.8	3.2	2.6	2.0	2.3	0.8	15.8	17.6	5.8	13.3	10.2	7.3

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	4.3

6: MN 25 & Future Roadway (West Access) Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.2	0.7	2.3	0.1	0.0	0.4
Total Del/Veh (s)	33.8	13.5	3.3	1.1	13.2	8.4	7.0

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.0
Total Del/Veh (s)	6.7	4.1	10.1	8.2	20.1	11.4	8.2

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.1	0.1	0.0	0.0	0.0
Total Del/Veh (s)	14.4	5.5	5.1	5.4	4.7	1.4	4.6

Total Network Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	22.3

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	121	38	92	47	21	118	132	42	326	248	223	39
Average Queue (ft)	54	8	30	13	1	53	57	9	144	130	60	4
95th Queue (ft)	100	29	68	41	10	100	107	29	275	211	172	23
Link Distance (ft)		910		2179		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	100	153	55	18
Average Queue (ft)	44	65	7	1
95th Queue (ft)	76	110	34	9
Link Distance (ft)	2351	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	110	4	87
Average Queue (ft)	8	0	34
95th Queue (ft)	51	3	68
Link Distance (ft)	2117	4079	1313
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	R	LTR	LTR
Maximum Queue (ft)	63	35	12	89	104
Average Queue (ft)	18	9	1	35	46
95th Queue (ft)	45	28	5	65	84
Link Distance (ft)				604	1936
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	300	300	300		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: MN 25 & Future Roadway (West Access)

Movement	WB	NB	NB	SB
Directions Served	LR	T	R	L
Maximum Queue (ft)	166	9	9	113
Average Queue (ft)	61	0	0	53
95th Queue (ft)	122	5	3	98
Link Distance (ft)	1928	2309		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			275	150
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: North Access & 85th St NE

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	53	138	227
Average Queue (ft)	8	54	95
95th Queue (ft)	31	103	181
Link Distance (ft)	2179	2351	966
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Edmonson Ave & East Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	136	112	36
Average Queue (ft)	53	42	4
95th Queue (ft)	102	84	20
Link Distance (ft)	1116	1968	1807
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.9	0.4	3.9	0.1	0.0	0.1	0.0	0.0	0.0	2.6	0.6	2.6
Total Del/Veh (s)	73.1	55.1	3.3	63.6	46.4	9.0	12.8	7.8	1.2	17.2	13.4	2.4

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.6
Total Del/Veh (s)	14.8

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Total Del/Veh (s)	19.5	20.3	12.0	12.2	14.9	7.8	2.8	2.9	1.0	2.6	2.1	0.7

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	7.9

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.5	0.3	0.0	0.0	0.2	0.2	0.2
Total Del/Veh (s)	2.8	2.0	3.5	2.4	11.9	9.2	4.2

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.1	3.1	0.6	3.3	0.3	0.3	0.3	0.0	0.0	0.0
Total Del/Veh (s)	4.7	4.9	2.9	3.6	2.5	0.5	45.0	42.6	35.4	89.9	35.1	83.7

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.4
Total Del/Veh (s)	23.1

6: MN 25 & Future Roadway (West Access) Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	38.9	38.6	0.9	3.1	0.0	0.0	4.9
Total Del/Veh (s)	537.1	509.2	3.8	1.0	18.7	8.4	64.2

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.5	0.4	0.3
Total Del/Veh (s)	3.8	2.2	4.1	4.0	24.7	20.4	14.6

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.4	0.4	0.0	0.0	0.0	0.2
Total Del/Veh (s)	14.1	10.9	1.8	2.4	0.4	7.3

Total Network Performance

Denied Del/Veh (s)	2.6
Total Del/Veh (s)	53.5

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	180	60	169	186	273	50	158	166	24	155	245	214
Average Queue (ft)	71	16	86	49	56	13	70	72	3	59	135	66
95th Queue (ft)	140	46	148	121	200	35	141	143	13	117	227	177
Link Distance (ft)		912		2210			823	823			1230	1230
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		300	500			500	550		
Storage Blk Time (%)					0							
Queuing Penalty (veh)					0							

Intersection: 1: MN 25 & 85th St NE

Movement	SB
Directions Served	R
Maximum Queue (ft)	34
Average Queue (ft)	5
95th Queue (ft)	19
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	500
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	238	127	55	46
Average Queue (ft)	80	52	8	7
95th Queue (ft)	188	96	32	30
Link Distance (ft)	2320	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	73	8	151
Average Queue (ft)	8	0	58
95th Queue (ft)	43	6	108
Link Distance (ft)	2117	4079	1923
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	EB	WB	WB	NB	SB
Directions Served	L	T	R	L	R	LTR	LTR
Maximum Queue (ft)	43	2	9	60	8	242	463
Average Queue (ft)	9	0	0	20	0	98	222
95th Queue (ft)	30	2	5	44	3	200	500
Link Distance (ft)		4079				604	1936
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	300		300	300	300		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 6: MN 25 & Future Roadway (West Access)

Movement	WB	NB	SB	B3	B3
Directions Served	LR	T	L	T	
Maximum Queue (ft)	1643	13	119	37	39
Average Queue (ft)	946	1	49	1	1
95th Queue (ft)	1909	8	99	14	14
Link Distance (ft)	1786	1198		823	823
Upstream Blk Time (%)	13				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)			250		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 8: North Access & 85th St NE

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	14	47	530
Average Queue (ft)	1	8	189
95th Queue (ft)	8	30	429
Link Distance (ft)	2210	2320	1025
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Edmonson Ave & East Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	235
Average Queue (ft)	109
95th Queue (ft)	197
Link Distance (ft)	846
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	17.3	19.1	23.4	85.1	85.0	79.9	3.3	0.5	0.4	0.2	0.2	0.2
Total Del/Veh (s)	137.3	233.2	217.7	172.6	95.8	91.2	14.1	15.8	11.1	16.6	16.3	12.1

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	43.9
Total Del/Veh (s)	123.8

Total Network Performance

Denied Del/Veh (s)	43.9
Total Del/Veh (s)	125.4

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	450	1552	450	1348	105	135	137
Average Queue (ft)	97	764	364	794	50	65	67
95th Queue (ft)	389	1625	578	1707	87	107	110
Link Distance (ft)		1504		1292		966	918
Upstream Blk Time (%)		14		36			
Queuing Penalty (veh)		0		0			
Storage Bay Dist (ft)	400		400		200		
Storage Blk Time (%)		60	61	2			
Queuing Penalty (veh)		9	216	9			

Network Summary

Network wide Queuing Penalty: 235

3: Fallon Avenue & School Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	153.5	155.4	151.2	2.8	0.7	0.8	2.8	0.4	0.5	0.4	0.3	0.3
Total Del/Veh (s)	226.9	345.4	329.3	14.1	36.7	32.3	20.5	44.4	43.5	26.2	28.9	21.4

3: Fallon Avenue & School Boulevard Performance by movement

Movement	All
Denied Del/Veh (s)	46.5
Total Del/Veh (s)	114.5

Total Network Performance

Denied Del/Veh (s)	46.5
Total Del/Veh (s)	116.3

Intersection: 3: Fallon Avenue & School Boulevard

Movement	EB	EB	WB	WB	NB	NB	SB
Directions Served	L	TR	L	TR	L	TR	LTR
Maximum Queue (ft)	450	1446	106	369	225	446	234
Average Queue (ft)	251	1167	51	176	69	188	112
95th Queue (ft)	614	1802	85	303	203	374	199
Link Distance (ft)		1401		1493		1054	918
Upstream Blk Time (%)		56					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)	400		400		200		
Storage Blk Time (%)		90		0	0	22	
Queuing Penalty (veh)		38		0	0	12	

Network Summary

Network wide Queuing Penalty: 50

Operational Results

2045 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	271		715		187	803		0.3377	
2	NB MN 25	None	665		265		721	1014		0.6556	
3	WB CSAH 37	None	300		632		298	785		0.3822	
4	SB MN 25	None	597		305		627	1008		0.5924	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	6.24		6.24	1.55		A		A
2	NB MN 25	None	8.71		8.71	5.50		A		A
3	WB CSAH 37	None	6.42		6.42	1.75		A		A
4	SB MN 25	None	7.74		7.74	4.32		A		A

Global Results

Performance and Accidents

2045 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1833		1833
Capacity	veh/hr	3609		3609
Average Delay	sec/veh	7.65		7.65
L.O.S. (Signal)	A – F	A		A
L.O.S. (Unsig)	A – F	A		A
Total Delay	veh.hrs	3.90		3.90

Operational Results

2045 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	EB CSAH 37	None	252		886		357	721		0.3493	
2	NB MN 25	None	1020		248		890	1083		0.9422	
3	WB CSAH 37	None	371		896		365	695		0.5337	
4	SB MN 25	None	885		361		906	1041		0.8505	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	EB CSAH 37	None	7.00		7.00	1.64		A		A
2	NB MN 25	None	35.73		35.73	45.00		E		E
3	WB CSAH 37	None	9.57		9.57	3.35		A		A
4	SB MN 25	None	20.89		20.89	21.74		C		C

Global Results

Performance and Accidents

2045 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	2528		2528
Capacity	veh/hr	3540		3540
Average Delay	sec/veh	23.83		23.83
L.O.S. (Signal)	A – F	C		C
L.O.S. (Unsig)	A – F	C		C
Total Delay	veh.hrs	16.74		16.74

Operational Results

2045 AM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	SB Fallon Ave	None	186		850		179	662		0.2810	
2	EB School Blvd	None	420		502		535	846		0.4966	
3	NB Fallon Ave	None	329		324		598	939		0.3503	
4	WB School Blvd	None	768		262		391	972		0.7902	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	SB Fallon Ave	None	9.34		9.34	1.15		A		A
2	EB School Blvd	None	10.96		10.96	2.81		B		B
3	NB Fallon Ave	None	8.08		8.08	1.50		A		A
4	WB School Blvd	None	18.78		18.78	10.21		C		C

Global Results

Performance and Accidents

2045 AM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1703		1703
Capacity	veh/hr	3419		3419
Average Delay	sec/veh	12.75		12.75
L.O.S. (Signal)	A – F	B		B
L.O.S. (Unsig)	A – F	B		B
Total Delay	veh.hrs	6.03		6.03

Operational Results

2045 PM Peak - 60 minutes

Flows and Capacity

Leg	Leg Names	Bypass Type	Flows (veh/hr)					Capacity (veh/hr)			
			Arrival Flow		Opposing Flow		Exit Flow	Capacity		Average VCR	
			Entry	Bypass	Entry	Bypass		Entry	Bypass	Entry	Bypass
1	SB Fallon Ave	None	308		605		181	791		0.3892	
2	EB School Blvd	None	557		398		515	900		0.6187	
3	NB Fallon Ave	None	416		605		350	791		0.5257	
4	WB School Blvd	None	610		176		845	1017		0.5997	

Delays, Queues and Level of Service

Leg	Leg Names	Bypass Type	Average Delay (sec)			95% Queue (veh)		Level of Service		
			Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Leg
1	SB Fallon Ave	None	9.66		9.66	1.74		A		A
2	EB School Blvd	None	13.06		13.06	4.27		B		B
3	NB Fallon Ave	None	12.06		12.06	3.01		B		B
4	WB School Blvd	None	11.60		11.60	3.88		B		B

Global Results

Performance and Accidents

2045 PM Peak Global Performance

Parameter	Units	Entries	Bypasses	Total
Arrive Flows	veh/hr	1891		1891
Capacity	veh/hr	3500		3500
Average Delay	sec/veh	10.81		10.81
L.O.S. (Signal)	A – F	B		B
L.O.S. (Unsig)	A – F	B		B
Total Delay	veh.hrs	5.68		5.68

Appendix K:

Mitigated Design Year (2045) Build Scenario 2 SimTraffic Report

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.9	0.3	3.8	0.2	0.0	0.1	0.0	0.0	0.0	2.6	0.9	2.6
Total Del/Veh (s)	33.0	23.0	2.4	32.6	27.9	5.0	7.6	9.5	2.5	22.9	15.8	2.1

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	1.0
Total Del/Veh (s)	14.8

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.2	0.2	0.2
Total Del/Veh (s)	7.8	11.9	5.9	10.5	14.0	9.8	1.6	1.6	0.2	1.7	2.5	0.6

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.2
Total Del/Veh (s)	6.7

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.4	0.3	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	3.3	1.4	5.1	2.9	8.0	5.3	3.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	3.0	0.8	3.0	3.9	0.2	0.2	0.0	0.0	0.0
Total Del/Veh (s)	5.1	3.4	2.2	2.3	2.2	0.7	14.8	16.6	5.2	13.6	8.9	5.0

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.8
Total Del/Veh (s)	4.1

6: MN 25 & Future Roadway (West Access) Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	2.8	0.2	0.7	2.3	0.1	0.0	0.4
Total Del/Veh (s)	45.9	10.9	3.2	1.1	14.6	7.9	6.8

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.0
Total Del/Veh (s)	6.6	3.6	10.0	8.0	18.4	10.7	7.8

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.6	4.4	4.8	5.5	4.9	1.3	4.1

Total Network Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	21.3

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	L	T	L	T	T	R	L	T	T	R
Maximum Queue (ft)	149	33	74	47	17	154	130	54	275	238	177	29
Average Queue (ft)	64	5	30	11	2	52	62	8	126	116	49	3
95th Queue (ft)	120	23	67	36	9	110	122	29	231	199	143	15
Link Distance (ft)		910		2179		813	813			1229	1229	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		500			500	550			500
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	79	127	64	25
Average Queue (ft)	43	63	5	1
95th Queue (ft)	71	108	32	11
Link Distance (ft)	2351	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	98	15	97
Average Queue (ft)	9	1	36
95th Queue (ft)	48	9	76
Link Distance (ft)	2117	4073	1313
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	T	R	L	TR	L	TR
Maximum Queue (ft)	54	46	3	13	43	76	63	82
Average Queue (ft)	16	9	0	1	8	36	18	36
95th Queue (ft)	40	32	2	5	30	65	45	70
Link Distance (ft)			1797			606		1934
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	300	300		300	250		250	
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 6: MN 25 & Future Roadway (West Access)

Movement	WB	WB	NB	NB	SB	SB	B14
Directions Served	L	R	T	R	L	T	T
Maximum Queue (ft)	53	114	4	9	148	86	22
Average Queue (ft)	10	45	0	0	56	5	1
95th Queue (ft)	33	92	3	6	110	56	12
Link Distance (ft)		1922	2309			4821	813
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	250			275	150		
Storage Blk Time (%)					1	0	
Queuing Penalty (veh)					4	0	

Intersection: 8: North Access & 85th St NE

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	47	139	206
Average Queue (ft)	8	51	80
95th Queue (ft)	32	99	146
Link Distance (ft)	2179	2351	966
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: Edmonson Ave & East Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	111	113	22
Average Queue (ft)	47	42	4
95th Queue (ft)	84	87	18
Link Distance (ft)	1116	1968	1807
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 4

1: MN 25 & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	3.9	0.3	4.0	2.7	0.7	2.6	0.0	0.0	0.0	2.7	0.7	2.6
Total Del/Veh (s)	66.3	53.8	2.9	64.8	57.3	10.2	12.8	8.3	1.2	17.4	12.7	2.3

1: MN 25 & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	1.0
Total Del/Veh (s)	14.4

2: Edmonson Ave & 85th St NE Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.2
Total Del/Veh (s)	16.3	19.1	12.7	11.5	14.7	9.0	2.7	2.8	1.0	1.9	2.0	0.5

2: Edmonson Ave & 85th St NE Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	7.5

4: CSAH 37 & Davidson Ave Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.2	0.3	0.0	0.0	0.2	0.2	0.2
Total Del/Veh (s)	2.4	2.0	3.5	2.8	11.7	8.4	4.2

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.0	3.2	0.6	3.4	3.9	0.4	0.3	0.0	0.0	0.0
Total Del/Veh (s)	5.7	5.0	2.7	4.3	2.4	0.4	24.8	54.2	40.4	52.8	9.7	8.5

5: Edmonson Ave & CSAH 37 Performance by movement

Movement	All
Denied Del/Veh (s)	0.5
Total Del/Veh (s)	14.2

6: MN 25 & Future Roadway (West Access) Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Del/Veh (s)	2.8	0.3	0.9	2.6	0.0	0.0	0.5
Total Del/Veh (s)	321.3	53.3	4.4	1.1	29.1	7.9	20.9

8: North Access & 85th St NE Performance by movement

Movement	EBT	EBR	WBL	WBT	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)	3.7	2.4	3.7	2.9	4.2	3.4

9: Edmonson Ave & East Access Performance by movement

Movement	EBL	EBR	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.4	0.0	0.0	0.0	0.2
Total Del/Veh (s)	14.5	11.3	1.9	2.5	0.4	7.5

Total Network Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	31.2

Intersection: 1: MN 25 & 85th St NE

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	143	67	170	117	308	42	178	178	22	159	210	201
Average Queue (ft)	60	18	85	43	87	13	78	75	2	66	128	64
95th Queue (ft)	117	49	157	95	265	33	156	151	12	133	203	170
Link Distance (ft)		912		2210			823	823			1230	1230
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	375		300		300	500			500	550		
Storage Blk Time (%)					0							
Queuing Penalty (veh)					1							

Intersection: 1: MN 25 & 85th St NE

Movement	SB
Directions Served	R
Maximum Queue (ft)	45
Average Queue (ft)	5
95th Queue (ft)	21
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	500
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Edmonson Ave & 85th St NE

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	196	117	36	48
Average Queue (ft)	80	49	5	5
95th Queue (ft)	154	87	23	22
Link Distance (ft)	2320	1108	1056	1236
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: CSAH 37 & Davidson Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	60	6	127
Average Queue (ft)	6	0	56
95th Queue (ft)	32	5	99
Link Distance (ft)	2117	4073	1923
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Edmonson Ave & CSAH 37

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	R	L	R	L	TR	L	TR
Maximum Queue (ft)	40	8	60	5	115	266	220	151
Average Queue (ft)	7	0	23	0	28	100	84	57
95th Queue (ft)	27	5	49	4	98	213	173	108
Link Distance (ft)						606		1934
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	300	300	300	300	250		250	
Storage Blk Time (%)						3	1	0
Queuing Penalty (veh)						1	1	0

Intersection: 6: MN 25 & Future Roadway (West Access)

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	R	L	T
Maximum Queue (ft)	285	434	4	4	204	66
Average Queue (ft)	142	160	0	0	64	0
95th Queue (ft)	297	389	3	4	147	0
Link Distance (ft)		1780	1198			4808
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	250			250	250	
Storage Blk Time (%)	13	7			0	
Queuing Penalty (veh)	24	5			3	

Intersection: 8: North Access & 85th St NE

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	67	79
Average Queue (ft)	9	45
95th Queue (ft)	40	70
Link Distance (ft)	2320	1025
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Edmonson Ave & East Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	233
Average Queue (ft)	112
95th Queue (ft)	195
Link Distance (ft)	846
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 35

Appendix L:

Turn Lane Warrant Analysis

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

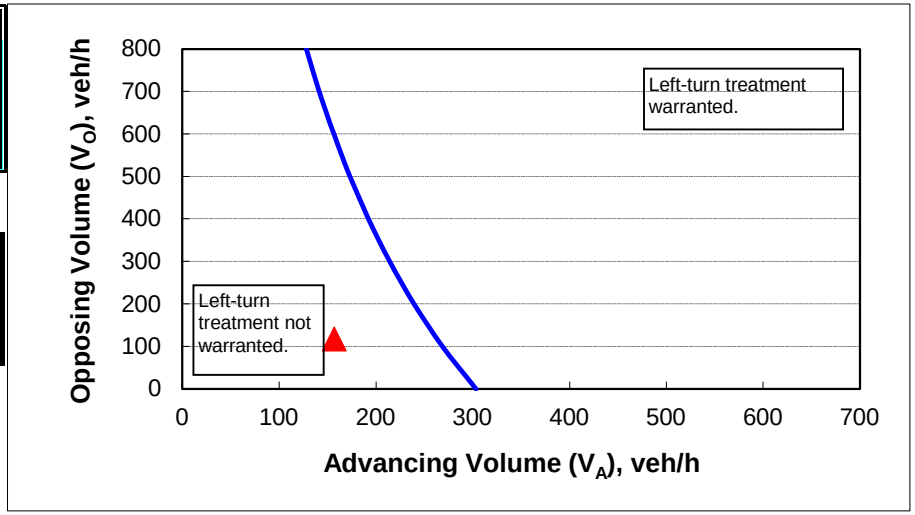
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	29%
Advancing volume (V_A), veh/h:	157
Opposing volume (V_O), veh/h:	117

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	263
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Edmonson Avenue & East Access NBL - 2045 Scenario 1 (AM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

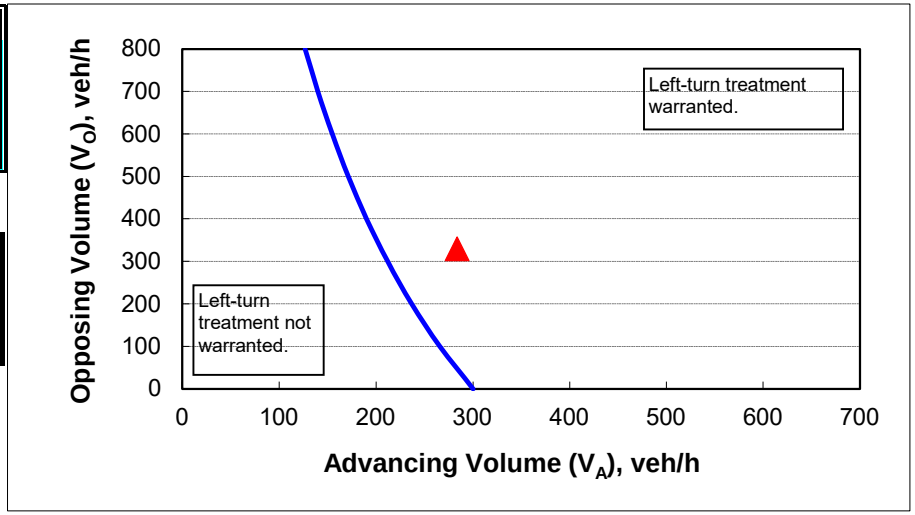
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	70%
Advancing volume (V_A), veh/h:	284
Opposing volume (V_O), veh/h:	329

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	205
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Edmonson Avenue & East Access - 2030 Scenario 2 (AM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

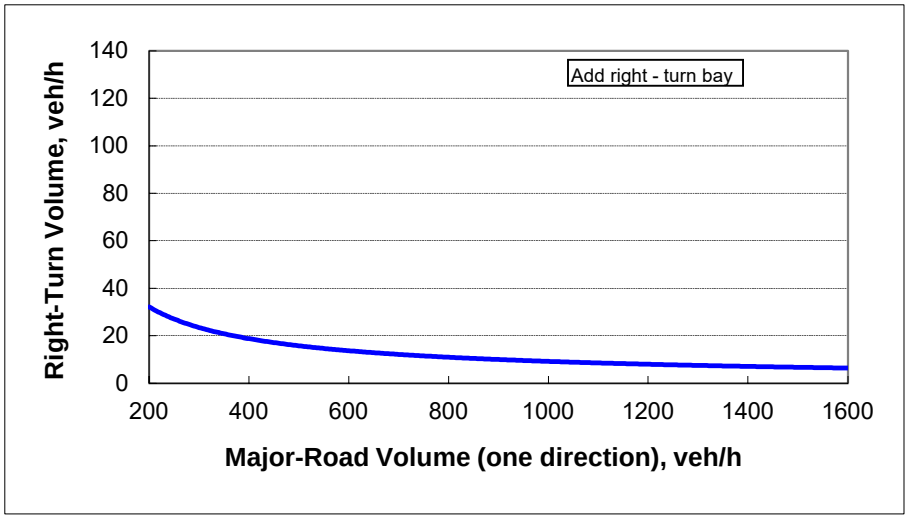
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	99
Right-turn volume, veh/h:	36

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	55
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Edmonson Avenue & East Access SBR - 2030 Scenario 1 (AM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

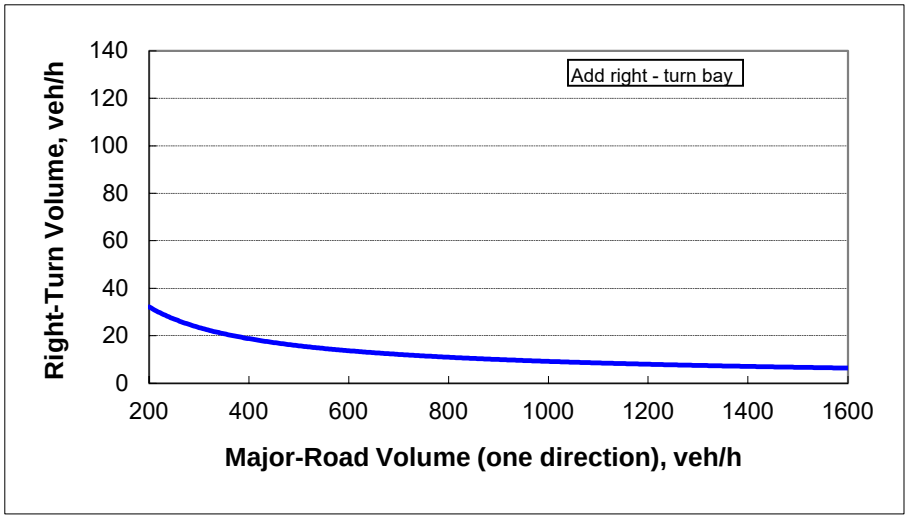
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	117
Right-turn volume, veh/h:	36

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	49
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Edmonson Avenue & East Access SBR - 2045 Scenario 1 (AM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

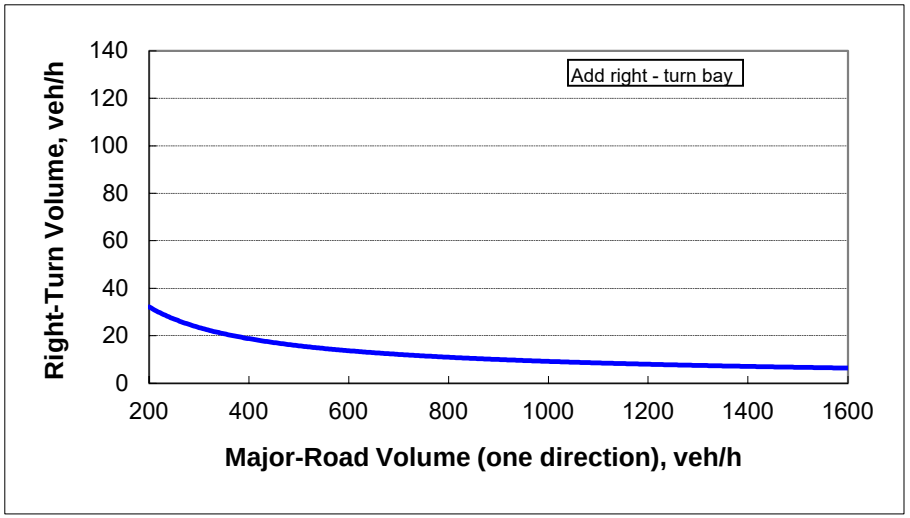
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	329
Right-turn volume, veh/h:	266

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	22
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



Edmonson Avenue & East Access SBR - 2030 Scenario 2 (AM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

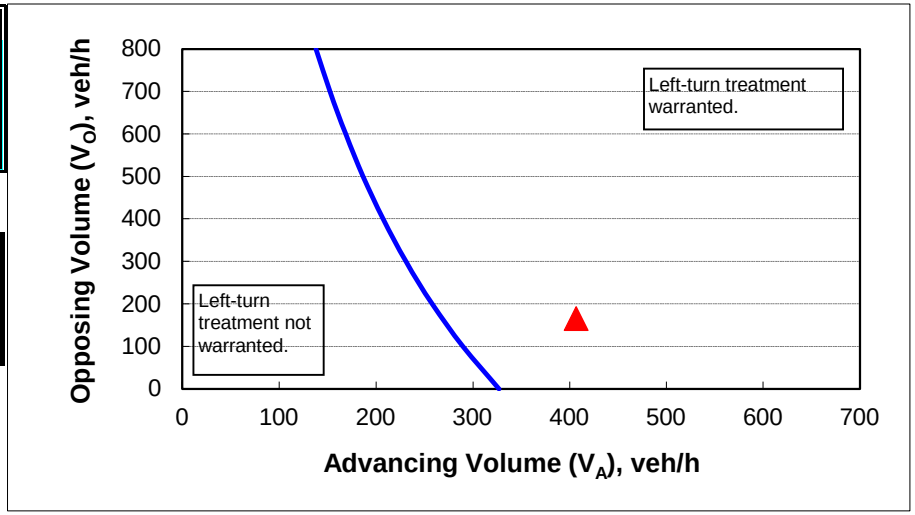
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	23%
Advancing volume (V_A), veh/h:	407
Opposing volume (V_O), veh/h:	165

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	268
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Edmonson Avenue & 85th Street NBL - 2030 Scenario 2 (PM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

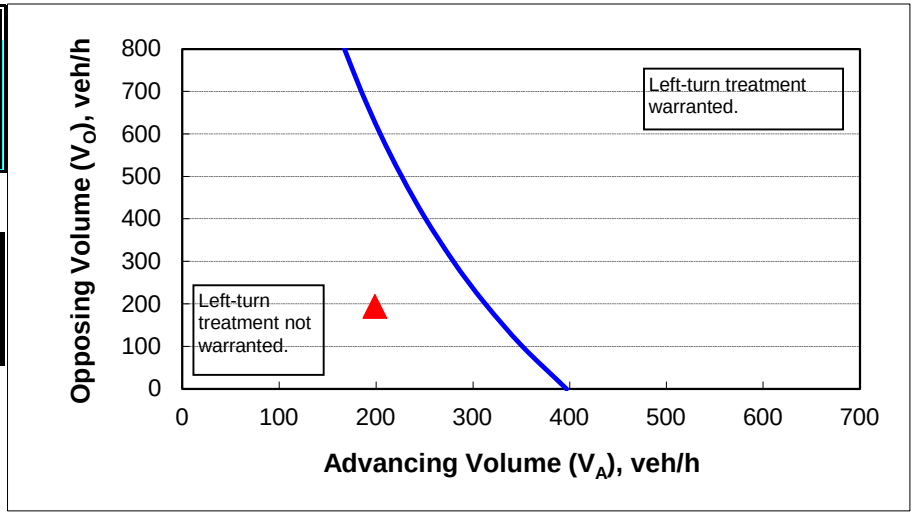
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	14%
Advancing volume (V_A), veh/h:	199
Opposing volume (V_O), veh/h:	194

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	315
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Edmonson Avenue & 85th Street NBL - 2045 No-Build (PM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

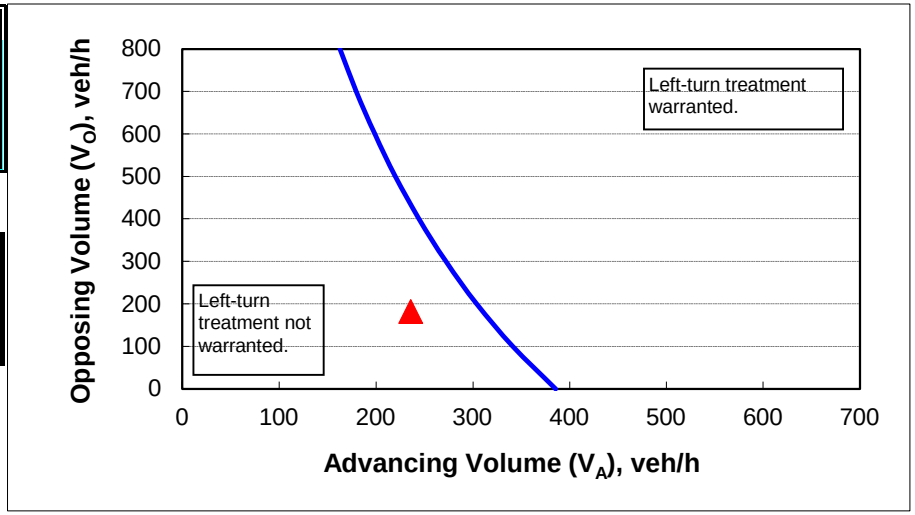
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	15%
Advancing volume (V_A), veh/h:	236
Opposing volume (V_O), veh/h:	182

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	310
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Edmonson Avenue & 85th Street NBL - 2045 Scenario 1 (PM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

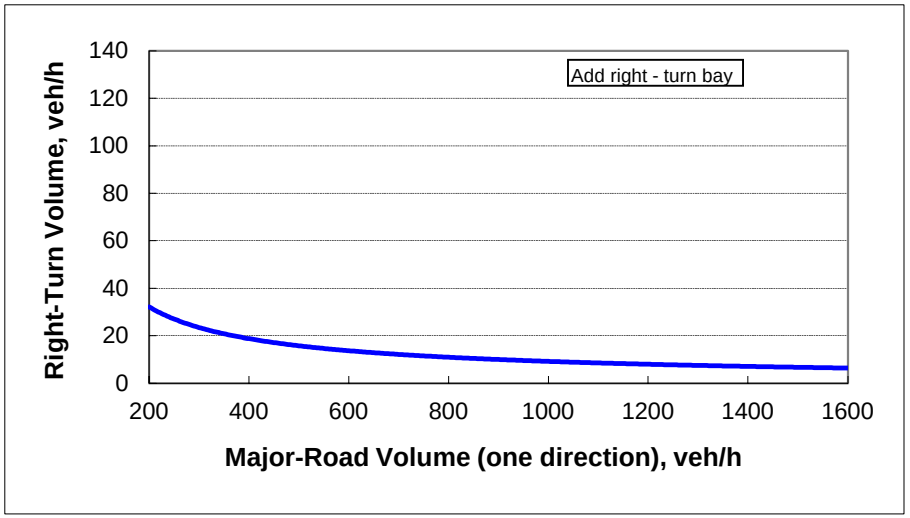
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	192
Right-turn volume, veh/h:	38

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	33
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



Edmonson Avenue & 85th Street NBR - 2030 Scenario 1 (PM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

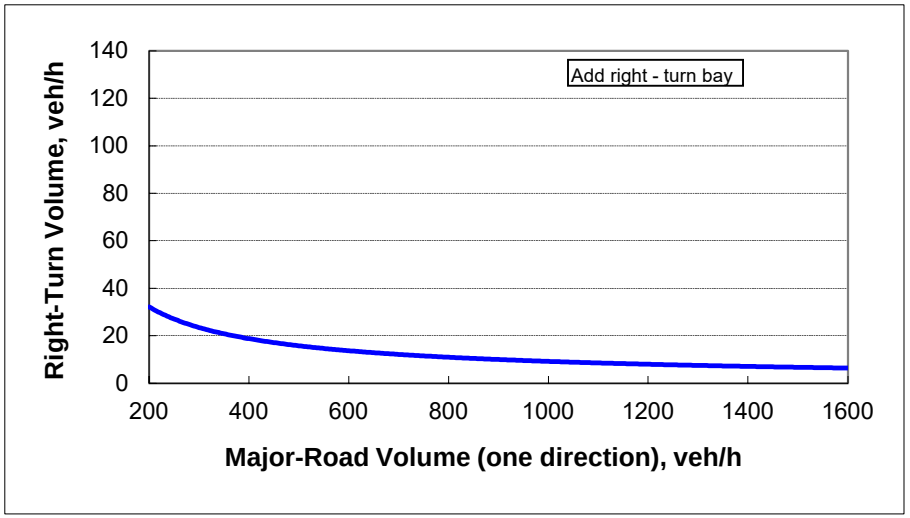
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	199
Right-turn volume, veh/h:	24

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	32
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Edmonson Avenue & 85th Street NBR - 2045 No-Build (PM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

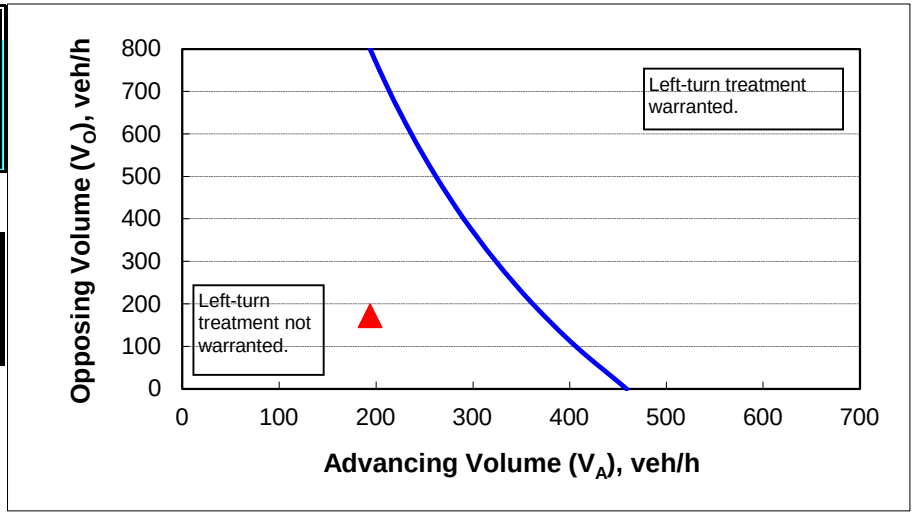
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	10%
Advancing volume (V_A), veh/h:	194
Opposing volume (V_O), veh/h:	172

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	374
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Edmonson Avenue & 85th Street SBL - 2045 No-Build (PM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

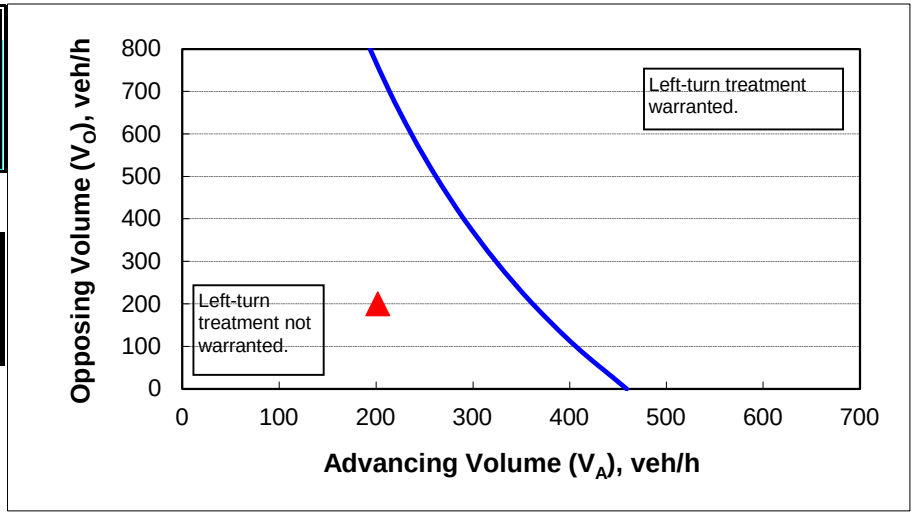
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	10%
Advancing volume (V_A), veh/h:	202
Opposing volume (V_O), veh/h:	200

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	362
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Edmonson Avenue & 85th Street SBL - 2045 Scenario 1 (PM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

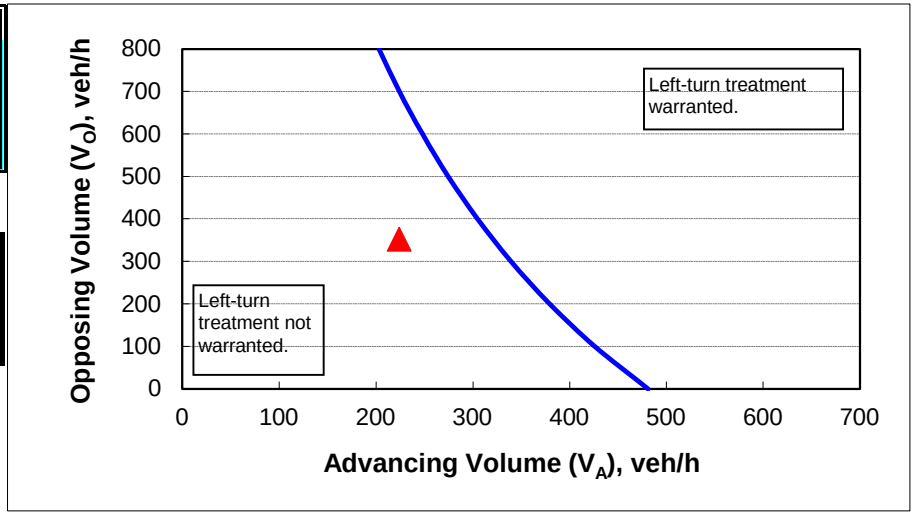
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	9%
Advancing volume (V_A), veh/h:	224
Opposing volume (V_O), veh/h:	352

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	321
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Edmonson Avenue & 85th Street SBL - 2045 Scenario 2 (PM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

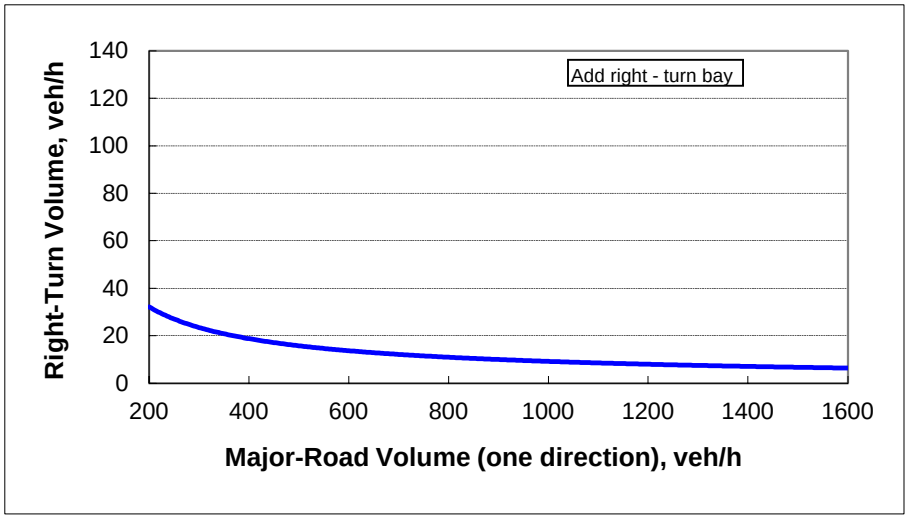
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	180
Right-turn volume, veh/h:	28

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	35
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Edmonson Avenue & 85th Street SBR - 2030 Scenario 2 (PM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

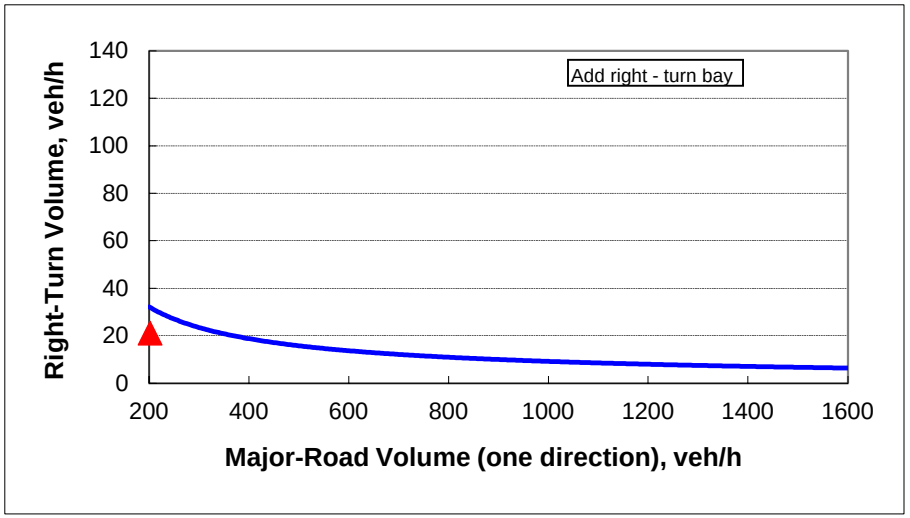
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	202
Right-turn volume, veh/h:	21

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	32
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Edmonson Avenue & 85th Street SBR - 2045 Scenario 1 (PM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

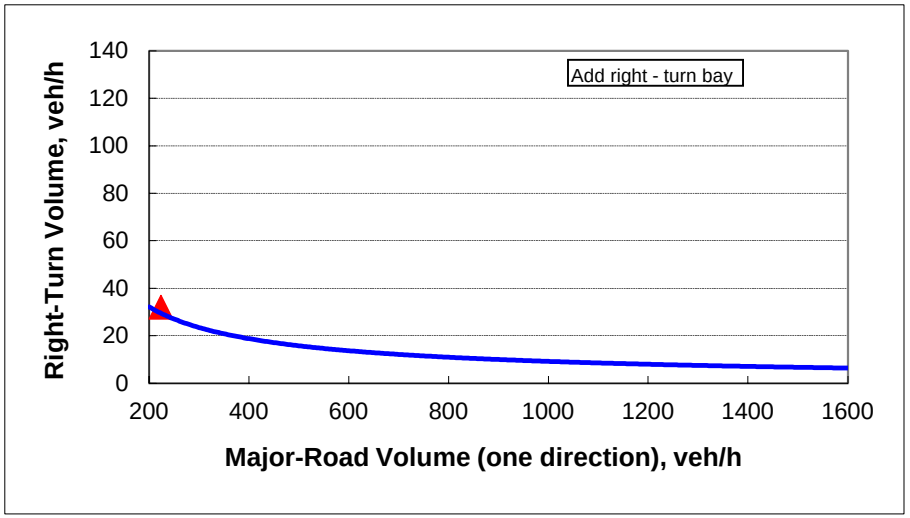
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	224
Right-turn volume, veh/h:	32

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	29
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



Edmonson Avenue & 85th Street SBR - 2045 Scenario 2 (PM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

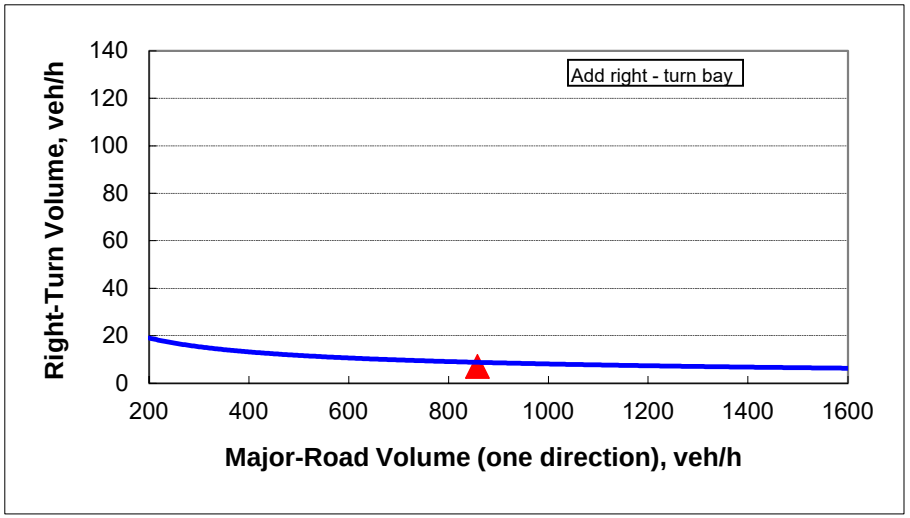
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	858
Right-turn volume, veh/h:	7

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	9
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



MN 25 & Future Roadway (Proposed Collector) NBR - 2045 NB (PM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

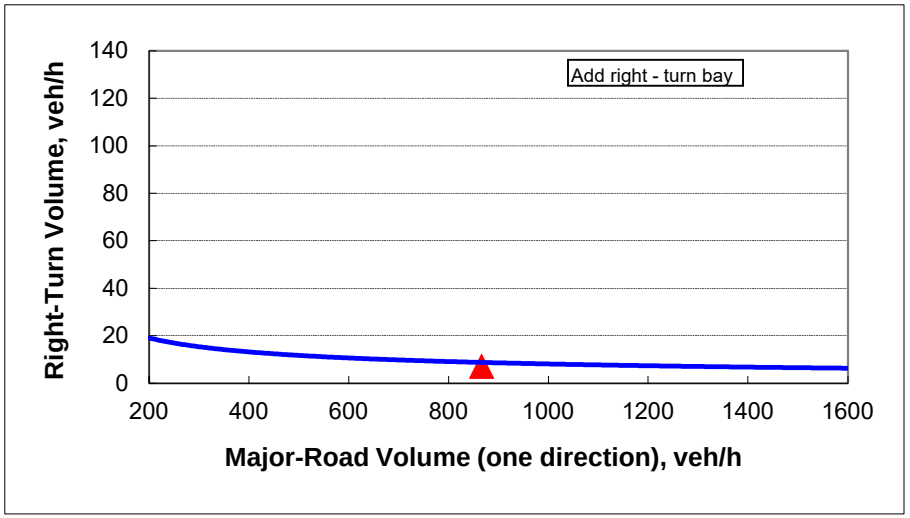
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	866
Right-turn volume, veh/h:	7

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	9
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



MN 25 & Future Roadway (Proposed Collector) - 2045 Scenario 1 (PM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

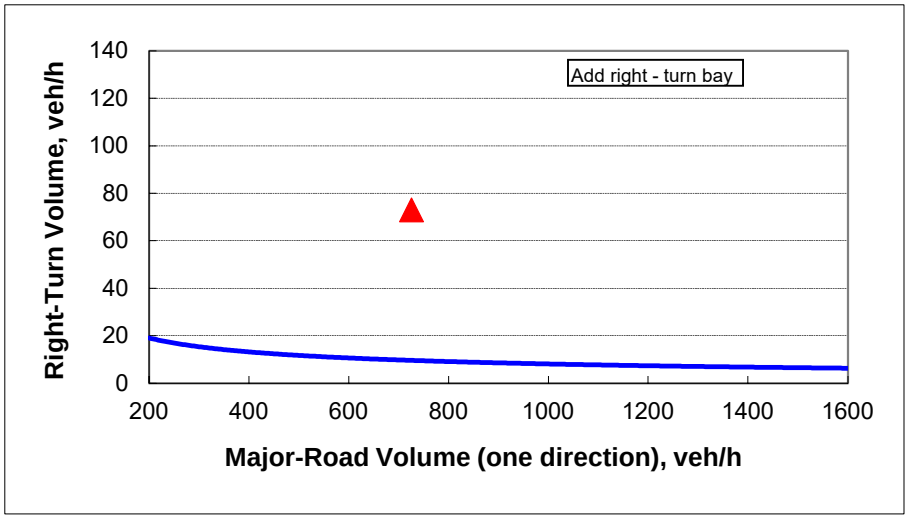
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	726
Right-turn volume, veh/h:	73

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	10
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



MN 25 & Future Roadway (Proposed Collector) NBR - 2045 Scenario 2 (AM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

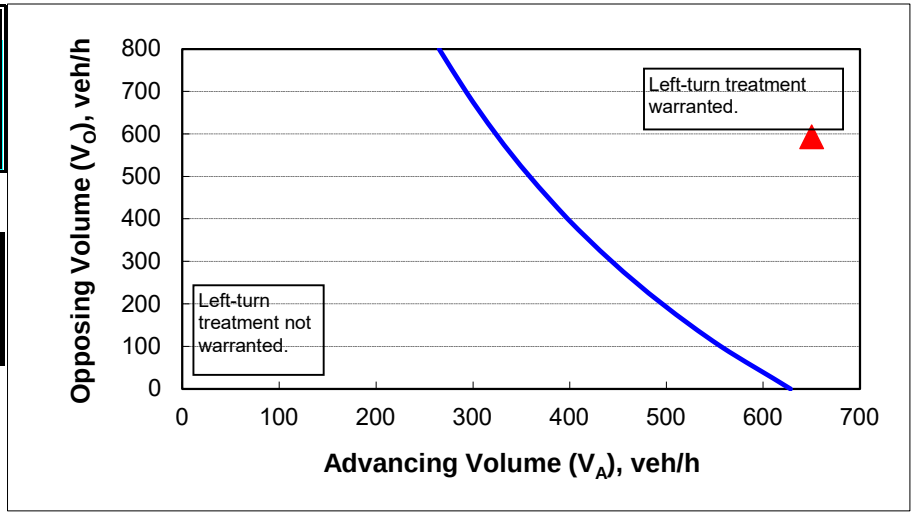
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	650
Opposing volume (V_O), veh/h:	593

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	326
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

MN 25 & Future Roadway (Proposed Collector) SBL - 2045 No-Build (AM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

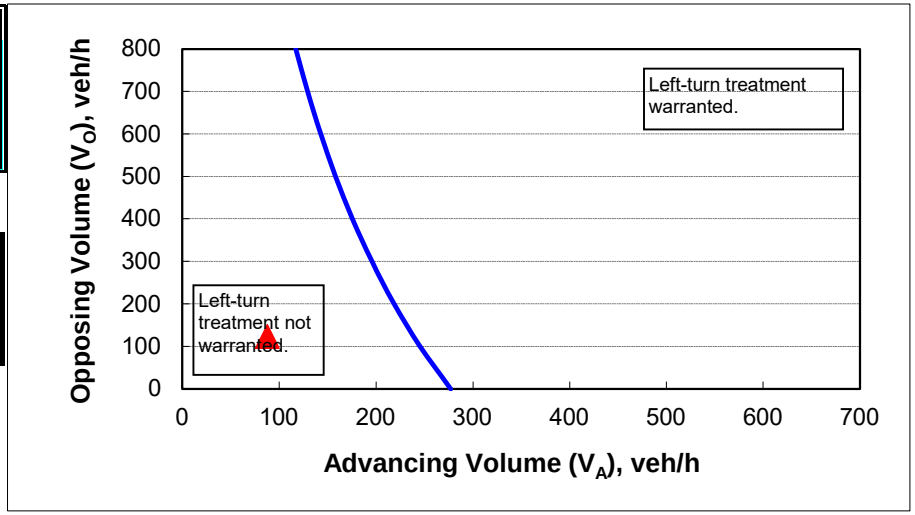
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	44%
Advancing volume (V_A), veh/h:	88
Opposing volume (V_O), veh/h:	123

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	239
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

85th Street & North Access - 2045 Scenario 1 (AM Peak)

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

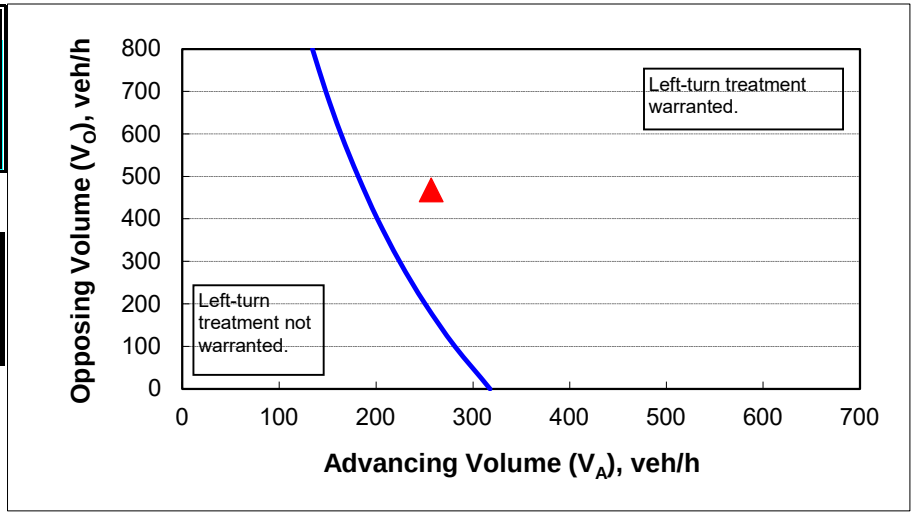
2-lane roadway (English)

INPUT

Variable	Value
85th percentile speed, mph:	55
Percent of left-turns in advancing volume (V_A), %:	75%
Advancing volume (V_A), veh/h:	257
Opposing volume (V_O), veh/h:	468

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	188
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

85th Street & North Access WBL - 2030 Scenario 2 (AM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

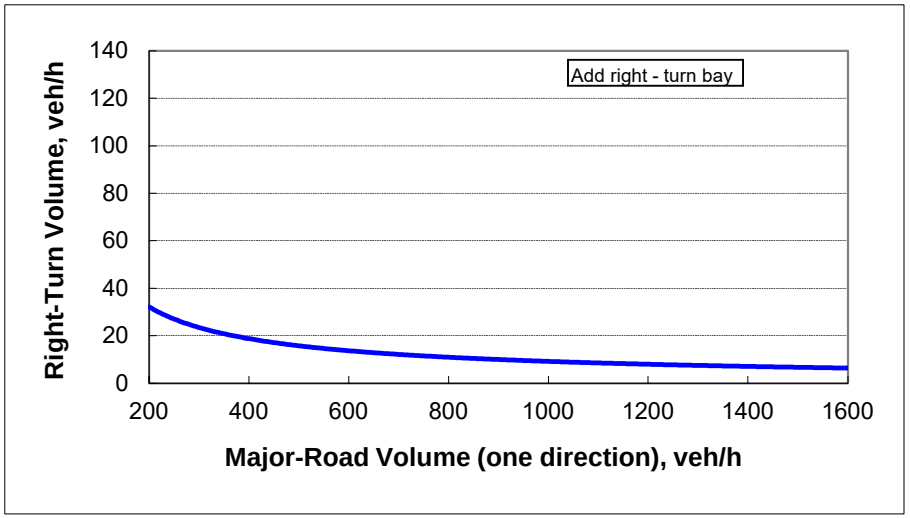
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	114
Right-turn volume, veh/h:	73

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	50
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



85th Street & North Access EBR - 2030 Scenario 1 (AM Peak)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

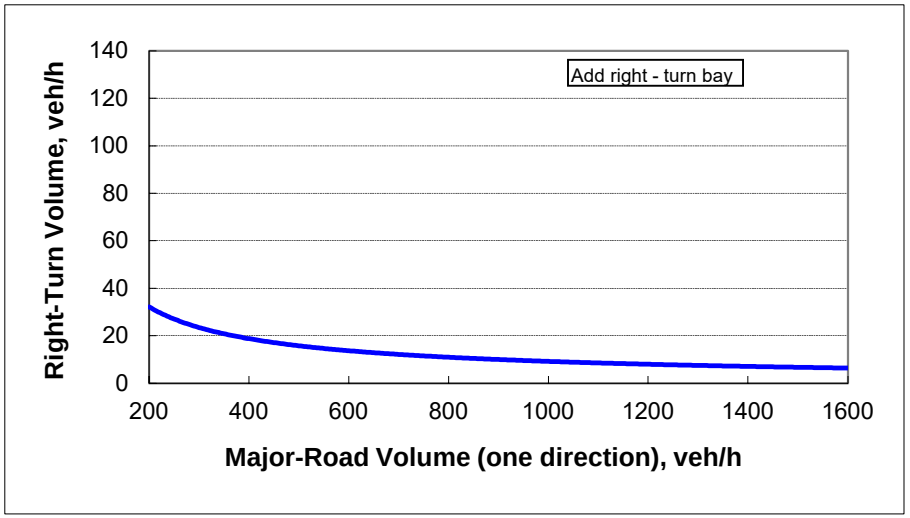
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, mph:	55
Major-road volume (one direction), veh/h:	468
Right-turn volume, veh/h:	363

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	17
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



85th Street & North Access EBR - 2030 Scenario 2 (AM Peak)

MEMORANDUM

To: City of Monticello

From: Jacob Rojer, P.E., PTOE

Date: October 14, 2025

Subject: Monticello Industrial Construction Conditions Analysis (Scenario 1)

INTRODUCTION

The proposed Monticello Industrial development is located west of Edmonson Avenue, east of Davidson Avenue, and south of 85th Street in Monticello, MN. The site is currently undergoing the AUAR process with two development scenarios being analyzed: a Technology Park (Scenario 1) and an Industrial Park (Scenario 2). This memorandum is focused on the construction period of Scenario 1 (Technology Park). The construction period is anticipated to see significantly higher trip generation than the typical operations of this type of development. No construction analysis was conducted for Scenario 2, as the construction is anticipated to be less trip-intensive than the typical operations of this development type.

Construction trip generation of the development was approximated, and the trips were assigned to the network to determine the Peak Construction Conditions (2030) traffic volumes. A capacity analysis was then conducted for this scenario to determine the impacts of the projected construction traffic on the roadway network.

EXISTING ROADWAY CHARACTERISTICS

The characteristics of the major roadways near the proposed development are given below. Nearby roadways include County Roads, County State Aid Highways (CSAHs), a US Highway, and local roads.

85th Street NE (or CR 106 West of MN 25) is an east-west roadway that serves as the northern boundary of the AUAR area. It is a two-lane undivided roadway with dedicated right- and left-turn lanes at the intersection with MN 25. 85th Street NE is classified as a major collector, according to the *Monticello 2040 Vision + Plan*. According to the MnDOT Traffic Mapping Application, the existing Annual Average Daily Traffic (AADT) along 85th Street is approximately 1,797 vehicles per day (vpd) west of MN 25, as of 2024. No AADT data is available east of MN 25. The posted speed limit is 45 mph west of MN 25. There is no posted speed limit east of MN 25, and therefore the statutory speed limit is 55 mph.

Minnesota State Highway 25 (MN 25) is a generally north-south state highway that runs west of the AUAR area. It is a two-lane undivided roadway about 1000' south of 85th Street, where it transitions to a four-lane divided roadway to the north. There are dedicated left and right turn lanes at the intersections with 85th street NE and CSAH 37. MN 25 is classified as Principal Arterial - other,

according to the *Monticello 2040 Vision + Plan*. According to the MnDOT Traffic Mapping Application, the existing Annual Average Daily Traffic (AADT) along 85th Street is approximately 15,009 vehicles per day (vpd) north of 85th Street, as of 2024. The posted speed limit is 60 mph.

Edmonson Avenue NE (CR 117) is a north-south roadway that serves as the eastern boundary of the AUAR area. It is a two-lane undivided roadway that connects to the AUAR site via 85th Street NE. There are no existing turn lanes along this road. Edmonson Avenue NE is classified as a minor collector according to the *Monticello 2040 Vision + Plan*. Edmonson Avenue NE has an AADT of 1,808 vpd north of CSAH 37 and 1,930 vpd north of 85th Street NE. The posted speed limit is 55 mph.

CSAH 37 is an east-west County State Aid Highway (CSAH) located south of the AUAR area. It is a two-lane undivided roadway. CSAH 37 is classified as a major collector south of the AUAR area according to page 99 of the 2045 Monticello Comprehensive Plan. According to the MnDOT Traffic Mapping Application, the road has an AADT of approximately 4,873 vpd west of Edmonson Avenue as of 2024. The posted speed limit is 55 mph.

Davidson Avenue NE is a north-south roadway that serves as the western boundary of the AUAR area. It is a two-lane undivided local roadway with no turn lanes. There is no AADT data available for Davidson Avenue NE and there is no posted speed limit. The speed limit was assumed to be 45 mph for analysis purposes.

School Boulevard is a three-lane undivided east-west roadway with one travel lane in each direction and a shared left turn lane. School Boulevard is classified as a minor arterial, according to the *Monticello 2040 Plan.* MnDOT reports an AADT of 5,994 west of Edmonson Avenue and 6,464 west of Fenning Avenue, as of 2024. The posted speed limit is 40 mph, with a school speed limit of 30 mph enforced when children are present.

Fallon Avenue is a two-lane undivided north-south roadway. Fallon Avenue is classified as a local road according to the *Monticello 2040 Plan*. MnDOT reports an AADT of 3,847 north of School Boulevard, as of 2024. The posted speed limit is 30 mph.

STUDY AREA & INTERSECTION IMPROVEMENTS

The AUAR traffic study included a Traffic Impact Assessment of the following study intersections:

- MN 25 & 85th Street NE (Signal)
- Edmonson Avenue NE & 85th Street NE (Side-Street Stop)
- MN 25 & County Road 37 (Signal; Future Roundabout)
- County Road 37 & Davidson Drive (Side-Street Stop)
- County Road 37 & Edmonson Drive (Side-Street Stop)
- School Boulevard & Fallon Avenue (All-Way Stop)

There are plans for corridor improvements along MN 25 near the study area, with a corridor study previously conducted for MN 25 between Buffalo and Monticello. Among the improvements that are anticipated to occur, MN 25 & CSAH 37 is anticipated to be converted to a single-lane roundabout in

2026. Additionally, the Davidson Avenue connection to MN 25 is planned to be removed, but this is not assumed to occur by the Opening Year (2030) of the planned development.

DEVELOPMENT CHARACTERISTICS

The proposed Scenario 1 development would include a 3,000,000 square-foot technology park served by two access points: a "North Access" located along 85th Street, and an "East Access" located along Edmonson Avenue.

The Scenario 1 development would have a multi-year construction phase which would generate a higher number of trips than the normal operating conditions of the development itself. For the sake of this analysis, it is assumed that construction trips would be split between the two site access points assumed for the development.

TRIP GENERATION

Trip generation during the site's construction will vary significantly based on factors like the total floor area of the development, the number of buildings in the development, the number of buildings being constructed concurrently, and more. Because limited information about the proposed development is known at this time, trip generation was instead estimated based on data from the Institute of Transportation Engineers' *Trip Generation Manual, 11th Edition,* and construction trip generation of similar sites. Construction conditions of the site should be re-analyzed when site specific characteristics and knowledge of the site construction plans are available.

Based on known trip generation patterns exhibited by sites similar to the proposed Technology Park of Scenario 1, it is estimated that the peak construction trip generation could be approximately twice the peak hour trip generation of typical operations. Furthermore, the vast majority of site trips during the AM peak are expected to be entering trips while the opposite is true for the PM peak (the majority are exiting trips). It was estimated that construction trips would exhibit a 90% entering and 10% exiting split during the AM peak hour and a 10% entering and 90% exiting split during the PM peak hour.

The operational trip generation for Scenario 1 and the estimated Construction trip generation are shown below in **Table 1**. The proposed site construction for Scenario 1 is anticipated to generate a peak of 5,940 daily trips, with 660 AM peak hour trips (595 entering and 65 exiting) and 540 PM peak hour trips (55 entering and 485 exiting).

Table 1 – Trip Generation Comparison

Land Use Description	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Scenario 1 (LUC 160 – Data Center)	192	147	330	81	189	270
Scenario 1 Construction	595	65	660	55	485	540

VOLUME DEVELOPMENT

For the sake of simplicity, the Opening Year (2030) No-Build traffic volumes developed for the TIA were utilized as the background traffic volumes for the Peak Construction Conditions (2030) traffic volumes. The Opening Year (2030) No-Build Traffic Volumes are shown in **Exhibit 1**.

The distribution of traffic to the proposed development was developed based on a review of the nearby roadway characteristics, existing traffic patterns, and professional engineering judgement. The following global distribution was determined for trips entering and exiting the proposed development:

- 35% to/from the north on MN 25
- 30% to/from the east on School Boulevard
- 20% to/from the east on CSAH 37
- 15% to/from the south on MN 25

The full site traffic distribution is shown in **Exhibit 2**. The global traffic distribution was applied to the construction trip generation to determine the site trip assignment for the Scenario 1 construction conditions. The total site trip assignment for construction trips is shown in **Exhibit 3**.

CAPACITY ANALYSIS

A capacity analysis was performed to quantify the delay and level of service at the four study intersections during peak traffic periods. The capacity of an intersection quantifies its ability to accommodate traffic volumes and is measured in average delay per vehicle. It is expressed in terms of level of service (LOS) which ranges from A to F, with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions).

The LOS grades shown below, which are provided in the Transportation Research Board's Highway Capacity Manual (HCM), quantify and categorize the driver's discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 2**. The range of control delay for each rating (as detailed in the HCM) is also shown in **Table 2**. Because signalized intersections are expected to carry a larger volume of vehicles and stopping is required during red time, higher delays are tolerated for the corresponding LOS ratings. HCM guidance states that a roundabout is typically treated as an unsignalized intersection for determining LOS grades.

Table 2 - Level of Service Information

Level of Service	Average Control Delay (seconds/vehicle)	Description
A	0-10 (Unsignalized); 0-10 (Signalized)	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	>10-15 (Unsignalized); >10-20 (Signalized)	Minor control delay at signalized intersections; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.
C	>15-25 (Unsignalized); >20-35 (Signalized)	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.
D	>25-35 (Unsignalized); >35-55 (Signalized)	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	>35-50 (Unsignalized); >55-80 (Signalized)	High control delay; average travel speed no more than 33 percent of free flow speed.
F	>50 (Unsignalized); >80 (Signalized)	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

Capacity analysis was conducted using SimTraffic within Synchro 12 for all signalized and stop-controlled intersections. Analysis of the future roundabout at MN 25 & CSAH 37 was conducted via roundabout analysis software Rodel.

Construction Conditions (2030) Analysis

The construction traffic assignment was determined by multiplying the construction trip generation by the construction traffic distribution. The Construction Conditions (2030) traffic volumes were determined by adding the construction site trips in Exhibit 3 to the 2030 Background traffic volumes in Exhibit 1. The resultant Construction Conditions (2030) traffic volumes are shown in **Exhibit 4**.

Results of the Construction Conditions (2030) analysis are included below in **Table 3**. All study intersections are anticipated to operate at an overall LOS B or better during the AM and PM peak hours and all individual movements/approaches at LOS D or better with the exception of two left turn movements at the signalized MN 25 & 85th Street intersection. The anticipated operating level of the network with the addition of Construction traffic is acceptable.

Table 3: Construction Conditions (2030) Delay and LOS

Intersection	Control	Approach	Operations by Movement							
			AM Peak Hour				PM Peak Hour			
			Left	Through	Right	Overall	Left	Through	Right	Overall
MN 25 & 85th Street	Signal	EB	E (69)	D (44)	A (3)	B (10)	C (31)	C (22)	A (3)	A (9)
		WB	E (57)	D (52)	A (3)		C (31)	C (25)	A (3)	
		NB	A (6)	A (4)	A (1)		A (1)	A (4)	A (1)	
		SB	A (6)	A (9)	A (2)		A (8)	A (10)	A (1)	
Edmonson Avenue & 85th Street	Side Street Stop	EB	A (5)	A (8)	A (3)	A (10)	A (4)	A (9)	A (2)	A (9)
		WB	A (5)	A (10)	A (3)		A (4)	A (9)	A (3)	
		NB	A (1)	A (1)	A (0)		A (1)	A (1)	A (0)	
		SB	A (1)	A (1)	A (0)		A (0)	A (1)	A (0)	
MN 25 & CSAH 37	Round-about	EB	A (5)			A (5)	A (5)			A (8)
		WB	A (5)				A (6)			
		NB	A (5)				A (9)			
		SB	A (5)				A (7)			
CSAH 37 & Davidson Avenue	Side Street Stop	EB	A (5)	A (3)	-	A (5)	A (5)	A (5)	-	A (5)
		WB	-	A (2)	A (2)		-	A (2)	A (1)	
		NB	-	-	-		-	-	-	
		SB	A (5)	A (0)	A (1)		A (4)	A (0)	A (2)	
CSAH 37 & Edmonson Avenue	Side Street Stop	EB	A (3)	A (3)	A (2)	B (15)	A (2)	A (3)	A (2)	B (12)
		WB	A (2)	A (1)	A (0)		A (1)	A (1)	A (0)	
		NB	B (10)	B (15)	A (5)		A (5)	B (12)	A (3)	
		SB	A (10)	A (6)	A (5)		A (6)	A (7)	A (3)	
85th Street & North Access	Side Street Stop	EB	-	A (1)	A (1)	A (6)	-	A (2)	A (1)	A (5)
		WB	A (3)	A (3)	-		A (3)	A (3)	-	
		NB	A (6)	-	A (3)		A (5)	-	A (3)	
		SB	-	-	-		-	-	-	
Edmonson Avenue & East Access	Side Street Stop	EB	A (6)	-	A (3)	A (6)	A (5)	-	A (3)	A (5)
		WB	-	-	-		-	-	-	
		NB	A (1)	A (1)	-		A (1)	A (1)	-	
		SB	-	A (1)	A (0)		-	A (1)	A (0)	
School Boulevard & Fallon Avenue	All-Way Stop	EB	A (7)	C (20)	B (13)	B (13)	A (7)	B (14)	A (9)	B (11)
		WB	B (13)	B (14)	A (8)		A (8)	B (13)	A (8)	
		NB	B (11)	B (12)	A (9)		A (9)	A (10)	A (7)	
		SB	A (9)	B (10)	A (6)		A (10)	B (11)	A (7)	

*Worst movement delay reported as overall delay at side street stop controlled intersections.

CONSTRUCTION TURN LANE WARRANTS

The need for turn lanes during the construction of the site was analyzed based on the methodologies from NCHRP Report 457. This methodology accounts for the safety and operational need for turn lanes along the major road at a side street stop controlled intersection. The warrant takes into account the travel speeds along the major road and the peak hour traffic volumes at the intersection.

Results of the turn lane warrant analysis for the Construction Conditions (2030) are shown below in **Table 4**. The turn lane warrant analysis indicates that a right turn lane is warranted at both access points, and a left turn lane is warranted at the east access point along Edmonson Avenue. Additionally, a northbound right turn lane is warranted at the intersection of 85th Street & North Access.

Table 4 – Turn Lane Warrant Results

Intersection	Movement	Turn Lane Warrant Result
		Construction Conditions (2030)
85th Street NE & North Access	WBL	*Not Met*
	EBR	Met
Edmonson Avenue NE & East Access	NBL	Met
	SBR	Met
Edmonson Avenue & 85th Street NE	NBR	Met
	NBL	*Not Met*
	SBR	*Not Met*
	SBL	*Not Met*

CONCLUSION & RECOMMENDATIONS

The proposed Monticello Industrial development is located at the southwest corner of 85th Street & Edmonson Avenue in Monticello, MN. The site is currently undergoing the AUAR process with two development scenarios being analyzed: a Technology Park (Scenario 1) and an Industrial Park (Scenario 2). A Construction Conditions (2030) analysis was conducted for Scenario 1 since the trip generation of a Technology Park land use is anticipated to be significantly higher during the construction phase (which would likely be completed over multiple years) than during typical operations.

Traffic was projected with Opening Year (2030) traffic volumes selected as the background traffic and the construction site trips layered on top of these volumes. Construction trip generation was estimated based on ITE trip generation data, and knowledge of developments similar to the proposed Scenario 1. Trips were distributed to the site assuming access points along 85th Street and Edmonson Avenue.

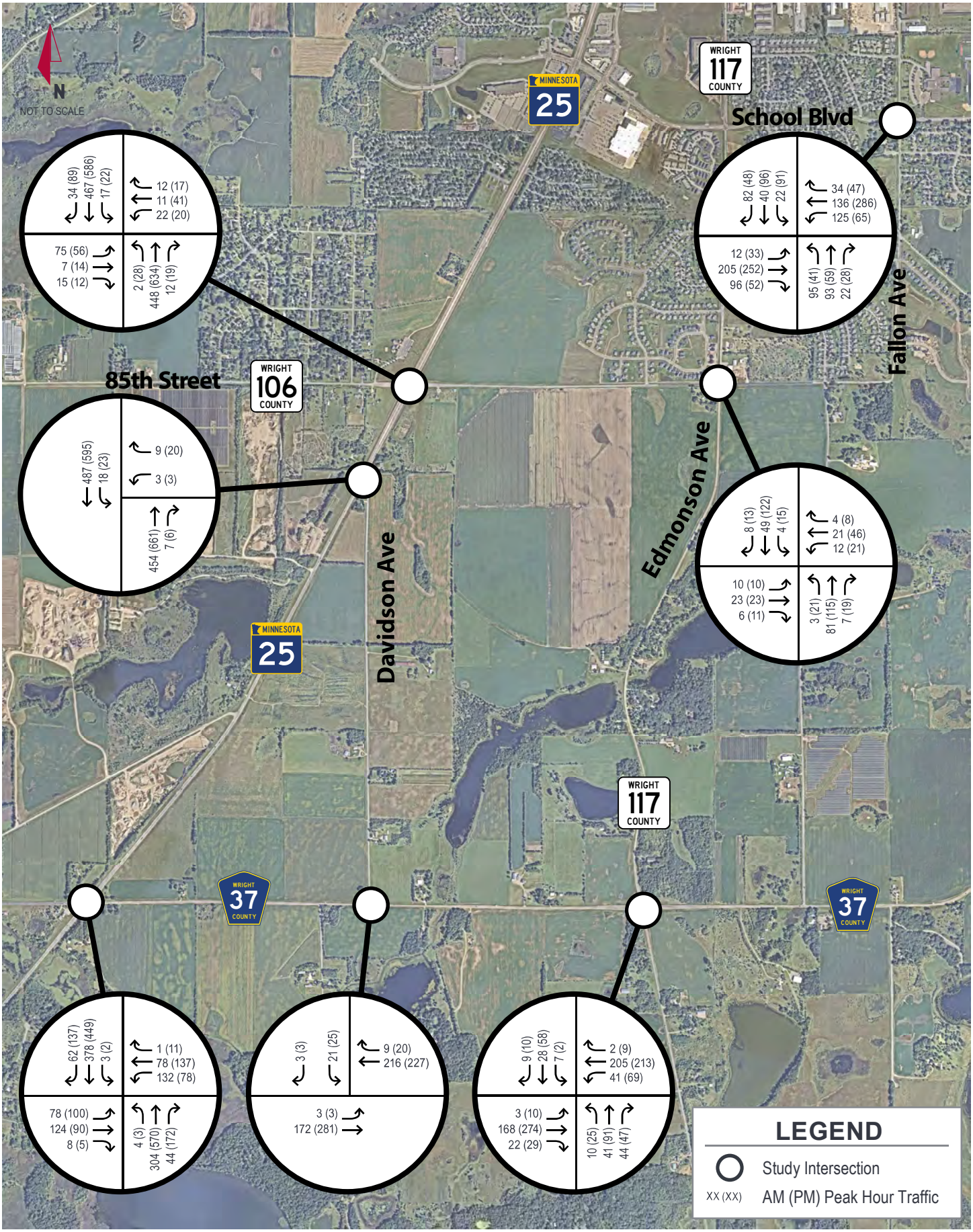
Under Construction Conditions (2030), all intersections are anticipated to operate at LOS A or B and all individual movements/approaches at the study intersections operate at LOS D or better with the exception of two left turn movements at the signalized MN 25 & 85th Street intersection. The overall network operations are anticipated to remain acceptable without mitigation.

Turn lane warrants were analyzed using NCHRP methodologies for major-road turn lanes at side street stop-controlled intersections. It was found that left-and right turn lanes are warranted at the access point along Edmonson Avenue, a right turn lane is warranted at the access point along 85th Street, and a northbound right turn lane is warranted at the intersection of 85th Street & Edmonson Avenue.

The following mitigation measures are recommended for the Scenario 1 Construction Conditions (2030):

- Install side street stop control at all access points
- Install left-and right-turn lanes at access point(s) along Edmonson Avenue
- Install right turn lane at access point(s) along 85th Street
- Install a northbound right turn lane at 85th Street & Edmonson Avenue

Note that the findings of this memorandum are preliminary based on assumptions made with limited information. Further traffic analysis of the construction conditions should be conducted when site specific information is available. The mitigation listed above is subject to substantial change based on the characteristics of the proposed site and construction process.



Kimley»Horn

EXHIBIT 1

2030 BACKGROUND TRAFFIC VOLUMES

MONTICELLO INDUSTRIAL

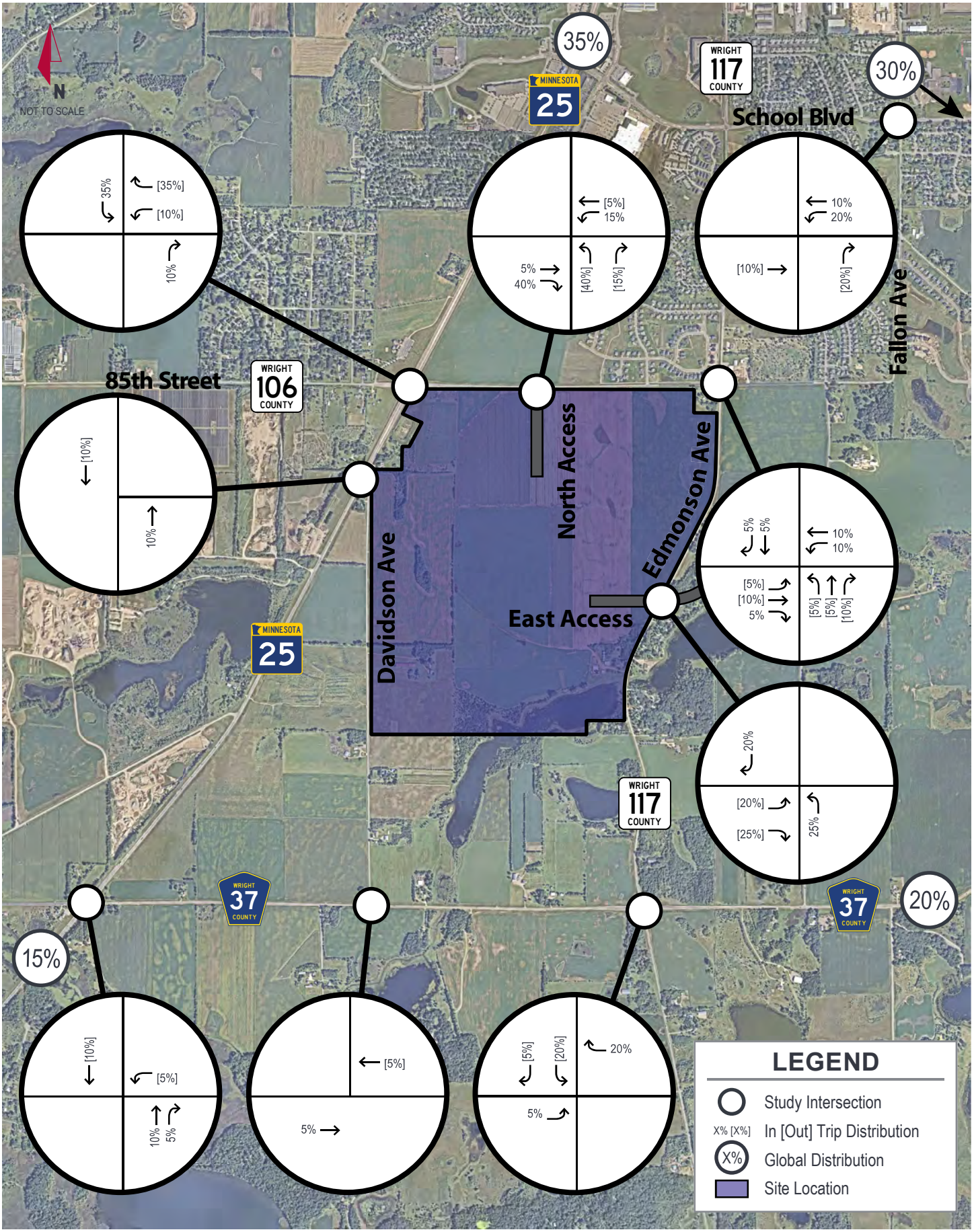


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EXHIBIT 2

SCENARIO 1 CONSTRUCTION TRAFFIC DISTRIBUTION

MONTICELLO INDUSTRIAL

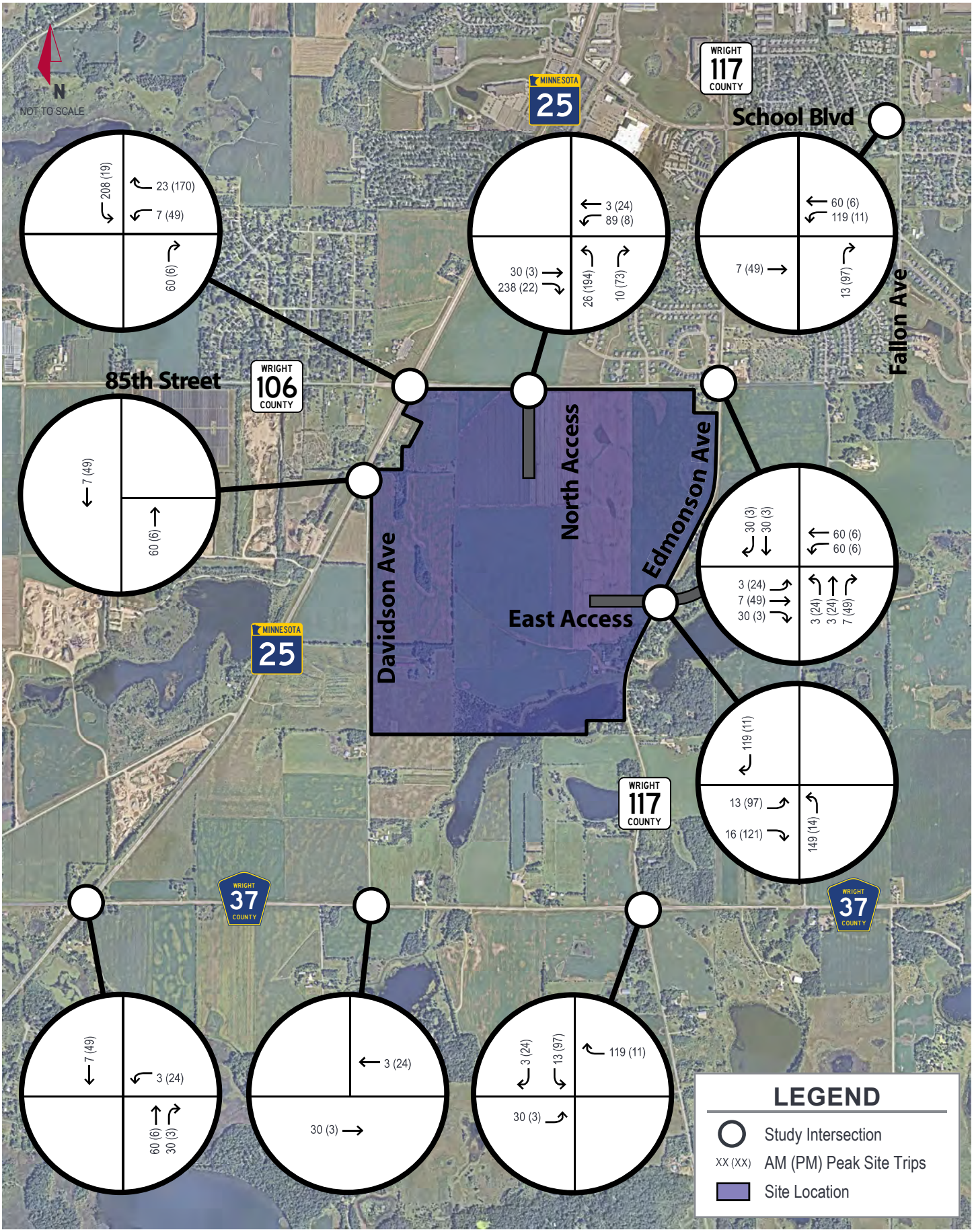

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EXHIBIT 3

CONSTRUCTION TRIP ASSIGNMENT

MONTICELLO INDUSTRIAL

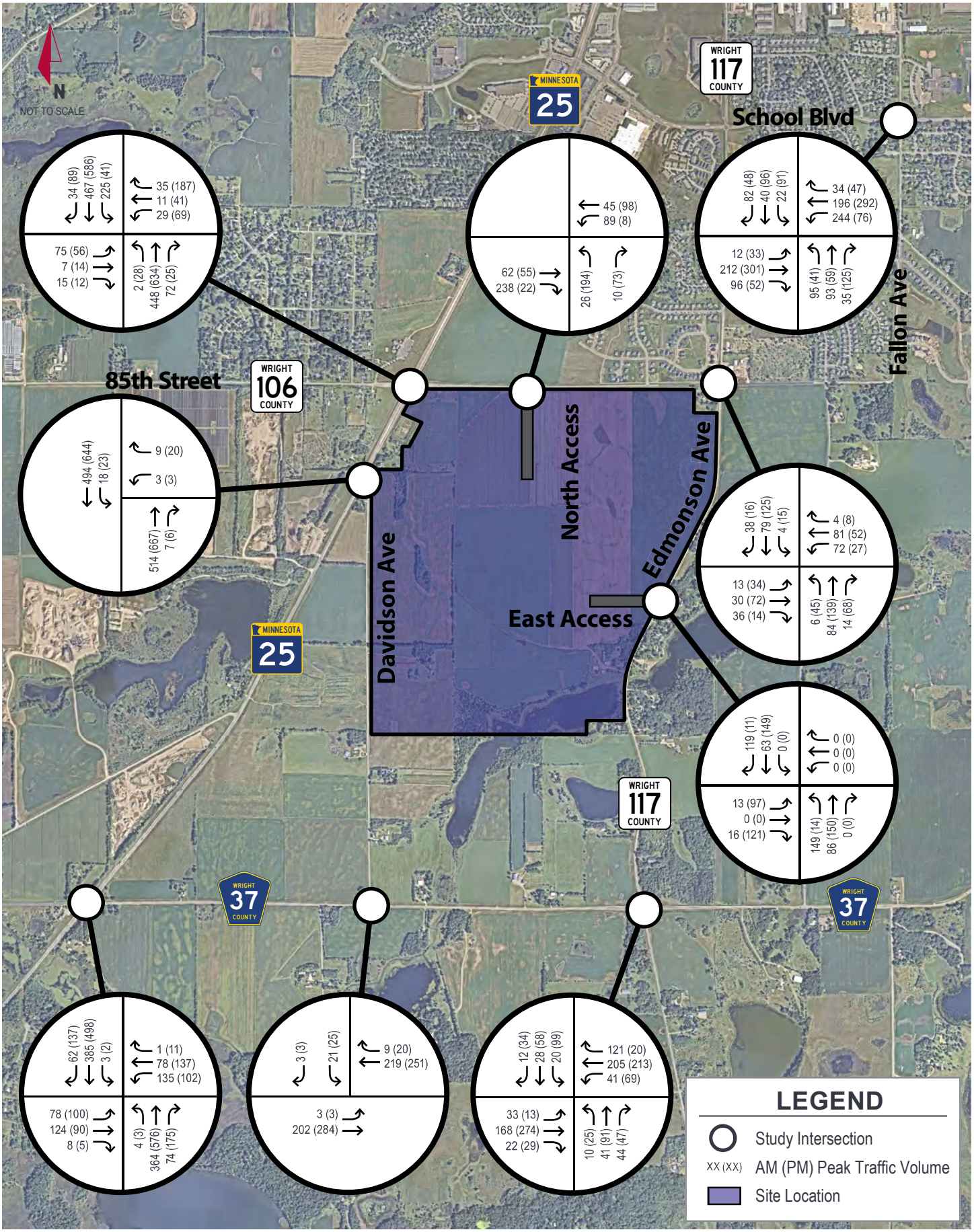

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EXHIBIT 4

PEAK CONSTRUCTION (2030) TRAFFIC VOLUMES

MONTICELLO INDUSTRIAL

Appendix F:
Comment Responses

OVERVIEW

Pursuant to Minnesota Rules, part 4410.3610, subpart 5a(C), the Responsible Governmental Unit (RGU) shall revise the environmental analysis document based on comments received during the comment period. The RGU shall include in the document a section specifically responding to each timely, substantive comment received that indicates in what way the comment has been addressed.

The 30-day Alternative Urban Areawide Review (AUAR) comment period began November 18, 2025, and comments were accepted through December 18, 2025. Five comment letters were received from government agencies, and 51 comment letters were received from the public. Responses to the agency comments are included in Table 1 and responses to public comment themes are in Table 2. Copies of the comment letters are included in Appendix G.

CHANGES MADE TO THE FINAL AUAR

The following changes were applied to the Final AUAR based on the Draft AUAR comment period via the Public Open House on November 20, 2025, the Joint Planning Commission and City Council Worksession on December 15, 2025, and submitted comment letters:

Agency Comments:

- Updated the Wright County zoning section in Item 10 Land Use per coordination with the County.
- Item 12 Water Resources.b.i.1 has been updated to correct the state statute reference to Minn. R. 4410.4300, subp. 18(A).
- The text in Item 11 Geology, Soils, and Topography in Final AUAR has been revised to clarify the SWPPP and the NPDES Construction stormwater permit requirements.
- A note has been added to Item 17 Air that references project related transportation GHG emissions.
- Additional alternative methods for Scenario 1 wastewater discharge have been added to the Final AUAR in Item 12.b.i Water Resources.
- The estimated size of the RIB system has been added to the Final AUAR in Item 8 Cover Types.
- A note has been added to clarify in Item 12.b.iv about stormwater management proposed to be treated within the study area so that no downstream impacts are anticipated.
- A new mitigation item that the developer will coordinate development details with the DNR as project(s) advance has been added to the Mitigation Plan table.

Public Comments:

- Added a list of acronyms to the beginning of the Final AUAR document.
- Re-worded text in Item 7 Climate Adaption to clarify locations of future roundabouts.
- Added the anticipated percentage of buildable area, impervious surface and landscaping within scenario 1 and 2's developable area in Item 8 Cover Types.

- Added the link to MPCA's guidance on Rapid Infiltration Basin systems in Item 12.b.i.1 Water Resources.
- Added the link to Climate Change Data to Inform Stormwater Management in Item 12.b.ii Water Resources.
- Added Scenario 2's net demand calculation in Table 17 to account for the current property owner appropriation use similar to how it was shown for Scenario 1.
- Removed the last two sites identified in Table 19 as they are outside of the quarter mile review area.
- Added more information about electronic waste for Scenario 1 and 2 in Item 13 Contamination/Hazardous Materials/Wastes.
- Added the estimate of number of generators that would trigger the EAW review per Minnesota Rules 4410.4300 in Item 13 Contamination/Hazardous Materials/Wastes.
- Added the trigger for an air permit/EAW review under Minn. Rules 4410.4300 Subp. 15 in Item 17 Air.
- Added a description of a future noise study steps and that the city is looking into changing the City's noise ordinance for construction times allowed in Item 19 Noise.
- Added a column for responsible party to the mitigation plan (Table 26).
- Clarified text in the mitigation plan for if it is required or optional mitigation (Table 26).
- Added more explanation of the cumulative analysis in Item 21, Cumulative Potential Effects.
- Defined industrial wastewater in Item 12 b Water Resources and what ongoing monitoring looks like for contaminants in either scenario.

AGENCY COMMENTS

Table 1. Government Agency Comments and Responses

Comment	Response
1. Wright County	
The County does not have any significant comments currently. Access location and design along CR 117 will be reviewed during the platting process. Additionally, as the area around CR 117 develops would the City be interested in discussing a turn back of the roadway similar to Edmonson Ave to the north.	Thank you for your comment. The city will discuss changes in jurisdiction for CR 117 outside of the AUAR process.
2. Minnesota Department of Health	
Staff in the Source Water Protection Unit at the Minnesota Department of Health have reviewed the Draft Monticello Industrial AUAR and have no comments. We appreciate	Thank you for your review and comment.

Comment	Response
that the AUAR includes the corrections and suggestions from MDH during the AUAR Scoping.	
3. *Minnesota Department of Transportation*	
After reviewing the AUAR MNDOT District 3 has the following comments: - If future development occurs on the parcels indicated in the AUAR MnDOT would apply our urbanizing access spacing (e.g., ½-mile to 1-mile) to this area as it is being transitioned from rural to urban with this development. - If future development occurs on the parcels indicated, it is likely that increased traffic impacts to the intersection of MN 25 and 85th St NE could occur which could in turn result in the need for intersection improvements potentially up to and including a roundabout. - We look forward to reviewing and providing comments should additional changes or developments be proposed.	Thank you for your review. These traffic related items are included in the AUAR. The developer and city will re-engage with MnDOT if plans change in the future and to address changing traffic conditions along 5MN 25.
4. *Minnesota Pollution Control Agency*	
Wastewater • Section 11.a. states that a Geotechnical Evaluation was completed for the study area. A copy of that report should be included in the DAUAR.	This report will be provided to the MPCA.
• Section 12.b.i.1) states that if a proposed 36-inch trunk sewer line capacity exceeds 2 million gallons per day (mgd) that a separate EAW would be required with the MPCA as the Responsible Governmental Unit (RGU). The correct requirement for Monticello is Minn. R. 4410.4300, subp. 18(A). This subpart requires an EAW for expansion, modification or replacement of a municipal sewage collection system resulting in an increase in design average daily flow of any part of that system by 1,000,000 gallons per day or more if the discharge is to a wastewater treatment facility with a capacity less than 20,000,000 gallons per day, the MPCA is the RGU.	This has been updated in the Final AUAR.

Comment	Response
The DAUAR stated that additional hydrogeological analysis is needed for the Rapid Infiltration Basin (RIB). Since the RIB is the sole method discussed for cooling water discharge, more details regarding capability of the soil and geology to infiltrate the large volume of water should be included. Until that is completed it is not possible to determine whether a RIB is feasible or permittable.	An alternative method is discussed in Item 12. If a future development requires 310,000 GPD or less of non-contact cooling water and domestic wastewater then that discharge could go to the city's municipal sanitary sewer collection system as the additional discharge to the WWTP is within hydraulic capacity. Additional alternatives have been added to the Final AUAR in Item 12.b.i (wastewater): • Re-use of non-contact cooling water for spray irrigation for crop fields • Obtain a surface discharge permit for non-contact cooling water discharge. The permit for this has been added to the permit table (Table 6) Both of these would require additional coordination, review, and permit from the MPCA, if feasible.
If it is found that the soils are not suitable for infiltration of the cooling water, other options that are being considered for discharge should be discussed.	See comment response above for additional alternatives added to the Final AUAR.
RIB systems for this waste type have not typically been permitted in Minnesota. Thorough characterization of the site, hydrogeology and wastewater characteristics will be needed to assess the viability of the proposed system. If the system is permitted, ongoing monitoring will be needed to ensure that the system is performing as expected and is protective of resources.	It is anticipated that the developer will submit an EAW to the MPCA for review of the RIB system, including maintenance plans. The AUAR discusses maintenance in Item 12. Maintenance will involve periodic removal of the top few inches of mineral deposit-laden soil, which will be disposed of in a landfill. Monthly Discharge Monitoring Reports will be required according to the NPDES permit. The developer will be responsible for

Comment	Response
	hiring a licensed professional to prepare these reports and send them to the MPCA.
In addition to the high volume of cooling water discharged, there will be infiltration of onsite stormwater. The impacts to groundwater and surface waters from infiltrating large volumes of water and the temperature of the cooling water should be discussed in more detail. Impacts to area groundwater elevations and potential areas of groundwater discharge to surface waters should be included. High temperature discharges may impact both underlying geology and groundwater discharges to surface waters and this should be discussed in more detail. The DAUAR refers to the RIB as a filter for the water to reaching the groundwater. The RIB may provide filtration of particulates, but it would not be expected to provide significant removal of dissolved pollutants. It would be expected that the cooling wastewater should be relatively low in particulates but potentially high in dissolved parameters. The levels of the dissolved parameters in the wastewater that is proposed to be infiltrated should be defined to ensure that water quality standards (Class I drinking water standards) are maintained in the groundwater.	The analysis within the EAW process as part of the MPCA permit application will address MPCA's comments related to the specific RIB design information such as temperature, volumes, potential areas of groundwater discharge, and filtration of particulates, and ongoing monitoring for specific dissolved parameters. Non-contact cooling water, which circulates through equipment multiple times in technology parks, will ultimately be discharged to the RIB. This water contains no human or industrial waste and meets MDH drinking water standards, consisting only of water from groundwater wells. The soils across the AUAR study area primarily consist of hydraulic group A/B and are potentially suitable for infiltration via a RIB system.
It is not clear if any pretreatment would be needed (or if pretreatment waste streams will be generated) to condition the water for use in the cooling system (e.g., iron/manganese removal, softening, etc.). Treatment and treatment waste streams will affect discharge quality and potential permitting.	No pretreatment is anticipated to be needed for either scenario. Iron/manganese removal is taken care of at the City's Water Treatment Plant and no additional treatment will be needed or chemicals added.
It is not clear if any chemical additives would be required to condition the water for use in the cooling system (e.g., chemicals for pH adjustment, microbial/biological control, corrosion, passivation, etc.). Chemical additives will affect discharge quality and potential permitting.	Only chlorine and a permanganate additive that would also be used in drinking water will need to be added to stabilize the water. Based on preliminary water testing it is not assumed that any other chemical will be required to be added to the water. The developer will make the final decision and will

Comment	Response
	need to comply with MPCA standards for the discharge of the non-contact cooling water.
In Section 8, Table 3 lists the existing and proposed cover types and includes stormwater treatment and infiltration area. A similar estimate of the area required for storage and infiltration of cooling water should be included.	The RIB system is anticipated to be 15 to 20 acres in total area and be comprised of four cells with a bottom area of each cell being 3.5 to 4.5 acres in size based on preliminary soil information. Actual size will depend on developers' flow rates and results of more in-depth soil testing. This information has been added to the Final AUAR in the Item 8 Cover Types section.
Construction Stormwater • During construction, the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit requires preserving a 50-foot natural buffer around wetlands, rather than the 20-foot buffer referenced in Section 12.b.ii. If maintaining the required buffer is not feasible, the reason must be documented in the Stormwater Pollution Prevention Plan (SWPPP) and redundant perimeter sediment control best management practices (BMPs) must be installed. • The proposed infiltration practices must meet the 48-hour drawdown requirement and be sized to ensure proper maintenance access and long-term functionality. As found in the Minnesota Stormwater Manual, it is highly recommended that infiltration basins have a maximum contributing drainage area of 50-acres with a maximum 5:1 ratio of impervious area to infiltration area.	The Final AUAR has been updated to with this requirement. The analysis in the AUAR is sized for 48-hour drawdown. Adequate pretreatment with NURP Pools will help maintain the long-term effectiveness of the infiltration area when receiving drainage from large and or highly impervious contributing areas.
Air – Air quality analysis: • The DAUAR addresses the vehicular emissions expected from the proposed Project by using the Minnesota Department of Transportation screening method designed to identify intersections that will not cause a carbon monoxide emissions impacts above the standards. The DAUAR has done a detailed traffic impact study analysis to determine the impacts of the proposed Project on air quality. The DAUAR should have used the assessment of this traffic study to determine the Project's effect on air quality rather than the screening method. This would have provided the Project's	The EQB's GHG emissions calculator that was used for the GHG emissions calculation converts PM2.5 and NOx to CO tons for project related impacts, including transportation. A note has been added to Item 17 Air to the AUAR to reference that section for this analysis.

Comment	Response
traffic generation impacts on air emissions. It would have also assessed the Project's vehicle related emissions' effects air quality. Based on this information, then it would been easier to determine if any mitigation measures are required for the proposed Project. • For a project of this size being planned, the DAUAR should have provided a qualitative discussion of other pollutants including PM2.5 NOx.	
Traffic - Traffic impact analysis: • The DAUAR has done a great job in conducting a detailed traffic impact analysis study and included in the DAUAR as an Appendix. The study discussed the Project's impact on the regional transportation system and the impacts of the Project's generated traffic would have on the surrounding area. Based in the detailed study some traffic improvements proposed in the DAUAR must be implemented to reduce the expected impacts.	Thank you for your review.
Watershed • On pages 14, 59, and 101, The document refers to a "chloride management plan" that will be implemented for every project requiring an NPDES permit. Although there is brief mention of three possible elements of these plans on page 101, a more detailed description of the elements of such a plan could easily be added here in an appendix. As chloride management is an extremely important consideration in Minnesota's climate, please provide better descriptions of what such a plan might entail. • Water Resources: Although Paradise and Gilchrist Lakes are not listed as impaired, in both cases this is a result of a lack of data, not necessarily because the lakes are healthy. The MN DNR Lakefinder (Minnesota LakeBrowser) indicates that water clarity in Gilchrist Lake (there is no data on Paradise) has improved slightly over the last 50 years, but as a shallow lake with a maximum depth of 9 feet, the lake will be vulnerable to any changes in the watershed. Both Paradise and Gilchrist appear to be hydrologically connected to the AUAR area, so please put greater consideration to protecting these surface waters and greater description as to what the potential water quality and water volume impacts to these waters might be, particularly as wetland 4	Specifics for the chloride management plan will be developed as site plans advance and will follow guidance from: https://www.pca.state.mn.us/sites/default/files/wq-s1-94.pdf and https://www.pca.state.mn.us/business-with-us/smart-salting-training The high-level hydrologic study in the AUAR compared pre-development and potential post development runoff rates for the design storms and compared runoff volume from the back-to-back 100-year storm for scenarios 1 and 2 to mitigate downstream impacts. The initial pond sizing suggests that discharge rates and volumes will be managed in the ponding areas provided in the analysis. Any proposed stormwater management

Comment	Response
appears to feed both lakes. Impervious surface and runoff both have the potential to alter conditions in wetland 4. • Page 25-Table 7, Item "c"- Would these impacts also include water usage? As the AUAR indicates that additional appropriation of groundwater over and above what is currently permitted by the DNR will occur as the site is developed, what impact might this have on current and future residential development in the area? • Page 69-Item 1- The document states that "the developer will classify the wetlands using the Minnesota Routine Assessment Method (MnRAM) prior to construction." From the Board of Soil and Water Resources (BWSR) website: " While the principles and logic behind MnRAM remain sound, using MnRAM output as the sole means to compare wetlands when making wetland permitting/impact decisions is discouraged by BWSR. MnRAM lacks the precision to make very specific comparisons in these situations. However, MnRAM outputs can be useful when used in conjunction with other characteristics and professional judgment." Any wetland delineations or functional assessments should be completed only by qualified, trained, and certified (if applicable) wetland professionals. • Page 102, Table 26, "Geology, Soils, and Topography"- The language in the document appears confused about what is required with regard to the NPDES Construction stormwater permit. The "SWPPP" is a requirement of the permit and not the permit itself, and the acronym "SWPPP" in this case refers to a Stormwater Pollution Prevention Plan, not a "program." The Stormwater Pollution Prevention "Program" is a requirement of the MS4 program, not construction stormwater.	design will need to meet the rules in the City's Comprehensive Stormwater Management Plan. Additionally, stormwater will be infiltrated as the primary treatment method and/or treated prior to discharge to receiving water bodies. The city has completed an initial study analyzing the capacity of the local aquifer. This assessment considered the potential effects of future development under both Scenario 1 and Scenario 2 and future city growth. Based on the results of this analysis, the aquifer does not appear to be impacted, even when accounting for other anticipated growth within the city. Additionally, the Table 7, item "C" includes utilities such as water, sewer, and storm. Future developers will follow the current city ordinances and assessment tools at the time of the development for wetland delineations and functional assessments. The text in Item 11 Geology, Soils, and Topography in Final AUAR has been revised to clarify the SWPPP and the NPDES Construction stormwater permit as noted in this comment.
5. Minnesota Department of Natural Resources	
Page 44-49, Wastewater, Scenario 1. This section states that non-contact cooling water would be circulated two or more times before being discharged to groundwater through a Rapid Infiltration Basin. More information should be provided on the limitations of cooling water recirculation that prevent further re-use. Also, how is	The limited use of the cooling water is determined by the quality of the water being used. The lower the hardness and other minerals found in the

Comment	Response
cooling water altered before being discharged back to groundwater? Is it softened? Is F-gas used in the cooling process? If so, would the cooling water free of contaminants, including PFAS, before being discharged back to groundwater?	existing water allows the water to be used more times for cooling. With the typical Minnesota hardwater (hardness greater than 100 mg/L) some traditional softening and/or filtration will be required at the facility. Based on the new water system improvements being implemented by the City of Monticello with and Iron and Manganese filter, the treatment of the water at the facility will need to be re-evaluated once the water plant is on-line. Typically, only chlorine to prevent bacteria growth and a potassium permanganate are added to the water to stabilize the water. Sometimes a pH adjustment is needed if the water has a high or low pH. F-gas is not typically used in the non-contact cooling water process, and all discharges are required to meet the permit requirements set by the MPCA during the permitting process.
Page 76, Section 14.c. There is limited discussion of impacts to non-rare features (wildlife and undeveloped vegetation). The AUAR acknowledges potential impacts to Blanding's turtles but does not discuss how the species may be impacted. Development of upland areas may remove nesting and foraging areas and impacts to wetlands may harm over wintering turtles or destroy habitat used for foraging and/or basking.	The developer will coordinate development details with the DNR as project(s) advance. Avoidance plans will be submitted for review and approval in advance of construction. This has been added to the Mitigation Plan table.
Page 85, Table 22: Annual Operational Emissions. The estimated emissions for building energy consumption for Scenario 1 were based on a typical light industrial user according to the section footnote. The AUAR acknowledges that data centers have different impacts from other industrial users prompting the City to create a Data Center Planned Unity Development Zoning Ordinance to address these specific impacts. This section should utilize estimates that more accurately reflect the energy	The estimates included in Item 18 for operational GHG emissions for energy are accurate for building consumption for a typical light industrial building that was studied as Scenario 1 and 2. However, the actual energy demand from a specific developer such as data center for Scenario 1 is variable and

Comment	Response
use of a data center. Without realistic energy use estimates, it is difficult to compare scenarios, anticipate potential cumulative effects or draft a comprehensive mitigation plan.	depends on several factors such as the type of equipment, cooling systems, power redundancy, and overall efficiency that is not possible to estimate without a specific developer/project being known.

PUBLIC COMMENTS

In addition to the comments received from public agencies, 51 comments were received from the general public. These comments contained many common themes which are summarized below. The city has provided responses that address each of the common themes, see Table 2. A list of commenter names and associated comment themes are listed below the table.

Table 2. General Public Comments and Responses

Comment Theme	Summary	Response
Health impacts	**Health impacts** Public commenters were concerned about the effects of noise associated with the development scenarios on human health. They cite sleep disruption, headaches, and stress as symptoms of exposure to noise pollution. The commenters also expressed worry regarding potential spikes in air pollution from generators which could emit nitrous oxide, particulate matter, and carbon monoxide. Additionally, commenters were concerned about the cumulative effects of noise and air pollution which they stated could lead to hypertension, cardiovascular risks, and lung problems. They were particularly worried about impacts to vulnerable populations like children and elderly individuals.	**Health impacts** The project proposer will be required to follow the mitigation plan, which includes completing noise studies to understand if any potential noise mitigation is needed. If any potential emission generation (e.g., from generators) from future development is above the threshold for an air quality permit/environmental review, then that specific project would be subject to additional environmental review beyond what is evaluated in this AUAR.

Comment Theme	Summary	Response
Contamination	**Existing contamination on site** Public commenters expressed concern for contamination they have seen on site that was not explicitly addressed in the AUAR. They want to ensure this contamination will be adequately mitigated and disposed of prior to development. **E-waste** Public commenters were concerned about the end-of-life procedures and disposal for specialized equipment under Scenario 1. They requested a binding decommissioning plan be created for any equipment considered to be "e-waste". **Fuel leakage from generators** Another concern related to contamination was the potential for impacts to groundwater due to leaks that could occur in back-up generator fuel storage tanks. The commenters want to know how a leak like this would be addressed to avoid impacts to the groundwater supply.	**Existing contamination on site** The AUAR only includes a desktop, preliminary analysis of potential contaminated materials on or near the site. Prior to development, the developer would be required to complete a Phase I or Phase II Environmental Assessment and coordinate with the MPCA to ensure safe handling and disposal of hazardous materials. See Item 13 for more details. **E-waste** The AUAR has been updated to include more information on e-waste and mitigation options for recycling and re-use for both scenarios. **Fuel leakage from generators** The developer would prepare an Emergency Action Plan for the use of back-up generators under either scenario, which should include routine maintenance and testing, proper and safe setup during an outage, and fuel management and containment that would prevent fuel leakage into the groundwater. This is noted in item 13.c and in the mitigation plan.

Noise and Lighting	**Desire for a noise study** Public commenters expressed concern about the timing of noise studies related to the proposed development. They were troubled by the decision to delay a noise study until a future, specific project is identified. They questioned the methodology of such studies, including where measurements are taken in relation to the site, whether studies are conducted during all seasons to capture varying conditions, and if the modeling accounts for a maximum build-out scenario. They requested that modeling include noise contours and night-time conditions while using assumptions based on specific equipment. **Construction-related noise** Given the extended and phased nature of the proposed development, commenters raised the issue of construction noise and its regulation. They asked whether more stringent construction noise regulations would be necessary to address the long-term and potentially disruptive impacts of ongoing construction activities. **Noise from generators, chillers, and low-frequency noise** Public commenters were worried about noise generated by mechanical equipment, specifically, continuous noise from chillers under Scenario 1, and truck-related noise, including idling and loading activities, under Scenario 2. Commenters were also concerned about the mitigation of low-frequency noise. **Noise regulation beyond Minnesota state statutes** Commenters expressed dissatisfaction with the adequacy of existing Minnesota Noise Standards, suggesting that they may not provide sufficient protection for the community. There were calls for stricter city limits on nighttime noise, generator testing, and requirements for enclosures and	**Desire for a noise study** Because operations can vary greatly between users in both scenarios, a noise study is conducted for a project at the time of development proposal to model what the expected project related noise would be and identify any potential mitigation needed. The Final AUAR has been updated in Item 19 Noise to explain what is included in a future noise study once a project has been identified. **Construction-related noise** The developer will need to comply with the city noise ordinances that are in place for when construction occurs. **Noise from generators, chillers, and low-frequency, noise regulation beyond Minnesota state statutes, and lighting concerns** The AUAR states that the developer under either scenario would be required to abide by all city and state requirements pertaining to noise and light. The developer will be responsible for determining if their proposed project would surpass these requirements and would be responsible for conducting any studies to identify required mitigation. The city is currently conducting public engagement on a Data Center Planned-use Development District. The city encourages

Comment Theme	Summary	Response
	specific low-frequency noise controls. Additionally, concerns were raised about the impact of noise on wildlife. **Lighting concerns** Public commenters were worried about nighttime light pollution that could occur under the development scenarios. They requested more information on how the study area would be lit following development and if regulations could be implemented that specify what lighting equipment should be installed.	this commenter to provide feedback related to specific lighting and noise mitigation measures through that process.

Comment Theme	Summary	Response
Surface water	**Wetland Impacts** Commenters requested that specific wetland impacts are identified for each development scenario. They also requested a clear mitigation path be identified and were unsure if the identified wetland buffers would be abided by. The commenters were worried that loss of wetlands could lead to less flood protection, water filtration, and outdoor spaces. **Bertram Chain of Lakes Impacts** Public commenters were concerned the development scenarios could lead to impacts to the Bertram Chain of Lakes.	**Wetland Impacts:** The anticipated maximum development capacity impact for wetland impacts has been identified for both Scenario 1 and 2 (as shown on Figure 3 and 4). Specific wetland mitigation will be determined by the appropriate agencies at the time a site specific development plan has been submitted. The project proposer will be required to comply with all federal, state, and local wetland requirements including avoiding and minimizing impacts to the extent practicable and mitigating any wetland impacts that are unavoidable. The City of Monticello also requires wetland buffers based on anticipated wetland quality. **Bertram Chain of Lakes Impacts** The Bertram Chain of Lakes Impacts is over 2 miles from the study area location and is not anticipated to have an impact from future development in this area. The developer will be required to design the site with runoff rates and volumes that provide no measurable effects to pollution levels to nearby waterbodies.

Comment Theme	Summary	Response
Stormwater	**Stormwater modeling accuracy** Public commenters expressed concern that the stormwater modeling used in the AUAR may not be based on the most up-to-date data. Commenters also worried that the modeling does not adequately represent a full build-out scenario or account for worst-case climate change conditions. **Impacts to downstream features and runoff** Commenters were concerned about potential increases in runoff due to conversion of farmland to impervious surface and impacts to wetlands. They were worried about how runoff could impact county ditches, existing neighborhoods, and proposed residential developments. **Inadequate design information** Commenters stated the AUAR lacked a depiction of conceptual pond locations, estimated impervious surface totals, information on infiltration feasibility, and rate/volume control strategies. Concern about flooding risk to neighborhoods and planned residential development.	**Stormwater modeling accuracy** The city used the most up to date version of NOAA Atlas 14 in its Hydrocad model and a link to the guidance document used has been added to the AUAR. **Impacts to downstream features and runoff** The closest county ditch to the study area is over 4,500 feet northwest, upstream of the study area. The city does not anticipate the future development to impact this feature. Neither scenario includes a proposal to convert all farmland to impervious surface. Scenario 1 proposes 171 acres of impervious surface and Scenario 2 proposes 232 acres. The AUAR includes stormwater modeling that is consistent with all city stormwater ordinances. The discharge rate from the proposed scenarios will be less than or equal to current conditions. **Inadequate design information** Conceptual pond locations are shown on Figures 16-17, impervious surface totals are listed in Table 3, and infiltration feasibility, and rate/volume control strategies, flooding risk to neighborhoods and planned residential development are discussed in Item 12.b.ii Stormwater.

Comment Theme	Summary	Response
Water use/drinking water	**Accounting for future growth** Commenters were concerned about the large amount of water demand required from both scenarios and if this allows for future city growth. **Water Pollution** Commenters were concerned that data centers will create water pollution, specifically into the groundwater from the RIB system.	**Accounting for future growth** Increases beyond the city's existing water appropriation and treatment capacity will be coordinated and studied with the MnDNR as needed (see Item 12 in the Final AUAR for more details). See response below about regional impacts on the aquifer for more information. **Water Pollution** The proposed Rapid Infiltration Basin (RIB) system for capturing wastewater is described in Item 12 Water Resources. The RIB system will be designed with Drinking Water Supply Management Area (DWSMA) considerations in mind and will comply with Minnesota Department of Health (MDH) and Minnesota Pollution Control Agency (MPCA) standards of care for DWSMA regions. It will also require its own permitting and environmental review through the MPCA.

Comment Theme	Summary	Response
Groundwater/Wastewater/RIB	**Regional and local impacts to the aquifer from Scenario 1** Commenters were concerned about the high water demand required from Scenario 1 and data centers in general and how that will impact the aquifer. **Adjacent well impact** Commenters were concerned about the impact on adjacent wells from the water consumption needed and the RIB system proposed in Scenario 1 and how that would impact adjacent wells. **Industrial wastewater** Commenters were concerned that industrial wastewater was not addressed in the AUAR. **Contaminants** Commenters were concerned about contaminants from the non-contract cooling wastewater, specifically if it can contain PFAS (per- and polyfluoroalkyl substances).	**Regional and local impacts to the aquifer from Scenario 1 and adjacent well impact** The city is currently undertaking an aquifer analysis study, which will include a hydrogeological model of aquifer drawdown and cumulative groundwater demand impacts in combination with future city growth. The Scenario 1 (s) developer would be responsible for removing onsite wells prior to development. For Scenario 2, users would also be responsible for removing onsite wells prior to development. No other wells are anticipated to be impacted by the project as the water would be sourced from a proposed watermain. The city has determined the soils in the study area are adequate for a RIB system. Prior to construction, the developer would conduct additional study, including an Environmental Assessment Worksheet. Any water the developer may discharge into the RIB system would be an ambient temperature and free of contamination.

Comment Theme	Summary	Response
		Industrial wastewater The EQB's AUAR guidance states that only domestic wastewater should be considered in an AUAR—industrial wastewater would be coming from industrial uses that are excluded from review through an AUAR process. For clarity, the Final AUAR in Item 12.b.i. has been updated to explain the definition of industrial wastewater and a note has been added to this section that industrial wastewater is not anticipated to be generated for either development scenario. **Contaminants** Only chlorine and a permanganate additive that would also be used in drinking water will need to be added to stabilize the water. Based on preliminary water testing it is not assumed that any other chemical will be required to be added to the water. The developer will make the final decision and will need to comply with MPCA standards for the discharge of the non-contact cooling water. Monitoring of the wastewater effluent will be conducted in accordance with NPDES permit issued by the MPCA. The discharge will be required to meet the limits of contamination set by the MPCA for the specific site during the permitting process.

Comment Theme	Summary	Response
Transportation/traffic impacts	**Freight impact and school routes** Commenters were concerned about freight and heavy truck trips expected under Scenario 2 and for construction in Scenario 1. Commenters asked for the traffic study in the AUAR to be updated to include regional traffic impact analysis, including freight modeling, school traffic and long-term roadway maintenance. **Effects on Highway 25 and County Road 39** One commenter asked for County Road 39 to be included in in the AUAR traffic analysis. Other commenters were concerned about traffic and congestion in the future on Highway 25.	**Freight impact and school routes** Truck traffic was modeled accordingly as part of the Traffic Study for both Scenario 1 and 2 to understand any potential operational impacts. However, impact to the roadway condition from freight is not something that's typically looked at as part of an AUAR or traffic study. That falls under an asset management study that the road owner would assess. A regional traffic impact assessment, including freight and heavy truck trips are outside the scope of an AUAR Traffic Impact Assessment. Road deterioration, noise, and long-term city maintenance costs are outside the scope of a Traffic Impact Assessment. The city did consider school routes during traffic counts and intersection analysis. The city will coordinate adjustments to school and emergency routes during construction, if necessary. **Effects on Highway 25 and County Road 39** The AUAR includes Highway 25 in the traffic analysis. CR 39 is over 2 miles away from the study area and is outside the scope of the Traffic Impact Assessment.

Comment Theme	Summary	Response
Climate	**Long term climate impacts** Commenters were concerned about development in the study area contributing to climate change and that the AUAR did not include enough information on current climate trends.	**Long term climate impacts** Item 7 Climate Adaptation and Resilience lists local and regional climate trend data. Project related climate adaptions are described in Table 2. Additionally, the majority of technology park developers have sustainability goals around water, energy, carbon, recycling that would be implemented in the study area (applies to Scenario 1).
Energy	**High electricity demand** Commenters were concerned that data centers will consume a high amount of electricity and will put a strain on the grid system and result in higher electricity bills for residents.	**High electricity demand** For Scenario 1, the (s)developer will be responsible for requesting a System Impact Study and coordinating permitting with the appropriate utility companies and the Public Utilities Commission. The cost of these improvements would not affect current rate payers. The utility company's model would be coordinated with the Midcontinent Independent System Operator's model to ensure the project properly integrates into the broader energy system (see Item 22 in the Final AUAR for more details). Similar study may be required depending on the user(s) for Scenario 2.

Comment Theme	Summary	Response
Emissions	**Backup generators impact** Commenters were concerned about the quantity and impact of backup generators that may be needed for Scenario 1, including noise impacts and air emissions. **Air quality concerns** Commenters were concerned about air pollution from generators in Scenario 1.	**Backup generators impact** For Scenario 1, the development would only use back-up generators during emergencies, maintenance, and up to once per month for testing. The AUAR states that backup diesel generators require independent environmental study if proposed emissions surpass the threshold for an Environmental Assessment Worksheet. The developer(s) would be responsible for completing this documentation prior to construction. The same requirements apply to Scenario 2 for end-users installing generator equipment. **Air quality concerns** Air quality from stationary source emissions is outside the scope of an AUAR. If a future project is proposed that surpasses state thresholds for air quality, then the developer would be responsible for completing relevant permitting and additional environmental review.
Loss of land/conversion of land	**Preservation of agricultural land** Commenters were concerned about the land conversion from agricultural use to light industrial and wanted to see the land preserved as agricultural use. Commenters were also concerned about the loss of farmland.	**Preservation of agricultural land** The city has not included agricultural preservation in a scenario because that would be inconsistent with the Monticello 2040 Comprehensive Plan.

Comment Theme	Summary	Response
Habitat/Wildlife	**Impacts to wildlife corridors and the planned greenway are dismissed** Commenters were concerned about the impacts to wildlife corridors and habitats. They wanted to ensure the mitigation plan protects species and their habitats.	**Impacts to wildlife corridors and the planned greenway are dismissed** The AUAR includes discussion of impacts to wildlife and mitigation strategies in Item 14. The available habitat for wildlife would likely increase under either scenario. This is because most of the study area consists of cropland and both development scenarios propose over 200 acres of lawn and landscaping. The city included the greenway corridor in both development scenarios (see Figures 3 and 4 in the Final AUAR). The developer would be required to obtain the appropriate permits and conduct required mitigation for wetland impacts according to state and federal law. The city and project proposer acknowledge that intentional efforts to preserve and protect these resources are necessary. Mitigating environmental impacts primarily relies on using existing ordinances, rules, and regulations. The development scenarios do not change regulatory agencies' responsibilities or add new regulations.

Comment Theme	Summary	Response
Environmental review	**Incomplete mitigation** Commenters wanted the AUAR to not be adopted based on an incomplete mitigation plan. **Stronger enforcement language needed** Commenters wanted to see stronger enforcement language in the mitigation plan to assure mitigation will occur. **Further environmental study needed** Commenters wanted to see further environmental study completed such as an Environmental Impact State (EIS). **Lack of alternative scenarios** Commenters wanted to see alternative scenarios considered in the AUAR such as preserving agriculture or a lower impact development. **Future study reliance** Commenters were concerned that the AUAR stated there were next steps needed such as future environmental reviews or additional studies. **Cumulative impacts/effects insufficient** Commenters were concerned that the cumulative effects section of the AUAR was insufficient and didn't capture all the potential effects from the scenarios. **Definitions/other environmental thresholds** Commenters asked for more clarity on definitions of terms and thresholds for other environmental reviews that may be needed when specific project information is known.	**Incomplete mitigation** The mitigation plan in the Final AUAR represents the summary of next steps and permits/approvals needed and the format of the AUAR evaluation. It is based on state and local agency review with all information and assumptions known at this time. Given the nature of an AUAR as a planning document, the city cannot provide exact timelines for mitigation at this time. The city has added responsible parties to the mitigation plan steps in the Final AUAR. The permitting matrix in Table 6 describes which agencies are responsible for enforcing permitting and approval prior to project construction. **Stronger enforcement language needed** Where possible, the mitigation plan has been updated to reflect which steps are required, and which steps require consideration, as development advances. The city will ensure all items of the mitigation plan that the city has jurisdiction over be completed prior to construction. Development in either scenario is also subject to the additional regulations applicable for development within the city, which are detailed also within the AUAR.

		Further environmental study needed Scenarios 1 and 2 represent the maximum development capacity environmental impacts studied in this AUAR. Any developer that proposes environmental impacts worse than what the city studied in this document, would either have to amend this AUAR or prepare a new environmental document. The Final AUAR has also been updated to explain the threshold triggers for additional areas that might require future environmental reviews. Minnesota Rules part 4410 details the requirements for when the preparation of an environmental review is required. Development under Scenario 1 is anticipated to meet the State's mandatory requirements for an environmental review process based on Minnesota Rules 4410.4400. Minnesota Rule 4410.3610 allows for an alternative form of review through an AUAR for qualifying projects, including these scenarios. An AUAR is a planning document which provides an evaluation of the environmental impacts of future development, and the opportunity to manage and mitigate those impacts. The information and comments gathered during an AUAR process assist communities as they contemplate local planning and zoning decisions.

Comment Theme	Summary	Response
		Additionally, the city determined that the AUAR would also undergo the scoping procedures for "large specific projects" detailed in Minn. R. 4410.3610, subp5a(A). While potential land use could include a technology campus/data center under Scenario 1, a specific user, set of users or project has not been identified for either scenario and therefore an EIS would not be the appropriate form of environmental review.

		Lack of alternative scenarios The city prepared this AUAR to be consistent with the Monticello 2040 Comprehensive Plan which identifies the study area as a future Light Industrial Park. Scenarios 1 and 2 both align with this future land use, with Scenario 2 distinct in that it does not anticipate a technology campus as a primary use of the study area. Conservation-based scenarios, mixed-use alternatives, and agricultural preservation or parkland alternatives would not be consistent with the comprehensive plan. The city and comments received did not identify alternatives to the chosen scenarios during the scoping process. It is acceptable and possible for a developer to develop a light industrial park below the maximum development capacity impact thresholds identified in this AUAR document. **Future study reliance** According to the EQB's Quick Reference: Alternative Urban Areawide Review (AUAR), "an AUAR is a planning tool to understand how different development scenarios will affect the environment of their community before the development occurs." Whereas an environmental assessment worksheet (EAW) and environmental impact statement (EIS) study a single project, an AUAR studies multiple development land use scenarios that may comprise of several potential projects (Minn. R. 4410.3610.). Often, full

		development of the selected development scenario is years away and certain details of each project or development within the study area are not fully identified in the AUAR. The AUAR rules were developed to recognize that certain assumptions would need to be made to evaluate a land use scenario(s). The rules require that any assumptions be included in the AUAR. The rules prevent these assumptions from being used to undermine environmental review by providing that future projects included in the AUAR are only exempt from environmental review if they are consistent with the AUAR's assumptions. If the development proposal diverges materially from the assumptions and mitigation plan, then the AUAR must be updated for that specific development. Additionally, the AUAR must be updated every five years until all development within the area receives final approval by the RGU. **Cumulative effects insufficient** Item 21, Cumulative Potential Effects, lists out the one **reasonably foreseeable** project that may interact with the environmental effects of the development scenarios. Item 21 has been updated in the Final AUAR to explain how specific impact areas like water, wastewater, and transportation may be affected by multiple projects. Item 21 also identifies potential studies and mitigation strategies for the cumulative effects of

Comment Theme	Summary	Response
		future development outside of the AUAR study area. **Definitions/other environmental thresholds** An acronym list has been added to the top of the Final AUAR. Additionally, where other environmental reviews are referenced, the specific thresholds have been added.
Ordinance	**Setbacks** Commenters asked for the city to reconsider setback requirements for data centers due to potential noise and visual impacts.	**Setbacks** The city is currently conducting public engagement on a Data Center Planned-use Development District. Commenters are encouraged to provide feedback on noise and light requirements for this zoning classification.

Other	**Quality of life/general opposition to data centers** Commenters expressed their opposition to data centers in general and concern about their quality of life declining with a data center in their neighborhood. **Property values** Commenters were concerned about decreases to their property values due to nearby data center development. **Limited community benefit** Commenters expressed concern that data centers would bring limited community benefit. They were worried about large impacts on natural resources and the limited number of new jobs associated with data center development. **Community character** Commenters expressed concern that data centers are not in line with Monticello's community character. **Rapid increase in AI/data centers** Commenters expressed concern in general about the rapid increase in AI use and data centers being built. **More in depth earthwork analysis** Commenters asked for more in depth analysis of earthwork needs in the AUAR.	**Quality of life/general opposition to data centers** This AUAR is not an endorsement or approval for any projects allowed under the development scenarios. See Table 6 of the AUAR for a comprehensive list of remaining permits and approvals that would be required prior to construction. **Property values** Property values are not an evaluation criteria within the AUAR. The city is currently evaluating a DCPUD ordinance which is intended to address land use impacts and comments are encouraged to address such impacts during that process. **Limited community benefit** If a future development within the study area is a data center, it can bring several benefits to communities, including: 1. Job Creation: They generate a range of job opportunities, from construction during the building phase to ongoing roles in management, operations, maintenance, and security. 2. Economic Impact: The presence of a data center can stimulate local economies through increased business for nearby vendors and services. This includes everything from local construction firms, to electricians, to catering services.

		3. Infrastructure Improvements: Often, the establishment of a data center leads to improvements in local infrastructure, such as better roads, enhanced electrical grids, and stronger internet connectivity, which can benefit residents and businesses. 4. Technological Advancements: Data centers can drive technological growth and innovation within the community, potentially attracting other tech-focused businesses and startups. 5. Tax Revenue: Data centers contribute to local tax revenues, which can be used to fund public services, schools, and community projects. 6. Environmental Initiatives: Modern data centers often incorporate sustainable practices and can spearhead local green tech initiatives, such as renewable energy projects and energy-efficient technologies. 7. Emergency Services: They can provide essential backup and data storage for local governments and businesses, enhancing community resilience in emergencies or natural disasters. **Community character**

Comment Theme	Summary	Response
		Future development will be required to comply with all city ordinances, obtain associated local, state, and federal permits and complete the AUAR mitigation plan. **Rapid increase in AI/data centers** The City's 2040 Plan for the Light Industrial Park designation includes a reference to evaluation of available land area to accomplish its land use objectives, which is intended to provide for evaluation of data center projects against the city's land supply for other industrial land use goals. **More in depth earthwork analysis** It is anticipated that for both development scenarios, the raw earthwork can be generally balanced on the site to maintain the existing drainage patterns. This earthwork will be compliant with the city shoreland ordinance. Where appropriate, slope stabilization will be provided by means of vegetation establishment, erosion control blankets, or other standard methods of erosion and sediment control. More information about earthwork needs will be known as a specific project advances.

List of Public Commenters and Comment Themes:

1. Bill Keenan
    - Health impacts
    - Contamination
    - Noise
2. Candace Seidl
    - Groundwater/wastewater/RIB
    - Environmental review
    - Stormwater
    - Transportation/traffic impacts
    - Air quality
    - Noise
    - Health impacts
    - Loss of land/ conversion of land
3. Scott Nelson
    - Environmental review
    - Noise
    - Visual impacts
4. Steven & Allie VanVleet
    - Energy
    - Health impacts
    - Water use/ drinking water
    - Noise
    - Other e.g. property values
    - Loss of land/ conversion of land
    - Air impacts
5. Erin Jones
    - Health impacts
    - Economic and utility impacts
    - Environmental impacts
    - Other e.g. quality of life
    - Request for action and ethical considerations
6. Beth Heck

- Rapid increase in data centers

7. Ben Pupeza
   - Noise impacts
   - Property values
8. Lysa Holmstrom
   - Noise
   - Rapid increase in data centers
   - Health impacts
9. Laura Pelant
   - Rapid increase of data centers
   - Infrastructure and financial burden
   - Limited job opportunities
   - Noise and lighting
   - Health impacts
   - Land conversion
   - Water resources
10. Krystal Fair
    - Quality of life/general opposition to data centers
    - Groundwater/Wastewater/RIB
    - Limited community benefits
    - Surface water
    - Health impacts
    - Land conversion (loss of farmland)
11. Brooke Blomker
    - Energy
    - Groundwater/Wastewater/RIB
    - Health impacts
    - Contamination
    - Habitat/Wildlife
    - Noise and lighting
    - Emissions
    - Loss of land/conversion of land
    - Community character

12. Wayne Johnson
    - Existing contamination
13. Joe Kraft
    - Groundwater/Wastewater/RIB
    - Contamination
    - Transportation/traffic impacts
    - Noise
    - Wetlands
    - Air impacts
14. Alexander Coady
    - General opposition to data centers
    - Health impacts
15. Stephanie Reichert
    - Noise and lighting
    - Emissions
    - Health impacts
    - Traffic impacts
16. Scott Cutsforth
    - Groundwater/Wastewater/RIB
    - Water use/drinking water
    - Noise
    - Contamination
17. Iris Harris
    - Environmental review
    - Ordinance
    - Water use/drinking water
    - Noise and lighting
    - Emissions
    - Health impacts
    - Property values
18. Kay LaMaie
    - Noise
    - Health impacts

- Limited community benefits

19. Shannon Bye
    - Environmental review
    - Surface and groundwater/wetlands/quality
    - Cumulative impacts
    - Transportation and freight impacts
    - Land use compatibility
    - Utility and public services
20. Peggy Jensen
    - Noise and lighting
    - Energy
    - Groundwater/wastewater/RIB
    - Property values
    - Habitat/Wildlife
    - Limited community benefits
    - Loss of land/conversion of land
21. Gabe & Hannah Graveldinger
    - Loss of land/conversion of land
    - Groundwater/wastewater/RIB
22. MCEA
    - Health impacts
    - Environmental review
    - Emissions
    - Energy
    - Water
    - Noise and lighting
    - Cumulative impacts
23. Emma Huntzinger
    - Limited community benefits
    - Groundwater/wastewater/RIB
    - Energy
    - Surface water
    - Property values

- Noise impacts

24. Barb Tummel
    - Noise
    - Health impacts
    - Community character
25. Jenna VanDenBoom
    - Environmental review
    - Loss of land/conversion of land
    - Emissions
    - Noise
    - Health impacts
    - Energy
    - Groundwater/Wastewater/RIB
    - Property values
    - Limited community benefits
    - Traffic and transportation impacts
    - General opposition to data centers
26. Lisa Keenan
    - Health impacts
    - Loss of land/conversion of land
    - Limited community benefits
    - Property values
    - Groundwater/Wastewater/RIB
    - Noise
    - Contamination
    - Environmental review
27. Elisabeth Gliddon
    - Environmental review
    - ordinance
    - Groundwater/Wastewater/RIB
    - Contamination
    - Loss of land/conversion of land
    - Energy

- Health impacts

28. Debra Campbell
    - Environmental review
    - Health impacts
    - Emissions
    - Noise
    - Loss of land/conversion of land
29. Scott Hill
    - Surface water
    - Stormwater
    - Environmental review
30. Mary Zierke
    - General opposition to data center
31. Jan Davis
    - Limited community benefit
    - Energy
    - Noise
    - Surface water
    - Habitat/Wildlife
32. Adam Felix
    - Environmental review
    - Limited community benefits
    - Land use
33. Dennis DuFrane
    - Environmental review
    - Groundwater/Wastewater/RIB
    - Contamination
34. Chace Huntzinger
    - Energy
    - Environmental impacts
    - Contamination
    - Noise
    - Health impacts

- Property value

35. Laura Bishop
    - Lack of alternative scenarios
    - Noise
    - Habitat/wildlife
    - Groundwater/Wastewater/RIB
    - Electricity
    - Limited community benefits
    - Climate
36. Scott Zettervall
    - Groundwater/Wastewater/RIB
    - Health impacts
37. Kate Brown
    - Health impacts
    - Electricity
    - Noise and lighting
    - General opposition to data centers
38. Bernad Lang
    - Electricity
    - Health impacts
    - Emissions
    - Property values
    - Noise
    - Community character
    - Loss of land/conversion of land
39. Fam Oli
    - Environmental review
    - Groundwater/Wastewater/RIB
    - Habitat/wildlife
    - Climate
    - Noise
    - Loss of land/conversion of land
    - Contamination

- Health impacts

40. Alexander Cutchey
    - Environmental review
    - Ordinance
41. Elena Patterson
    - Environmental review
    - Loss of land/conversion of land
    - Groundwater/Wastewater/RIB
    - Climate change
    - Surface water
    - Limited community benefits
    - Health impacts
42. Theodore Keith
    - Noise
    - Ordinance
    - Habitat/wildlife
43. Ty Weiss
    - Environmental impacts
    - Groundwater/wastewater/RIB
    - Loss of land/conversion of land
    - Health impacts
    - Community character
44. Danielle Murdoff
    - Emissions
    - Limited community benefits
45. Daniel DiLorenzo
    - Energy
    - Groundwater/Wastewater/RIB
    - Limited community benefits
    - Property values
46. Nita Ceron
    - Loss of land/conversion of land
    - Limited community benefits

- Community character
- Climate
- Noise
- Environmental review

47. Rita Howell
    - Limited community benefits
48. Feanna Sobania
    - Habitat/wildlife
49. Bethany Olivares
    - Environmental review
    - Water resources
    - Habitat/wildlife
    - Noise/light
    - Emissions
50. Kara Rud
    - Noise
    - Energy demand
    - Water resources
51. Nora Greteman
    - Transportation
    - Habitat/wildlife

Appendix G:
Comments

Outlook

RE: Monticello Industrial Development - AUAR

From Angela Schumann <Angela.Schumann@MonticelloMN.gov>
Date Wed 11/19/2025 12:17 PM
To Cody S. Sedbrook <Cody.Sedbrook@wrightcountymn.gov>; Alison Harwood <aharwood@wsbeng.com>
Cc Chad D. Hausmann <Chad.Hausmann@wrightcountymn.gov>; Sara C. Buermann <Sara.Buermann@wrightcountymn.gov>

EXTERNAL EMAIL

Received. Thank you.

Angela Schumann
Community Development Director
Development Services
763-271-3224
505 Walnut St, Suite 1, Monticello, MN 55362

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From: Cody S. Sedbrook <Cody.Sedbrook@wrightcountymn.gov>
Sent: Wednesday, November 19, 2025 11:31 AM
To: Angela Schumann <Angela.Schumann@MonticelloMN.gov>
Cc: Chad D. Hausmann <Chad.Hausmann@wrightcountymn.gov>; Sara C. Buermann <Sara.Buermann@wrightcountymn.gov>
Subject: Monticello Industrial Development - AUAR

Hi Angela,

The County does not have any significant comments currently. Access location and design along CR 117 will be reviewed during the platting process.

Additionally, as the area around CR 117 develops would the City be interested in discussing a turn back of the roadway similar to Edmonson Ave to the north.

Thank you,

Cody Sedbrook, P.E. · Traffic Engineer
WRIGHT COUNTY, MINNESOTA: HIGHWAY DEPARTMENT
direct: (763) 682-7391 cell: (612) 394-1002
Highway Department Building, 3600 Braddock Ave NE, Buffalo, MN 55313
www.co.wright.mn.us

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From:	Munsell, Anneka (She/Her/Hers) (MDH)
To:	Angela Schumann
Cc:	Shea, Abby (She/Her/Hers) (MDH); Woodside, John (MDH); Robertson, Steve (MDH); Bell, David (MDH)
Subject:	Monticello Industrial AUAR - MDH Comments
Date:	Wednesday, December 10, 2025 2:12:58 PM
Attachments:	Outlook-MDH on Fac.png Outlook-MDH on X.png Outlook-MDH on Lin.png Outlook-MDH on Ins.png Outlook-MDH on You.png Outlook-MDH on Thr.png

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Good afternoon,
Staff in the Source Water Protection Unit at the Minnesota Department of Health have reviewed the Draft Monticello Industrial AUAR and have no comments. We appreciate that the AUAR includes the corrections and suggestions from MDH during the AUAR Scoping.

We appreciate the opportunity to provide input.

Please reach out if you have questions or concerns.

Anneka Munsell PE

Hydrologist | Source Water Protection

Minnesota Department of Health

Office: 651-201-5841

Minnesota Department of Health

DEPARTMENT OF TRANSPORTATION

District 3 - Planning
7694 Industrial Park Road
Baxter, MN 56425
218/828-5700 or 1-800-657-3971

December 17, 2025

Angela Schumann
Community development Director
505 Walnut Street
Monticello, MN 55362
Angela.Schumann@MonticelloMN.gov

RE: Monticello Industrial AUAR Review and Comment

Dear Ms. Schumann:

Thank you for providing information to MnDOT District 3 regarding the Monticello Industrial AUAR.

After reviewing the AUAR MNDOT District 3 has the following comments:

- If future development occurs on the parcels indicated in the AUAR MnDOT would apply our urbanizing access spacing (e.g., ½-mile to 1-mile) to this area as it is being transitioned from rural to urban with this development.
- If future development occurs on the parcels indicated, it is likely that increased traffic impacts to the intersection of MN 25 and 85th St NE could occur which could in turn result in the need for intersection improvements potentially up to and including a roundabout.
- We look forward to reviewing and providing comments should additional changes or developments be proposed.

If you have any questions, comments, or would like to discuss further please don't hesitate to call me at (218)820.9281

Sincerely,

Tad Erickson
Principal Planner

ecc: MnDOT District 3 Development Review Committee File

MINNESOTA POLLUTION CONTROL AGENCY

Marshall Office | 504 Fairgrounds Road | Suite 200 | Marshall, MN 56258-1688 | 507-537-7146

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

December 18, 2025

VIA EMAIL

Angela Schumann
City of Monticello
505 Walnut Street
Monticello, Minnesota 55362
angela.schumann@monticellomn.gov

RE: Monticello Industrial – Draft Alternative Urban Areawide Review

Dear Angela Schumann:

Thank you for the opportunity to review and comment on the Draft Alternative Urban Areawide Review (DAUAR) for the Monticello Industrial project (Project) located in Wright County, Minnesota. The Project consists of two scenarios. Scenario 1 includes multiple buildings for a total of up to 3,000,000 square feet of a proposed technology park/campus development (Figure 3). Scenario 1 could include a data center, research and design facilities, technology laboratories or research park uses. These types of uses are expected to also include the need to build additional electrical substations, transmission lines and backup generators. For the purposes of impact evaluation, this scenario assumes a data center campus, with 5 to 10 principal buildings, approximately 200,000 to 400,000 square feet per building with a few ancillary support buildings. Scenario 1 is expected to follow a similar life cycle of other typical light industrial developments. With most technology park campuses, including data centers, the exterior shell of the buildings are anticipated to be used over many decades, while the internal components are upgraded periodically as technology advances. Scenario 2 includes multiple buildings for a total of up to 5,000,000 square feet of light industrial land use based on the city of Monticello's adopted land use plan (Figure 4). Scenario 2 could include process and production manufacturing which uses moderate amounts of partially processed materials, warehousing and distribution, machine shops, computer technology including office and research development facilities (but not including data centers as a singular principal use), professional and corporate offices and industrial engineering facilities. For the purposes of impact evaluation, this scenario assumes a light industrial park type development that could include 5 to 20 buildings that range from approximately 20,000 to 1 million square feet. Generally, light industrial. Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility and other interests, the MPCA staff has the following comments for your consideration.

Wastewater

- Section 11.a. states that a Geotechnical Evaluation was completed for the study area. A copy of that report should be included in the DAUAR.
- Section 12.b.i.1) states that if a proposed 36-inch trunk sewer line capacity exceeds 2 million gallons per day (mgd) that a separate EAW would be required with the MPCA as the Responsible Governmental Unit (RGU).
    - The correct requirement for Monticello is Minn. R. 4410.4300, subp. 18(A). This subpart requires an EAW for expansion, modification or replacement of a municipal sewage

collection system resulting in an increase in design average daily flow of any part of that system by 1,000,000 gallons per day or more if the discharge is to a wastewater treatment facility with a capacity less than 20,000,000 gallons per day, the MPCA is the RGU.

- The DAUAR stated that additional hydrogeological analysis is needed for the Rapid Infiltration Basin (RIB). Since the RIB is the sole method discussed for cooling water discharge, more details regarding capability of the soil and geology to infiltrate the large volume of water should be included. Until that is completed it is not possible to determine whether a RIB is feasible or permittable.
- If it is found that the soils are not suitable for infiltration of the cooling water, other options that are being considered for discharge should be discussed.
- RIB systems for this waste type have not typically been permitted in Minnesota. Thorough characterization of the site, hydrogeology and wastewater characteristics will be needed to assess the viability of the proposed system. If the system is permitted, ongoing monitoring will be needed to ensure that the system is performing as expected and is protective of resources.
- In addition to the high volume of cooling water discharged, there will be infiltration of onsite stormwater. The impacts to groundwater and surface waters from infiltrating large volumes of water and the temperature of the cooling water should be discussed in more detail. Impacts to area groundwater elevations and potential areas of groundwater discharge to surface waters should be included. High temperature discharges may impact both underlying geology and groundwater discharges to surface waters and this should be discussed in more detail.
- The DAUAR refers to the RIB as a filter for the water to reaching the groundwater. The RIB may provide filtration of particulates, but it would not be expected to provide significant removal of dissolved pollutants. It would be expected that the cooling wastewater should be relatively low in particulates but potentially high in dissolved parameters. The levels of the dissolved parameters in the wastewater that is proposed to be infiltrated should be defined to ensure that water quality standards (Class I drinking water standards) are maintained in the groundwater.
- It is not clear if any pretreatment would be needed (or if pretreatment waste streams will be generated) to condition the water for use in the cooling system (e.g., iron/manganese removal, softening, etc.). Treatment and treatment waste streams will affect discharge quality and potential permitting.
- It is not clear if any chemical additives would be required to condition the water for use in the cooling system (e.g., chemicals for pH adjustment, microbial/biological control, corrosion, passivation, etc.). Chemical additives will affect discharge quality and potential permitting.
- In Section 8, Table 3 lists the existing and proposed cover types and includes stormwater treatment and infiltration area. A similar estimate of the area required for storage and infiltration of cooling water should be included.

Construction Stormwater

- During construction, the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit requires preserving a 50-foot natural buffer around wetlands, rather than the 20-foot buffer referenced in Section 12.b.ii. If maintaining the required buffer is not feasible, the reason must be documented in the Stormwater Pollution Prevention Plan (SWPPP) and redundant perimeter sediment control best management practices (BMPs) must be installed.
- The proposed infiltration practices must meet the 48-hour drawdown requirement and be sized to ensure proper maintenance access and long-term functionality. As found in the Minnesota

Stormwater Manual, it is highly recommended that infiltration basins have a maximum contributing drainage area of 50-acres with a maximum 5:1 ratio of impervious area to infiltration area.

Air

- Air quality analysis:
  - The DAUAR addresses the vehicular emissions expected from the proposed Project by using the Minnesota Department of Transportation screening method designed to identify intersections that will not cause a carbon monoxide emissions impacts above the standards. The DAUAR has done a detailed traffic impact study analysis to determine the impacts of the proposed Project on air quality. The DAUAR should have used the assessment of this traffic study to determine the Project's effect on air quality rather than the screening method. This would have provided the Project's traffic generation impacts on air emissions. It would have also assessed the Project's vehicle related emissions' effects air quality. Based on this information, then it would been easier to determine if any mitigation measures are required for the proposed Project.
  - For a project of this size being planned, the DAUAR should have provided a qualitative discussion of other pollutants including $PM_{2.5}$ NO_x.

Traffic

- Traffic impact analysis:
  - The DAUAR has done a great job in conducting a detailed traffic impact analysis study and included in the DAUAR as an Appendix. The study discussed the Project's impact on the regional transportation system and the impacts of the Project's generated traffic would have on the surrounding area. Based in the detailed study some traffic improvements proposed in the DAUAR must be implemented to reduce the expected impacts.

Watershed

- On pages 14, 59, and 101, The document refers to a "chloride management plan" that will be implemented for every project requiring an NPDES permit. Although there is brief mention of three possible elements of these plans on page 101, a more detailed description of the elements of such a plan could easily be added here in an appendix. As chloride management is an extremely important consideration in Minnesota's climate, please provide better descriptions of what such a plan might entail.
- Water Resources: Although Paradise and Gilchrist Lakes are not listed as impaired, in both cases this is a result of a lack of data, not necessarily because the lakes are healthy. The MN DNR Lakefinder (Minnesota LakeBrowser) indicates that water clarity in Gilchrist Lake (there is no data on Paradise) has improved slightly over the last 50 years, but as a shallow lake with a maximum depth of 9 feet, the lake will be vulnerable to any changes in the watershed. Both Paradise and Gilchrist appear to be hydrologically connected to the AUAR area, so please put greater consideration to protecting these surface waters and greater description as to what the potential water quality and water volume impacts to these waters might be, particularly as wetland 4 appears to feed both lakes. Impervious surface and runoff both have the potential to alter conditions in wetland 4.
- Page 25-Table 7, Item "c"- Would these impacts also include water usage? As the AUAR indicates that additional appropriation of groundwater over and above what is currently

permitted by the DNR will occur as the site is developed, what impact might this have on current and future residential development in the area?

- Page 69-Item 1- The document states that "the developer will classify the wetlands using the Minnesota Routine Assessment Method (MnRAM) prior to construction." From the Board of Soil and Water Resources (BWSR) website: " While the principles and logic behind MnRAM remain sound, using MnRAM output as the sole means to compare wetlands when making wetland permitting/impact decisions is discouraged by BWSR. MnRAM lacks the precision to make very specific comparisons in these situations. However, MnRAM outputs can be useful when used in conjunction with other characteristics and professional judgment." Any wetland delineations or functional assessments should be completed only by qualified, trained, and certified (if applicable) wetland professionals.
- Page 102, Table 26, "geology, Soils, and Topography"- The language in the document appears confused about what is required with regard to the NPDES Construction stormwater permit. The "SWPPP" is a requirement of the permit and not the permit itself, and the acronym "SWPPP" in this case refers to a Stormwater Pollution Prevention Plan, not a "program." The Stormwater Pollution Prevention "Program" is a requirement of the MS4 program, not construction stormwater.

We appreciate the opportunity to review this Project. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit actions by the MPCA. Ultimately, it is the responsibility of the Project Proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this EAW, please contact me by email at chris.green@state.mn.us or by telephone at 507-476-4258.

Sincerely,

Chris Green

This document has been electronically signed.

Chris Green, Project Manager
Environmental Review Unit
Resource Management and Assistance Division

CG:rs

Attachment

cc: Brian Timerson, MPCA (w/attachment)
Melinda Neville, MPCA (w/attachment)
Christopher Lundeen, MPCA (w/attachment)
Matthew Moon, MPCA (w/attachment)
Jeffrey Hedman, MPCA (w/attachment)
Colin Boysen, MPCA (w/attachment)
Lauren Dickerson, MPCA (w/attachment)
Innocent Eyoh, MPCA (w/attachment)
Deepa deAlwis, MPCA (w/attachment)

cc: continued next page.

Nicole Peterson, MPCA (w/attachment)
David Sahli, MPCA (w/attachment)
Julie Henderson, MPCA (w/attachment)
Katrina Hapka, MPCA (w/attachment)

DEPARTMENT OF NATURAL RESOURCES

Division of Ecological and Water Resources
Region 3 Headquarters
1200 Warner Road
Saint Paul, MN 55106

Transmitted by Email

December 18, 2025

Angela Schumann
Community Development Director
City of Monticello
505 Walnut Street
Monticello, MN 55362

Dear Angela Schumann,

Thank you for the opportunity to review the Monticello Industrial Draft Alternative Urban Areawide Review (AUAR) for the project area located in Wright County. The DNR respectfully submits the following comments for your consideration:

1. Page 44-49, Wastewater, Scenario 1. This section states that non-contact cooling water would be circulated two or more times before being discharged to groundwater through a Rapid Infiltration Basin. More information should be provided on the limitations of cooling water recirculation that prevent further re-use. Also, how is cooling water altered before being discharged back to groundwater? Is it softened? Is F-gas used in the cooling process? If so, would the cooling water free of contaminants, including PFAS, before being discharged back to groundwater?
2. Page 76, Section 14.c. There is limited discussion of impacts to non-rare features (wildlife and undeveloped vegetation). The AUAR acknowledges potential impacts to Blanding's turtles but does not discuss how the species may be impacted. Development of upland areas may remove nesting and foraging areas and impacts to wetlands may harm over wintering turtles or destroy habitat used for foraging and/or basking.
3. Page 85, Table 22: Annual Operational Emissions. The estimated emissions for building energy consumption for Scenario 1 were based on a typical light industrial user according to the section footnote. The AUAR acknowledges that data centers have different impacts from other industrial users prompting the City to create a Data Center Planned Unity Development Zoning Ordinance to address these specific impacts. This section should utilize estimates that more accurately reflect the energy use of a data center. Without realistic energy use estimates, it is difficult to compare scenarios, anticipate potential cumulative effects or draft a comprehensive mitigation plan.

Thank you again for the opportunity to review this document. Please let me know if you have any questions.

Sincerely,

Melissa Collins
Regional Environmental Assessment Ecologist | Ecological and Water Resources
Minnesota Department of Natural Resources
Phone: 651-259-5755
Email: melissa.collins@state.mn.us

CC: Nick Frattalone, Monticello Tech, LLC

Equal Opportunity Employer

From: Alexander Coady
To: Angela Schumann
Subject: Re: Monticello Industrial Development - Draft AUAR
Date: Wednesday, November 19, 2025 11:08:51 AM
Attachments: image001.png
image001.png

I still dont understand why "no data centers in monticello" isn't an option that even remotely seems to be on the table. I feel like me and a bunch of people have been very clear on not wanting these things in our town, yet the conversation on how to make data centers work persists. It makes me feel belittled, unheard, and not well represented by the council, and the stress has been having a negative impact on my health.

On Wed, Nov 19, 2025, 10:57 AM Angela Schumann <Angela.Schumann@monticellomn.gov> wrote:

> On behalf of the City of Monticello, please find below a link to the Draft AUAR and Mitigation Plan for the Monticello Industrial Development study area. The City of Monticello approved the Draft AUAR and Mitigation Plan for distribution at the November 10, 2025, City Council Meeting.
>
> Environmental Reviews | Monticello, MN
>
> The AUAR process provides local governments with the opportunity to evaluate how different land uses may impact the community's environment, providing environmental analysis before major development occurs and helping inform future land use decisions. An AUAR is not a project approval document; it provides information useful to planning for the management and mitigation of impacts.
>
> The Monticello Industrial AUAR evaluates two development land use scenarios, a light industrial park land use scenario as outlined in the Monticello 2040 Comprehensive Plan and a technology campus (data center) land use scenario. This AUAR study area encompasses approximately 550 acres on 16 parcels in Monticello Township, Minnesota. The study area is comprised of land generally located south of 85th St NE, west of Edmonson Ave NE, and east of Davidson Ave NE, within the Monticello Orderly Annexation Area.
>
> The public is invited to review and provide comment on the Draft AUAR and mitigation plan. You are receiving this email because you have previously provided comments on the Monticello Industrial AUAR Scoping Document.
>
> The 30-day comment period began on November 18, 2025. Comments will be accepted through 4:00 PM on December 18, 2025, and should be addressed to: angela.schumann@monticellomn.gov.
>
> An Open House on Thursday, November 20, 2025 is also scheduled as an opportunity for additional public information and feedback on the Monticello Industrial AUAR. The Open House will be held from 6-8 PM at the Monticello Community Center.
>
> **Angela Schumann**

Community Development Director

Development Services

763-271-3224

505 Walnut St, Suite 1, Monticello, MN 55362

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Email correspondence to and from the City of Monticello government offices is subject to the Minnesota Government Data Practices Act and may be disclosed to third parties.

From: Feanna Sobania
To: Angela Schumann
Subject: AUAR
Date: Wednesday, November 19, 2025 11:40:06 AM

I'm writing to share my concerns about the two development options in the Monticello AUAR (Monticello Industrial AUAR, November 2025). Even though the report talks about "responsible mitigation," the truth is simple, responsible destruction is still destruction.

The AUAR shows that trees, wetlands, and natural areas will be removed (AUAR Table 3, Table 5). Replanting trees is helpful, but new trees will take decades to replace what is lost. Wetlands that formed naturally over hundreds of years cannot be fully recreated somewhere else. Once soil is compacted and the land is graded for buildings and parking lots, the original landscape, water flow, and wildlife habitat are permanently changed (AUAR Sections 11–12).

The City's Water Resources Management Plan (2019) and Wetland Overlay rules help reduce damage, but they do not stop these long-term impacts. The AUAR also cites climate data showing heavier future rainfall and higher flood risks (NOAA CMRA; EPA CREAT; AUAR Section 7). This means every acre of nature we remove will matter even more in the future.

Monticello has already shown there are better ways to grow. The Block 52 project downtown is a great example. It reused space we already had, strengthened the city core, supported local business, and did not require paving over hundreds of acres of farmland and natural land. This type of project fits with the Monticello 2040 Comprehensive Plan, which encourages infill development, redevelopment, and making better use of existing city areas before expanding outward (2040 Plan, Chapter 3).

The AUAR also references the City's Natural Resource Inventory & Assessment (2008), which highlights the importance of protecting natural corridors and reducing fragmentation. Large-scale outward development goes against these recommendations by breaking up natural areas the city has already identified as valuable.

Thank you for your consideration,
Feanna Sobania
Monticello resident

CITY OF Monticello

Comment Card

Comments on the AUAR are public and will be included in the final AUAR document

(Required) Name: Rita Ceron

(Required) Contact Email Information: [redacted]

Comments:

Using information gathered from pgs. 36-38 457.2 acres are deemed farmland of statewide importance.

What does that say about us as a community when we change things to satisfy Data Centers? Sounds selfish, like we don't care about it effects others so long as we benefit.

To review the Monticello Industrial AUAR, visit:
www.monticellomn.gov/712/Environmental-Reviews
or Search Environmental Reviews

City Hall: (763) 295-2711
Angela.Schumann@MonticelloMN.gov

CITY OF Monticello

Comment Card

Comments on the AUAR are public and will be included in the final AUAR document

(Required) Name: Nita Ceron

(Required) Contact Email Information: [redacted]

Comments:

Climate change Risks and Vulnerabilities clearly states on pg. 17 that suitable habitat may become unsuitable

So, even if adaptions are put in place there is no guarentee it would be enough to sustain fish, wildlife, plants and other Sensitive Ecological Resources.

In my opinion we really shouldn't mess with Mother Nature - we need to leave things better than we found them.

→

To review the Monticello Industrial AUAR, visit:
www.monticellomn.gov/712/Environmental-Reviews
or Search Environmental Reviews

City Hall: (763) 295-2711
Angela.Schumann@MonticelloMN.gov

CITY OF Monticello

Comment Card

Comments on the AUAR are public and will be included in the final AUAR document

(Required) Name: Nita Ceron

(Required) Contact Email Information: [redacted]

Comments:

What is a phase I Archaeological Survey as stated on page 80, paragraph 5?
What exactly needs to be changed to evaluate the 132 acres that have been left out of this survey?
How much time must lapse before it can be surveyed?

To review the Monticello Industrial AUAR, visit:
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or Search Environmental Reviews

City Hall: (763) 295-2711
Angela.Schumann@MonticelloMN.gov

CITY OF Monticello

Comment Card

Comments on the AUAR are public and will be included in the final AUAR document

(Required) Name: Rita Ceron

(Required) Contact Email Information: [redacted]

Comments:

I consider myself educated in a lot of areas. I'm finding my ignorance regarding the language of AUAR embarrassing to say the least. As I go over the draft that was available at the Thursday night presentation I found that not any citizen that tried to review it would feel just as ~~lot~~ lost. What's missing is a glossary, a list of all the acronyms so any person reading it can better educate themselves and understand what the presenter/author is trying to get across.

To review the Monticello Industrial AUAR, visit:
www.monticellomn.gov/712/Environmental-Reviews
or Search Environmental Reviews

City Hall: (763) 295-2711
Angela.Schumann@MonticelloMN.gov

CITY OF Monticello

Comment Card

Comments on the AUAR are public and will be included in the final AUAR document

(Required) Name: Rita Caron

(Required) Contact Email Information: [redacted]

Comments:

??'s If in fact the data centers are approved, built and as time passes left abandoned, how will the soil beneath the building be affected? Would that area be buildable? Could it return to farmland or would it be so contaminated it would be deemed useless?

To review the Monticello Industrial AUAR, visit:
www.monticellomn.gov/712/Environmental-Reviews
or Search Environmental Reviews

City Hall: (763) 295-2711
Angela.Schumann@MonticelloMN.gov

From: bil keenan
To: Angela Schumann
Subject: Data ordinance.
Date: Thursday, November 20, 2025 12:55:32 PM

Good Morning Angela. I will not be able to attend the early meeting but will slip in for the later meeting. I read thru the ordinance and it doesnt look all that much different than the original ideas. 300 feet for a setback is far too low. The City of Monticello has the power, for now to control this and they are caving to big tech. That should be 1000 feet minimum and I see they went with the standard decibel levels.
MPCA standard levels are too low, especially based on the type of frequency the noise will be. Human brains can not block it out, and it is shown to cause health issues.
There is 550 acres available with a proposed 3,000,000 square feet (which is around 70 acres). That leaves 480 acres as a buffer unless there is future development planned that we do not know about. 300 feet should not be an option. 1000 feet minimum.

My question is after reading the enviromental study is
there is a woodland low area that has been used as a dumping ground for years. This would be in the field next to our property I did not see anything about abandoned vehicles and rusted out 55 gallon drums (who knows what were in them) in the report. I would think that should have been disclosed initially. It will get buried by Frattlone and no one will say a thing.

Another question is, I see more and more investors shorting the AI market (particularly Nvidia) for a potential bubble bust. Is Monticello concerned about this? The city of Monticello will be putting a crazy amount of infrastructure in for something that could be gone in 10 years

This whole thing is absolutely disgusting. I am hoping the city council will say no to the ordinance but I do not feel confident they will. They could at the very least table it for a year and watch what other cities are doing and the market.

MPCA standard levels are too low, especially based on the type of frequency the noise will be. Human brains cannot block it out and it is shown to cause health issues.

So much for public input. Very disheartening, but I do not think that anyone is suprised.
My question is after reading the enviromental study is

there is a woodland low area that has been used a dumping ground for years. I did not see anything about abandoned vehicles and rusted out 55 gallon drums (who knows what were in them) in the report. I would think that should have been disclosed initially. It will get buried by Frattlone and no one will say a thing.

My other question is, I see more and more investors are shorting the AI market (particularly Nvidia) for a potential bubble bust. Is Monticello concerned about this? The city of Monticello will be putting a crazy amount of infrastructure in for something that could be gone in 10 years.

MPCA standard levels are too low, especially based on the type of frequency the noise will be. Human brains cannot block it out and it is shown to cause health issues.

From: Scott Nelson
To: Angela Schumann
Subject: Detailed Comments on Draft Monticello Industrial AUAR and Mitigation Plan
Date: Thursday, November 20, 2025 11:11:21 AM

Hi Angela,

Thank you for distributing the Draft AUAR and Mitigation Plan for the Monticello Industrial area. I spent time reading through the document in detail and wanted to share several specific concerns related to nighttime lighting and mechanical noise. These issues appear repeatedly throughout the AUAR but are not addressed with the level of technical clarity needed to avoid problems for nearby neighborhoods.

After reviewing Scenario 1 and Scenario 2, as well as the mitigation summaries, I noticed that lighting requirements are described only in broad terms such as buffering, screening, and site design. For example, Figures 3 and 4 show extensive new impervious areas, parking fields, and potential mechanical yards, yet there are no measurable standards referenced for lighting controls. Without technical specifications, developers could default to high intensity fixtures similar to the existing commercial sites along the Highway 25 corridor. As you know, lighting from Walmart, UMC Manufacturing, and Camping World already produces noticeable sky glow and glare because none of those installations follow dark sky guidelines. Adding 500 acres of industrial or tech campus lighting without precise requirements would compound that impact and surely drown out our current dark sky view, which allows us the ability to clearly see stars, the Northern Lights (Like the amazing views we had last week) and even the Milky Way on clear nights.

If the City intends to minimize residential lighting impacts, the mitigation plan needs measurable criteria. Examples include:
• Full cutoff fixtures with zero uplight (BUG rating of U0)
• Color temperature limits of 2700K to 3000K
• Pole height limits of 20 to 25 feet unless fully shielded
• Maximum maintained illumination levels for parking areas (0.2 to 0.5 footcandles after hours)
• Required dimming schedules for non security lighting
• Prohibition on upward directed flag lighting and façade lighting
• Use of backlight shields along property edges and wetlands

These are standard practices for dark night lighting control and can be verified with photometric plans submitted during site review. Adding these to the mitigation plan would ensure both scenarios are held to a consistent standard.

I also have concerns about mechanical noise, particularly in Scenario 1. The AUAR notes that a technology campus may require electrical substations, transmission extensions, large cooling equipment, and backup generators. However, the document does not include noise contour modeling, nighttime sound propagation analysis, or equipment performance assumptions. Minnesota's industrial noise limits are based on older standards and do not address low frequency noise, which is the most common source of complaints near data centers. Without specific controls, low frequency hum from cooling systems or tonal noise from generators could be audible well beyond the site boundary, especially at night.

To avoid this outcome, the mitigation plan should include:
• A maximum nighttime property line noise limit specifically applied to continuous mechanical equipment
• Daytime only generator testing requirements
• Sound enclosures or noise walls for generators and mechanical yards
• Low frequency noise controls, such as silencers or vibration isolation
• Placement requirements that keep mechanical yards internal to the site
• Post installation sound verification by an independent acoustical engineer

These types of requirements are common in other cities that have approved data centers, and they remove ambiguity by defining clear, enforceable expectations.

While I am not exclusively against any of the ideas laid out by the City on face value, I am very concerned that the lack of clear standards and corrective actions for lighting and noise will create undue and avoidable disruption for neighboring residents. I am also concerned that these issues may not be actively monitored or consistently enforced if not fully incorporated into the mitigation plan. For these reasons, I do not currently approve of the plan as it is written and cannot support either of the scenarios presented in the draft.

Thank you for considering these comments. I am happy to clarify any of these points or provide additional technical examples if helpful.

From: candace
To: Angela Schumann
Subject: Re: Monticello Industrial Development - Draft AUAR
Date: Thursday, November 20, 2025 11:19:09 AM
Attachments: image001.png

Dear Ms. Schumann and Members of the City Council,

I am submitting this letter as part of the public comment period for the Monticello Industrial Draft AUAR. After reviewing the document in detail, I have significant concerns regarding completeness, accuracy, and adequacy of the environmental review presented. As written, this AUAR does not meet the requirements of the Minnesota Environmental Quality Board (EQB) and does not provide the public or decision-makers with the full information needed to evaluate the true impacts of the proposed development.

The AUAR appears to have been prepared with the intent to justify development rather than to objectively assess worst-case environmental impacts. Under state rules, an AUAR must evaluate potential impacts comprehensively, conservatively, and with defensible technical documentation. Unfortunately, that standard is not met in multiple sections of the current draft.

For the reasons outlined below, I am requesting that the City:

1. Reject the AUAR as incomplete,
2. Require significant revisions, and
3. Consider whether a full Environmental Impact Statement (EIS) is necessary before any approvals or annexation actions occur.

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1. Groundwater Impacts Are Not Adequately Assessed

Scenario 1 (technology campus) anticipates extremely high water use, yet the AUAR does not provide:

- A hydrogeological model of aquifer drawdown.
- Analysis of impacts to private residential wells, shallow aquifers, or seasonal fluctuations.
- Cumulative groundwater demand impacts in combination with future city growth.
- Engineering feasibility for the proposed Rapid Infiltration Basin (RIB) system.
- Assessment of thermal impacts, temperature changes, or potential contamination risks.

Given that much of Monticello Township relies on private wells, the omission of aquifer sustainability modeling represents a substantial deficiency.

Request:
A full groundwater analysis, including worst-case pumping for both scenarios, must be completed before AUAR approval.

---

2. Surface Water & Stormwater Analyses Use Outdated Data

Although the AUAR acknowledges changing precipitation patterns, it fails to model:

- NOAA Atlas 14 updates or projected 2050–2080 storm intensities.
- Downstream flooding impacts to County Ditch systems.
- Increased runoff from converting ~444 acres of prime farmland (Table 3, p.18) to impervious surface.
- Flooding risk to nearby neighborhoods and planned residential developments.

Worst-case design must be shown; instead, the AUAR defers all critical detail to "future design phases."

Request:
Stormwater modeling using future climate projections and complete downstream hydrological modeling.

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3. Traffic & Transportation Impacts Are Severely Underestimated

The transportation analysis (Tables 24 & 25) is narrowly focused and excludes:

- Effects on Highway 25, County Road 39, and school routes.
- Freight and heavy truck trips expected under Scenario 2.
- Impacts on safety and emergency response times.
- Road deterioration, noise, and long-term city maintenance costs.

Given the scale of the development—up to 5 million square feet—the traffic study is insufficient for an AUAR.

Request:
A regional traffic impact analysis, including freight modeling, school traffic, and long-term roadway maintenance.

---

4. Air Quality, Noise, and Health Impacts Are Not Properly Addressed

The AUAR fails to evaluate:

- Backup diesel generator emissions for Scenario 1.
- Low-frequency and continuous cooling tower noise typical of data centers.
- 24/7 truck noise, idling, and loading activity for Scenario 2.
- Cumulative health impacts on residents, especially children and elderly populations.

These omissions conflict with the AUAR requirement to evaluate worst-case impacts.

Request:
A Health Impact Assessment, diesel generator emissions modeling, and noise propagation modeling for both scenarios.

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5. Environmental, Habitat, and Farmland Impacts Are Downplayed

The AUAR acknowledges that approximately 77% of the land is currently farmland of statewide importance (Table 8, p.36), yet:

- No alternatives that preserve agricultural use are considered.
- Impacts to wildlife corridors and the planned greenway are dismissed.
- Wetland hydrology and ecological connectivity are not studied in depth.

Given the scale of land conversion, this is a major deficiency.

Request:
Inclusion of land conservation alternatives and a full ecological connectivity assessment.

---

6. Cumulative Impacts Section Is Critically Incomplete

The AUAR provides only minimal discussion of cumulative effects, failing to analyze:

- Combined water, sewer, and power demand with ongoing city growth.
- Combined regional traffic volumes.
- Multi-source noise, air emissions, and long-term climate impacts.

This violates EQB AUAR guidance, which explicitly requires thorough cumulative analysis.

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7. Mitigation Plan Is Vague and Not Enforceable

The Draft Mitigation Plan (Table 26) lacks:

- Quantitative thresholds
- Timelines
- Monitoring requirements
- Assigned financial responsibility
- Enforcement mechanisms

State law requires that mitigation in an AUAR be specific, detailed, and binding. This mitigation plan does not meet that requirement.

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8. Failure to Evaluate Reasonable Alternatives

The AUAR only evaluates two high-intensity industrial scenarios. It does not include:

- A conservation-based alternative
- Low-impact or mixed-use alternatives
- Scaled-back development alternatives
- Agricultural preservation or parkland alternatives

Minnesota environmental review rules require that an AUAR evaluate reasonable, feasible alternatives. This AUAR does not.

Conclusion & Request for Action

Based on the concerns detailed above, I respectfully request that the City of Monticello:

Reject the current Draft AUAR as incomplete and inadequate,

Require significant revisions, including independent studies of groundwater, stormwater, noise, traffic, and health impacts**,

Extend the public comment period after revisions are made,

Evaluate whether a full Environmental Impact Statement (EIS) is warranted, given the size, intensity, and risks associated with the proposed project.

This AUAR, as drafted, does not provide the community or decision-makers with the information necessary to ensure the protection of public health, natural resources, and quality of life for current and future residents.

Thank you for your consideration of these comments. I request written confirmation that these concerns will be addressed in the revised AUAR.

Sincerely,

Candace Seidl

On Wed, Nov 19, 2025 at 10:57 AM Angela Schumann <Angela.Schumann@monticellomn.gov> wrote:

> On behalf of the City of Monticello, please find below a link to the Draft AUAR and Mitigation Plan for the Monticello Industrial Development study area. The City of Monticello approved the Draft AUAR and Mitigation Plan for distribution at the November 10, 2025, City Council Meeting.
>
> Environmental Reviews | Monticello, MN
>
> The AUAR process provides local governments with the opportunity to evaluate how different land uses may impact the community's environment, providing environmental analysis before major development occurs and helping inform future land use decisions. An AUAR is not a project approval document; it provides information useful to planning for the management and mitigation of impacts.
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> The Monticello Industrial AUAR evaluates two development land use scenarios, a light industrial park land use scenario as outlined in the Monticello 2040 Comprehensive Plan and a technology campus (data center) land use scenario. This AUAR study area encompasses approximately 550 acres on 16 parcels in Monticello Township, Minnesota. The study area is comprised of land generally located south of 85th St NE, west of Edmonson Ave NE, and east of Davidson Ave NE, within the Monticello Orderly Annexation Area.

The public is invited to review and provide comment on the Draft AUAR and mitigation plan. You are receiving this email because you have previously provided comments on the Monticello Industrial AUAR Scoping Document.

The 30-day comment period began on November 18, 2025. Comments will be accepted through 4:00 PM on December 18, 2025, and should be addressed to: angela.schumann@monticellomn.gov.

An Open House on Thursday, November 20, 2025 is also scheduled as an opportunity for additional public information and feedback on the Monticello Industrial AUAR. The Open House will be held from 6-8 PM at the Monticello Community Center.

Angela Schumann

Community Development Director

Development Services

763-271-3224

505 Walnut St, Suite 1, Monticello, MN 55362

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Email correspondence to and from the City of Monticello government offices is subject to the Minnesota Government Data Practices Act and may be disclosed to third parties.

From: DL Murdoff
To: Angela Schumann
Subject: Greenhouse Gas Gases
Date: Friday, November 21, 2025 3:10:41 PM

Angela,

The greenhouse gas analysis projects that the project could produce 3,013,575 tons of greenhouse gases per year--equivalent to 2.4% of ALL of Minnesota's current greenhouse gas emissions.

This amount of greenhouse gas emissions is outrageous! This would result in the addition of over 3 million tons of greenhouse gases to the environment every year, and it would occur right here in Monticello. That's a staggering amount.

To put into perspective, the Sherco power plant produced about 10.5 million tons of greenhouse gases in 2022. They employed around 300 people (maybe 350).

From my understanding, the data center will create around 40 ongoing jobs (and won't really have the upswing of workers coming in for outages like the power plant). So when you look at it from a greenhouse gas emissions standpoint. The data center creates more yearly CO2 per employee than a coal power plant. YIKES!!!

Thanks,

Danielle L. Murdoff

My workdays are Tuesdays and Thursdays.
I usually reply within one workday.
Looking forward to connecting.

From:	Gabe & Hannah Graveldinger
To:	Angela Schumann
Subject:	Public comment on Data Centers
Date:	Saturday, November 29, 2025 4:19:13 PM

Hello, Angela,
I would like to make this part of the comments for the City Council and Zoning Commission to consider:

City Council has said it is listening to our concerns, they share those concerns, and those concerns are being worked into the AUAR and proposed regulations. That's great. Suppose everything "passes", and some future company[ies] is willing to meet all the requirements/regulations set forth. We still have the problem that regardless of that, the community does NOT want a data center, or even light industrial use of these areas, regulations or otherwise. I would like the Council and all involved parties to consider: **LET'S JUST SAY NO**.

These data centers would take hundreds of acres of land! We raise honeybees. We do not want to see such a high loss of forage of native plants for our bees or any other local pollinators. Pollinator species are struggling enough. **Let's just say no!**

Our water resources are not infinite. Groundwater aquifers can only go so far. Monticello is a fast-growing city. Is it drawing from the same aquifer as neighboring cities? We have a private well drawing from those aquifers as well. As these aquifers become depleted over time, cities may need to dig deeper wells. People may need to dig deeper wells for their residents. Will we need to ultimately ration water??

There is a hierarchy in Minnesota statute over water uses. Municipal uses are at the top. And these data centers want to go under the city's permit. If there was a time of scarcity, and we did have to do some rationing, municipal is the highest use. So those data centers get into that highest use of municipal, which is above agriculture. What will that do to farmers, livestock and crops? **Let's just say no!**

Industrial buildings of any kind are known for being eyesores. They have their place, but it such a residential/agricultural area, Industrial doesn't "fit". There is a national housing crisis. Why are we not using these areas for natural expansion of housing, yards and gardens?

These areas should be kept for agricultural and/or residential use. **Let's just say no!**

Please protect our land and resources!

Thank you,

Gabe & Hannah Graveldinger

From: Daniel DiLorenzo
To: Angela Schumann; Development Services
Subject: Opposition to Data Center Development in Monticello
Date: Monday, December 1, 2025 2:17:39 PM

Dear Members of the Monticello Planning Commission and City Council,

I am writing as a Monticello resident to express my strong opposition to allowing large-scale data centers or "technology campuses" in our community.

I also want to note that I work a blue-collar job in the HVAC trade, which gives me firsthand experience with mechanical systems, electrical loads, heat rejection, and the infrastructure demands that large facilities place on a community. Because of this background, I am especially aware of the scale of energy use, cooling requirements, and equipment stresses involved in data center operations—and my concerns come from both a resident's and a technician's perspective.

From my viewpoint, the risks and costs to residents clearly outweigh any potential benefits that have been mentioned so far. Specifically:

- **Energy and grid strain:** Data centers are enormous electricity users. They threaten to put long-term strain on our local grid, increase the risk of outages, and potentially drive up utility rates for everyday residents and small businesses—people who do not have the resources of a massive corporation.
- **Water use and environmental impact:** Many data centers require significant water for cooling and generate substantial heat and noise. This raises concerns about long-term impacts on local water resources, environmental quality, and the overall character of Monticello.
- **Limited community benefit:** There has been no compelling evidence that these facilities would provide substantial, long-term *local* jobs or meaningful tax benefits when compared to the scale of infrastructure and energy demands they create.
- **Quality of life and property values:** Noise from cooling equipment, increased electrical infrastructure, possible substation expansion, and truck traffic threaten nearby neighborhoods, property values, and the small-town atmosphere that residents value.

Given these concerns, I ask you to:

1. **Reject** data centers as a permitted or conditional use in our community, or
2. At minimum, adopt **very strict regulations and limits** that heavily restrict where and how they can be built, while prioritizing the health, safety, and financial interests of residents over outside corporate interests.

Please treat this email as my formal statement of opposition regarding data center development in Monticello. I respectfully request that my comments be added to the public record for the relevant hearings and discussions.

Thank you for taking the concerns of working residents seriously, including those of us who understand the technical implications these facilities would bring to Monticello's infrastructure.

Sincerely,

Daniel DiLorenzo
[redacted]

From: Brooke Blomker
To: Angela Schumann
Subject: Opposition to Proposed Data Center in Monticello
Date: Friday, December 5, 2025 1:11:16 AM

Dear Ms. Schumann,

I am writing to express my strong opposition to the proposed data center development in Monticello. While I understand the desire to attract new investment and technological infrastructure to our community, the significant environmental, economic, and quality-of-life concerns associated with this project outweigh the potential benefits.

Environmental Impact:
Large-scale data centers require enormous amounts of electricity and water for continuous operation and cooling. This will cause an enormous amount of stress on Monticello's local resources—especially our groundwater and energy infrastructure. Increased energy demand risks higher utility costs for residents, while heavy water usage poses potential threats to local ecosystems and future water security, as well as the potential to create "localized heat islands" affecting local animals and plants.

Noise, Heat, and Air Quality:
Data centers often rely on industrial-scale cooling systems that produce continuous noise and expel waste heat. This can disrupt nearby neighborhoods, reduce property values, and contribute to localized environmental degradation. Monticello residents deserve thoughtful development that enhances livability, not industrial noise and thermal pollution.

Economic Considerations:
Despite promises of economic development, most modern data centers create very few permanent jobs relative to their resource demands. Much of the economic benefit flows to out-of-state corporations, while the local community assumes the burden of infrastructure costs, environmental risks, and land-use trade-offs. Monticello should prioritize projects that provide sustainable economic opportunities with meaningful long-term employment.

Land Use and Community Character:
Monticello's growth should reflect our community values—balancing development with environmental stewardship, residential wellbeing, and long-term planning. A high-impact industrial data facility is incompatible with the vision many residents share for Monticello's future. We have the opportunity to encourage growth that aligns with our identity rather than compromise it.

For these reasons, I respectfully urge the Community Development Department, the Planning Commission, and the City Council to reject the data center proposal and pursue development options that better serve Monticello's residents, environment, and long-term prosperity.

Thank you for your attention and for your continued service to our community. I appreciate your thoughtful consideration of these concerns.

Sincerely,
Brooke Blomker

From: Shannon Bye
To: Angela Schumann
Subject: Fwd: Monticello Industrial Development - Draft AUAR
Date: Saturday, December 6, 2025 6:38:29 PM
Attachments: image001.png

The **auar** introduces two development scenarios but provides **no rationale** for why these scenarios bracket the realistic range of impacts.
Scoping requires explaining why alternatives are reasonable, not just describing them.

Your document frequently states that mitigation "will be identified," but does not outline:

- decision criteria for selecting mitigation, responsible parties, performance standards, or monitoring commitments.

This really weakens its usefulness for determining the scope and depth of analysis, but is that what you are after? Honestly after last night's 4 hours(I will never get back) I don't know why I bother. We do this song and dance with everything, and in the end you shove it through. Same song and dance with Havenridge, despite the efforts of the Army Corps of engineers recommendations, the supervision of recommendations was not even minimal in the end.

In this instance I am inclined to believe it isn't really about the data farm but opening up a chunk of twnshp for light industrial use, since the planning scope of other previous plans wasn't adept enough to realize commercial would tank, and allowing commercial IN the existing industrial area (fleet farm??)

At any rate here are some **expectations to improve your document**, not my first rodeo and I suspect even if you make the changes it will be like usual in that follow up is minimal regardless of the data collected

Insufficient evaluation of cumulative potential effects

Scenario-based cumulative impacts are not described.
The AUAR must outline how cumulative effects will be assessed relative to:

- other planned annexations,
- regional industrial growth,
- utility system expansions,
- transportation improvements,
- climate change.

The document only states that cumulative impacts "will be discussed." The current description does not identify the full range of realistic development intensities, nor does it justify why the two selected scenarios represent the outer bounds of potential environmental effects. Expand on the rationale and the bounding analysis should be included.**should include an analysis of**

greenway corridor constraints and potential fragmentation effects based on the City's adopted Natural Resource Inventory & Assessment.

This scoping phase should identify whether protocol-level surveys, avoidance zones, or seasonal construction constraints will be required for Blanding's Turtle as noted. Don't see that coming, hasn't been given much credence for other sites. Yout document does not describe potential host habitats or whether field surveys are required for butterflies or other pollinators.

The document describes plans but does not discuss potential plan amendments, conflicts, or necessary updates to the Comprehensive Plan or Orderly Annexation Agreement. **Scoping must clarify whether Scenario 1's data-center-heavy model aligns with land-use allowances.**

Climate adaptation section commits to addressing climate trends but contains **no actual climate baseline**, projections, vulnerability assessment, or preliminary findings. Hows about you include some actual climate projection baselines and anticipated future conditions to scope the level of analysis required by the process you are participating in???. The current language defers all meaningful analysis to the future without identifying **methodology, models, datasets, or thresholds for evaluating climate-related risk.**This undermines the ability to scope climate-related analysis meaningfully.

The scoping document appears to leave out baseline estimates for criteria pollutants, GHG emissions, noise contours, and traffic volumes for each scenario. These **baselines are necessary** to determine the depth of study required. Furthermore provides no identification of foreseeable projects, utility expansions, regional development, or transportation improvements that must be included. **Scoping must define the cumulative analysis boundary.**

Stormwater analysis is not yet defined

AUAR guidance **requires a detailed stormwater approach**, including:

- conceptual pond locations,
- estimated impervious surface totals,
- infiltration feasibility,
- rate/volume control strategy,
- climate-change-adjusted hydrologic assumptions.

Instead, the document promises these will be "discussed," offering no specifics.

Wetland analysis is incomplete

While wetlands are mapped, the document does not include:

- impact estimates for either scenario,

- preliminary avoidance/minimization strategy,
- identification of likely mitigation pathways,
- whether buffers can be met,
- potential hydrologic changes.
- does not include an overlay analysis of potential fragmentation, habitat loss, or hydrologic alteration under either development scenario it also lacks an initial estimate of total inches removed and expected replacement obligations, THAT is needed to understand scale of impacts. There is **no preliminary assessment of cut/fill needs, soil export/import, mass grading extents,** or erosion-prone areas. Scenario-level earthwork analysis is required to properly scope stormwater and erosion evaluations.
- does not provide preliminary estimates of permanent or temporary wetland impacts for either scenario, nor does it evaluate hydrologic connectivity or **down-gradient effects to Pelican Lake.**
- this lacks baseline groundwater level data, anticipated drawdown under each scenario, or triggers for a water appropriations permit.
- **no scenario-level wastewater generation estimates are provided & this will be preventing scoping of system impacts. The document must include preliminary flow ranges based on land use intensities.**

This is a core requirement for AUAR scoping....The document mentions that water and wastewater needs "will be evaluated," but provides **no preliminary capacity screening**, including but not limited to:

- existing system deficits,
- constraints of trunk sewer expansion,
- potential need for new wells,
- substation/transmission implications for Scenario 1.

Scoping must identify potential constraints, not just promise later evaluation.

Insufficient evaluation of cumulative potential effects: Scenario-based cumulative impacts are not described. The AUAR **must outline how cumulative effects will be assessed relative to:**

- other planned annexations,
- regional industrial growth,
- utility system expansions,
- transportation improvements,
- climate change.

The document only states that cumulative impacts “will be discussed.”

Insufficient evaluation of cumulative potential effects

Scenario-based cumulative impacts are not described.
The AUAR must outline how cumulative effects will be assessed relative to:

- other planned annexations,
- regional industrial growth,
- utility system expansions,
- transportation improvements,
- climate change.

The document only states that cumulative impacts “will be discussed.”

I would expect that you need to identify **scenario-specific triggers,** thresholds for additional environmental review (e.g., fuel storage, wastewater flows), or anticipated timing of permit submittals. **Scoping should identify which permits materially influence the AUAR analysis, furthermore it lacks an initial compatibility screening, including noise, visual, traffic, stormwater, and utility conflicts with the planned single-family area east of Edmonson Avenue.**

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Angela Schumann

Community Development Director

Development Services

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From: Joe Kraft
To: Angela Schumann
Subject: Public Comment on the Monticello Draft AUAR
Date: Wednesday, December 10, 2025 1:32:00 PM

Hello,

I am submitting this comment because after reviewing the Draft AUAR, it's clear that the document does not go far enough in protecting residents, groundwater, wetlands, wildlife, or the character of the surrounding neighborhoods. The AUAR reads more like a framework to make development easier than a document that seriously evaluates worst-case impacts or holds future projects to a high standard.

The area covered by this AUAR includes sensitive wetlands, wells, groundwater protection zones, and wildlife habitat. It also sits near existing neighborhoods that will be directly affected by noise, lighting, traffic, and industrial activity. Given the scale of the two scenarios —up to 3 million square feet of "technology campus" buildings or up to 5 million square feet of industrial development—the protections outlined in the AUAR are not nearly strong enough or detailed enough to ensure long-term environmental safety and quality of life.

Major Concerns:

1. **Groundwater and Aquifer Protection**
   The AUAR acknowledges that part of the site lies within a Drinking Water Supply Management Area but still allows high-risk options like rapid infiltration basins and large-volume water use without requiring rigorous hydrogeological testing before approval. A "study later" approach is not acceptable in an area tied directly to community drinking water.

2. **Wetland Impacts**
   The document allows for wetland impacts under both scenarios with vague promises of "replacement through banking credits." Replacing wetlands on paper does not protect the local ecosystem or stormwater function of the site. Local wetland preservation should be the default expectation, not an optional mitigation tactic.

3. **Traffic and Roadway Stress**
   The AUAR's traffic analysis is too general and does not realistically address truck volumes, noise, congestion, or safety risks—especially under the industrial scenario. Residents should not be left to deal with the consequences of heavy industrial traffic because the initial environmental review used optimistic estimates.

4. **Noise and Air Impacts**
   The AUAR repeatedly delays noise and air-quality studies until individual projects are proposed. This undermines the purpose of an AUAR, which is supposed to evaluate cumulative, worst-case impacts. Backup generators, cooling systems, and heavy equipment could have major long-term effects on surrounding homes, yet the AUAR provides no enforceable limits.

5. **Weak Enforcement Language**
   Much of the mitigation plan uses soft language like "should," "may," or "is expected

to." None of these guarantee that impacts will actually be prevented. Developers could technically meet the AUAR requirements while still creating substantial harm.

Stronger Measures That Should Be Added Before Approval:

1. **Mandatory full hydrogeological impact assessment before any approval**
   No project should move forward without clear evidence that groundwater, private wells, and the City's aquifer will not be harmed.

2. **No use of infiltration basins for industrial or data-center wastewater**
   This practice introduces unnecessary risk in a DWSMA zone. Wastewater must be treated and sent through the municipal system only.

3. **Zero net loss of local wetlands**
   All wetlands on the site should be protected in place. Banking credits should not substitute for local environmental functions.

4. **Binding noise limits and generator-testing restrictions**
   The AUAR should establish strict noise thresholds, limits on hours of operation, and requirements for noise-reducing design features before any project is allowed.

5. **Comprehensive traffic impact plan with enforceable truck routes**
   Heavy truck traffic should be restricted from residential roads, and a full traffic impact study should be required before any project approval—not after.

6. **A stronger greenway and wildlife-protection requirement**
   The AUAR should guarantee continuous habitat corridors, larger buffers around wetlands, and mandatory wildlife-friendly design.

7. **Independent environmental monitoring paid for by developers**
   Annual third-party audits should be required to ensure developers follow stormwater, groundwater, noise, and air-quality commitments.

8. **Shorter AUAR validity period**
   The AUAR should expire sooner than typical to prevent outdated assumptions from allowing harmful future projects.

In summary, this AUAR does not go far enough to protect Monticello residents or the environment. The scale of development being considered demands stronger, clearer, and enforceable mitigation measures. Without these changes, the AUAR creates more risk than reassurance. I urge the city to adopt stricter requirements before finalizing this document.

From: Allie VanVleet
To: Angela Schumann
Subject: Data Center AUAR
Date: Wednesday, December 10, 2025 8:55:40 PM

City of Monticello,

We have been residents of Monticello for over 5 years and have had many concerns with the direction the city has been taking over the last few years. We are in strong opposition to the proposed data center. I am sure you already know the numerous negative outcomes that these types of facilities have on the surrounding community, but the following are a few of the reasons we do not want to see this become a reality in our city.

Data centers negatively impact communities through severe noise pollution, increased air and water pollution, strained energy grids leading to higher utility costs, and high water consumption, potential health issues, decreased property values, and minimal local job creation, creating significant environmental and social burdens. These large facilities consume excessive amounts of resources and are not worth the related risks.

The environmental impacts include:

- **Water Strain**: Data centers use millions of gallons of water daily for cooling, straining local supplies in water-scarce regions.
- **Energy Demand**: They are massive energy consumers, putting pressure on power grids, sometimes leading to reliance on fossil fuels, increased emissions, and higher energy bills for residents.
- **Air Pollution**: Backup diesel generators can cause spikes in harmful air pollutants, impacting public health.

Community and health impacts include:

- **Noise Pollution**: Constant humming from cooling systems and generators causes sleep disruption, headaches, and stress for nearby residents.
- **Health Concerns**: Chronic noise and poor air quality can lead to hypertension, cardiovascular risks, and provoke lung problems.
- **Property Values**: property value of the surrounding area is driven down.

Economic impacts include:

- **Utility Costs**: Data centers can drive up electricity rates for all consumers.
- **Job Disparity**: While they consume resources, they create few local, high-paying jobs compared to their scale.
- **Land Use**: They displace other potential developments, such as housing, and can strain local infrastructure.

We ask that the city council listen to the people who are raising a family here and call this city their home rather than lining pockets with money that this type of facility claims to offer. We have heard nothing but opposition for this facility from those in our community and ask that this data center is denied entrance to ruining our home.

Thank you,
Steven and Allie VanVleet

From: Gwen&Wayne Johnson
To: Angela Schumann
Subject: Auar
Date: Thursday, December 11, 2025 10:56:15 AM

Hello Angela, I have read through the auar. Although the document seems pretty thorough for the most part. The one thing I don't see addressed is amount of chemical being used on the land now that may be eliminated with the change in land use.

I would be referring to farm herbicides, pesticides and chemical fertilizers.

As you are aware intensive farming practices require considerable amounts of all of these products on a regular basis.

The current farmer running a large portion of this land is a very efficient operator. He sometimes double crops areas of the farm which requires double applications of all of the above chemicals. He also grows specialty crops which generally require higher amounts of insecticides.

Although many of the current farm chemicals are not considered pfas, a few are. Some of the main chemicals such as glyphosphates are not considered pfas, although it has been proven they remain molecularly intact long enough to create health concerns.

Being that there are currently thousands of pounds of various chemicals currently being distributed on this parcel that would be mostly eliminated in the auar scenarios. It seems this would have very realistic effect on the surrounding community and the environment.

I imagine that the amount of chemicals the operator uses on this parcel may not be required to be of public record.

Thank you,

Wayne Johnson

From: Erin Jones
To: Angela Schumann
Cc: Lloyd Hilgart; charlotte.gabler@minticellomn.gov; Tracy Hinz; Lee Martie; Kip Christianson
Subject: AUAR Public Comment - Strong Opposition to Proposed Monticello Data Center
Date: Thursday, December 11, 2025 11:11:36 AM

To the Monticello Planning Commission and Review Committee,

My name is Erin Jones, a resident of Monticello, and I am writing during the AUAR public review period to express my strong opposition to the proposed data center in our community. After reviewing the project materials and the broader impacts data centers have shown in other communities, I urge the Commission to deny approval (or at minimum place a moratorium on permitting) until binding community protections are required.

Below I summarize the primary reasons for my concern and request that the AUAR and any approvals meaningfully address each item.

1. Excessive water use threatens local water supply and ecosystems.
   Large data centers often consume millions of gallons of freshwater daily for cooling. Recent analyses and reporting show some facilities using on the order of millions of gallons per day (and industry-wide consumption measured in billions of gallons annually), which can stress municipal and groundwater supplies—especially in smaller towns. The AUAR should disclose concrete, verifiable daily and annual water withdrawal and consumptive-use estimates for this project and require limits and independent monitoring.

2. Backup generators and on-site fuel storage create local air-quality and health risks.
   Data centers commonly rely on diesel backup generators that emit nitrogen oxides, particulate matter, and other harmful pollutants when tested and exercised. Communities near large generator arrays have reported worsened air quality and associated health impacts. The AUAR must quantify expected generator usage (testing and runtime), model local air-pollutant concentrations, and prohibit continuous or frequent use of diesel generators or large on-site diesel storage unless strict mitigation and permitting are required.

3. High electricity demand strains the grid and can raise local utility costs.
   Modern data centers are among the largest electricity consumers in many regions. Rapid data-center growth has been linked to large grid upgrades and proposals to pass through infrastructure and reliability costs to ratepayers—resulting in higher

electricity bills for residents and small businesses. The AUAR must analyze cumulative load (including future expansion), who will pay for transmission and distribution upgrades, and whether the project will exacerbate rate pressure on Monticello households.

4. E-waste and hardware lifecycle concerns are real and under-addressed.
   Server equipment and accelerators (GPUs, ASICs) have relatively rapid refresh cycles in AI and high-performance computing environments. Without enforceable decommissioning and certified e-waste management plans, the community can be left with hazardous electronic waste and lost recovery opportunities. I ask the Commission to require a binding asset-disposition plan aligned with certified IT asset-disposition (ITAD) standards and financial assurances for responsible end-of-life handling.

5. Noise, light, and industrialization change quality of life.
   Large-scale cooling systems, HVAC fans, and transform/verter stations generate continuous low-frequency noise and lighting that can travel beyond site boundaries, altering residential neighborhoods and property values. The AUAR should include real-world modeled noise contours for worst-case operating and test conditions and enforceable nighttime limits and setbacks.

6. Broader public concern — national calls for a pause on new facilities.
   This is not just a local issue. Over 200 environmental organizations recently sent a letter urging Congress to halt approvals of new U.S. data centers until stronger safeguards are in place, citing excessive energy and water demand and community harms. That collective action underscores that many civil-society groups see the industry's current pace of expansion as incompatible with climate and community resilience goals. Monticello should proceed cautiously in light of this national scrutiny.

Monticello deserves development that strengthens our local economy without jeopardizing public health, water resources, or ratepayer welfare. If the project proponents cannot demonstrate that the data center will avoid or fully mitigate the harms described above, I respectfully request that the Planning Commission deny site approval (or at minimum place a moratorium until federal and state policy clarifies protections and community safeguards). Additionally, I would request any Council member receiving campaign contributions from AI related interests remove themselves from this project due to conflicts of interest.
Thank you for your consideration of my concerns during this public review.

Sincerely,
Erin Jones
Monticello Resident

From: Krystal Fair
Subject: Public Comment on the Draft Monticello Industrial AUAR
Date: Friday, December 12, 2025 9:13:50 AM
Importance: High

To the Mayor, City Council, Planning Commission

I am submitting this public comment to formally express my **opposition** to the Draft Monticello Industrial AUAR as it relates to Scenario 1, which explicitly evaluates a large-scale data center / technology campus within the Monticello Orderly Annexation Area.

While the AUAR is described as a "planning tool," **its adoption carries lasting consequences that materially shape future development approvals. Based on the City's own document, the risks, uncertainties, and long-term burdens of this proposal outweigh any speculative benefits.**

1. The AUAR Pre-Approves a Massive Worst-Case Development

The AUAR evaluates a "worst-case" development scenario of **up to 3,000,000 square feet of technology or data center uses across 550 acres** (pp. 7–8).

"The intent of the AUAR is to recognize the worst-case potential impacts and identify mitigation measures that may be taken to compensate for those impacts." (p. 7)

This is not theoretical. Once adopted, this AUAR becomes the environmental ceiling for future projects, allowing subsequent approvals to rely on this document without re-opening full environmental review. Community opposition at later stages becomes functionally limited.

2. Data Centers Are Acknowledged as a Unique and High-Burden Use

The City's own 2040 Comprehensive Plan language, quoted directly in the AUAR, acknowledges that data centers are fundamentally different from other industrial uses:

"The City's 2040 Plan recognizes data centers as a singularly unique land use due to size and scope." (p. 25)

"Data center uses shall demonstrate convincingly that its burden on municipal services, infrastructure, or fiscal condition is completely mitigated…" (p. 26)

The AUAR does not demonstrate this convincingly. Instead, it defers critical determinations to future permits, future studies, and future mitigation AFTER the AUAR is adopted.

3. Water Demand Is Significant and Uncapped

“Scenario 1 would require significantly lower operational traffic and potentially higher water/wastewater demands compared to Scenario 2.” (p. 12)

Scenario 1 anticipates heavy groundwater use; Potential Rapid Infiltration Basin (RIB) systems; Future water appropriation permit amendments (p. 21–22)

Yet these **permits are not secured**, and the long-term sustainability of groundwater withdrawal is modeled - **not guaranteed**.

The AUAR itself acknowledges increasing climate stress:

“There is a projected 2.6% to 13.8% increase in 100-year storm intensity by 2035 and a projected 5.2% to 26.9% increase by 2060.” (p. 12)

Approving a water-intensive land use under these conditions is fiscally and environmentally irresponsible.

4. Permanent Loss of Farmland of Statewide Importance

“77 percent of the study area is considered farmland of statewide importance.” (p. 23)

“Cropland: 444 acres existing → 0 acres proposed.” (Table 3, p. 18)

This loss is irreversible. No meaningful farmland preservation strategy is included, only replacement landscaping and engineered stormwater features.

5. Wetlands and Natural Systems Are Reduced

The AUAR documents a reduction in wetlands under Scenario 1 and relies heavily on mitigation and engineered infrastructure:

“…preservation of wetlands or woodlands as required by ordinance and/or to the extent practical.” (pp. 17–18)

“Mitigation” is not the same as protection, especially as precipitation intensity increases and systems fail under real-world conditions.

6. Infrastructure Burdens Are Shifted Forward – Likely to TAXPAYERS

The AUAR anticipates new trunk water and sewer lines, electrical substations, and roadway improvements (pp. 11–12), **without binding financial assurances protecting taxpayers.**

7. Annexation Removes Local Control PERMANENTLY

The AUAR confirms: “The study area is outside the city of Monticello and would require the city to annex land from the Township.” (pp. 30–31)

Once annexed, township residents permanently lose land-use authority, despite bearing many of the long-term impacts.

8. Few Permanent Jobs, Poor Land-Use Efficiency

While not quantified in the AUAR, data centers are **widely known to generate very few permanent jobs** relative to land consumed. The AUAR offers no job minimums, local hiring requirements, or wage standards.

This stands in contrast to other light industrial uses contemplated in Scenario 2.

Conclusion

For these significant reasons, I urge the City of Monticello to **REJECT** this project that would alter the identity of our community forever.

My only question to you is - why are you trying to destroy this city? Bringing these data centers to our community would have dire consequences, and that would be on *you*.

Respectfully submitted,

Krystal Fair
Monticello Resident [redacted]
12/12/2025

From: Lysa Holmstrom
To: Angela Schumann
Subject: Data centers
Date: Friday, December 12, 2025 5:16:26 PM

I have to start with saying I'm disappointed in our city leaders that this agenda seems to be pushed regardless of how the community is responding.

This is not the everyday business. These are usually a lights out facility named by a security guard. They don't bring jobs. They don't add value to our community. They add to our existing problems with tainted water from the nuclear plant.

I live not even a mile from the larger location. I moved here to have a quieter life, I like most other people in Monticello would like to see that continue without a significant nose generated bya data center. There is no way to reduce the impacts to our citizens for our water, noise or electricity consumption.

These companies do not care about our community, I hope our city council does and prohibits all data center buildings in and around Monticello!

Lysa Holmstrom, home owner in Monticello

From: Laura Pelant
To: Angela Schumann
Subject: Opposition to Draft Industrial AUAR
Date: Friday, December 12, 2025 2:24:48 PM

To the Mayor, City Council, Planning Commission, and Staff,

I am submitting this public comment to formally express my opposition to the Draft Monticello Industrial AUAR as it relates to Scenario 1, which explicitly evaluates a large-scale data center / technology campus within the Monticello Orderly Annexation Area.

While the AUAR is described as a "planning tool," its adoption carries lasting consequences that will materially shape future development approvals. This decision does not exist in a vacuum—it affects nearby neighborhoods, children who use local parks and trails, families who rely on clean water, and the long-term character of the Monticello community, including access to natural assets such as the Bertram Chain of Lakes.

Based on the City's own document, the risks, uncertainties, and long-term burdens of this proposal outweigh any speculative benefits.

1. The AUAR Pre-Approves a Massive Worst-Case Development

The AUAR evaluates a "worst-case" development scenario of up to 3,000,000 square feet of technology or data center uses across 550 acres (pp. 7–8).

> "The intent of the AUAR is to recognize the worst-case potential impacts and identify mitigation measures that may be taken to compensate for those impacts." (p. 7)

This is not theoretical. Once adopted, this AUAR becomes the environmental ceiling for future projects, allowing subsequent approvals to rely on this document without re-opening full environmental review. Future public input—especially from families living nearby—becomes functionally limited after this point.

2. Data Centers Are Acknowledged as a Unique and High-Burden Use

The City's own 2040 Comprehensive Plan language, quoted directly in the AUAR, acknowledges that data centers are fundamentally different from other industrial uses:

“The City’s 2040 Plan recognizes data centers as a singularly unique land use due to size and scope.” (p. 25)

“Data center uses shall demonstrate convincingly that its burden on municipal services, infrastructure, or fiscal condition is completely mitigated…” (p. 26)

The AUAR does not demonstrate this convincingly. Instead, it defers critical determinations to future permits, future studies, and future mitigation after the AUAR is adopted—placing the burden of risk on the surrounding community rather than on the applicant.

3. Water Demand Is Significant and Uncapped

“Scenario 1 would require significantly lower operational traffic and potentially higher water/wastewater demands compared to Scenario 2.” (p. 12)

Scenario 1 anticipates:

- Heavy groundwater use
- Potential Rapid Infiltration Basin (RIB) systems
- Future water appropriation permit amendments (pp. 21–22)

These permits are not secured, and the long-term sustainability of groundwater withdrawal is modeled—not guaranteed. This matters deeply for families, schools, and children who depend on reliable, clean water now and into the future, as well as for the community who enjoy access to Bertram Park.

The AUAR itself acknowledges increasing climate stress:

“There is a projected 2.6% to 13.8% increase in 100-year storm intensity by 2035 and a projected 5.2% to 26.9% increase by 2060.” (p. 12)

Approving a water-intensive land use under these conditions is fiscally and environmentally irresponsible, especially when safer, less extractive land uses exist.

4. Permanent Loss of Farmland of Statewide Importance

"77 percent of the study area is considered farmland of statewide importance." (p. 23)

"Cropland: 444 acres existing → 0 acres proposed." (Table 3, p. 18)

This loss is irreversible. Productive farmland near residential areas and community amenities is replaced with an industrial use that provides little direct benefit to local families. No meaningful farmland preservation strategy is included—only replacement landscaping and engineered stormwater features that do not replicate food production, ecological value, or rural character.

5. Wetlands and Natural Systems Are Reduced

The AUAR documents a reduction in wetlands under Scenario 1 and relies heavily on mitigation and engineered infrastructure:

"…preservation of wetlands or woodlands as required by ordinance and/or to the extent practical." (pp. 17–18)

"Mitigation" is not the same as protection—particularly as precipitation intensity increases and systems fail under real-world conditions. Natural systems near parks, trails, and lakes provide flood protection, water filtration, and outdoor spaces for children; once degraded, these benefits are not easily restored.

6. Infrastructure Burdens Are Shifted Forward – Likely to Taxpayers

The AUAR anticipates new trunk water and sewer lines, electrical substations, and roadway improvements (pp. 11–12), without binding financial assurances protecting current and future taxpayers.

Families living nearby should not be asked to absorb long-term infrastructure risk for a development that offers limited local return.

7. Annexation Removes Local Control Permanently

The AUAR confirms:

"The study area is outside the city of Monticello and would require the city to annex land from the Township." (pp. 30–31)

Once annexed, township residents permanently lose land-use authority—despite bearing many of the long-term impacts related to water use, traffic patterns, noise, visual scale, and environmental risk. This is a one-way decision.

8. Few Permanent Jobs, Poor Land-Use Efficiency

While not quantified in the AUAR, data centers are widely known to generate very few permanent jobs relative to land consumed. The AUAR offers no job minimums, no local hiring requirements, and no wage standards—providing little assurance that this project meaningfully supports Monticello families.

This stands in contrast to other light industrial uses contemplated in Scenario 2, which offer greater flexibility, economic diversity, and community benefit.

Conclusion

For these reasons—environmental, fiscal, and community-based—I urge the City of Monticello to REJECT Scenario 1 of the Draft Industrial AUAR. Approving this framework would commit the community to an irreversible path that prioritizes speculative industrial development over children, neighborhoods, natural resources, and long-term resilience.

This decision will shape Monticello for generations. It deserves caution, restraint, and a clear commitment to protecting the people who already call this place home.

Thank you,

Laura Pelant

From: Ben Pupeza
To: Angela Schumann
Subject: Data center
Date: Saturday, December 13, 2025 9:27:43 AM

I don’t want this in my back yard.
I don’t want endless construction and noise.
I don’t want my property value and quality of life to be diminished.
Set back should be 1 mile from a residence.
Make it not happen.
Ben and Kasey Pupeza
[redacted]

From: Beth Heck
To: Angela Schumann
Subject: Data Center
Date: Sunday, December 14, 2025 3:51:14 PM

Angela,
My name is Beth Heck, I live on [redacted] in Monticello.
I am against the Data Center anywhere close to Monticello. I don't want the environmental impact that it will have.

From: Rita Howell
To: Angela Schumann
Subject: No Data Centers IN Monticello Mn. 55362!
Date: Monday, December 15, 2025 1:23:20 PM

Im Seriously Against This we Live Close to where these will be !!!
Close to Schools Seriously this is what this Community is going too???? We have lived in this Community for 30 year!! And all of you want to
destroy what we have built this is Disgraceful to this whole Community . We live on [redacted] we retired to this Community and you are all ruining !!! Think of all of our Kids and Grandchildren Please!! Do Mot do this you will not have any housing developments left if this is pushed thru!!! Very disappointed resident!!'
Sent from my iPhone

From: Steph Mueller
To: Lloyd Hilgart; Angela Schumann; Charlotte Gabler; Tracy Hinz; Lee Martie; Kip Christianson
Subject: Concern Regarding Proposed Data Centers
Date: Monday, December 15, 2025 7:55:31 PM

To the Mayor, City Council, Planning Commission, and Staff,

I am a nearby homeowner and parent. We moved here for a quiet, safe neighborhood for our children. The proposed data center raises serious concerns about noise, traffic, light pollution, air quality, and long-term health impacts, especially for children.

Our community deserves a safe and peaceful place to live. The proposed data center would change that for everyone.

Thanks,
Stephanie Reichert

From: Shannon Bye
To: Angela Schumann
Subject: Re: Monticello Industrial Development - Draft AUAR
Date: Tuesday, December 16, 2025 12:41:02 PM
Attachments: image001.png

Thank you for the opportunity to comment on the City of Monticello's November 2025 Draft Alternative Urban Areawide Review (AUAR). The AUAR provides a framework for evaluating potential industrial development and generally fulfills the procedural purpose of an AUAR. However, as currently drafted, the document relies too heavily on future site-level review and does not sufficiently analyze or mitigate cumulative environmental impacts associated with full industrial build-out.

The following comments are offered to strengthen the AUAR's analytical rigor, environmental protections, and long-term defensibility as it appears to be moving forward regardless of some overwhelming public comments against these sorts of projects and their lack of long term data for overall impact .

---

1. Development Scenarios and Alternatives

The development scenarios presented do not differ meaningfully in land use intensity, impervious surface coverage, or environmental outcomes. As a result, the AUAR does not provide a clear basis for comparing environmental impacts among alternatives.

A true reduced-impact or conservation-oriented alternative should be included. Such an alternative should clearly demonstrate lower impervious surface coverage, expanded buffers and open space, and reduced traffic and utility demand. Quantifiable differences among scenarios are necessary to support informed decision-making.

---

2. Cumulative Impact Analysis

While cumulative impacts are acknowledged, the AUAR does not adequately quantify impacts under full build-out conditions. Impacts are addressed resource-by-resource rather than holistically, and the analysis assumes future mitigation without demonstrating system-wide capacity.

The AUAR should include a comprehensive full build-out cumulative impacts summary addressing impervious surfaces, traffic volumes (including heavy truck traffic), water and wastewater demand, and stormwater discharge. Cumulative impacts should be evaluated assuming concurrent or near-concurrent development, not sequential mitigation.

---

3. Transportation and Freight Impacts

The transportation analysis does not adequately reflect the operational characteristics of industrial development. Heavy truck traffic appears understated, and peak freight movement periods are not clearly analyzed.

The AUAR should include truck-specific operational analysis, identify mitigation thresholds for key corridors and intersections, and clarify the timing and responsibility for transportation improvements. Without this information, transportation impacts remain uncertain.

---

4. Stormwater, Wetlands, and Water Quality

Stormwater and wetland impacts are discussed at a conceptual level, relying on future compliance with MS4 and NPDES requirements rather than quantitative modeling.

Stormwater modeling should be conducted for full build-out conditions and should evaluate downstream and watershed-scale impacts, including increased precipitation intensity associated with climate change. Avoidance and minimization strategies should be prioritized over mitigation alone.

---

5. Groundwater and Drinking Water Protection

Groundwater impacts are insufficiently analyzed given the industrial nature of the planned development. The AUAR provides limited discussion of aquifer sensitivity, recharge impacts, and cumulative water withdrawals.

The AUAR should include groundwater vulnerability mapping, quantify projected water demand for each scenario, and identify protective measures tailored to industrial land uses.

---

6. Land Use Compatibility and Buffers

The AUAR does not adequately address land use compatibility between industrial development and adjacent agricultural or residential areas. Buffer standards are general and lack spatial specificity, and noise and lighting impacts are not fully evaluated.

Minimum buffer widths and performance standards should be identified, and compatibility impacts should be evaluated cumulatively rather than deferred to site-level review.

---

7. Utilities and Public Services

Utility and public service impacts are described broadly without identifying capacity thresholds or phasing triggers. The AUAR assumes infrastructure expansion will occur without clearly demonstrating feasibility or funding mechanisms.

The AUAR should identify capacity limits for water, wastewater, and emergency services and clearly link infrastructure expansion to development intensity and timing.

---

8. Mitigation Measures and Enforceability

Many mitigation measures in the AUAR are advisory rather than binding, using non-

mandatory language and lacking implementation mechanisms.

Key mitigation measures should be converted into enforceable commitments and clearly incorporated into zoning standards, development agreements, or conditional use approvals. Monitoring and reporting requirements should also be included.

Conclusion

While the November 2025 Draft AUAR satisfies basic procedural requirements, it does not yet provide a sufficiently robust analysis of the cumulative environmental impacts associated with full industrial build-out in Monticello. Strengthening the alternatives analysis, quantifying cumulative impacts, and formalizing mitigation measures would significantly improve the AUAR's usefulness, transparency, and legal defensibility.

Thank you for considering these comments. I appreciate the City's efforts to plan for growth while addressing environmental impacts and encourage continued refinement of the AUAR prior to adoption.

Sincerely,

On Mon, Dec 8, 2025 at 8:16 AM Angela Schumann <Angela.Schumann@monticellomn.gov> wrote:

> Shannon,
>
> Good morning. After reviewing your comments, I am wondering whether your review was based on the prior Scoping Document and not on the AUAR itself?
>
> Please see link below to the full AUAR. It is on the same webpage as the Scoping Document, but further down on the page.
>
> Monticello Industrial Draft AUAR
>
> The Scoping Document was previously accepted by the City Council.
>
> Please don't hesitate to call me to discuss.

Angela Schumann

Community Development Director

Development Services

763-271-3224

505 Walnut St, Suite 1, Monticello, MN 55362

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From: Shannon Bye [redacted]
Sent: Saturday, December 6, 2025 6:38 PM
To: Angela Schumann <Angela.Schumann@MonticelloMN.gov>
Subject: Fwd: Monticello Industrial Development - Draft AUAR

The **auar** introduces two development scenarios but provides **no rationale** for why these scenarios bracket the realistic range of impacts.
Scoping requires explaining why alternatives are reasonable, not just describing them.

Your document frequently states that mitigation "will be identified," but does not outline:

- decision criteria for selecting mitigation, responsible parties, performance standards, or monitoring commitments.

This really weakens its usefulness for determining the scope and depth of analysis, but is that what you are after? Honestly after last night's 4 hours(I will never get back) I don't know why I bother. We do this song and dance with everything, and in the end you shove it through. Same song and dance with Havenridge, despite the efforts of the Army Corps of engineers recommendations, the supervision of recommendations was not even minimal in the end.

In this instance I am inclined to believe it isn't really about the data farm but opening up a chunk of twnshp for light industrial use, since the planning scope of other previous plans wasn't adept enough to realize commercial would tank, and allowing commercial IN the existing industrial area (fleet farm??)

At any rate here are some **expectations to improve your document**, not my first rodeo and

I suspect even if you make the changes it will be like usual in that follow up is minimal regardless of the data collected

Insufficient evaluation of cumulative potential effects

Scenario-based cumulative impacts are not described.
The AUAR must outline how cumulative effects will be assessed relative to:

- other planned annexations,
- regional industrial growth,
- utility system expansions,
- transportation improvements,
- climate change.

The document only states that cumulative impacts "will be discussed." The current description does not identify the full range of realistic development intensities, nor does it justify why the two selected scenarios represent the outer bounds of potential environmental effects. Expand on the rationale and the bounding analysis should be included.**should include an analysis of greenway corridor constraints and potential fragmentation effects based on the City's adopted Natural Resource Inventory & Assessment.**

This scoping phase should identify whether protocol-level surveys, avoidance zones, or seasonal construction constraints will be required for Blanding's Turtle as noted. Don't see that coming, hasn't been given much credence for other sites. Yout document does not describe potential host habitats or whether field surveys are required for butterflies or other pollinators.

The document describes plans but does not discuss potential plan amendments, conflicts, or necessary updates to the Comprehensive Plan or Orderly Annexation Agreement. **Scoping must clarify whether Scenario 1's data-center-heavy model aligns with land-use allowances.**

Climate adaptation section commits to addressing climate trends but contains **no actual climate baseline**, projections, vulnerability assessment, or preliminary findings. Hows about you include some actual climate projection baselines and anticipated future conditions to scope the level of analysis required by the process you are participating in???. The current language defers all meaningful analysis to the future without identifying **methodology, models, datasets, or thresholds for evaluating climate-related risk.**This undermines the ability to scope climate-related analysis meaningfully.

The scoping document appears to leave out baseline estimates for criteria pollutants, GHG emissions, noise contours, and traffic volumes for each scenario. These **baselines are necessary** to determine the depth of study required. Furthermore provides no identification of foreseeable projects, utility expansions, regional development, or transportation improvements that must be included. **Scoping must define the cumulative analysis boundary.**

Stormwater analysis is not yet defined

AUAR guidance **requires a detailed stormwater approach**, including:

- conceptual pond locations,
- estimated impervious surface totals,
- infiltration feasibility,
- rate/volume control strategy,
- climate-change-adjusted hydrologic assumptions.

Instead, the document promises these will be "discussed," offering no specifics.

Wetland analysis is incomplete

While wetlands are mapped, the document does not include:

- impact estimates for either scenario,
- preliminary avoidance/minimization strategy,
- identification of likely mitigation pathways,
- whether buffers can be met,
- potential hydrologic changes.
- does not include an overlay analysis of potential fragmentation, habitat loss, or hydrologic alteration under either development scenario it also lacks an initial estimate of total inches removed and expected replacement obligations, THAT is needed to understand scale of impacts. There is **no preliminary assessment of cut/fill needs, soil export/import, mass grading extents,** or erosion-prone areas. Scenario-level earthwork analysis is required to properly scope stormwater and erosion evaluations.
- does not provide preliminary estimates of permanent or temporary wetland impacts for either scenario, nor does it evaluate hydrologic connectivity or **down-gradient effects to Pelican Lake.**
- this lacks baseline groundwater level data, anticipated drawdown under each scenario, or triggers for a water appropriations permit.
- **no scenario-level wastewater generation estimates are provided & this will be preventing scoping of system impacts. The document must include preliminary flow ranges based on land use intensities.**

This is a core requirement for AUAR scoping....The document mentions that water and wastewater needs "will be evaluated," but provides **no preliminary capacity screening**, including but not limited to:

- existing system deficits,
- constraints of trunk sewer expansion,
- potential need for new wells,
- substation/transmission implications for Scenario 1.

Scoping must identify potential constraints, not just promise later evaluation.

Insufficient evaluation of cumulative potential effects: Scenario-based cumulative impacts are not described. The AUAR **must outline how cumulative effects will be assessed relative to:**

- other planned annexations,
- regional industrial growth,
- utility system expansions,
- transportation improvements,
- climate change.

The document only states that cumulative impacts “will be discussed.”

Insufficient evaluation of cumulative potential effects

Scenario-based cumulative impacts are not described.
The AUAR must outline how cumulative effects will be assessed relative to:

- other planned annexations,
- regional industrial growth,
- utility system expansions,
- transportation improvements,
- climate change.

The document only states that cumulative impacts “will be discussed.”

I would expect that you need to identify **scenario-specific triggers,** thresholds for additional environmental review (e.g., fuel storage, wastewater flows), or anticipated timing of permit submittals. **Scoping should identify which permits materially influence the AUAR analysis, furthermore it lacks an initial compatibility screening, including noise, visual, traffic, stormwater, and utility conflicts with the planned single-family area east of Edmonson Avenue.**

On Wed, Nov 19, 2025 at 10:57 AM Angela Schumann <Angela.Schumann@monticellomn.gov> wrote:

> On behalf of the City of Monticello, please find below a link to the Draft AUAR and Mitigation Plan for the Monticello Industrial Development study area. The City of Monticello approved the Draft AUAR and Mitigation Plan for distribution at the November 10, 2025, City Council Meeting.
>
> Environmental Reviews | Monticello, MN
>
> The AUAR process provides local governments with the opportunity to evaluate how different land uses may impact the community's environment, providing environmental analysis before major development occurs and helping inform future land use decisions. An AUAR is not a project approval document; it provides information useful to planning for the management and mitigation of impacts.
>
> The Monticello Industrial AUAR evaluates two development land use scenarios, a light industrial park land use scenario as outlined in the Monticello 2040 Comprehensive Plan and a technology campus (data center) land use scenario. This AUAR study area encompasses approximately 550 acres on 16 parcels in Monticello Township, Minnesota.

The study area is comprised of land generally located south of 85th St NE, west of Edmonson Ave NE, and east of Davidson Ave NE, within the Monticello Orderly Annexation Area.

The public is invited to review and provide comment on the Draft AUAR and mitigation plan. You are receiving this email because you have previously provided comments on the Monticello Industrial AUAR Scoping Document.

The 30-day comment period began on November 18, 2025. Comments will be accepted through 4:00 PM on December 18, 2025, and should be addressed to: angela.schumann@monticellomn.gov.

An Open House on Thursday, November 20, 2025 is also scheduled as an opportunity for additional public information and feedback on the Monticello Industrial AUAR. The Open House will be held from 6-8 PM at the Monticello Community Center.

Angela Schumann

Community Development Director

Development Services

763-271-3224

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From: Cutsforth, Scott M
To: Angela Schumann
Subject: AUAR
Date: Tuesday, December 16, 2025 9:41:25 AM

Morning Angela,
Thank you all again for going through this document. Here are some of my concerns/questions. Not sure if these are the right comments for the AUAR or not.

Water:

- If water restrictions are put into place, due to drought, does the data center still get its allotment?
    - If not, what does that mean for cooling? Do they pull more electric or have to run the generators for the lack of water?
- Monticello has plans to build over 500 homes on the south side over the next 5-10 years (assumption on my part), new hotel, more restaurants, more apartments, etc., how does that impact the current water appropriation? The slide last night made it look like we would be right at that amount.

Noise:

- How far away these noise evaluations conducted? i.e. ¼ mile, ½ mile, etc.
    - How long (minutes) are these tests conducted?
    - Are these tests conducted during all 4 seasons? Sound travel differently during each season.
    - Are the tests conducted in a way assuming the full development of the site?

Fuel Spill:

- Fuel spill is not a "if" as more of a when. Does the AUAR going into detail as to a design to prevent fuel from getting into the ground water?

Best Regards,

Scott Cutsforth
[redacted]

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From: [redacted]
To: Angela Schumann
Subject: NO to Data Center in Monticello
Date: Tuesday, December 16, 2025 9:03:19 AM

To All Whom It May Concern:

We need to add to the ordinance being written for Data Centers in Monticello, MN: "*Must Supply own power*" to the ordinance relating to data centers in Monticello.
I believe this statement added to the ordinance would deter for now the Data Center being proposed

and I hope and pray that you all vote : "NO to Data Center in Monticello" and No to any tax relief or incentive for them .

-

My reasons for NOT wanting a Data Center in Monticello are as follows:

- Strain on water resources
- Infrastructure and Financial Burden. Power demands and water and sewer demands.
- Quality of Life/Noise and Emissions
- Environmental and Health Concerns/Risks. Toxic air pollutants.
- Decline in property values and sky-rocketing electricity prices.

Please prioritize the long term well being and quality of life for the residents of Monticello by rejecting any proposal for a data center and adding to the ordinance requirements for this and future requests for a data center that they have to pay for and *supply their own power* and water!!!!!!

-

Iris Harris

Iris Harris,
[redacted]

[redacted]

-

From: Kay L
To: Angela Schumann
Subject: Data Center
Date: Tuesday, December 16, 2025 9:57:25 AM

Hello Angela,

I was unable to attend last evenings meeting, but I wanted to touch base my comments.

I live on [redacted] which is directly across from one proposed site. I have done my research and I find it rather disturbing that a data center would be considered near any residential area. There are mostly families in that entire area that would be impacted by the noise, financial burden, potential health impacts.

I can appreciate the revenue attraction, but the money towards the city doesn't make up for each families financial burden your askiing them to take on. Money should never take priority over struggling families pocketbook nor health!

The rendering I saw shows no planting of large trees to hide the structure and provide a sound barrier. Factor that cost into the plan, and someone to maintain the landscape.

I strongly oppose this data center being built on either proposed site!

Sincerely,
Kay LaMaie APRN

From: Emma Huntzinger
To: Angela Schumann
Subject: Comments on the Monticello Industrial Draft AUAR
Date: Wednesday, December 17, 2025 11:16:10 PM

To whom it may concern,

I strongly oppose the proposed Monticello Industrial Technology Campus by developer Monticello Tech, LLC (registered in New York state with no vested interest in the livability of our local community).

I grew up in this area and after going out of state for college and starting my career, my husband and I moved to Monticello in June of 2024 to start a family closer to our “village” of friends and family. In the past year and a half, we bought a home near Otter Creek Park, fixed up our kitchen, painted and prepped a nursery, and welcomed a beautiful baby girl, who was born at the hospital in town.

Beautiful things are happening in our community every day - affordable homes are loved and invested in, babies are born, senior photos are taken in Otter Creek - but a data center threatens all of that.

Among the reasons I am vehemently against the building of a data center in our community are:

- Increased water and energy costs
- Detrimental impacts to natural resources such as, but not limited to, Bertram Chain of Lakes
- Sound pollution ruining the peace of nearby neighborhoods
- Negative health and fertility impacts found in recent studies
- Decreased housing prices - no matter how you feel about the project, the public strongly disapproves of data centers so it would absolutely affect housing prices negatively
- Minuscule jobs added for the massive investment of time, peace, money, land
- Suspicious timelines hinting at an urgency to push this through before the state has a

chance to set regulations, and a general lack of transparency

I want my baby daughter to have the ability to start a family of her own if she chooses to someday. I want to be able to afford her formula and diapers without worrying about the water bill. More than anything, I want to take her to the lake so she grows up a proper Minnesotan - with a love for the land and the water and the wildlife that makes this place so wonderful.

This proposal threatens my daughter's future in this town.

I hope to God that the city is listening to our voices and that this proposal does not come to fruition. If it does, however, I can only hope that we can sell our house quickly and find a community that cares about its neighbors.

Your community does not want this. I have faith that you will do the right thing.

Emma Huntzinger & baby girl E.

From: lisa Keenan
To: Angela Schumann
Subject: Fwd: AUAR public comment draft
Date: Wednesday, December 17, 2025 9:07:16 PM

First I take issue with the AUAR being done by Kimley Horn. I cannot find the document I swear I saw a document on the city website that stated Monticello Data LLC recommended Kimley Horn. I am sure there are other qualified companies who could have done it.

The City of Monticello 2040 comprehensive plan is centered around Sustainability, Community Health and Sense of Place. If community health is really part of the foundation of the city then a data center should not be part of the plan. There is plenty of proof out there they are not good for the residents' health nor the environment. If this goes through, we will all know our sense of place is second to the almighty dollar.

Page 24 - 25 Study area future land use designations purposes & allowed uses.
A. recognizes it's unique
B. will not create conflict with other land uses, especially residential
C. Will not inhibit future growth
I agree, a data center is unique, however it will create a conflict with other land uses, especially residential and will most likely inhibit future growth. It will create a conflict with people's quality of life starting when constructions begins. It will reduce property values due to the lengthy construction schedule. Look at West Des Moines, IA, Prineville, OR, or Boardman, OR, all 10-15 years after constructions starts and nothing else nearby. Data centers seem to repel other commercial development in a nearby radius.

Page 43 Groundwater, aquifers, springs & seeps.
5 wells may be located in the study area. If unable to reuse, wells located within study area would be properly sealed. What would they need to be used for, why doesn't it just state the wells will be sealed? I thought the data center would be connected to city water? What would they be re-used for? If they are used then the water use table shown at the 12.15.25 meeting would be incorrect.

Page 46 There are only 2 wells shown in the study area but previously the document stated there were 5. Also, within the 1 mile radius missing the Hedrickson's well just off Hwy 25 and Davidson. Also every house in the development behind Quarry Church has a well but they don't all appear to have dots.

Page 47 Why is industrial wastewater excluded from review in an AUAR? That doesn't make any sense to me.

Page 44 and page 48 Non-contact cooling water proposed to be discharged into a RIB. Up to 100 million gallons per year, which is really only discharged from April - October. That is a lot of water in a short amount of time. Very concerning for multiple reasons. At what temperature will the water be when it is discharged? It states "consisting only of water from groundwater wells". Wells or city water? Nothing added to it, I mean absolutely nothing

added. So the water that is discharged would be like me running water from our well into the RIB? That is the way I am reading it, is that correct? At the 12.15.25 meeting the woman from KH stated "there are probably some things in there". Probably?? What would these things be and how would they affect environment or people? The RIB is also concerning because it was stated a RIB has not previously been used for a data center in MN before. Let's not be an environmental guinea pig.
The RIB system will consist of multiple cells, each accepting cooling water wastewater flow for two days and then resting for six days, with rotation to ensure proper infiltration and resting. Is this saying they will discharge into it for 2 days and the rest for 6? The MNPCA website states: A RIB drying cycle is typically five to ten times longer than the wetting cycle. I'm assuming a wetting cycle would be when water is being discharged into it and drying is identified in the AUAR as resting days. If that is correct then after water is discharged into it for 2 days the rest should be 10 to 20 days, not six days as stated in the AUAR.

The RIB system acts as a large filter, trapping most impurities at the surface. Maintenance will involve periodic removal of the top few inches of mineral deposit-laden soil, which will be disposed of in a landfill. I believe periodic needs to better defined. Is it monthly during the discharge months or every other month? What exactly is periodic? If it needs to be removed should it really go into a landfill where it can seep back into another aquifer?

Page 63 MnDNR permit for irrigation wells was a total of 76.3 million gallons per year. The AUAR shows the draw was 88.4 million. What was done about this? What happens when someone takes more than they are permitted to? If there is a well that is going to be re-used for whatever purpose in this development who will monitor so they don't draw more than the appropriation?
Page 71 Environmental site assessment safe handling and disposal. My husband had an agreement with a previous owner of the land south and a bit east of us. We used to have a "nature trail" back there. It has been years since we have been down there however, there used to be old cars and 55 gallon drums and other misc junk dumped there. We have never seen anyone come in and clean this up and am assuming that would al need to be properly disposed of.

Once the details for scenario 1 are known, such as type of equipment, air or water cooled, the quantity, size, location and type of generators etc then an EIS should be done. There are so many unknowns at this point for an EIS, however my understanding is an AUAR is not as comprehensive as an EIS.

Regarding GHG emissions estimates; AUAR states "proposers best estimate of average annual emissions". If the end user isn't known and the equipment isn't known how accurate can this estimate be? Once these things are known they could come back with real #'s.

Construction noise need not be addressed in an AUAR, unless there is some unusual reason to do so. The reason would be a prolonged, up to 10 year phased build. We have not had any previous construction projects of this length or size. Generally construction is bothersome but is tolerated due to its short duration of time. This would be for an extended period of time and regulations need to be re-evaluated.

One of the women at the head of the table made a comment about cooling being done by drawing in cold air to cool during the winter. Do they then expel hot air? How much and what is in that air? Which bring us back to once the type of equipment is known there needs

to be an EIS done.

if backup generators are needed for emergency use there could be fuel storage on site. Why is it there only needs to be a separate EAW if it is more than 1 million gallons. Why such a large amount? Why not have mandate an EAW at 250,000 gallons? That is a lot of fuel, which is dangerous and potentially a target also. Is the Monticello Fire Department prepared to deal with a fire like that?

Instead of assuming the data center will be centrally located on the property and talking about what % of the land it will be why not mandate where it can go? If it takes up such a small % then force them to put it in the center, if you feel you have to approve a data center.

Mitigation language that's phrased as "will consider" and "may include where possible" doesn't count. It has to be committal language, not possibility language.

As we are looking at the November 25, 2024 report from Steve Grittman related to the Frattalone data center proposal. I found this section on page 7 of interest.

Connectivity and Open Space. The site adjoins a wetland/pond system at its southerly edge. This area is identified in the City's Natural Resources Plan as a major greenway and has been contemplated as a potential pathway route. Beyond just the open space aspect of this area, the City has envisioned these spaces to be locations where its "Residential Amenities" District may apply, providing opportunities for higher-end housing due to the natural resources and setting. There are two issues for discussion in this regard. One relates to reserving a pathway corridor along the natural greenway route. The applicants have indicated a willingness to accommodate this plan, particularly as there are environmental constraints that can limit development adjoining these areas. However, reserving land for residential use could have implications both for the land area available for data center uses as well as for noise or other impacts of the data center campus on the residential neighborhood. Managing noise generated by these uses will be an issue to address, and even more importantly in areas of residential development.
Obviously the city chose not to save part of this area for residential. I am guessing, at least in part, due to the noise and other impacts of the data center campus. Bravo for not inflicting this on more homeowners, however, what about all of the people who already live in the area, either accross 85th or with our properties butting up to the proposed data center property?

I respectfully request you re-evaluate the AUAR and the data center project. Why not press pause and enact a moritorium? This will provide the city with more time to evaluate the best course of action and revise the DCPUD and AUAR.

Thank you for your time,
Lisa Keenan

From: Barb Tummel
To: Angela Schumann
Subject: Data Center - NO
Date: Wednesday, December 17, 2025 4:55:50 PM

Hello -

I am not sure who I should be addressing this email to so I will start with you.

I will first say NO to any type of AI Data Center in Monticello, Minnesota!!!

I just recently heard about some AI data center that Monticello is thinking about getting in our community.

First of all, why did I not receive anything in the mail from the City regarding this? If something was sent, please share with me because I do not recall receiving anything, and I am pretty good about reading my mail. I do not have social media, etc.

I am a lifelong resident of Monticello and have lived here since 1977. I am embarrassed at the Block 52 building that screams "greed" that was placed in the center of town. People ask me all the time "What was Monticello thinking?" I do not know how to answer them in a positive way. It did not enhance the view of the Mississippi River, it took the beauty away. Please do not do that again to our town.

I definitely NO NOT want the same disaster to happen with an AI Data Center. That doesn't even make sense to our community, wildlife, energy, resources, etc. Some examples with the little information that I know.

An AI data center has ZERO economic benefit for our community.

An AI data center would have a negative impact on our environment and quality-of-life, including noise from backup generators, and the proximity of potential development near existing homes.

An AI data center would have a negative effect on property values, dust, traffic and accidents.

Monticello prides itself on its natural beauty and wildlife. Approving this would be like spitting in the face of every citizen who calls this city home.

Why would we want the evil of AI data collection in our backyard? A Data Collection Center!!! Why do we want to collect people's data? And why would we want any part of it? We are better than that as a community and is not what we represent. Please listen to the citizens and not just a few people in office making these big decisions. We deserve to be well informed. Let's be open and honest with every citizen of Monticello. So far, I do not see that this is happening.

Let me know who else that I should be sending this email to and how the city is informing ALL citizens about this issue. I have received no information as of this date and would appreciate receiving some.

God bless,
Barb Tummel
[redacted]

From: Jen T
To: Angela Schumann
Subject: AUAR/Data Center
Date: Wednesday, December 17, 2025 4:05:17 PM

Good Afternoon,

I'm writing to express my concerns over the possible addition of the two data centers in Monticello and the use of an AUAR to determine the impact they will have. I believe a project this size should require the use of an EIS instead of an AUAR. EIS is the tried & true tool, it provides a more robust evaluation of the project's impact on our community. I have concerns about the lack of specificity in regard to the wording in the AUAR document itself. The generalness of it allows for interpretation and I think this leaves our city & our people vulnerable. We can't rely on or trust them to look out for our interests. If we cannot complete an EIS without knowing the end user I would like to require one once we do know as there is too much missing information to make a decision this impactful on our community. I have many concerns around a data center in general including the impact it will have on our land, air, & water. Data centers are known to contribute significantly to greenhouse gases and other pollutants. In addition, they produce a constant noise that can reach up to 92dB which has been known to cause stress, hearing loss, migraines, & sleep disturbances. I realize the proposed level is 65 dB (which still causes these negative consequences) but also what happens once they build and they violate our agreements? They have more money and better lawyers than we do. Data centers use massive amounts of electricity consuming as much as 100,000 households. They use millions of gallons of water for cooling systems which can put strain on the community's water resources (we already can only water every other day). Data centers increase utility costs for residents & cause decreases in property values. I'm failing to see how the benefit of likely over estimated tax revenue outweighs the risks associated with a data center. Most local governments have underestimated the cost impact of a data center and overestimated the tax revenue benefits. I'm also concerned about the congestion & deterioration of our roads like highway 25 & our backroads. Highway 25 already has issues with traffic congestion. These are just some of the issues that we are aware of and I believe it's the short list. I can't emphasize this enough an ounce of prevention is worth a pound of cure. Please reconsider looking at residential or something that will have a positive impact on our community. Also, I'm not saying it is inevitable because I don't believe that but if it is we should require better for our community. If it truly is inevitable they should be required to put money into this community beyond the taxes they pay. Like a city park, money for our community center, etc. Something to add value since they're taking value away. They are limited in where they can build so let's acknowledge our value & demand better for our community.

Thank you,

Jenna VanDenBoom
Sent from my iPhone

From:	J Bishop
To:	Angela Schumann
Cc:	Lloyd Hilgart; Charlotte Gabler; Tracy Hinz; Lee Martie; Kip Christianson; Development Services
Subject:	Response to AUAR and Data Centers
Date:	Thursday, December 18, 2025 2:21:30 PM
Attachments:	AUAR Response.docx

Please find attached my response to the Alternative Urban Area Review (AUAR) and data centers in general.

I've also pasted it in the body of this email in case my version of Word doesn't open for you.

Thank you,

Laura Bishop
[redacted]

We have lived in Monticello since March 2022. We love our house, our neighborhood, our peaceful view out the back, and all that Monticello has to offer.

We landed in Monticello purely by accident: when considering a move from Wisconsin to the Twin Cities area, we found the house we loved here. After moving, we discovered all that Monti has to offer and have literally pinched ourselves to have landed in such a beautiful city. I've become involved in MontiArts, we walk the trails every day and enjoy the parks. I've reached out to city officials several times on various topics and have always been impressed with the responsiveness to my comments and questions.

Until now. I'm not convinced that the City Council is really listening to their residents.

This letter will be submitted prior to the AUAR comment period ending. While I have a laundry list of concerns about data centers coming to Monticello in general, I am not well-enough versed in documents like the AUAR to make any specific comments about what it includes, excludes and the like.

So – I'd like my comments to take a different approach.

The 2040 Comprehensive Plan for Monticello is created on three principles:

- Sustainability
- Community Health
- Sense of Place.

The development of a Data Center in Monticello does *nothing* to promote ANY of the stated goals of the 2040 plan.

There is no **sustainability** in a business that will take up to 10 years to build and that would employ only 50 people once built. A more sustainable choice would be to use the parcel to build an industrial park that is diverse in scope and that would create an array of numerous jobs.

Data Centers come with a laundry list of potential **health** problems. I can see problems already developing among my friends in the anti-Data Center "movement:" they are stressed out, not sleeping, worried about the values of their homes and worried about their and their families' quality of life in the future. Not the "community health" the 2040 plan probably imagined. And all that is before ground is even broken!

Even though I am relatively new to Monticello, I have been incredibly proud and happy to tell friends where I live. I love hosting visitors from Wisconsin and showing them around town – they've always been so impressed! If a Data Center is built in town (less than half a mile from our house "as the crow flies"), my "**sense of place**" will be dramatically damaged.

The "Food and Water Watch" sent a letter to Congress on December 8, 2025, titled "National Data Center Moratorium Now!" The letter was signed by **hundreds** of organizations, including "Physicians for Social Responsibility."

The letter reads as follows:

> "We, the undersigned organizations collectively representing millions of people in all 50 states, call on you to support a national moratorium on the approval and construction of new data centers.
>
> "The rapid expansion of data centers across the United States, driven by the generative artificial intelligence (AI) and crypto boom, presents one of the biggest environmental and social threats of our generation. This expansion is rapidly increasing demand for energy, driving more fossil fuel pollution, straining water resources and raising electricity prices across the country. All this compounds the significant and concerning impacts AI is having on society, including lost jobs, social instability and economic concentration.

"The harms of data center growth are increasingly well-established, and they are massive.

"They include:

- Enormous electricity consumption: A tripling of data centers in the next five years would result in data centers consuming as much electricity as about 30 million households.
- Unsustainable water consumption: A tripling of data centers would require as much water as is used by 18.5 million households – simply for cooling the computer servers.
- Contribution to climate change: 56 percent of the electricity used to power data centers is sourced from fossil fuels.
- Skyrocketing electricity costs: Electricity rates have increased 21.3 percent from 2021 to 2024 – drastically outpacing inflation – driven largely by the rapid build-out of data centers, something that could continue to escalate over time.
- Job losses: According to an AI executive, AI could negate half of all entry-level white-collar jobs in the next five years and spike overall unemployment by up to 20 percent.

"The rapid, largely unregulated rise of data centers to fuel the AI and crypto frenzy is disrupting communities across the country and threatening Americans' economic, environmental, climate and water security. We urge you to join our call for a national moratorium on new data centers until adequate regulations can be enacted to fully protect our communities, our families, our environment and our health from the runaway damage this industry is already inflicting.

"For more information, contact Food & Water Watch Policy Director Jim Walsh – jwalsh@fwwatch.org

"Sincerely,

"National Organizations Food & Water Watch (Letter Convener)"

The letter articulates and sums up my concerns better than I can.

I don't want to see data centers in (or close to) Monticello at all, but I think BOTH

proposed locations have real problems.

I reached out to a classmate last week who serves on the city council in Manassas, Virginia. I was hoping he could provide some communication tools for the "fight" against data centers, but I was surprised to hear that he was in favor of them! He has a first-hand experience with data centers.

He pulled up Monticello on Google Maps and found the site on 85th and Edmundson. His exact words were, "That location is dumb as hell!"

He asked why the proposed site wasn't up by the nuclear plant – where no one lives and closer to the power. Or somewhere where no one lives, let alone housing developments literally across the street. I didn't have an answer.

I told him that that parcel was deemed "light industrial;" he said his community would classify that location as "business/commercial, not industrial."

- So, maybe the definition of "light industrial" needs to be revised.

In May, I attended a planning commission/council meeting to discuss a proposed residential subdivision between 85th St NE and the Cardinal Hills neighborhood. I was so impressed with the stipulations outlined by the city for new houses – brick/stone fronts, two trees in the front yards, a set percentage of the front of the house had to be livable space, etc.

If the City doesn't outright prohibit the building of data centers, I hope they at least write an ordinance with as much care and concern as that which applies to the front of houses.

One last thought. If Council approves the data center proposal/s, I think the City of Monticello will need to come up with a different logo.

The swans will no longer grace our skies due to noise pollution and changes to their ecosystem.

Please restore our faith in our elected officials and public servants and just say NO to data centers. We'd all be better for it.

Thank you,

Laura Bishop
[redacted]

From: Kate Brown
To: Angela Schumann; Alison Harwood
Subject: Re: Monticello Industrial Development - Draft AUAR
Date: Thursday, December 18, 2025 5:28:43 PM
Attachments: image001.png

Hello,

My apologies for this being late. I have been extremely ill and didn't realize today was the last day. This goes into my question. As someone with a compromised immune system, how is the AUAR going to determine the long-term health effects of a massive data center so close in proximity to family neighborhoods? There are new studies coming out almost daily on what these data centers are doing to those living close by. Not only are electric bills skyrocketing, wells run dry, enough noise and light pollution to drive a person insane, and it's looking like deadly health ramifications, if not, enough sickness to put a person in massive medical debt and have a poor quality of life. NO TO THE DATA CENTERS!!

Kate Brown

Sent from my Verizon, Samsung Galaxy smartphone
Get Outlook for Android

From: Angela Schumann <Angela.Schumann@MonticelloMN.gov>
Sent: Wednesday, November 19, 2025 10:57:21 AM
To: Angela Schumann <Angela.Schumann@MonticelloMN.gov>; Alison Harwood <aharwood@wsbeng.com>
Subject: Monticello Industrial Development - Draft AUAR

On behalf of the City of Monticello, please find below a link to the Draft AUAR and Mitigation Plan for the Monticello Industrial Development study area. The City of Monticello approved the Draft AUAR and Mitigation Plan for distribution at the November 10, 2025, City Council Meeting.

Environmental Reviews | Monticello, MN

The AUAR process provides local governments with the opportunity to evaluate how different land uses may impact the community's environment, providing environmental analysis before major development occurs and helping inform future land use decisions. An AUAR is not a project approval document; it provides information useful to planning for the management and mitigation of impacts.

The Monticello Industrial AUAR evaluates two development land use scenarios, a light industrial park land use scenario as outlined in the Monticello 2040 Comprehensive Plan and a technology campus (data center) land use scenario. This AUAR study area encompasses

approximately 550 acres on 16 parcels in Monticello Township, Minnesota. The study area is comprised of land generally located south of 85th St NE, west of Edmonson Ave NE, and east of Davidson Ave NE, within the Monticello Orderly Annexation Area.

The public is invited to review and provide comment on the Draft AUAR and mitigation plan. You are receiving this email because you have previously provided comments on the Monticello Industrial AUAR Scoping Document.

The 30-day comment period began on November 18, 2025. Comments will be accepted through 4:00 PM on December 18, 2025, and should be addressed to: angela.schumann@monticellomn.gov.

An Open House on Thursday, November 20, 2025 is also scheduled as an opportunity for additional public information and feedback on the Monticello Industrial AUAR. The Open House will be held from 6-8 PM at the Monticello Community Center.

Angela Schumann
Community Development Director
Development Services
763-271-3224
505 Walnut St, Suite 1, Monticello, MN 55362
MonticelloMN.gov | Facebook | Subscribe to E-News

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From: Debra Campbell
To: Angela Schumann
Subject: Reject Data Center
Date: Thursday, December 18, 2025 1:11:16 PM

Public Comment on the Draft Monticello Industrial AUAR

To the Mayor, City Council, Planning Commission, and Staff,

I am submitting this public comment to formally express my **opposition** to the Draft Monticello Industrial AUAR as it relates to Scenario 1, which explicitly evaluates a large-scale data center / technology campus within the Monticello Orderly Annexation Area.

While the AUAR is described as a "planning tool," **its adoption carries lasting consequences that materially shape future development approvals. Based on the City's own document, the risks, uncertainties, and long-term burdens of this proposal outweigh any speculative benefits.**

1. The AUAR Pre-Approves a Massive Worst-Case Development

The AUAR evaluates a "worst-case" development scenario of **up to 3,000,000 square feet of technology or data center uses across 550 acres** (pp. 7–8).

"The intent of the AUAR is to recognize the worst-case potential impacts and identify mitigation measures that may be taken to compensate for those impacts." (p. 7)

This is not theoretical. Once adopted, this AUAR becomes the environmental ceiling for future projects, allowing subsequent approvals to rely on this document without re-opening full environmental review. Community opposition at later stages becomes functionally limited.

2. Data Centers Are Acknowledged as a Unique and High-Burden Use

The City's own 2040 Comprehensive Plan language, quoted directly in the AUAR, acknowledges that data centers are fundamentally different from other industrial uses:

"The City's 2040 Plan recognizes data centers as a singularly unique land use due to size and scope." (p. 25)

“Data center uses shall demonstrate convincingly that its burden on municipal services, infrastructure, or fiscal condition is completely mitigated…” (p. 26)

The AUAR does not demonstrate this convincingly. Instead, it defers critical determinations to future permits, future studies, and future mitigation AFTER the AUAR is adopted.

3. Water Demand Is Significant and Uncapped

“Scenario 1 would require significantly lower operational traffic and potentially higher water/wastewater demands compared to Scenario 2.” (p. 12)

Scenario 1 anticipates heavy groundwater use; Potential Rapid Infiltration Basin (RIB) systems; Future water appropriation permit amendments (p. 21–22)

Yet these **permits are not secured**, and the long-term sustainability of groundwater withdrawal is modeled - **not guaranteed**.

The AUAR itself acknowledges increasing climate stress:

“There is a projected 2.6% to 13.8% increase in 100-year storm intensity by 2035 and a projected 5.2% to 26.9% increase by 2060.” (p. 12)

Approving a water-intensive land use under these conditions is fiscally and environmentally irresponsible.

4. Permanent Loss of Farmland of Statewide Importance

“77 percent of the study area is considered farmland of statewide importance.” (p. 23)

“Cropland: 444 acres existing → 0 acres proposed.” (Table 3, p. 18)

This loss is irreversible. No meaningful farmland preservation strategy is included, only replacement landscaping and engineered stormwater features.

5. Wetlands and Natural Systems Are Reduced

The AUAR documents a reduction in wetlands under Scenario 1 and relies heavily on mitigation and engineered infrastructure:

"…preservation of wetlands or woodlands as required by ordinance and/or to the extent practical." (pp. 17–18)

"Mitigation" is not the same as protection, especially as precipitation intensity increases and systems fail under real-world conditions.

6. Infrastructure Burdens Are Shifted Forward – Likely to TAXPAYERS

The AUAR anticipates new trunk water and sewer lines, electrical substations, and roadway improvements (pp. 11–12), **without binding financial assurances protecting taxpayers.**

7. Annexation Removes Local Control PERMANENTLY

The AUAR confirms: "The study area is outside the city of Monticello and would require the city to annex land from the Township." (pp. 30–31)

Once annexed, township residents permanently lose land-use authority, despite bearing many of the long-term impacts.

8. Few Permanent Jobs, Poor Land-Use Efficiency

While not quantified in the AUAR, data centers are **widely known to generate very few permanent jobs** relative to land consumed. The AUAR offers no job minimums, local hiring requirements, or wage standards.

This stands in contrast to other light industrial uses contemplated in Scenario 2.

Conclusion

For these significant reasons, I urge the City of Monticello to **REJECT** this project that would alter the identity of our community forever.

Respectfully submitted,

Debra Campbell
[redacted]
12/18/2025

Sent from my iPhone

From: alexander cutchey
To: Angela Schumann
Subject: Alternative Urban Areawide Review (AUAR) Comments
Date: Thursday, December 18, 2025 4:18:24 PM

Greetings Ms. Schumann,

I've reviewed the draft AUAR evaluating the two development land use scenarios, and generally I've found the document outlines a worst case scenario consistent with my understanding and impressions of these projects, absent an ordinance, conditional use permit, or specific developer configuration to mitigate environmental harms, and recommend this document be approved to help substantiate the record and guide ordinance development, and the Council in making a final decision.

Best Regards,
--
Alexander J. Cutchey, *MBA*
Attorney at Law

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From: Jan R. Davis
To: Angela Schumann
Subject: Data Center comments
Date: Thursday, December 18, 2025 11:56:36 AM

I have lived in Monticello since 1991. I feel that the city has usually had the best interests of the community in mind when decisions are made. The information I have read about data centers concerns me greatly. The massive amounts of power used and the amount of water needed would be huge drains on local resources. Noise pollution is another side-effect of large data centers in other places. Monticello does not need noise pollution. Who wants to live near a source of constant noise?
The environmental issues regarding wetlands, wild life and pollution are other factors which could affect our area's quality of life. Other than construction, these centers appear to employ very few ongoing staff. I am very much opposed to the city even considering the building of a data center.
Jan Davis
[redacted]

Get Outlook for iOS

From: Dennis DuFrane
To: Angela Schumann
Subject: AUAR
Date: Thursday, December 18, 2025 11:27:03 AM

I hope this message finds you well. I am writing to submit my comments regarding the AUAR review, as public comments are due today.

One significant concern I have is the lack of information in the AUAR about how the data center and developer plan to manage the water needed for cooling the machines. In Monticello, our water is known for containing high concentrations of metals like iron and copper. From my own experience, I can attest to this—owning a large pool (15,000 gallons), I find that the amount of balancing chemicals required to maintain water quality is excessive. Without proper treatment, the water can turn dark brown and leave rust rings around the pool.

I am particularly concerned that there is no mention in the AUAR of how the data center plans to address these water quality issues. Specifically, I would like to know what chemical treatments will be applied to the water used for cooling, and how they will manage any water that has been chemically modified.

It is crucial for our community to avoid situations similar to those experienced in Virginia and Ohio, where high concentrations of contaminants have been linked to cancer cases associated with data centers.

Thank you for considering my comments. I appreciate the opportunity to provide input and look forward to your response regarding these important issues.

Dennis DuFrane

[redacted]

From: Adam Felix
To: Angela Schumann
Subject: Data center questions
Date: Thursday, December 18, 2025 12:31:11 PM

Hello, couple questions for tonights meeting, I'd love to attend, but I am quite sick, good old head cold.

I have a question though, have any of the decision makers in this data center quest actually lived to next too or near a data center? I'd like to propose that they do this, and from a non bias location, a location that accurately depicts how horrible a data center in a residential location. For at least 2 months.

I have had friends who lived near data centers, their water wells quite working correctly, their property value tanked, their electrical jumped. I don't mean to be passive, but it's easy to listen to an "expert" and then spend other people's money. But please consider people's livelihoods and comfort. There's a reason the nuclear power plant is far away from the residential area. Basic logic.

Data centers are a necessary evil in today's world, but there's a time and place for them, like anything else.

Please consider the outcry of your public, before you listen to builder promises. They are just another car salesman..

Please see below, public statement.

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The City's own 2040 Comprehensive Plan language, quoted directly in the AUAR, acknowledges that data centers are fundamentally different from other industrial uses:

"The City's 2040 Plan recognizes data centers as a singularly unique land use due to size and scope." (p. 25)

"Data center uses shall demonstrate convincingly that its burden on municipal services, infrastructure, or fiscal condition is completely mitigated…" (p. 26)

The AUAR does not demonstrate this convincingly. Instead, it defers critical determinations to future permits, future studies, and future mitigation AFTER the AUAR is adopted.

3. Water Demand Is Significant and Uncapped

"Scenario 1 would require significantly lower operational traffic and potentially higher water/wastewater demands compared to Scenario 2." (p. 12)

Scenario 1 anticipates heavy groundwater use; Potential Rapid Infiltration Basin (RIB) systems; Future water appropriation permit amendments (p. 21–22)

Yet these permits are not secured, and the long-term sustainability of groundwater withdrawal is modeled - not guaranteed.

The AUAR itself acknowledges increasing climate stress:

"There is a projected 2.6% to 13.8% increase in 100-year storm intensity by 2035 and a projected 5.2% to 26.9% increase by 2060." (p. 12)

Approving a water-intensive land use under these conditions is fiscally and environmentally irresponsible.

4. Permanent Loss of Farmland of Statewide Importance

"77 percent of the study area is considered farmland of statewide importance." (p. 23)

"Cropland: 444 acres existing → 0 acres proposed." (Table 3, p. 18)

This loss is irreversible. No meaningful farmland preservation strategy is included, only replacement landscaping and engineered stormwater features.

5. Wetlands and Natural Systems Are Reduced

The AUAR documents a reduction in wetlands under Scenario 1 and relies heavily on mitigation and engineered infrastructure:

"…preservation of wetlands or woodlands as required by ordinance and/or to the extent practical." (pp. 17–18)

“Mitigation” is not the same as protection, especially as precipitation intensity increases and systems fail under real-world conditions.

6. Infrastructure Burdens Are Shifted Forward – Likely to TAXPAYERS

The AUAR anticipates new trunk water and sewer lines, electrical substations, and roadway improvements (pp. 11–12), without binding financial assurances protecting taxpayers.

7. Annexation Removes Local Control PERMANENTLY

The AUAR confirms: “The study area is outside the city of Monticello and would require the city to annex land from the Township.” (pp. 30–31)

Once annexed, township residents permanently lose land-use authority, despite bearing many of the long-term impacts.

8. Few Permanent Jobs, Poor Land-Use Efficiency

While not quantified in the AUAR, data centers are widely known to generate very few permanent jobs relative to land consumed. The AUAR offers no job minimums, local hiring requirements, or wage standards.

This stands in contrast to other light industrial uses contemplated in Scenario 2.

Conclusion

For these significant reasons, I urge the City of Monticello to REJECT this project that would alter the identity of our community forever.

Thank you for your time,
Adam Felix

From: Elisabeth Gliddon
To: Angela Schumann
Subject: AUAR Comments
Date: Thursday, December 18, 2025 12:02:24 PM

Subject: Comments on AUAR for Proposed Light Industrial Development – Monticello, MN

To the City of Monticello Planning Commission and City Council,

I am a resident of Monticello submitting comments regarding the Alternative Urban Areawide Review (AUAR) for the approximately 550-acre area proposed for "light industrial" development. I appreciate the opportunity to comment early in this process, particularly given the scale, location, and long-term implications of the contemplated uses.

While I support responsible economic development, I have serious concerns that proceeding with this AUAR **prior to the adoption of clear city, state, and regional policies governing high-intensity industrial uses such as data centers** would be premature and expose the city to long-term environmental, infrastructure, and community risks.

1. Premature Review Without a Specific Proposal

This AUAR is being conducted **without a defined site plan or specific development proposal**, yet it is funded by private developers with an apparent interest in data-center-type uses. This places the City in the position of evaluating significant impacts based on assumptions rather than enforceable commitments.

An AUAR at this stage limits meaningful public review and risks pre-approving impacts that may later prove substantially greater than anticipated once an actual proposal is submitted.

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2. Water Use, Wastewater, and Receiving Waters

The AUAR raises serious unresolved questions regarding water consumption, wastewater handling, and thermal and chemical impacts:

- Proposed routing of water from the wastewater treatment plant and back again requires **worst-case, not average, demand analysis**, including drought-year scenarios.
- The use of a **Rapid Infiltration Basin (RIB)** to recycle and ultimately discharge water back into the aquifer raises concerns about **temperature, chemical additives, long-term groundwater quality, and monitoring responsibilities**.
- Pelican Lake and the Mississippi River corridor are sensitive receiving waters. Even treated discharges may affect **water temperature, nutrient loading, and aquatic ecosystems**, particularly at industrial scales.

The AUAR relies heavily on mitigation measures described as things the developer **"could"**

do, rather than binding commitments the City **"will require."** This creates uncertainty and weakens environmental protections.

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3. Cumulative Environmental and Land Use Impacts

The proposed area sits:

- Within close proximity to **brand-new residential neighborhoods**
- Near **Pelican Lake**
- Adjacent to the **Mississippi River corridor**

Converting hundreds of acres to impermeable or semi-impermeable industrial use will:

- Increase stormwater runoff and reduce natural filtration during heavy rain events
- Amplify heat island effects
- Permanently alter land that currently provides environmental buffering

The AUAR does not sufficiently analyze **cumulative impacts** if similar facilities cluster in this area, which is a well-documented pattern for data-center development.

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4. Energy Demand and Infrastructure Risk

High-intensity industrial uses such as data centers pose extraordinary electrical demands. The AUAR does not clearly address:

- Peak electrical load and redundancy requirements
- Who bears the cost of grid upgrades
- Impacts on regional capacity and resilience
- Backup generation, including noise, emissions, and testing schedules

Given Monticello's existing energy infrastructure and history of complex energy facilities, transparency, enforceable standards, and contingency planning are essential.

---

5. Health, Safety, and Quality of Life

Residents near the proposed area may be affected by:

- 24/7 operational noise and low-frequency hum
- Construction impacts lasting years

- Lighting and visual disruption
- Emergency response demands related to electrical and fire hazards

These impacts are not adequately addressed in the AUAR, particularly given the unusually close proximity to new residential developments.

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6. Zoning and Policy Mismatch

Labeling these uses as “light industrial” does not reflect the **scale, intensity, and permanence** of modern data centers. Approval under existing zoning risks:

- Establishing a precedent without appropriate safeguards
- Limiting the City’s ability to regulate future proposals
- Locking in infrastructure obligations for decades

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7. Need for Legislative and Regulatory Frameworks Before Approval

I strongly urge the City to **pause approval of this AUAR** until it has adopted:

- Data-center-specific water-use regulations
- Energy allocation and grid impact policies
- Binding environmental performance standards
- Clear limits on proximity to residential areas
- Strong enforcement and monitoring mechanisms

Proceeding without these frameworks places undue risk on residents, natural resources, and future councils.

Conclusion

The scale and uncertainty of the impacts contemplated in this AUAR warrant a more cautious approach. Approval at this stage would be premature and could constrain the City’s ability to protect water resources, environmental quality, infrastructure capacity, and community well-being.

I respectfully request that the City:

- Require additional analysis and specificity
- Replace “could” mitigation language with enforceable commitments

- Defer approval until comprehensive policies are in place

Thank you for your consideration and for prioritizing the long-term interests of Monticello and its residents.

Sincerely,
Elisabeth Gliddon, MA, LMFT
[redacted]

From: Kara Gordon
To: Angela Schumann
Subject: Data Center AUAR: Request to Oppose Approval
Date: Thursday, December 18, 2025 1:51:11 PM

Dear Mayor and Members of the Monticello City Council,

I am writing as a concerned resident to respectfully urge the City Council to not approve any proposed data center developments within Monticello.

While I understand the desire for economic growth and new investment, data centers present significant quality-of-life and environmental concerns that warrant serious caution. One of my primary concerns is **noise pollution**. Large data centers operate continuously and rely on industrial-scale cooling systems and backup generators that produce persistent, low-frequency noise. This type of noise can negatively affect nearby neighborhoods, disrupting sleep, increasing stress, and diminishing overall well-being—especially because it operates 24 hours a day.

In addition, data centers pose **environmental impacts** that are inconsistent with Monticello's long-term sustainability goals. These facilities often require enormous amounts of electricity and water, placing strain on local infrastructure and natural resources. Increased energy demand can contribute to higher emissions, while heavy water usage raises concerns about impacts on local waterways and groundwater, particularly during periods of drought or peak demand.

There is also concern that the short-term economic benefits do not outweigh the long-term costs to residents, the environment, and the character of our community. Data centers typically create relatively few permanent jobs while imposing lasting burdens in the form of noise, resource consumption, and land-use conflicts.

I respectfully ask the City Council to prioritize the health, environmental integrity, and quality of life of Monticello residents by declining approval of any new data center projects. I encourage the Council to pursue development opportunities that align with our community values and protect our natural and residential environments.

Thank you for your time, service, and consideration of this important issue.

Sincerely,
Kara Rud
[redacted]

From: Nora Greteman
To: Angela Schumann
Subject: Data Center or Distribution Center:
Date: Thursday, December 18, 2025 2:48:56 PM

What also needs to be addressed is the road infrastructure necessary to support these large scale industrial buildings especially with a distribution center, that is, freeway access and heavy truck traffic. My personal concern is public health with data center and crossover wildlife from Bertram Lakes with both projects. Why can't the land be left alone for goodness sakes?

Nora Greteman

[redacted]

From: Scott Hill
To: Angela Schumann
Subject: AUAR
Date: Thursday, December 18, 2025 1:29:11 PM

Angela,

I have read through the AUAR and in general think most of it is thorough and well done. The area that I think is lacking is in the area of water usage and its effects on the city of Monticello's ability to manage its water resources in the future. Specifically pages 63-67. This evaluation is lacking in specific modeling as presented. Where did the data come from? There have been two studies done that I have looked at. The most current one dated October 14, 2025 and the original February 21, 2025. In both of these studies there are water usage quantities used but no explanation as to how those numbers were arrived at. Transparency is important. Were those numbers based on projected growth in 5, 10, 20 years or just plucked out of someone's imagination? Another area that I have raised with public works is the effect of drought on the water table in these scenarios. That does not seem to be addressed in any of the modeling. Just outside of the city boundaries there are housing developments with private wells. From what I have been able to gather these private wells are in the area of 65-80 feet deep. How will their wells be affected if the aquifer is drawn down due to city growth, drought and a possible data center? Does the city have a responsibility to be a good neighbor?

Water is a precious resource, and we need to be careful how we use it. These are a few of my concerns. I really believe a much more thorough and transparent evaluation of the water usage should be conducted before the city of Monticello proceeds any further.

Thank you,

Scott Hill
[redacted]

From: Chace Huntzinger
To: Angela Schumann
Subject: Comments on the Monticello Industrial Draft AUAR
Date: Thursday, December 18, 2025 1:49:09 PM

To whom it will concern,

My name is Chace Huntzinger. My wife and I moved from Iowa to Monticello in June 2024 to start a family. We welcomed our daughter to the world in April 2025. My wife is a Minnesota native, but prior to moving to Monticello, we visited a lot of different communities. Monticello is the perfect spot for us because Montis prioritize their kids, take care of their properties, and support the community. Data centers violate all three of these principles.

Data centers threaten to increase the costs of energy and water while simultaneously driving down housing values. Data centers pollute their environments. They leak chemicals into the water, and they increase the need for non-renewable energy systems. Data centers are loud on a normal day. If there's a power disruption, I wonder how loud the generators will be.

How will this impact Monticello? Energy and water costs will go up for families and businesses. Montis located near the data centers will immediately lose a lot of property value, and the rest of the community will be adversely impacted as people will not choose to live in a small town with a data center.

If Monticello permits the construction of the data centers, I believe my family will have to leave.

Best,

Chace Huntzinger

From: Peg Jensen
To: Angela Schumann
Subject: Data Centers
Date: Wednesday, December 17, 2025 10:22:32 AM

As a resident of Monticello I am totally against Data Centers being built here.
Due to Noise Pollution, Light Pollution, Water Usage and Electrical Usage.
The Data centers would drive costs up, Property values down and endanger wildlife.
Further more any fines you would impose on these places would be chump change to them.
Mark my words they would just violate ordinances and just pay the fines like it was no big deal.
They would not house as many employees as they say they would and would drain the city's resources.

Peggy Jensen
[redacted]

From: Theodore Keith
To: Angela Schumann
Subject: Re: AUAR report about the zoning planning
Date: Thursday, December 18, 2025 2:25:58 PM

Here's a link to some research

https://panoramanow.com/research-indicates-the-bird-population-could-die-on-lake-george-hobart-with-data-center-operations/

On Thu, Dec 18, 2025, 2:19 PM Theodore Keith [redacted] wrote:

> Regarding where the planning is being done regarding changing a zone to industrial so a data center can move in. Has it brought up that the Trumpeter Swan is a Species of Special Concern in Minnesota. Flocks of Trumpeter swans commonly rest, feed and live in the fields across from where the zone is proposed. Would the rezoning have an impact on the Trumpeter swans ? Would they return to the area? Would the increased noise in the area scare them away? We as humans have already brought them to the brink of extinction. Do we want to repeat history and possibly harm a bird that is so majestic? It's part of the city logo. I would think Monticello would want to do everything in its power to keep them in the area.
>
> Thank you for listening to my concerns.
>
> Theodore Keith,BSN,RN

From: Bernard Lang
To: Angela Schumann
Subject: AUAR Comments
Date: Thursday, December 18, 2025 3:57:59 PM

Here are some facts about data centers and why this poses a threat to the local community.

It has been said that they will be using generators for some power or backup power for the proposed data center. These run on diesel fuel that produce harmful particulates, mostly taken care of by emission components, but not completely. And alternative energy takes more space, costs more money, and uses resources already heavily being used locally. Here the opening paragraph from staxengineering.com
All sources will be linked at the bottom of this email.
"Data centers have become the backbone of our global economy, but their rapid proliferation comes at a significant environmental cost. All data centers worldwide combined consume 32% more electricity than all of Britain. Power generation is already the largest source of carbon dioxide (CO2) emissions in the world, and the energy required to keep these essential data centers operational, while staggering, is only poised to increase dramatically."

That doesn't mention they may also have "battery backups". Now remember the EV world exploded a few years ago, and now we are seeing the pollution large batteries create, to be built, used, and destroyed.

Do you really want that in your backyard?

I have spoken to multiple residents, businesses, and potential homebuyers about scenarios like data center construction. They all said the same thing. The buyers would simply be uninterested and search elsewhere, homeowners are afraid the value of their home would decrease substantially. Yahoo.com :

What makes the biggest difference between burden and benefit is how close the data center is to your property, what buffers exist in terms of landscaping or other noise mitigation efforts, local zoning regulations that keep potential disturbances in check, and how prepared local utility companies are to provide services without frequent rate hikes.

Now will Cushman & Wakefield (or whomever) be transparent about this? You would hope so, but I have my doubts.

I've spoken to local small business owners about their opinion on the data center proposals. They all have the same opinion. They would wish to move, but afraid of who would replace them?

A major question I ask is, what about the rest of us?

What about the people taking care of their families every day in their homes, the people commuting to work every day, the kids that play in the parks. Those people love this city, but will their voices be heard?

And I heard a comment about the noise from the Q&A last time I went, and a gentlemen

compared the noise it would make, and compared it to a farm he lived by. A human being, working, VERY hard, with the land, not on the land, to grow and produce a product for another person. That is not a building.

We already have our water resources in check with the local nuclear power plant. Energy fields of solar surrounding us. A metal recycling plant that caught on FIRE and created an air pollution hazard. Do we REALLY need something ELSE to put a strain on the electrical grid, water sources, daily traffic, constant construction issues, and whatever harmful affects that remain unknown to us?

To me, the cons outweigh the pros.

Money comes and goes. Money doesn't define a city. The people do. Listen to them.

https://www.staxengineering.com/stax-hub/the-environmental-impact-of-data-centers/

https://www.yahoo.com/lifestyle/articles/data-centers-harm-help-property-121000846.html
Bernard
[redacted]

From: Fam Oli
To: Angela Schumann
Subject: Fwd: AUAR Questions
Date: Thursday, December 18, 2025 4:15:48 PM

---------- Forwarded message ---------
From: **Fam Oli** [redacted]
Date: Thu, Dec 18, 2025, 3:58 PM
Subject: AUAR Questions
To: <angela.schuman@monticello.gov>

"AUARs for 'large specific projects' are required by law to include 'clear, complete and detailed project descriptions.' They are also required to study any direct, indirect and cumulative environmental impacts that are anticipated in an AUAR study area from the proposed project." (Press Release MCEA, Aug 4 2025)

1. How does the Alternative Urban Areawide Review (AUAR) satisfy legal requirements given the absence of a formal delineation of duties?

While the developer is frequently identified as the party responsible for funding mitigation, specific tasks and accountabilities remain undefined. Furthermore, in instances of joint responsibility between the City and the developer, there is no clear distinction regarding the division of responsibilities. To provide true assurance , the AUAR must provide a precise assignment of responsibilities to prevent oversight and operational overlap.

In page 15 of AUAR under adaptations for the water resources, language states that the "Developer **could consider** using native plants and perennials for landscaping and stormwater features to absorb water and reduce the water demand for irrigation and **could use** native plants and perennials for landscaping adjacent to water resource buffers and **If using groundwater**, water reuse systems such as cycling water, will be implemented for cooling purposes to reduce water"

2. If the developer **chooses not** to use native plants and perennials to absorb stormwater what else is in place in AUAR to ensure absorption of stormwater?
3. If the developer **chooses not** to use groundwater for reuse, does the AUAR address what will be used in its place to ensure reuse of water?

It also states in page 16 of the AUAR, "Water efficient irrigation design will be **considered** for any landscape irrigation systems"

4. If the developer **considers** water efficient irrigation design **but chooses not to implement water efficient irrigation,** does the AUAR outline clearly what measure **must** take place instead in order to protect water resources?

5. Are pages 15 and 16 of the AUAR truly clear and complete when applying questions 2-4

since they are presented as **options** afforded to the developer and therefore all of them can be denied leaving necessary adaptations unaddressed and unmet?

Additionally listed within page 16 of the AUAR " Additional adaptations discussed"

6. How are the legal conditions for the AUAR to be clear and complete met when using the language "additional adaptations discussed"? This is neither clear, nor complete and it also leaves room for adaptations that would otherwise be deemed unacceptable or insufficient to be proposed after the AUAR is adopted.

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7. Can the AUAR list the use of native plants as a suitable habitat adaptation listed on page 17 while simultaneously claiming it is optional on page 15?

8. Where does the AUAR cover suitable habitat adaptation for fish that are in the proposed area as well as those in surrounding areas that will be indirectly impacted?

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9. Who/what department will be determining the feasibility of the developer maintaining existing floodplain and wetland complexes?

10. If it is proven impossible for the developer to maintain some or all of the existing floodplain and wetland complexes, to what extent can they proceed?

11. Have studies been performed to understand the direct and indirect environmental impacts if some or all of the existing floodplain and wetland complexes were to cease to exist?

12. Are certain wetlands in the proposed area (as well as surrounding areas that may be indirectly impacted) given higher priority of protection over others? If so, why or why not?

On Page 19 of the AUAR both proposed data centers are looking to remove a significant acreage of trees (15 for scenario 1 and 25 for scenario 2). It is listed within table 5 that that the same respective acreage of trees will be replaced with new trees. The AUAR fails to clarify much about this process with the exception of the fine print at the bottom of the page referencing what time of year to remove the trees.

13. Per the AUAR page 19, is the developer responsible for paying for new trees to be put in? If so, where is that stated?

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required, who will be responsible for the cost of utilizing their assistance?

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Page 21 of the AUAR details which Unit of Government and type of application the developer will apply for if applicable.

20. Are the permits and approvals listed within table 6 considered required?

21. Who/what department determines if it is applicable for the developer to qualify for a permit? How is this decision made?

Since the AUAR has been expressly described as referring to maximum impacts, we need to ensure that impacts are not underrepresented or missing altogether. For the good of the residents of Monticello (as well as neighboring cities which may be directly or indirectly impacted) impacts should be included in the AUAR especially if we can see concerns that haven't been addressed in other cases of Data Center production simply because it is such a relatively new industry with many unknowns.

Angela Schumann herself pointed out how important it is to learn from the mistakes of other cities and states that have had issues with regards to lack of thorough process when putting in Data Centers. She also pointed out how important it is to use relevant data regarding Data Centers within the state and references of matters not to be too dated.

Therefore here are some mistakes we need to learn from regarding noise impacts that are not being mitigated or properly dealt with in the state of MN in recently within the last half of this year:

Hermantown Case (Project Loon): In November 2025, the **Minnesota Center for Environmental Advocacy (MCEA)** and the grassroots group **Stop the Hermantown Data Center** filed a lawsuit to halt a hyperscale project. They argue the city's environmental review failed to disclose the true scale of the data center, which residents claim will produce a "constant drone" making it impossible to sleep with windows open.

Pine Island Appeal: In October 2025, MCEA appealed Pine Island's environmental review, alleging it lacked the specific analysis required to address "noise impacts" and other environmental risks.

North Mankato Suit: A similar lawsuit was filed in August 2025 regarding a 4-million-square-foot "technology park" (alleged to be a data center), where plaintiffs claim the project's main noise source—computers and cooling—was not properly disclosed or mitigated.

Page 25 of the AUAR states that "Data center use locations will not create conflict with other land uses, **especially residential land uses, through off-site impacts including unusual amounts of noise**, lights, odors, or other similar aspects"

22. How is the AUAR constructed to ensure that Monticello residents aren't expected to risk the same fate of the 3 examples provided?

The WHO guidelines for community noise recommend less than 30 A-weighted decibels (dB(A)) in bedrooms during the night for a sleep of good quality and less than 35 dB(A) in classrooms to allow good teaching and learning conditions.

The WHO guidelines for night noise recommend less than 40 dB(A) of annual average (Lnight) outside of bedrooms to prevent adverse health effects from night noise.

Established guidelines and research consistently point to noise levels exceeding 40 decibels (dba) at night as significantly detrimental to sleep quality.

23. How can the AUAR make sure that measures are in place to prevent unacceptable noise pollution before construction takes place?

Page 86 of the AUAR states: "AUAR Guidance: Construction noise need not be addressed in an AUAR, unless there is some unusual reason to do so"

24. Since the decibels for Data Centers are considered to exceed numbers signficantly detrimental to sleep quality, why isn't the AUAR considering this reason enough to include it in the AUAR?

HFC leakage refers to the unintended release of synthetic refrigerant gases from cooling systems into the atmosphere.
Even though it is unintended, the AUAR states on page 85 that scenario 1 approximates 247.18 tons of HFC leakage and senario 2 approximates 372.73 tons of HFC leakage.

Evaporative cooling systems often use chemicals to prevent algae and corrosion such as biocides, bromine, or phosphorous. These can leak or be carried by water vapor and eventually settle on the ground, where they are washed away by rain.
Most data centers maintain large fleets of diesel generators. Spills or leaks during refueling or maintenance can introduce **diesel fuel and oils** into the stormwater system.
25. Why is there not a recommendation listed in the AUAR to have Data Centers meet the permit requirements for industrial stormwater?

From: Bethany Olivares
To: Angela Schumann
Subject: Re: Did you receive my email?
Date: Thursday, December 18, 2025 5:54:03 PM
Attachments: image001.png
image001.png

This is the email I sent repeatedly via [redacted]

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Angela Schumann herself pointed out how important it is to learn from the mistakes of other cities and states that have had issues with regards to lack of thorough process when putting in Data Centers. She also pointed out how important it is to use relevant data regarding Data Centers within the state and references of matters not to be too dated.

Therefore here are some mistakes we need to learn from regarding noise impacts that are not being mitigated or properly dealt with in the state of MN in recently within the last half of this year:

Hermantown Case (Project Loon): In November 2025, the **Minnesota Center for Environmental Advocacy (MCEA)** and the grassroots group **Stop the Hermantown Data Center** filed a lawsuit to halt a hyperscale project. They argue the city's environmental review failed to disclose the true scale of the data center, which residents claim will produce a "constant drone" making it impossible to sleep with windows open.

Pine Island Appeal: In October 2025, MCEA appealed Pine Island's environmental review, alleging it lacked the specific analysis required to address "noise impacts" and other environmental risks.

North Mankato Suit: A similar lawsuit was filed in August 2025 regarding a 4-million-square-foot "technology park" (alleged to be a data center), where plaintiffs claim the project's main noise source—computers and cooling—was not properly disclosed or mitigated.

Page 25 of the AUAR states that "Data center use locations will not create conflict with other land uses, **especially residential land uses, through off-site impacts including unusual amounts of noise**, lights, odors, or other similar aspects"

22. How is the AUAR constructed to ensure that Monticello residents aren't expected to risk the same fate of the 3 examples provided?

The WHO guidelines for community noise recommend less than 30 A-weighted decibels (dB(A)) in bedrooms during the night for a sleep of good quality and less than 35 dB(A) in classrooms to allow good teaching and learning conditions.

The WHO guidelines for night noise recommend less than 40 dB(A) of annual average (Lnight) outside of bedrooms to prevent adverse health effects from night noise.

Established guidelines and research consistently point to noise levels exceeding 40 decibels (dba) at night as significantly detrimental to sleep quality.

23. How can the AUAR make sure that measures are in place to prevent unacceptable noise pollution before construction takes place?

Page 86 of the AUAR states: "AUAR Guidance: Construction noise need not be addressed in an AUAR, unless there is some unusual reason to do so"

24. Since the decibels for Data Centers are considered to exceed numbers signficantly detrimental to sleep quality, why isn't the AUAR considering this reason enough to include it in the AUAR?

HFC leakage refers to the unintended release of synthetic refrigerant gases from cooling systems into the atmosphere.
Even though it is unintended, the AUAR states on page 85 that scenario 1 approximates 247.18 tons of HFC leakage and senario 2 approximates 372.73 tons of HFC leakage.

Evaporative cooling systems often use chemicals to prevent algae and corrosion such as biocides, bromine, or phosphorous. These can leak or be carried by water vapor and eventually settle on the ground, where they are washed away by rain.
Most data centers maintain large fleets of diesel generators. Spills or leaks during refueling or maintenance can introduce **diesel fuel and oils** into the stormwater system.
25. Why is there not a recommendation listed in the AUAR to have Data Centers meet the permit requirements for industrial stormwater?

On Thu, Dec 18, 2025, 4:55 PM Angela Schumann <Angela.Schumann@monticellomn.gov> wrote:

I did not receive your original email, but did receive this one.

Please email to angela.schumann@monticello.mn.gov

Angela Schumann

Community Development Director

Development Services

763-271-3224

505 Walnut St, Suite 1, Monticello, MN 55362

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Email correspondence to and from the City of Monticello government offices is subject to the Minnesota Government Data Practices Act and may be disclosed to third parties.

From: Bethany Olivares [redacted]
Sent: Thursday, December 18, 2025 4:15 PM
To: Angela Schumann <Angela.Schumann@MonticelloMN.gov>
Subject: Did you receive my email?

I sent you my email before 4pm today but it kept bouncing back. I think I finally got it right. I am hoping you will honor the time as I sent it prior to the time due, but please let me know either way.

Bethany Olivares

From: Elena Patterson
To: Angela Schumann
Subject: Public Comment on the Draft AUAR
Date: Thursday, December 18, 2025 2:19:48 PM

Public Comment on the Draft Monticello Industrial AUAR
Public Comment on the Draft Monticello Industrial AUAR

To the Mayor, City Council, Planning Commission, and Staff,

I am submitting this public comment to formally express my opposition to the Draft Monticello Industrial AUAR as it relates to Scenario 1, which explicitly evaluates a large-scale data center / technology campus within the Monticello Orderly Annexation Area.

While the AUAR is described as a "planning tool," its adoption carries lasting consequences that materially shape future development approvals. Based on the City's own document, the risks, uncertainties, and long-term burdens of this proposal outweigh any speculative benefits.

1. The AUAR Pre-Approves a Massive Worst-Case Development

The AUAR evaluates a "worst-case" development scenario of up to 3,000,000 square feet of technology or data center uses across 550 acres (pp. 7–8).

"The intent of the AUAR is to recognize the worst-case potential impacts and identify mitigation measures that may be taken to compensate for those impacts." (p. 7)

This is not theoretical. Once adopted, this AUAR becomes the environmental ceiling for future projects, allowing subsequent approvals to rely on this document without re-opening full environmental review. Community opposition at later stages becomes functionally limited.

2. Data Centers Are Acknowledged as a Unique and High-Burden Use

The City's own 2040 Comprehensive Plan language, quoted directly in the AUAR, acknowledges that data centers are fundamentally different from other industrial uses:

"The City's 2040 Plan recognizes data centers as a singularly unique land use due to size and scope." (p. 25)

"Data center uses shall demonstrate convincingly that its burden on municipal services, infrastructure, or fiscal condition is completely mitigated…" (p. 26)

The AUAR does not demonstrate this convincingly. Instead, it defers critical determinations to future permits, future studies, and future mitigation AFTER the AUAR is adopted.

3. Water Demand Is Significant and Uncapped

"Scenario 1 would require significantly lower operational traffic and potentially higher water/wastewater demands compared to Scenario 2." (p. 12)

Scenario 1 anticipates heavy groundwater use; Potential Rapid Infiltration Basin (RIB)

systems; Future water appropriation permit amendments (p. 21–22)

Yet these permits are not secured, and the long-term sustainability of groundwater withdrawal is modeled - not guaranteed.

The AUAR itself acknowledges increasing climate stress:

“There is a projected 2.6% to 13.8% increase in 100-year storm intensity by 2035 and a projected 5.2% to 26.9% increase by 2060.” (p. 12)

Approving a water-intensive land use under these conditions is fiscally and environmentally irresponsible.

4. Permanent Loss of Farmland of Statewide Importance

“77 percent of the study area is considered farmland of statewide importance.” (p. 23)

“Cropland: 444 acres existing → 0 acres proposed.” (Table 3, p. 18)

This loss is irreversible. No meaningful farmland preservation strategy is included, only replacement landscaping and engineered stormwater features.

5. Wetlands and Natural Systems Are Reduced

The AUAR documents a reduction in wetlands under Scenario 1 and relies heavily on mitigation and engineered infrastructure:

“…preservation of wetlands or woodlands as required by ordinance and/or to the extent practical.” (pp. 17–18)

“Mitigation” is not the same as protection, especially as precipitation intensity increases and systems fail under real-world conditions.

6. Infrastructure Burdens Are Shifted Forward – Likely to TAXPAYERS

The AUAR anticipates new trunk water and sewer lines, electrical substations, and roadway improvements (pp. 11–12), without binding financial assurances protecting taxpayers.

7. Annexation Removes Local Control PERMANENTLY

The AUAR confirms: “The study area is outside the city of Monticello and would require the city to annex land from the Township.” (pp. 30–31)

Once annexed, township residents permanently lose land-use authority, despite bearing many of the long-term impacts.

8. Few Permanent Jobs, Poor Land-Use Efficiency

While not quantified in the AUAR, data centers are widely known to generate very few permanent jobs relative to land consumed. The AUAR offers no job minimums, local hiring

requirements, or wage standards.

This stands in contrast to other light industrial uses contemplated in Scenario 2.

9. What about when the data center fails?
Once the data center project is abandoned; who is left with the responsibility to dispose of everything? This burden is placed on the city. When the AI boom collapses we will be left with the clean up. When the health issues increase the community will be damaged not the data center.

10. Health risks
Are there things put in place for the data center to fund an increase in demand to the clinics and hospital from the harm caused. The noise, light and water pollution poses health risks. With cuts happening to medical and insurance companies leaving minnesota/wright county. We can't afford the future damage these data centers will cause. The studies of damage caused in other places are just starting to come to the surface. The city is wanting to jump into this when so much is still unknown.

11. The Ideals for Monticello
We want our city to grow. This decreases this because it takes land options away. Increases pollution and has health risks. No one wants to live near these. We want to increase opportunities for our community. This takes this away. There has been talk about how the community wants more walk paths and parks. The city has been working to increase this. Putting a data center in that will make the environment outside unhealthy and unappealing is not the goal the city has been telling the community for years. This goes against what the city has put resources to for many years.

Conclusion

For these significant reasons, I urge the City of Monticello to REJECT this project that would alter the identity of our community forever.

Respectfully submitted,

Elena Patterson
Monticello resident

From: K. W
To: Angela Schumann
Subject: Public Comment on the Draft Monticello Industrial AUAR
Date: Thursday, December 18, 2025 2:30:21 PM

To the Mayor, City Council, Planning Commission, and Staff,

I am submitting this public comment to formally express my **opposition** to the Draft Monticello Industrial AUAR as it relates to Scenario 1, which explicitly evaluates a large-scale data center / technology campus within the Monticello Orderly Annexation Area.

While the AUAR is described as a "planning tool," **its adoption carries lasting consequences that materially shape future development approvals. Based on the City's own document, the risks, uncertainties, and long-term burdens of this proposal outweigh any speculative benefits.**

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This loss is irreversible. No meaningful farmland preservation strategy is included, only replacement landscaping and engineered stormwater features.

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“…preservation of wetlands or woodlands as required by ordinance and/or to the extent practical.” (pp. 17–18)

“Mitigation” is not the same as protection, especially as precipitation intensity increases and systems fail under real-world conditions.

6. Infrastructure Burdens Are Shifted Forward – Likely to TAXPAYERS

The AUAR anticipates new trunk water and sewer lines, electrical substations, and roadway improvements (pp. 11–12), **without binding financial assurances protecting taxpayers.**

Many residents rely on fuel assistance to help pay their bills in the winter. The increased cost will outweigh the help fuel assistance can give. How are we going to

prevent the increase to the residents?

7. Annexation Removes Local Control PERMANENTLY

The AUAR confirms: “The study area is outside the city of Monticello and would require the city to annex land from the Township.” (pp. 30–31)

Once annexed, township residents permanently lose land-use authority, despite bearing many of the long-term impacts.

8. Few Permanent Jobs, Poor Land-Use Efficiency

While not quantified in the AUAR, data centers are **widely known to generate very few permanent jobs** relative to land consumed. The AUAR offers no job minimums, local hiring requirements, or wage standards.

This stands in contrast to other light industrial uses contemplated in Scenario 2.

9. What about when the data center fails?

Once the data center project is abandoned; who is left with the responsibility to dispose of everything? This burden is placed on the city. When the AI boom collapses we will be left with the clean up. When the health issues increase the community will be damaged not the data center. Data centers have a lifespan of 10-15 years. If it doesn't fail before then. There is nothing stating that the center will be the one paying for the clean up. Nothing forcing them to hold money in escrow or anything close to it.

10. Health risks

Are there things put in place for the data center to fund an increase in demand to the clinics and hospital from the harm caused. The noise, light and water pollution poses health risks. With cuts happening to medical and insurance companies leaving minnesota/wright county. We can’t afford the future damage these data centers will cause. The studies of damage caused in other places are just starting to come to the surface. The city is wanting to jump into this when so much is still unknown.

11. The ideals of our city

We want our city to grow. This decreases this because it takes land options away. Increases pollution and has health risks. No one wants to live near these. We want to increase opportunities for our community. This takes this away. There has been talk about how the community wants more walk paths and parks. The city has been working to increase this. Putting a data center in that will make the environment outside unhealthy and unappealing is not the goal the city has been telling the community for years. This goes

against what the city has put resources to for many years.

Conclusion

For these significant reasons, I urge the City of Monticello to **REJECT** this project that would alter the identity of our community forever.

Respectfully submitted,

Ty Weiss
Monticello Resident [redacted]
12/18/2025

From: Scott Zettervall
To: Angela Schumann
Subject: Monticello Industrial AUAR - Scott"s Comments, Questions and Recommendation
Date: Thursday, December 18, 2025 2:33:58 PM

See below for my public comments for the draft Monticello Industrial Alternative Urban Areawide Review (AUAR).
https://monticellomn.gov/DocumentCenter/View/8720/Monticello-Draft-AUAR-with-Appendices-PDF?bidId=

RE: Page.11 Scenario 1
"The non-contact cooling wastewater generated under Scenario 1 is proposed to be discharged into the groundwater via a Rapid Infiltration Basin (RIB) system."

I understand non-contact cooling wastewater can contain PFAS (per- and polyfluoroalkyl substances). PFAS are persistent in the environment and human body, leading to potential health risks, including cancer and liver damage. Increased scrutiny on PFAS has led to stricter regulations and monitoring, especially for industrial discharges.

Related Questions:

1. What Management Strategies can be implemented to monitor and measure for PFAS and protect our groundwater?
2. What are the potential impacts?
3. How much PFAS is expected to be discharged?

RE: Page.47 "Only domestic wastewater should be considered in an AUAR—industrial wastewater would be coming from industrial uses that are excluded from review through an AUAR process"

Related Questions:

1. Since industrial wastewater is not considered in an AUAR, Is the AUAR process sufficient for this Industrial use?

RE: Page.64 Scenario 1 "maximum peak day water demand of up to 3-3.5 million gallons per day (MGD) for non-contact cooling water use during the months of April through October at full build out." and "water demand could be as high as 250 – 300 million gallons per year"

Related Recommendation:

1. I recommend the City to update the related Water Supply Fee schedules to have progressive tiers for this water usage to ensure this development covers

infrastructure maintenance costs and is incentivised to minimize water consumption.

Thank you,
Scott Zettervall

From: Mary Zierke
To: Angela Schumann
Subject: Data center
Date: Thursday, December 18, 2025 1:11:16 PM

Sent from my iPhone
Please STOP data centers!!Thank You

Minnesota Center for Environmental Advocacy's
Comments on the Monticello Industrial
Draft Alternative Urban Areawide Review

December 17, 2025

INTRODUCTION

Minnesota Center for Environmental Advocacy (MCEA) respectfully submits the following comments on its own behalf and on behalf of thousands of supporters across the state, including in the City of Monticello. MCEA is a nonprofit with expertise in environmental law, policy, and science. For over 50 years, we have worked in the courts, at the legislature, and with public agencies to enact, strengthen, and enforce smart environmental law. Our mission includes working with communities to protect Minnesota's environment, its natural resources, and the health of its people.

The City's Draft AUAR reviews proposals for a 550-acre development with two scenarios: a 3,000,000 square foot "technology park" (Scenario 1) and a 5,000,000 square foot "light industrial" development (Scenario 2).[1] Unlike other recent data center AUARs, the City acknowledges that Scenario 1 "could include a data center campus."[2] The City has even created a "Data Center PUD Zoning Ordinance" for this type of development.[3]

Despite this acknowledgment, the Draft AUAR fails to base its environmental review in the operational or design details of an actual data center proposal. This

[1] City of Monticello, *Draft Alternative Urban Areawide Review* 7-8 (Nov. 2025) ("AUAR").
[2] AUAR at 7.
[3] AUAR at 27.

generic approach violates Minnesota law. Under the Minnesota Environmental Policy Act (MEPA), AUAR review of a "*large specific project*" must be based on clear and thorough project descriptions.[4] Without this grounding, the AUAR cannot adequately study a hyperscale data center's likely environmental impacts. Among its gaps, the AUAR does not identify the number, size, and location of backup generators needed for this project, even though backup generators at data centers can emit significant air pollution.[5] The AUAR fails to calculate climate impacts based on a data center's electricity demand, instead citing the far lower needs of a generic light industrial development.[6] The AUAR omits information about how the project could impact nearby wells, despite recognizing that wells could be affected.[7]

Minnesota law requires more. AUARs must study a project's "direct, indirect, and cumulative potential effects" on the environment at "a level of analysis comparable to that of an EIS," the highest tier of environmental review in Minnesota.[8] Because the Monticello project's design details remain undefined, many of its potential impacts on groundwater, light pollution, air quality, and more are not analyzed at all. Other likely impacts are deferred to studies that will be completed "as site development progresses."[9]

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[4] Minn. R. 4410.3610, subp. 5a(B).
[5] *See* Karen Weise & Cade Metz, *At Amazon's Biggest Data Center, Everything Is Supersized for A.I., N.Y. Times* (June 24, 2025).
[6] AUAR at 85.
[7] AUAR at 44.
[8] Minn. R. 4410.3610, subp. 4.
[9] AUAR at 88.

MEPA's mandate to analyze a project's "direct, indirect, and cumulative" impacts cannot be satisfied with non-binding commitments to do more, later.[10] The City must amend its draft AUAR to include a thorough analysis of this project's potential environmental impacts, based on a thorough description of the large specific project being considered. Additionally, MCEA recommends that environmental review for hyperscale data centers may be best conducted by a different Responsible Governmental Unit (RGU). Unlike most local projects, hyperscale data centers can directly threaten the electricity grid and groundwater aquifers. These are inherently regional challenges, which a state body like the Department of Natural Resources, or the Environmental Quality Board itself, is best equipped to study.

I. The AUAR fails to adequately describe the Project, precluding meaningful environmental review

The applicable rules and guidance require the City to provide a thorough description of the project it is reviewing. The City elected to use an AUAR to study "a large specific project."[11] Per MEPA regulations, any AUAR reviewing a large specific project must undergo a scoping process that requires the City to describe the project at a level "comparable to that of a scoping EAW."[12]

The Minnesota Environmental Quality Board ("EQB") instructs that this description should provide a "brief summary" of the project, followed by a "complete description" focused on all "aspects of *the* project that may directly or indirectly

[10] Minn. R. 4410.3610, subp. 4; cf. *Greater Yellowstone Coal. v. Lewis*, 628 F.3d 1143, 1158 (9th Cir. 2010), as amended (Jan. 25, 2011).
[11] See City of Monticello, *Final Order for the Preparation of an Alternative Urban Areawide Review for Monticello Industrial* (invoking Minn. R. 4410.3610, subp. 5a).
[12] Minn. R. 4410.2610, subp. 5a(B).

manipulate, alter or impact the physical or natural environment."[13] The description should contemplate the project's "construction and operational activities," "project components and structures," the "location and relationships of project components," and "associated infrastructure" required to serve the facility.[14] The EQB stresses that project descriptions are the "most important item" of environmental review.[15] The key principle is that "clear, complete and detailed project descriptions are essential to understanding the potential for environmental effects."[16]

The AUAR's project description falls far short of this bar. The City describes Scenario 1 as a technology park that "could include a data center, research and design facilities, technology, laboratories or research park uses," with "5-10 principal buildings, approximately 200,000-400,000 square feet per building."[17] This description does not provide the operational and design details necessary for meaningful environmental review. A data center's environmental impacts are tied to precise questions, such as how the project will be cooled, where it will source electricity, and what indirect infrastructural changes are needed to accommodate the facility's demands. Because the AUAR discusses these questions generically, without grounding in the details of the "large specific project" it purports to review, the City cannot adequately study the project's potential impacts.

II. The AUAR fails to adequately describe the Project's impact on air quality

[13] Minn. Envtl. Quality Bd., *EAW Guidelines: Preparing Environmental Assessment Worksheets* 11 (2013) ("EAW Guidance") (emphasis added).
[14] *Id.*
[15] *Id.*
[16] *Id.*
[17] AUAR at 7.

Environmental review of a hyperscale data center must account for how the facility plans to generate on-site power. Industrial facilities construct generators to provide electricity when the facilities are disconnected from the grid. Frequently, these generators are fracked gas or diesel-powered turbines which emit nitrogen oxides, particulate matter, carbon monoxide, and other pollutants that are hazardous to human health.[18]

Data center generators can pose a unique threat to air quality due to the computing facilities' enormous demand for power. A single hyperscale data center can easily require more electricity than the entire City of St. Cloud.[19] Powering a facility like this can require dozens of combustion turbines.[20] Data centers can be tempted to rely on these on-site turbines, instead of the grid, when "the data processing center's voracious appetite for energy has outpaced electric utilities' ability to serve it."[21] In Memphis, thirty-five gas turbines have been used as the main source of power for a new hyperscale data center.[22] These turbines are reportedly emitting more nitrogen oxides than the power plant and oil refinery located next door.[23]

The AUAR acknowledges that data center developments could require backup generators.[24] It does not, however, analyze those generators' air pollution. The reason

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[18] *See* U.S. Env't Prot. Agency, *Learn About Impacts of Diesel Exhaust and the Diesel Emissions Reduction Act (DERA)*, https://www.epa.gov/dera/learn-about-impacts-diesel-exhaust-and-diesel-emissions-reduction-act-dera.
[19] *See* Walker Orenstein, *Mega Data Centers Are Coming to Minnesota. Their Power Needs Are Staggering.*, Star Trib. (Jan. 10, 2025).
[20] *See* Ariel Wittenberg, *'How Come I Can't Breathe?': Musk's Data Company Draws a Backlash in Memphis*, Politico (May 6, 2025).
[21] *Id.*
[22] *Id.*
[23] *Id.*
[24] AUAR at 82.

given is that "if any potential emission generation (e.g., from generators) from future development is above the threshold for an air quality permit/environmental review, then that specific project would be subject to additional environmental review beyond what is evaluated in this AUAR."[25] However, this explanation ignores the very real possibility that backup generators could emit enough air pollution to require individual environmental review, meaning that an AUAR would be inappropriate and barred by law. Recent reporting suggests that a data center in Memphis is emitting nitrogen oxides at a rate of "1,200 to 2,000 tons a year."[26] That is five to eight times higher than the rate that would trigger a mandatory EAW in Minnesota.[27]

The AUAR contains no information about the number, size, and location of the generators, stating only that "[d]etails pertaining to the number, size, and location are unknown at this time."[28] This omission precludes the AUAR from evaluating the "direct, indirect, and cumulative potential effects" of the proposed project.[29]

III. The AUAR fails to adequately describe the Project's noise and light pollution

Environmental review of data centers must account for potential noise and light impacts associated with these enormous facilities. Hyperscale data centers house servers and cooling facilities that create a constant "hum" or "screech."[30] That noise persists day and night. It can travel for miles. Long-term exposure to this noise

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[25] AUAR at 82.
[26] *See* Ariel Wittenberg, *'How Come I Can't Breathe?': Musk's Data Company Draws a Backlash in Memphis*, Politico (May 6, 2025).
[27] *See* Minn. R. 4410.4300, subp. 15(A).
[28] AUAR at 73.
[29] Minn. R. 4410.3610, subps. 4, 5(B); see also Minn. R. 4410.2500; Minn. Stat. § 116D.04, Subd. 4a.
[30] Steven Gonzalez Monserrate, *The Staggering Ecological Impacts of Computation and the Cloud*, The MIT Press Reader (Feb. 14, 2022).

pollution can result in hearing loss, stress, insomnia, and a significantly decreased quality of life.[31]

The AUAR acknowledges that chiller equipment at "a typical data center could range from around 65 dB(A) up to around 80 dB(A) at a distance of approximately 30 feet" and that "given the quantity of chillers needed for a typical data center building, these noise levels would be higher."[32] The AUAR further notes the possibility of "low frequency noise" from operational equipment.[33] Despite these acknowledgments, the City does not actually model the noise impacts of the proposed facility. Instead, the AUAR states that "[a]s site development progresses, developers would be responsible for assessing whether operational noise exceeds established noise standards which may require studies of ambient and proposed noise conditions and then mitigation for compliance."[34]

This is insufficient. Determining real-world environmental impacts, then committing to mitigation measures, are key components of environmental review. These steps need to happen in the AUAR. By deferring this analysis to future developers, the City's AUAR fails to "provide for a level of analysis comparable to that of an EIS."[35]

Additionally, the City's evaluation of light pollution is inadequate. Night lighting at large industrial facilities can frustrate neighbors and contribute to

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[31] *Id*.
[32] AUAR at 87.
[33] AUAR at 87.
[34] AUAR at 88.
[35] Minn. R. 4410.3610, subp. 4.

"skyglow" that obscures the night sky.[36] Data center lighting can be "easily seen for miles," glowing "at night like a giant city of lights."[37]

EQB guidance states that AUARs should analyze "any impacts" on scenic views and vistas in the study area, including "both direct physical impacts and impacts on visual quality or integrity."[38] If "any non-routine visual impacts would occur" they should be discussed "along with appropriate mitigation."[39]

Again, the AUAR plainly fails to meet this requirement. The AUAR notes that "[f]uture development would conform with the city ordinances" and that "[g]uidance from the USFWS to minimize blue light, uplight, and backlight will be adhered to the extent practicable."[40] These short and generic claims fail to study the effects of lighting a three million square foot technology park. To properly evaluate the facility's "impact on visual quality," along with "appropriate mitigation," the AUAR must detail how the data center project will be lit.[41] As presently drafted, that study is missing.

IV. The AUAR fails to adequately describe the Project's water impacts

Thorough environmental review of a hyperscale data center must account for the facility's water impacts. Data centers can demand enormous amounts of water to cool their servers and other computing hardware.[42] In Farmington, a proposed data

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[36] *See* National Geographic Society, *Light Pollution*, https://education.nationalgeographic.org/resource/light-pollution/.
[37] Grace Mamon, *Data Centers Are Changing the Landscape. Here's How They May Affect Rural Virginia*, Cardinal News (Mar. 12, 2025).
[38] Minn. Env't Quality Bd., *Recommended Content and Format Alternative Urban Areawide Review Documents* 5 (Sept. 2008) ("AUAR Guidance").
[39] Id.
[40] AUAR at 81-82.
[41] AUAR Guidance at 5.
[42] Rasheed Ahmad, *Water Works: Engineers Often Need a Lot of Water to Keep Data Centers Cool*, American Society of Civil Engineers (Mar. 4, 2024).

center would more than double the city's current water use.[43] This intensive water demand may be at odds with the groundwater sustainability standard in state law, which requires groundwater use to be sustainable to supply current needs and the needs of future generations.[44]

Evaluating those water demands is a key part of environmental review. Among other obligations, an AUAR must describe "quantity, duration, use, and purpose of the water use."[45] The EQB stresses that where "it is uncertain whether water resources will be impacted depending on the exact design of future development, the AUAR should cover the possible impacts through a 'worst case scenario' or else prevent impacts through the provisions of the mitigation plan."[46] Crucially, the AUAR must "describe environmental effects from water appropriation, including an assessment of the water resources available for appropriation."[47]

The Monticello AUAR presents significant water appropriation concerns that are not adequately addressed. The AUAR estimates that Scenario 1 could require a peak day water demand of up to 3-3.5 million gallons per day for non-contact cooling water use, with an estimated yearly water demand of 250-300 million gallons per

[43] Letter from Melissa Collins, Regional Environmental Assessment Ecologist, Department of Natural Resources, to Tony Wippler, Planning Manager, City of Farmington (Oct. 22, 2024), on file at MCEA.
[44] Minn. Stat. § 103G.287, subd. 1(b); see also Kirsti Marohn, *Water-Guzzling Data Centers Spark Worries for Minnesota's Groundwater*, MPR News (Feb. 11, 2025).
[45] AUAR at 63; see Minn. Env't Quality Bd., *Environmental Assessment Worksheet Form* (Dec. 2022); see also Minn. R. 4410.3610, subp. 4 (AUAR); Minn. R. 4410.2300(H) (EIS).
[46] AUAR Guidance at 3.
[47] *Id.*

year.[48] The City of Monticello currently has only 149 million gallons per year of available water appropriations.[49]

Because the project's water demand would exceed the City's available appropriation, part of the AUAR's role is to include an "assessment of the water resources available for appropriation."[50] Here, the AUAR states that "[t]he city has completed a preliminary aquifer analysis."[51] The City reports that this analysis "found that there appears to be limited draw down impact to adjacent wells."[52] But that is all. The AUAR contains none of the study details or results.

MEPA requires environmental review documents to explain their analyses, so that public and governmental officials have useful information *before* decisions are made.[53] To "describe environmental effects from water appropriation" of 250 – 300 million gallons per year from the Quaternary Buried Artesian aquifer, the revised AUAR must share the actual analysis, not merely characterize impacts as "limited."[54]

Furthermore, the AUAR errs by framing "up to 75 MGY" of water processed through a Rapid Infiltration Basin ("RIB") system as a credit to *subtract* from the project's water appropriation.[55] The City cites no authority behind this accounting

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[48] AUAR at 64.
[49] AUAR at 66.
[50] AUAR Guidance at 3.
[51] AUAR at 64.
[52] AUAR at 44.
[53] Minn. R. 4410.3610, subp. 4; *Greater Yellowstone Coal. v. Lewis*, 628 F.3d 1143, 1158 (9th Cir. 2010), as amended (Jan. 25, 2011) (environmental review is a "look before you leap" process, designed to ensure that agencies "consider every significant aspect of the environmental impact of a proposed action" before that action is approved").
[54] AUAR Guidance at 3, AUAR at 44.
[55] AUAR at 65 (Table 17).

exercise. The effort is also foreclosed by state law: Minn. Stat. § 103G.005 defines appropriation as the "withdrawal, removal, or transfer of water from its source regardless of how the water is used."[56] Plans to recharge that aquifer using an RIB system, a process that the AUAR concedes will take decades, and may not even end up in the same aquifer as where the city draws from, are not an allowance to claim "minus 75" on a data center's estimated millions of gallons per year of water appropriations.[57] The City must revise its AUAR to reflect that fact.

V. The AUAR does not adequately account for the Project's cumulative potential effects

MEPA requires project proposers to assess a project's cumulative potential effects.[58] "Cumulative potential effects" is defined in the Minnesota Rules to mean "the effect on the environment that results from the incremental effects of a project in addition to other projects in the environmentally relevant area that might reasonably be expected to affect the same environmental resources."[59] These "other projects" include existing facilities that are continuing to impact the environment and people's health. This analysis is vital to ensuring an adequate AUAR.

Here, the City has not conducted an adequate cumulative potential effects analysis. The AUAR's cumulative effects section identifies only one reasonably foreseeable future project: the Haven Ridge West housing development approximately 0.5 miles east of the study area.[60] The AUAR then offers conclusory

[56] Minn. Stat. § 103G.005, Subd. 4.
[57]
[58] Minn. Env't Quality Bd., *Environmental Assessment Worksheet Form* (Dec. 2022); see also Minn. R. 4410.3610, subp. 4 (AUAR); Minn. R. 4410.2300(H) (EIS).
[59] Minn. R. 4410.0200, subp. 11a.
[60] AUAR at 98.

claims that adverse cumulative impacts "will be addressed via the regulatory permitting and approval processes and will be individually mitigated to ensure minimal cumulative impacts occur."[61]

Critically, the AUAR fails to assess the cumulative impacts of this project in combination with other hyperscale data centers proposed or under development across Minnesota. The Star Tribune reported recently that "with at least 10 [hyperscale data centers planned], these Big Tech projects could consume as much electricity as every home in Minnesota."[62] That enormous cumulative demand can strain energy grids, shift costs to consumers, and necessitate dirty sources of power that increase greenhouse gas emissions while threatening progress on Minnesota's statutory commitment to clean energy.[63]

MEPA requires more. To fully discharge its duty to assess cumulative potential effects, the City must, at a minimum, conduct an analysis that includes an understanding of environmental impacts not just from this project but also from other existing sources and activities.[64] As the Minnesota Supreme Court has explained, the purpose of this inquiry is to "determine whether the project, which may not individually have the potential to cause significant environmental effects, could have

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[61] AUAR at 98.
[62] Walker Orenstein, *Mega Data Centers Are Coming to Minnesota. Their Power Needs Are Staggering.*, Star Trib. (Jan. 10, 2025).
[63] *See* Ellen Thomas, *Utilities Want to Power Big Tech's AI Ambitions with Natural Gas. These Are the Data Centers They're Betting On, Business Insider* (Feb. 13, 2025); Eliza Martin & Ari Peskoe, *Extracting Profits from the Public: How Utility Ratepayers Are Paying for Big Tech's Power*, Harvard Law School Environmental and Energy Law Program (Mar. 2025).
[64] *Citizens Advocating Responsible Dev. v. Kandiyohi Cty. Bd. of Comm'rs*, 713 N.W.2d 817, 829 (Minn. 2006).

a significant effect when other local projects already in existence or planned for the future are considered."[65]

Unless the City revises the AUAR to include the required cumulative potential effects analysis, including the cumulative impacts of multiple data centers on Minnesota's electrical grid and water resources, the City cannot make a legally sound decision on the adequacy of the AUAR and on the Project itself.

VI. The AUAR's greenhouse gas emissions analysis improperly ignores data center electricity consumption.

Greenhouse gas emissions associated with generating electricity are a critical component of a data center's carbon footprint. To study those impacts, the Environmental Quality Board's guidance is clear: greenhouse gas emissions must include "Scope 2" emissions, including "emissions associated most often with the offsite generation of purchased electricity," which are determined through the formula of "purchased electricity (MWh) * Emission Factor * GWP."[66]

Here, the AUAR based its estimated Scope 2 emissions for the data center scenario using electricity consumption of a "typical light industrial user."[67] This is inadequate. Data center proposals in Minnesota would reportedly require 100 to 500 megawatts of power,[68] rivaling the electricity consumption of entire metropolitan cities. They are not typical light industrial developments.

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[65] *Id.*

[66] Minn. Envtl. Quality Bd., *Environmental Assessment Worksheet (EAW) Guidance: Developing a Carbon Footprint and Incorporating Climate Adaptation and Resilience* 13 (July 2023) ("EQB GHG Guidance").

[67] AUAR at 85, footnote 45.

[68] See Walker Orenstein, *Mega Data Centers Are Coming to Minnesota. Their Power Needs Are Staggering.*, Star Trib. (Jan. 10, 2025).

The City has acknowledged that the "intent of the AUAR is to recognize the worst-case potential impacts and identify mitigation measures that may be taken to compensate for those impacts."[69] To avoid grossly understating a data center's climate impact, the revised AUAR must calculate greenhouse gas emissions using realistic electricity consumption estimates.

VII. The AUAR's mitigation plan is inadequate

The AUAR rules require that each AUAR include a mitigation plan that details how any potential impacts to the environment will be avoided, minimized, or mitigated. Mitigation measures must go beyond "vague statements of good intentions."[70] For AUARs in particular, EQB has emphasized that "the plan for mitigation called for is perhaps the key part of the entire substitute review process" in an AUAR.[71] The agency instructs that it "must be understood that the mitigation plan is a commitment by the [Responsible Governmental Unit] to prevent potentially significant impacts from occurring from specific projects. It is more than just a list of ways to reduce impacts—it must include information about how the mitigation will be applied and assurance that it will."[72]

The mitigation measures in the draft AUAR are inadequate for two key reasons. First, as described above, the design of the proposed project has not yet been established, so there is no way to know how well the mitigation measures listed in the draft AUAR accomplish their stated purpose. And second, the mitigation measures

[69] AUAR at 7.
[70] *Citizens Advocating Responsible Development*, 713 N.W.2d at 835.
[71] See Minn. Envtl. Quality Bd., *Statement of Need & Reasonableness, Proposed Amendments to Minn. R. parts 4410.0200–.7800* 32 (1988).
[72] AUAR Guidance at 6.

included in the AUAR are not described or analyzed sufficiently to give the public or government officials grounds to understand and comment on this section of the AUAR.

For example, the mitigation plan states that "[a]s site development progresses, developers would be responsible for assessing whether operational noise exceeds established noise standards."[73] This is not a mitigation plan. Rather than identifying the actual noise levels associated with operation of the proposed data center, how that noise will impact nearby residents, and what specific, targeted and certain measures will be used to mitigate those impacts, the City defers responsibility to future developers.

Further, several mitigation ideas are vague and noncommittal. The Draft AUAR reports that "potential design strategies and sustainability measures," namely native vegetation and habitat, urban tree planting, and energy efficient appliances, are "under consideration."[74] But the document omits *any* description of how these potential ideas would "prevent potentially significant impacts from occurring from specific projects."[75]

The draft mitigation plan must be revised to include "information about how the mitigation will be applied and assurance that it will."[76]

VIII. Environmental review of hyperscale data centers should be conducted by a regional or statewide governmental entity

[73]AUAR at 88.
[74] AUAR at 106.
[75] AUAR Guidance at 6.
[76] See Minn. Envtl. Quality Bd., *Statement of Need & Reasonableness, Proposed Amendments to Minn. R. parts 4410.0200–.7800* 32 (1988).

If the proposed project is a hyperscale data center, it would join a rapid statewide rollout of these facilities. This wave of new, intensive developments will likely strain the regional electricity grid, threatening service reliability, ratepayer costs, and utilities' ability to achieve state climate and energy targets.[77] The rollout will also introduce enormous competition for limited water supplies, at a time when increasing competition for water is posing problems for drinking wells and Minnesota's streams, lakes, and rivers.[78]

These are inherently regional challenges. At the local level, it may be impossible to ask a city to conduct environmental review of a project so large it could require new energy infrastructure, drive up electricity rates, strain city water appropriations, cause significant drawdown to regionally significant aquifers, or have other regional impacts.

Going forward, MCEA strongly recommends that the environmental review of hyperscale data centers be conducted by regional or state RGUs that are best equipped to review data centers' cross-jurisdictional effects.

CONCLUSION

[77] See Eliza Martin & Ari Peskoe, *Extracting Profits from the Public: How Utility Ratepayers Are Paying for Big Tech's Power*, Harvard Law School Environmental and Energy Law Program (Mar. 2025).
[78]See Minn. Dep't. of Nat. Res, *Minnesota Water Conservation Report* 6 (2020); Minn. Dep't. of Nat. Res., *Well Interference Resolution Process*, https://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/interference.html.

For the above reasons, the draft AUAR must be revised to contain significant additional review of this project's potential environmental impacts, based on a "clear, complete and detailed" description of what the large specific project is.[79]

Sincerely,

s/ Evan Mulholland

Evan Mulholland
Healthy Communities Program Director
Minnesota Center for Environmental Advocacy
1919 University Ave W, Ste. 515
Saint Paul, MN 55104

s/ Luke Norquist

Luke Norquist
Attorney
Minnesota Center for Environmental Advocacy
1919 University Ave W, Ste. 515
Saint Paul, MN 55104

[79] EAW Guidance at 11.

Appendix H:
Objection Period Comments and Responses

Monticello Industrial Final AUAR - Objection Period Comment Responses

January 22, 2026

The 10-day objection period for state agencies to file an objection to the Monticello Industrial Final Alternative Urban Areawide Review (AUAR) ended on January 21, 2026. During that time, the city of Monticello, as the Responsible Governmental Unit (RGU), received no objections from state agencies.

The RGU also distributed a press release requesting further public comment during the objection period. While no public comments were received, the RGU did receive comments from the Minnesota Pollution Control Agency (MPCA) and the Minnesota State Historic Preservation Office (SHPO), see Attachment H.

MPCA's comment letter states that if a project moves forward an Antidegradation Assessment must be completed in accordance with Section 401 of the Clean Water Act (CWA). A Section 401 Water Quality Certification (WQC) from the MPCA (which would include an Antidegradation Assessment) and a corresponding Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers (USACE) are both included in *Table 6: Anticipated Permits and Approvals* in the Final AUAR. If the developer proposes to impact a Water of the United States, they will obtain any required permit under Section 404 of the CWA and a Section 401 WQC from MPCA, if applicable.

SHPO's comment letter requests more information regarding field conditions that led to the omission of 142 acres of the study area in a Phase I Archaeological Survey. Further, they recommended an additional survey be conducted for the 142-acre portion of the study area. SHPO also stated they could not concur with the determination of the isolated find spots as "not eligible for listing" in the National Register of Historic Places (NHRP). SHPO requested a new, not redacted version of the report be uploaded to the Office of the State Archaeologist (OSA) Portal. The developer will coordinate with SHPO to ensure any area proposed for development is surveyed prior to construction if that area is developed. The developer will also ensure that any impacts to the isolated find spots are considered during project planning and coordinate with SHPO to determine the eligibility of these sites. The developer and archeological consultant will provide OSA with an unredacted version of all archaeological surveys conducted in the study area. Item 15 and the Mitigation Plan in the Final AUAR have been updated to incorporate this information and next steps.

MINNESOTA POLLUTION CONTROL AGENCY

Marshall Office | 504 Fairgrounds Road | Suite 200 | Marshall, MN 56258-1688 | 507-537-7146

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

January 13, 2026

VIA EMAIL

Angela Schumann
City of Monticello
505 Walnut Street
Monticello, Minnesota 55362
angela.schumann@monticellomn.gov

RE: Monticello Industrial – Draft Alternative Urban Areawide Review

Dear Angela Schumann:

Thank you for the opportunity to review and comment on the Draft Alternative Urban Areawide Review (DAUAR) for the Monticello Industrial project (Project) located in Wright County, Minnesota. The Project consists of two scenarios. Scenario 1 includes multiple buildings for a total of up to 3,000,000 square feet of a proposed technology park/campus development (see Figure 3). Scenario 1 could include a data center, research and design facilities, technology, laboratories or research park uses. These types of uses are expected to also include the need to build additional electrical substations, transmission lines and backup generators. For the purposes of impact evaluation, this scenario assumes a data center campus, with 5 to 10 principal buildings, approximately 200,000 to 400,000 square feet per building with a few ancillary support buildings. Scenario 1 is expected to follow similar life cycle of other typical light industrial development. With most technology park campuses, including data centers, the exterior shell of the buildings are anticipated to be used over many decades, while the internal components are upgraded periodically as technology advances. Scenario 2 includes multiple buildings for a total of up to 5,000,000 square feet of light industrial land use based on the City of Monticello's adopted land use plan (see Figure 4). Scenario 2 could include process and production manufacturing which uses moderate amounts of partially processed materials, warehousing and distribution, machine shops, computer technology including office and research and development facilities (but not including data centers as a singular principal use), professional and corporate offices and industrial engineering facilities. For the purposes of impact evaluation, this scenario assumes a light industrial park type development that could include 5 to 20 buildings that range from approximately 20,000-1 million square feet. Generally, light industrial. Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility and other interests, the MPCA staff has the following comments for your consideration.

401 Certification

- The wetland replacement ratio remains unclear. If the project moves forward, the Antidegradation Assessment must be completed.
- All surface waters are regulated by the MPCA and defined by Minn. Stat. § 115.01, subd. 22.

We appreciate the opportunity to review this Project. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit actions by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure

any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this DAUAR, please contact me by email at chris.green@state.mn.us or by telephone at 507-476-4258.

Sincerely,

Chris Green

This document has been electronically signed.

Chris Green, Project Manager
Environmental Review Unit
Resource Management and Assistance Division

CG:rs

Attachment

cc: Melinda Neville, MPCA
Christopher Lundeen, MPCA
Nicole Peterson, MPCA
Matthew Moon, MPCA
Jeffrey Hedman, MPCA
Colin Boysen, MPCA
Lauren Dickerson, MPCA
Deepa deAlwis, MPCA
David Sahli, MPCA
Julie Henderson, MPCA
Katrina Hapka, MPCA

DEPARTMENT OF ADMINISTRATION
STATE HISTORIC PRESERVATION OFFICE

January 21, 2026

Angela Schumann
Community Development Director
505 Walnut Street
Monticello, MN 55362

RE: Monticello Industrial AUAR
Monticello, Wright County
SHPO Number: 2026-0118

Dear Angela Schumann:

Thank you for providing this office with a copy of the Final Alternative Urban Areawide Review (AUAR) for the above-referenced project. According the AUAR, "Monticello Tech, LLC is proposing to develop the study area from existing farmland to a technology campus or light industrial uses."

We have reviewed the redacted report, *Phase I Archaeological Survey for [REDACTED], Wright County, Minnesota* prepared by In Situ in April 2025 (submitted to the OSA portal on December 12, 2025) and have the following comments:

- Please describe the field conditions at the time of survey that prevented survey for 122 acres of the proposed project area in a revised report. This is a standard part of documenting the "work summary" of field work.
- We understand that three (3) new archaeological sites were identified as a result of the survey, sites 21WR0239, 21WR0240, and 21WR0241. In general, we recommend the excavation of radial shovel tests, typically at 5-meter and 10-meter intervals around an artifact identified on the surface to delineate the horizontal site limits. Lacking additional information on the potential horizontal extent of these sites, we are not certain they represent isolated find spots and are unable to agree that they are not eligible for listing in the National Register of Historic Places (NRHP). Therefore, at this time we consider these sites unevaluated for listing in the NRHP and recommend that potential effects to these sites be considered during project planning.
- We recommend reviewing Part 2 of the Stone Tools of Minnesota, which is Chapter 6: Chipped Stone Raw Materials to determine lithic raw materials. The Minnesota Historical Society also maintains a comparative lithic collection that may be helpful.
- We recommend that an archaeological survey be completed for the additional 122 acres of land within the project area that have not been surveyed.

Please note that we have returned the report to the archaeologists in the Office of the State Archaeologist's (OSA) Portal because it contains redactions. We understand that the project name was redacted by the archaeologist's client. We recommend that the archaeologists address the comments above and revise the title and text of the report, so it is no longer redacted and resubmit it to the OSA Portal. Please note that

archaeological reports, because they contain archaeological site information, are non-public data and our office does not release them to the public.

There are no properties listed in the National or State Registers of Historic Places, or within the Historic Sites Network, located within or adjacent to the AUAR boundary. However, as noted in the AUAR Item 15, there are three (3) previously inventoried properties located in the vicinity of the AUAR boundary. Two of these properties are currently unevaluated for listing in the NRHP and one of them has been determined not eligible for listing in the NRHP.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR § 800. If the proposed project is considered for federal financial assistance, or requires a federal permit or license, then review and consultation with our office will need to be initiated by the lead federal agency in order to define the federal undertaking, an appropriate area of potential effects (APE) for the federal undertaking, as well as the necessary historic property identification and evaluation efforts required for a federal review. Be advised that comments and recommendations provided by our office for this review may differ from findings and determinations made by the federal agency as part of review and consultation under Section 106.

Please contact Kelly Gragg-Johnson, Environmental Review Specialist, at kelly.graggjohnson@state.mn.us if you have any questions regarding our comments.

Sincerely,

Amy Spong
Deputy State Historic Preservation Officer

Appendix I:
Adoption Resolution

CITY OF MONTICELLO
WRIGHT COUNTY, MINNESOTA
CITY COUNCIL

RESOLUTION 2026-02

A RESOLUTION AUTHORIZING THE ADOPTION OF THE FINAL ALTERNATIVE URBAN AREAWIDE REVIEW (AUAR) AND MITIGATION PLAN FOR THE MONTICELLO INDUSTRIAL AREA

WHEREAS, the City of Monticello ordered the preparation of an Alternative Urban Areawide Review (AUAR) for the proposed Monticello Industrial Study Area; and

WHEREAS, an AUAR has been completed for the project pursuant to Minnesota Rules 4410 which identifies and assesses the environmental impacts and mitigation measures associated with the Monticello Industrial Study Area; and

WHEREAS, the Study Area is located on approximately 550 acres east of Highway 25, west of Edmonson Ave NE, and south of 85th Street; and

WHEREAS, the AUAR was completed pursuant to Minnesota Rule 4410.3610; and

WHEREAS, the AUAR was distributed for the required 30-day comment, revised based on comments, and redistributed for the required 10-day objection period; and

WHEREAS, no objections to the AUAR were received; and

WHEREAS, comments received on the AUAR have generated information adequate to determine mitigation measures associated with the potential development in this area; and

WHEREAS, the comments received and the City's responses to these comments are included in the public record for the AUAR; and

WHEREAS, development of the Monticello Industrial Study Area is expected to comply with all Monticello and review agency standards as well as the mitigation measures outlined in the AUAR;

NOW THEREFORE BE IT RESOLVED, by the City Council of Monticello, MN that the City of Monticello adopts the Monticello Industrial Area AUAR and Mitigation Plan dated January 2026.

ADOPTED this 26th day of January 2026, by the City Council of the City of Monticello.

MONTICELLO CITY COUNCIL

By: _____
Lloyd Hilgart, Mayor

ATTEST:

_____
Jennifer Schreiber, City Clerk