Citizens' Petition for an Environmental Assessment Worksheet for the Proposed Walmart Store at County Road C and Cleveland Avenue City of Roseville, Minnesota

We, the undersigned petitioners, file this petition with the Minnesota Environmental Quality Board respectfully requesting the preparation of an Environmental Assessment Worksheet (EAW) for the construction of what we believe will be a "big box" store of at least 160,00 square feet, and associated parking and infrastructure, at the corner of County Road C and Cleveland Avenue in Roseville, Minnesota. We request this environmental review for the health, safety, and welfare of the citizens of Roseville, the store employees, shoppers, and construction workers.

We believe that this development will involve construction of a Walmart store. In addition, we believe that the City of Roseville is the appropriate responsible governmental unit for the proposed project under the Minnesota Environmental Policy Act ("MEPA"), Minn. Stat. ch. 116D, and the rules of the Minnesota Environmental Quality Board implementing MEPA, Minn. R. ch. 4410. We note that the City of Roseville may consider this project as soon as its City Council meeting scheduled for April 23, 2012. Therefore, we request that the Minnesota Environmental Quality Board forward this petition to the City of Roseville as soon as possible *but in any event not later than April 20, 2012*, five business days from the date that the petition was filed. Minn. R. 4410.1100, subp. 5.

Signatures in Support of the Petition. This petition includes the supporting signatures of over 100 persons. Each of the signatories to the petition resides or owns property in the State of Minnesota, as MEPA requires. Minn. Stat. § 116D, subd. 2a(c).

Project Proposer. Petitioners understand that the project proposer is Wal-Mart Stores, Inc., 702 SW 8th Street, Bentonville, Arkansas, 72716. "Walmart," expressed as one word and without punctuation, is a trademark of the company and is used analogously to describe the company and its stores. Notice and a copy this

petition, including attachments, has been sent by U.S. Mail on April 13, 2012, the date this petition was filed with the Minnesota Environmental Quality Board, to Wal-Mart Stores, Inc., 702 SW 8th Street, Bentonville, Arkansas, 72716. In addition, notice and a copy of this petition, including attachments, has been sent by U.S. Mail on April 13, 2012, the date this petition was filed with the Minnesota Environmental Quality Board, to William J. Malinen, City Manager, City of Roseville, Minnesota, 2660 Civic Center Drive Roseville, Minnesota, 55113.

Representative of the Petitioners. The petitioner's representative is Joy Anderson, Responsible Government for Roseville, 1436 Ryan Avenue, Roseville, Minnesota, 55113.

Description of the Proposed Project. Petitioners understand that Walmart is proposing to construct a store of at least 160,000 square feet, with associated parking and infrastructure, at Cleveland Avenue and County Road C in Roseville. A map of the development area, taken from the October 2006 Twin Lakes Alternative Urban Areawide Review Update, is attached to this petition as Exhibit 1. The proposed project is slated for "Subarea I" shown on Exhibit 1. In addition, the proposed project described at the February 1, 2012, meeting of the City of Roseville's Planning Commission. The draft minutes of the Planning Commission's February 1, 2012, meeting are attached to this petition as Exhibit 2.

Brief Description of the Potential Environmental Effects and Material Evidence Indicating That There May Be the Potential for Significant Environmental Effects. "Subarea I" on Exhibit 1 is an approximately 70 acre parcel planned for redevelopment. Among the potential for significant environmental effects associated with development of a proposed Walmart store on the parcel is the existing contamination in Subarea I. The area contains numerous pollutants and hazardous substances at high concentrations. For example, the Indianhead Parcel at 1947 County Road C West, which is part of Subarea I, formerly contained above-ground and underground tanks that stored petroleum products. As a result, soils in the area contain high concentrations of diesel-range organics (DROs) and gasoline range organics (GROs). *See* Exhibit 3, Braun Intertec Corp., *Phase I Environmental Site Assessment and All Appropriate Inquiry*, Indianhead Parcel, 1947 County Road C West, Roseville, Minnesota, dated Aug. 3, 2006 (without Appendices). In addition, soils and groundwater in the area contain elevated concentrations of tricholorethylene (TCE). *Id.* Contamination in the area has not yet been adequately evaluated, especially in light of a potential Walmart development. TCE, DROs, and GRO, represent real health risks to

customers and employees, construction workers, and the glacial aquifer beneath the development site.

Another potential for significant environmental effects that has yet to be evaluated is increased traffic. The proposed development area currently suffers from traffic congestion. Most intersections in the area have an existing level of service (LOS) of "D" on an "A" to "F" scale. The Snelling Avenue and County Road C intersection has an existing LOS of "F." Traffic generated by construction of a 160,000 square-foot Walmart store will have a significant negative impact on Roseville city streets, as well as the freeway exit and entrance at the 35W and Highway 36 exchanges.

Petitioners understand that the traffic study prepared under Title 10, Chapter 1022 of the City of Roseville Code allocates approximately 1,400 existing daily trips to the development area. However, the proposed Walmart store will increase daily traffic trips in the area to a total of between 8,000 and 10,000. In July 2011, Walmart prepared a traffic impact analysis for a proposed store at the intersection of County Road C and Cleveland Avenue in Roseville. *See* Exhibit 4, Kimley-Horn and Associates, Inc., *Traffic Impact Analysis Walmart Store No. 3404-05, Roseville, Minnesota*, Aug. 4, 2011. But the Minnesota Department of Transportation (MnDOT) in February 2012 raised concerns with respect to the Kimley-Horn traffic analysis and the proposed Walmart project in general. *See* Exhibit 5, Letter from Michael J. Corbett, Senior Planner, MnDOT to Thomas Paschke, City Planner, City of Roseville, Feb. 24, 2012. In particular, MnDOT stated that a proposed Walmart would "generate 8,000-10,000 trips per day to an area that is currently vacant." *Id.* MnDOT also noted the traffic study that the City of Roseville submitted with its Alternative Urban Areawide Review for its "2007 Twin Lakes Business Park" was "based upon a lower volume of traffic generator than a Walmart." *Id.* In addition, MnDOT stated that "the present lane configuration could result in a LOS F when Walmart opens" and that traffic could back up onto northbound 35W which would be "unacceptable to both MnDOT and the FWHA. *Id.* MnDOT also suggested that "[u]pdated traffic volumes should be utilized" in a new traffic study. *Id.* Finally, MnDOT urged the City to give "[i]mmediate consideration . . . to adding capacity" at the intersections of Cleveland Avenue and Twin Lakes Parkway "before further Twin Lakes Business Park developments are approved." *Id.* In short, it appears that traffic impacts alone

from a proposed Walmart development may have the potential for significant environmental effects, and an EAW is necessary to evaluate such impacts.[1]

In Roseville, Fairview Avenue north of the proposed Twin Lakes Parkway is a two-lane road through a residential neighborhood. At County Road D, Fairview Avenue enters a five-way intersection with residential neighborhoods in all directions as it runs north to Arden Hills. There is no plan for handling the volume of traffic on Fairview Avenue that the proposed Walmart development will generate. Terrace Drive, which lies directly across Fairview from the proposed Twin Lakes Parkway, is a short two-lane divided street with ends in a "T" at Lincoln Drive. This intersection and roadway is unable to handle large volumes of traffic. And there is already a heavily-congested intersection in the area, where Northwestern College traffic enters Lydia and Snelling. Moreover, senior housing and assisted living is located along Cleveland Avenue just north of the proposed development site. Yet another senior complex is located nearby, just to the north of Terrace and Lincoln Drive. An EAW is necessary to evaluate the effects of additional traffic associated with the Walmart project on cyclists, pedestrians, motorists, and area residents.

As recently as March 6, 2012, the City of Roseville began working to gain approval for the construction of the "final phase" of Twin Lakes Parkway. The opening of the ramp at 35W and Twin Lakes Parkway, coupled with the increased traffic that will result from a proposed 160,000 square-foot Walmart store on the same site, will increase traffic on Twin Lakes Parkway to volumes not previously studied—even in the "worst case" scenario. The road plan is too close to Langton Lake on the northeast corner of the park and now actually enters into parkland, dividing two ponds for filtering water before entering the lake. After being bisected by Twin Lakes Parkway, the ponds will be unable filter water before it enters the lake, and may well be overwhelmed with salt and roadway pollutants. The resulting condition threatens to reduce the lake's water quality to its previously unhealthy level, destroying the steady improvement it has seen since the Minnesota

[1] Other traffic studies for proposed Walmart stores in the Twin Cities metropolitan area document significant traffic increases associated with projects similar to that proposed for Roseville. For example, Walmart's consultant has estimated that a proposed 147,000 square foot store in Blaine, Minnesota, will generate approximately 12,000 to 13,000 vehicles per day to Ball Road, where the store will be located. Exhibit 6, Spack Consulting, *Draft Traffic Impact Study Walmart Store No. 3498-06, Blaine, Minnesota*, Oct. 12, 2011. Ball Road is currently a two-lane rural roadway under control of the City of Blaine, with an average daily traffic load of 2,900 vehicles.

Pollution Control Agency listed the lake in 2007 as an "impaired water" under Clean Water Act.

Moreover, there has been no evaluation of the increase in greenhouse gas emissions associated with construction of the proposed Walmart project and with increased traffic volumes that will occur once the Walmart project is completed. An EAW is necessary to evaluate such emissions. *See* Exhibit 7 (EAW Form, Question 23, requesting information on emissions of "any greenhouse gases (such as carbon dioxide, methane, nitrous oxide)"). *See* also Exhibit 8 (Minn. Pollution Control Agency Guidance, "Discussing Greenhouse Gas Emissions in Environmental Review," Dec. 2011).

In addition, the City of Roseville's comprehensive plan states that "big box" retail at the proposed redevelopment site is undesirable. Discussing the Twin Lakes Redevelopment Area, the June 2001 amendment to the City's comprehensive plan rejected "Big Box Retail and Strip Centers" at the corner of County Road C and Cleveland Avenue because of:

1. Increased traffic;
2. Longer house of operation.
3. Reduced quality and quantity of jobs created;
4. Lower value of building finish; and
5. Large parking lots required due to parking demands.

See Exhibit 9 (Excerpts from Roseville Twin Lakes Business Park Master Plan Amendment to the Comprehensive Plan, June 26, 2001). The comprehensive plan's preferred redevelopment option was "for a service component with a combination of hotel, fitness center, restaurant, bank, etc., that would serve the business park and general public." *Id.* Such development would be "[t]ransit friendly" and create "more light and traffic" but would be "the farthest location away from residential and close to regional roadways." *Id.*

An EAW is also necessary because the proposed Walmart development is one of only several proposed developments in the project area. The City of Roseville appears to have plans for phased development of the area. Therefore, an EAW is the only proper method by which to evaluate the cumulative effects of development in the area, including but not limited to traffic congestion, air pollution, noise pollution, light pollution and chemical exposure for workers, customers, and the glacial aquifer.

Petitioners submit that an EAW is necessary to evaluate the proposed Walmart project's adverse environmental effects on Langton Lake, Langton Lake Park, and the health, safety, and welfare of all the residential areas north of the project area. In particular, petitions are concerned that the adverse effects along Cleveland Avenue, Fairview Avenue and Lincoln Drive will be significant. The area's freeway system is already dangerous and clogged at peak rush hour times. The proposed Walmart project will add very large traffic volumes, increase greenhouse gas emissions, and disturb contaminated soils. Petitioners, therefore, request that the responsible governmental unit for the proposed Walmart project—the City of Roseville—prepare an EAW for the project.

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Joy J Anderson — Name (Signature)
   1436 Ryan Ave W — Address (including Zip Code)
   Joy J Anderson — Name (Please Print)
   Roseville, Mn 55113

2. Caleb Meek — Name (Signature)
   565 Arlington Ave — Address (including Zip Code)
   Caleb Meek — Name (Please Print)
   St. Paul, Mn 55117

3. Nikolina Zilge — Name (Signature)
   8924 89th St. Ct. S. — Address (including Zip Code)
   Nikolina Zilge — Name (Please Print)
   Cottage Grove, MN 55016

4. _____ — Name (Signature)
   _____ — Address (including Zip Code)
   _____ — Name (Please Print)
   _____

5. _____ — Name (Signature)
   _____ — Address (including Zip Code)
   _____ — Name (Please Print)
   _____

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Donald E. Carlson	3075 Wilder St. N
	Donald E. Carlson (Name (Please Print))	Roseville, MN 55113
2.	Jean V. Carlson	3075 Wilder St. N.
	Jean V. Carlson (Name (Please Print))	Roseville, MN 55113
3.	RYAN L LIDDICOAT	3066 Wilder ST N Roseville MN 55113
	John Simpson (Name (Please Print) JOHN SIMPSON)	3083 MT RIDGERD ROSEVILLE, MN 55113
4.	Nancy Simpson (Name (Signature) NANCY SIMPSON)	3083 MT. RIDGERD ROSEVILLE, MN 55113
	(Name (Please Print))	
5.	(Name (Signature))	(Address (including Zip Code))
	(Name (Please Print))	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Barbara Lindskog	3315 Skycraft Dr. Mpls. Mn. 55418
	Barbara Lindskog (Name (Please Print))	
2.	Margaret Hennessy	2321-7 St. NE Mpls. MN 55418
	Margaret Hennessy (Name (Please Print))	
3.	Roberta McTeague	2565 Stark St St. Paul. Mn 55117
	Roberta McTeague (Name (Please Print))	
1.		
	Name (Signature)	Address (including Zip Code)
	Name (Please Print)	
	Name (Signature)	Address (including Zip Code)
	Name (Please Print)	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Lois E Anderson — Name (Signature)
   1480 Applewood Ct W H15 — Address (including Zip Code)
   LOIS E. ANDERSON — Name (Please Print)
   Roseville, MN 55113

2. Rachel Brown — Name (Signature)
   1705 Rosetown Ave. W. 55113 — Address (including Zip Code)
   Rachel Brown — Name (Please Print)
   Roseville MN

3. Margaret R. Holdaway — Name (Signature)
   1987 Herschel St. — Address (including Zip Code)
   Margaret R. Holdaway — Name (Please Print)
   Roseville, MN 55113

4. John Karvel — Name (Signature)
   2369 Doswell — Address (including Zip Code)
   JOHN KARVEL — Name (Please Print)
   St. Paul, MN 55108

5. _____ — Name (Signature)
   _____ — Address (including Zip Code)
   _____ — Name (Please Print)
   _____

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Sandra K Armstrong	1993 Aldine St
	SANDRA K. ARMSTRONG (Name (Please Print))	Roseville, MN 55113
2.	Timothy J. Brickman	1993 ALDINE ST
	TIMOTHY J. BRICKMAN (Name (Please Print))	Roseville, MN 55113
3.	Virginia McDermott	1763 N. Dryer Ave
	Virginia McDermott (Name (Please Print))	Roseville MN 55113
4.		
	Name (Please Print)	
5.		
	Name (Please Print)	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1.	Mary Allen Name (Signature)	1737 Shryer Ave Address (including Zip Code)
	Mary Arrucci Name (Please Print)	Roseville MN 55113
2.	Brittney Chase Name (Signature)	1779 Shryer Ave Address (including Zip Code)
	Brittney Chase Name (Please Print)	Roseville MN 55113
3.	Lewis Anderson Name (Signature)	1705 Roselawn Ave Address (including Zip Code)
	Lewis Anderson Name (Please Print)	Roseville, MN 55113
4.	_____ Name (Signature)	_____ Address (including Zip Code)
	_____ Name (Please Print)	_____
5.	_____ Name (Signature)	_____ Address (including Zip Code)
	_____ Name (Please Print)	_____

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Janet R Risinger
Name (Signature)

1797 Shryer Ave W. Roseville MN 55113
Address (including Zip Code)

Janet R. Risinger
Name (Please Print)

2. Elizabeth Schneider
Name (Signature)

1787 Shryer Av W. Roseville MN 55113
Address (including Zip Code)

Elizabeth Schneider
Name (Please Print)

3. Frank C Schneider
Name (Signature)

1787 Shryer Av. W. Roseville MN 55113
Address (including Zip Code)

Frank Schneider
Name (Please Print)

4. Lucille A. Johnson
Name (Signature)

2000 N. Wheeler Roseville 55113
Address (including Zip Code)

Lucille A. Johnson
Name (Please Print)

5. _____
Name (Signature)

_____
Address (including Zip Code)

_____
Name (Please Print)

_____

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Name (Signature) — 1987 Beacon St Roseville MN 55113 — Address (including Zip Code)

GAIL Buhl — Name (Please Print)

2. Name (Signature) — 1987 BEACON ST — Address (including Zip Code)

BRAD L. JOHNSON — ROSEVILLE, MN 55113 — Name (Please Print)

3. Name (Signature) — 1721 Shryer Ave W — Address (including Zip Code)

Susanne DePalma — Roseville MN 55113 — Name (Please Print)

4. Name (Signature) — 1721 Shryer Ave. W. — Address (including Zip Code)

Chad Fortun — Roseville MN 55113 — Name (Please Print)

5. Name (Signature) — Address (including Zip Code)

Name (Please Print)

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Marilyn N. Silvis	2233 Laurie Rd. West
	Marilyn N. Silvis (Name (Please Print))	Roseville MN 55113
2.	Doree Gamble	2003 Fairview Ave N. 55113
	DOREE GAMBLE (Name (Please Print))	ROSEVILLE MN 55113
3.	Carol Johansen	1995 No. Fairview
	CAROL JOHANSEN (Name (Please Print))	Roseville, MN 55113
4.	Grace Tseng	1907 Shryer Ave W. MN 55113
	Betty Ahn (Name (Please Print))	1964 Shryer Ave N. Rsv. Mn 55113
5.		
	Name (Please Print)	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that the EAW be completed before any plat, permit, or development agreement applications are considered.

1. James H Stoffers
Name (Signature)

1800 LYDIA AVE WEST ROSEVILLE, MN 55113
Address (including Zip Code)

JAMES STOFFERS
Name (Please Print)

2. [signature]
Name (Signature)

1776 Stanbridge Ave
Address (including Zip Code)_

Amy Ihlan
Name (Please Print)

Roseville, MN 55113

3. [signature]
Name (Signature)

1776 Stanbridge Ave
Address (including Zip Code)

Geoff Gorham
Name (Please Print)

Roseville, MN 55113

4. _____
Name (Signature)

_____
Address (including Zip Code)

_____
Name (Please Print)

5. _____
Name (Signature)

_____
Address (including Zip Code)

_____
Name (Please Print)

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that the EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.		87 Mid Oaks Ln
	Tom Burrell	Roseville mn 55113
	Name (Please Print)	
2.	Sherri Middendorf	87 Mid Oaks Ln
	Sherri Middendorf	Roseville MN 55113
	Name (Please Print)	
3.	Jack L. Lewis	71 Mid Oaks Lane
	Jack L. Lewis	MN 55113
	Name (Please Print)	
4.		
	Name (Please Print)	
5.		
	Name (Please Print)	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	X Daniel Gallaher	2009 Herschel St
	Daniel Gallaher (Name (Please Print))	Roseville 55113
2.	X Cynthia M ballar	2009 Herschel St
	Cynthia M ballar (Name (Please Print))	Roseville 55113
3.	Karen Schaffer	2100 Fairview Ave. N.
	Karen Schaffer (Name (Please Print))	Roseville Mn 55113
4.		
	(Name (Please Print))	
5.		
	(Name (Please Print))	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	David W. Yutesler	1803 Eldridge Ave W
	David Yutesler (Name (Please Print))	Roseville, MN 55113
2.	Mary Joan Rourke	2670 N. Oxford #224
	MARY JOAN ROURKE (Name (Please Print))	ROSEVILLE, MN 55113
3.	x Margaret g. Smith	1706 Ryan Ave W
	Margaret g. Smith (Name (Please Print))	Roseville MN 55113
4.	Harlan M. Smith	1706 Ryan Ave W
	Harlan M. Smith (Name (Please Print))	Roseville MN 55113
5.		
	(Name (Please Print))	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.		1133 Payne Ave St. Paul
	Joe Mingo	St Paul, 55103
2.		807 Cleveland Ave 55109
	JEAN HAFNER	Little Canada, Mn
3.		1436 Ryan Ave W
	Drake L. Anderson	Roseville, Mn 55113
4.		
5.		

14

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1.	Name (Signature)	Address (including Zip Code)
	Name (Please Print)	
2.	Name (Signature)	Address (including Zip Code)
	Name (Please Print)	
3.	Name (Signature)	Address (including Zip Code)
	Name (Please Print)	
4.	Name (Signature)	Address (including Zip Code)
	Name (Please Print)	
5.	Name (Signature)	Address (including Zip Code)
	Name (Please Print)	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Sally J. Stamos — Name (Signature)
   4423 Arden View Ct. — Address (including Zip Code)
   St. Paul, MN 55112
   Sally J. Stamos — Name (Please Print)

2. Barbara McCabe — Name (Signature)
   4906 37th Ave S. — Address (including Zip Code)
   Mpls 55417-1525
   Barbara McCabe — Name (Please Print)

3. Marsha Sullivan — Name (Signature)
   3303 EMMERT ST — Address (including Zip Code)
   SV 55126
   MARSHA SULLIVAN — Name (Please Print)

4. Delpha Harris — Name (Signature)
   6520 Vernon Hills Rd — Address (including Zip Code)
   Edina, MN 55436
   Delpha Harris — Name (Please Print)

5. Janet Anderson — Name (Signature)
   5132 Indianola Ave — Address (including Zip Code) ~~55424~~
   Edina, MN 55424
   Janet Anderson — Name (Please Print)

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.		2001 Aldine St
	Kacey Hahn (Name (Please Print))	Roseville, MN 55113
2.		2001 Aldine St
	David Hahn (Name (Please Print))	Roseville, MN 55113
3.		1664 Coffman Fal MN 22108
	Rebecca E Bormann (Name (Please Print))	1905 Carl St Lauderdale MN 55113
4.		1721 Shryer Ave West Roseville MN 55113
	(Name (Please Print))	
5.		1713 Shryer Ave West
	JH JUDY (Name (Please Print))	Roseville, MN 55113-5614

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Anne E. Haugen — Name (Signature)
   1161 Oakcrest Ave. Roseville 55113 — Address (including Zip Code)
   ANNE E. HAUGAN — Name (Please Print)
   1161 Oakcrest Ave. Roseville 55113

2. August W Haugan — Name (Signature)
   1161 Oakcrest Ave, Roseville 55113 — Address (including Zip Code)
   AUGUST W HAUGAN — Name (Please Print)

3. Judy Lykins — Name (Signature)
   2478 Chatsworth St. N, Roseville MN 55113 — Address (including Zip Code)
   Judy Lykins — Name (Please Print)

4. Heidi L. Keen — Name (Signature)
   1707 Sheyer Ave. W. Roseville, MN 55113 — Address (including Zip Code)
   Heidi L. Keen — Name (Please Print)

5. Name (Signature)
   1707 Sheyer Ave. W. Roseville, MN 55113 — Address (including Zip Code)
   Gwen G. Orthmann — Name (Please Print)

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Marillyn B. Saulen — Name (Signature)
   1725 W. Eldridge Ave — Address (including Zip Code)
   Marillyn B Saulen — Name (Please Print)
   Roseville, MN 55113

2. Wendi Chen — Name (Signature)
   668 Woodlawn Ave St. Paul 55116 — Address (including Zip Code)
   WENDI CHEN — Name (Please Print)

3. [signature] — Name (Signature)
   1788 JAMES AVE. — Address (including Zip Code)
   PHIL MARTIN — Name (Please Print)
   ST. PAUL, MN 55105

4. Mary C. Pruitt — Name (Signature)
   5125 13th Ave So Mpls MN 55417 — Address (including Zip Code)
   MARY C PRUITT — Name (Please Print)

5. [signature] — Name (Signature)
   5125 13th Ave S. MPLS 55417 — Address (including Zip Code)
   JAMES J. KILPS — Name (Please Print)

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Lucy Hulme
Name (Signature)
LUCY HULME
Name (Please Print)
1720 W. Eldridge 55113
Address (including Zip Code)

2. Vivian S. Ramalingam
Name (Signature)
VIVIAN S. RAMALINGAM
Name (Please Print)
2182 ACORN ROAD 55113
Address (including Zip Code)

3. Robert H. Albers
Name (Signature)
ROBERT H. ALBERS
Name (Please Print)
2890 Arthur Place
Address (including Zip Code)
Roseville, MN 55113

4. Sonia A. Albers
Name (Signature)
Sonia A. Albers
Name (Please Print)
2890 Arthur Place
Address (including Zip Code)
Roseville, MN 55113

Thomas K. Soulen
Name (Signature)
Thomas K. Soulen
Name (Please Print)
Roseville, MN 55113
1725 W. Eldridge Ave.
Address (including Zip Code)

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	[signature]	3322 15½ Ave So Mpls MN 55407
	LARRY OLDS (Name (Please Print))	
2.	Diane Pearsm	1556 Arden Pl
	Diane L Pearsm (Name (Please Print))	Arden Hills, MN 55112
3.	Bill Kaplan	1556 Arden Pl
	Bill Kaplan (Name (Please Print))	Arden Hills, MN 55112
4.	Margaret MacRae	1210 W. 52nd St Mpls 55405
	Jan Morrissey (Name (Please Print))	144 W 45th St Mpls 55419
5.	Peg Cavanaugh	1715 W. Eldridge Ave. Rsvl. 55113
	PEG CAVANAUGH	
	~~Lucy Holme~~ (Name (Please Print))	~~1720 W. Eldridge Ave 55113~~
	~~LUCY HOLME~~ dup.	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1.	Name (Signature)	2982 Cleveland Ave N.
	Brent M. Courtney Name (Please Print)	Roseville, MN 55113 Address (including Zip Code)
2.	Thomas M Keller Name (Signature)	St. Paul MN. 55117 Address (including Zip Code)
	Thomas M Keller Name (Please Print)	495 Maryland Address (including Zip Code)
3.	Name (Signature)	10956 Alameda Dr Eagan, MN 55077 Address (including Zip Code)
	Thomas C Farris Name (Please Print)	
4.	Name (Signature)	149 Montana Place Address (including Zip Code)
	Neill J. O'Neill Name (Please Print)	St. Paul, MN 55104
5.	Name (Signature)	969 Greenway Ave N Apt 214 Address (including Zip Code)
	Name (Please Print)	Oakdale MN 55128

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Carol J Koestar — Name (Signature)
   1739 Eldridge Ave W — Address (including Zip Code)
   Carol J Koestar — Name (Please Print)
   Roseville, MN 55113

2. Marguerite Solfest — Name (Signature)
   1781 Eldridge Ave, Roseville, Mn. — Address (including Zip Code)
   MARGUERITE SOLFEST — Name (Please Print)
   55113

3. Joyce Ann Matejcek — Name (Signature)
   1733 W Eldridge Ave Roseville — Address (including Zip Code)
   JOYCE ANN MATEJCEK — Name (Please Print)
   55113

4. Olivia Gault — Name (Signature)
   2021 Herschel St Roseville, MN 55113 — Address (including Zip Code)
   Olivia Gault — Name (Please Print)

5. Donald Gault — Name (Signature)
   2021 Herschel St. — Address (including Zip Code)
   Donald Gault — Name (Please Print)
   Roseville, MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Suzanne Sewell	4164 Coffman Lane Mpls 55406
	Suzanne Sewell (Name (Please Print))	
2.	Jeffrey Magnuson	3010 W 43rd St. Mpls 55410
	Jeffry Magnuson (Name (Please Print))	
3.	Debra Magnuson	3010 W. 43rd St. Mpls 55410
	Debra Magnuson (Name (Please Print))	
4.	James Leighton	2717 Colfax Av. South Mpls 55408
	James Leighton (Name (Please Print))	
5.	CAROL KOEPP	~~8408 Lyndale Rd. Carol Koepp~~ 8408 Lyndale Rd.
	Carol Koepp (Name (Please Print))	Bloomington, MN. 55437

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1.	cyndi Wong Name (Signature) Cyndi Wong ~~PAUL DAVIES~~ Name (Please Print)	936 Hardwood Ave Shoreview, MN 55126 Address (including Zip Code)
2.	Paul Davies Name (Signature) PAUL DAVIES Name (Please Print)	936 HARDWOOD AVE, SHOREVIEW, MN 55126 Address (including Zip Code)
3.	Elizabeth Brackett Name (Signature) Elizabeth C Brackett Name (Please Print)	1221 Russell Ave N Address (including Zip Code) Minneapolis, MN 55411
4.	Fred H. Olson Name (Signature) Fred H. Olson Name (Please Print)	1221 Russell Ave N Address (including Zip Code) Minneapolis, MN 55411
5.	Dianne J Rowse Name (Signature) Dianne J. Rowse Name (Please Print)	10704 Prescott Ct. Address (including Zip Code) Minneapolis, MN 55337

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Curtiss R Moline — Name (Signature)
   3082 No Wilder St 55113 — Address (including Zip Code)
   [illegible] — Name (Please Print)

2. Jeanne C Moline — Name (Signature)
   3082 N. Wilder St 55113 — Address (including Zip Code)
   Jeanne C Moline — Name (Please Print)

3. Leola M. Schreurs — Name (Signature)
   3058 Wilder St. N, Roseville 55113 — Address (including Zip Code)
   LEOLA M. SCHREURS — Name (Please Print)
   Roseville MN 55113

4. Nancy B. Miller — Name (Signature)
   1201 Yale Place, Mpls, MN 55403 — Address (including Zip Code)
   Nancy B. Miller — Name (Please Print)

5. _____ — Name (Signature)
   _____ — Address (including Zip Code)
   Herbert Sewell — Name (Please Print)
   4164 Colfax Ave Mpls
   HERBERT SEWELL

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Doug Damm — Name (Signature)
   3072 Wilder St N — Address (including Zip Code)
   DOUGLAS DAMM — Name (Please Print)
   Roseville, MN 55113

2. Mary Wojtowicz — Name (Signature)
   3072 Wilder St No — Address (including Zip Code)_
   MARY Wojtowicz — Name (Please Print)
   roseville 55113

3. Michael Sperr — Name (Signature)
   3040 wilder St. N. — Address (including Zip Code)
   Michael Sperr — Name (Please Print)
   Roseville, MN 55113

4. Elizabeth Sperr — Name (Signature)
   3040 Wilder St N — Address (including Zip Code)
   Elizabeth Sperr — Name (Please Print)
   Roseville MN 55113

5. Raymond L Schreurs — Name (Signature)
   3058 Wilder St. N — Address (including Zip Code)
   Raymond L. Schreurs — Name (Please Print)
   Roseville MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Don Schreurs	1425 W 28 St. #618 Mpls. MN 55408
	DARR SCHREURS (Name (Please Print))	
2.	[signature]	1996 Rose Lake Dr.
	GIL WARD (Name (Please Print))	Roseville, MN 55126
3.	Janet Boehlke	3070 N. Cleveland Roseville 55113
	Janet Boehlke (Name (Please Print))	
4.	[signature]	3081 MOUNT RIDGE ROAD
	SIEW WONG (Name (Please Print))	ROSEVILLE, MN55113
5.	Glenda B. Jungquist	3690 N. Wilder, Roseville MN
	Glenda B. Jungquist (Name (Please Print))	Roseville, MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Joan Barte — Name (Signature)
   JOAN BARTE — Name (Please Print)
   1996 LANGTON LAKE #412 — Address (including Zip Code)
   ROSEVILLE MN 55113

2. Janet Myers — Name (Signature)
   JANET MYERS — Name (Please Print)
   1996 Langton Lake Dr. #305 Roseville Mn 55113 — Address (including Zip Code)

3. Joan Christenson — Name (Signature)
   Joan Christenson — Name (Please Print)
   1996 Langton Lake Dr #308 — Address (including Zip Code)
   Roseville, MN 55113

4. Gilbert J. Myers — Name (Signature)
   GILBERT J. MYERS — Name (Please Print)
   1996 LANGTON LAKE DR #208 — Address (including Zip Code)
   ROSEVILLE, MN 55113

5. Larry W Christenson — Name (Signature)
   LARRY W CHRISTENSON — Name (Please Print)
   1996 LANGTON LAKE DR #308 — Address (including Zip Code)
   Roseville, MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Maureen Gruntner — Name (Signature)
   3001S Norway Ave — Address (including Zip Code)
   Maureen Gruntner — Name (Please Print)
   Lindstrom MN 55045

2. [signature] — Name (Signature)
   16001 Lydale Rd — Address (including Zip Code)
   Michael Rapp — Name (Please Print)
   St. Paul MN 55128

3. [signature] — Name (Signature)
   3724 159th St W — Address (including Zip Code)
   Kevin Gillis — Name (Please Print)
   Rosemount MN 55068

4. Kelly Sheehy — Name (Signature)
   623 Heinel Dr. — Address (including Zip Code)
   Roseville, MN 55113 — Name (Please Print)

5. [signature] — Name (Signature)
   2700 Oxford #143 — Address (including Zip Code)
   June V. Blomberg — Name (Please Print)
   Roseville, MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that the EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Bonnie J. Eidman	90 Mid Oaks Lane, Roseville MN 55113
	Name (Please Print)	
2.	Carla Lewis	71 Mid Oaks Lane Roseville, MN 55113
	Carla Lewis	
	Name (Please Print)	
3.	Steven Rosnow	32 Mid Oaks Lane Roseville MN 55113
	Steven Rosnow	
	Name (Please Print)	
4.	Kyle S. Fitzwater	32 Mid Oaks Lane
	Kyle S. Fitzwater	Roseville MN 55113
	Name (Please Print)	
5.	Kevin Doyle	47 Mid Oaks Ln 55113
	Kevin Doyle	
	Name (Please Print)	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that the EAW be completed before any plat, permit, or development agreement applications are considered.

1. Robert L Mennell — Name (Signature)
   75 Mid Oaks Lane, Roseville MN 55113 — Address (including Zip Code)

   ROBERT L. MENNELL — Name (Please Print)
   ROSEVILLE MN 55113

2. Antoinette Y. Mennell — Name (Signature)
   75 Mid Oaks Lane, Roseville MN 55113 — Address (including Zip Code)

   Antoinette Y. Mennell — Name (Please Print)
   75 Mid Oaks Lane, Roseville, MN 55113

3. Mary Alexander — Name (Signature)
   14 Mid Oaks Rd 55113 — Address (including Zip Code)

   Mary Alexander — Name (Please Print)

4. Jon Alexander — Name (Signature)
   14 Mid Oaks Rd 55113 — Address (including Zip Code)

   Jon Alexander — Name (Please Print)

5. Jason R. Eshman — Name (Signature)
   90 Mid Oaks Ln, Roseville 55113 — Address (including Zip Code)

   Name (Please Print)

|

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Sarah Easterling — 1850 County Rd C2 W Roseville MN 55113
Name (Signature) — Address (including Zip Code)
Tom Varno — 1866 Co Rd C2 W, Roseville, 55113
Name (Please Print)

2. Pat Lenn Muzzy — 1889 W. Cty Rd C2
Name (Signature) — Address (including Zip Code)
Pat Muzzy — Roseville, MN 55113
Name (Please Print)

3. Stephen A Rothert — 2946 Mildred Dr.
Name (Signature) — Address (including Zip Code)
Jim C. Rothert — Roseville, MN 55113
Name (Please Print)

4. Thomas L. Douvier — 3053 Wheeler St. N.
Name (Signature) — Address (including Zip Code)
Thomas L. Douvier — Roseville, MN, 55113
Name (Please Print)

5. Julianne Seiber — 3200 Shorewood Dr. 55112
Name (Signature) — Address (including Zip Code)
Julianne Seiber
Name (Please Print)

1

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Effie Martin — Name (Signature)
   2990 Mildred Ln. 55113 — Address (including Zip Code)
   Effie Martin — Name (Please Print)

2. Dennis Murnyak — Name (Signature)
   2986 Mildred Dr. — Address (including Zip Code)
   Dennis Murnyak — Name (Please Print)
   Roseville, MN 55113

3. Kari Hartwig — Name (Signature)
   2986 Mildred DR — Address (including Zip Code)
   KARI HARTWIG — Name (Please Print)
   Roseville, MN 55113

4. Anne G Bartels — Name (Signature)
   2978 Mildred Dr. — Address (including Zip Code)
   Anne Bartels — Name (Please Print)
   Roseville, MN 55113

5. James Mammen — Name (Signature)
   2966 MILDRED DR — Address (including Zip Code)
   JAMES MAMMEN — Name (Please Print)
   ROSEVILLE MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Susan M. Kachelmeyer — Name (Signature)
   2994 Mildred Drive — Address (including Zip Code)
   Susan M. Kachelmeyer — Name (Please Print)
   Roseville MN 55113

2. Richard A. Kachelmeyer — Name (Signature)
   2994 Mildred Drive — Address (including Zip Code)
   Richard A Kachelmeyer — Name (Please Print)
   Roseville MN 55113

3. Julie Glanton — Name (Signature)
   1876 Co Rd C2 W — Address (including Zip Code)
   Julie Glanton — Name (Please Print)
   Roseville MN 55113

4. Joyce A. Blomquist — Name (Signature)
   1980 Skillman Ave W. — Address (including Zip Code)
   Joyce A. Blomquist — Name (Please Print)
   Roseville, MN 55113

5. John P. Jacobsen — Name (Signature)
   4300 W. River Pky Unit 414 — Address (including Zip Code)
   John P. Jacobsen — Name (Please Print)
   Minneapolis, MN 55406

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.		880 Lincoln Ave
	Christina Thayer-Marrott	St Paul MN 55105
	Name (Please Print)	
2.		1957 Ryan Ave
	Suzanne Sadowy	St. Paul, MN 55113.
	Name (Please Print)	
3.	June Darrow	1977 Ryan Ave W
	June Darrow	Roseville MN 55113
	Name (Please Print)	
4.	John Az AR	1976 Ryan Ave W.
	John Az AR	Roseville, MN 55113
	Name (Please Print)	
5.	~~Judy H~~ Helgen	1934 Shryer Av W
	Judith Helgen	Roseville MN 55113
	Name (Please Print)	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Nancy Peterson	1990 Skillman Ave W 55113 Roseville
	Name (Please Print) Mary Holt	1998 W Skillman Av 55113 Roseville
2.	Amy Twombly	2025 Evergreen Ct 55113
	Name (Please Print)	Roseville, MN
3.	Carol Rochelleau	1976 Evergreen Ct
	Name (Please Print)	Roseville 55113
4.	Carol Busman	2030 Evergreen Ct
	Name (Please Print)	Roseville MN 55113
5.	Lowell M Busman	2030 Evergreen Ct
	Name (Please Print)	Roseville MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Joseph E. Sizer	1974 Shryer Ave West
	Joseph E. Sizer (Name (Please Print))	Roseville 55113
2.	Fronzena J. Sizer	1974 Shryer Ave W.
	Fronzena J. Sizer (Name (Please Print))	Roseville 55113
3.	Carol J Johnson	1989 Shryer Ave W
	Carol J Johnson (Name (Please Print))	Roseville 55113
4.	Johanna F. Jessup	1979 Shryer Ave W.
	JOHANNA F. JESSUP (Name (Please Print))	Roseville, MN 55113
5.	Cyndi Arneson	1416 Idaho Ave W
	Cyndi Arneson (Name (Please Print))	Falcon Heights MN 55108

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	M. J. Holt	1998 Skillman Ave. W.
	Michael H. Holt	Roseville, MN, 55113
	Name (Please Print)	
2.	Betty A Patraw	1969 W. Skillman Ave
	BETTY A. PATRAW	Roseville, MN 55113
	Name (Please Print)	
3.	William E Blake	1951 W. SKILLMAN AVE 55113
	WILLIAM E. BLAKE	Roseville MN 55113
	Name (Please Print)	
4.	Roberta R. Williams	1984 Shryer Ave. W.
	Roberta R. Williams	Roseville, MN. 55113
	Name (Please Print)	
5.	Bruce A. Williams	7280 121st St W
	Bruce A. Williams	Apple Valley, MN 55124
	Name (Please Print)	

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	Bruce Seiber	3200 Shorewood Dr.
	Bruce Seiber (Name (Please Print))	55112
2.	SAMUEL DIAZ DE LEON	2906 ARTHUR PLACE 55112
	Samuel Diaz De Leon (Name (Please Print))	
	Caryn Osterberg	3211 Hamline Blvd 55112
	Caryn Osterberg (Name (Please Print))	
3.	June A. Brandl	345 Brooks Ave W.
	JUNE A. BRANDL (Name (Please Print))	ROSEVILLE, MN 55113
4.	Karen Milton	2939 Mildred Dr.
	Karen Milton (Name (Please Print))	Roseville, MN 55113
5.	Jim Kirsling	2939 Mildred
	Jim Kirsling (Name (Please Print))	Roseville 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1.	Name (Signature)	2912 Mildred Dr. 55113 Address (including Zip Code)
	Matt Albeck Name (Please Print)	Roseville, MN
2.	Ed Jaros Name (Signature)	1858 w. Co Rd C-2 55113 Address (including Zip Code)_
	Ed Jaros Name (Please Print)	Roseville, MN
3.	Kelly Jaros Name (Signature)	1858 w County Rd C2 Roseville MN 55113 Address (including Zip Code)
	Kelly Jaros Name (Please Print)	
4.	Donald T. Tschida Name (Signature)	1888 Cty Rd C2 Roseville 55113 Address (including Zip Code)
	Donald T. Tschida Name (Please Print)	
5.	Richard E Martin Name (Signature)	2970 Mildred dr. Address (including Zip Code)
	Richard E Martin Name (Please Print)	Roseville, MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that and EAW be completed before any plat, permit, or development agreement applications are considered.

1. Duane Metz — Name (Signature)
2926 MILDRED DR — Address (including Zip Code)
DUANE METZ — Name (Please Print)
55113 Roseville

2. John (Tim) Litzinger — Name (Signature)
2926 Mildred Dr. — Address (including Zip Code)_
John Timothy Litzinger — Name (Please Print)
55113 Roseville

3. Gloria Metz — Name (Signature)
2926 Mildred Dr — Address (including Zip Code)
GLORIA METZ — Name (Please Print)
55113 Roseville

4. Soren Case — Name (Signature)
2898 mildred drive 55113 — Address (including Zip Code)
Pamela Case — Name (Please Print)
2898 Mildred 55113

5. [signature] — Name (Signature)
1850 Co Rd C-2 W — Address (including Zip Code)
John Easterling — Name (Please Print)
ROSEVILLE, MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that the EAW be completed before any plat, permit, or development agreement applications are considered.

1. Marcia Benshoof — Name (Signature)
   1658 MILLWOOD AVE — Address (including Zip Code)
   MARCIA BENSHOOF — Name (Please Print)
   ROSEVILLE, MN 55113

2. Name (Signature)
   1754 Stambridge Ave — Address (including Zip Code)
   DAN AYD — Name (Please Print)
   Roseville, MN 55113

3. Name (Signature)
   1754 Lydia Ave W — Address (including Zip Code)
   Jacqueline Path — Name (Please Print)
   RSVL, MN 55113

4. Name (Signature)
   1770 Lydia ave — Address (including Zip Code)
   Colin Downer-Carlson — Name (Please Print)
   Roseville, MN, 55113

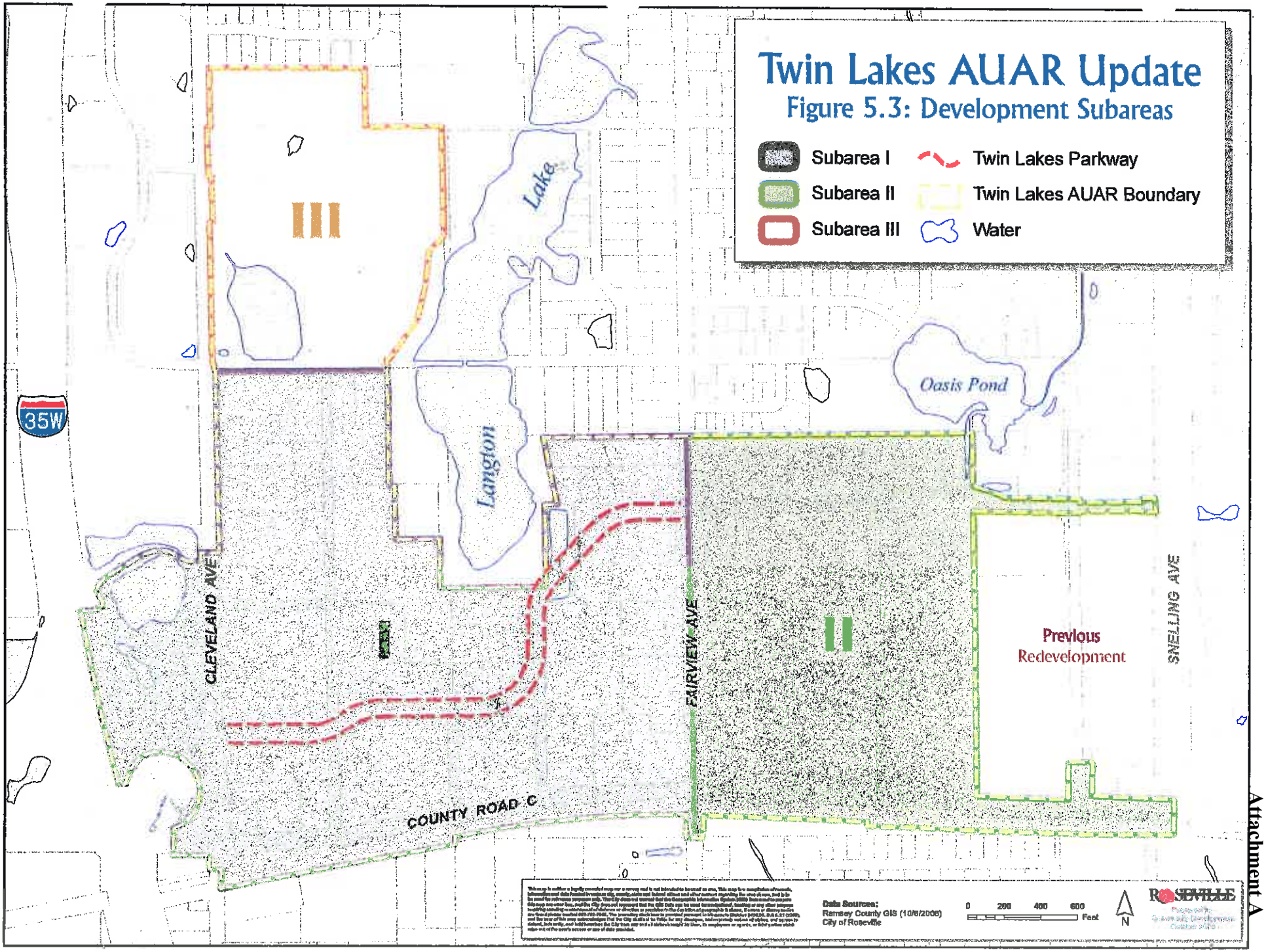
5. Meg D Carlson — Name (Signature)
   1770 Lydia Ave — Address (including Zip Code)
   Meg D Carlson — Name (Please Print)
   Roseville MN 55113

Citizens' Petition for an Environmental Assessment Worksheet

Proposed Walmart at C and Cleveland, Roseville, MN

We the undersigned respectfully request Environmental Assessment Worksheet (EAW) be ordered and completed for the Walmart store proposed for the corner of County Road C and Cleveland Avenue, Roseville, MN. We request that the EAW be completed before any plat, permit, or development agreement applications are considered.

	Name (Signature)	Address (including Zip Code)
1.	K E Cline	1784 Stanbridge Av
	Kerry E Cline	Roseville MN 55113
2.	Maynard Asmus	1811 Stanbridge Ave 55113
	Virginia Asmus	1811 Stanbridge Ave, 55113
3.	Maynard Asmus	
	Virginia Asmus	
4.	Mary J. Wentworth	1799 Stanbridge Roseville MN 55113
5.	Jon Wentworth	
	Mary Wentworth	


Twin Lakes AUAR Update
Figure 5.3: Development Subareas
Subarea I
Subarea II
Subarea III
Twin Lakes Parkway
Twin Lakes AUAR Boundary
Water
Lake
Langton
Oasis Pond
35W
CLEVELAND AVE
FAIRVIEW AVE
SNELLING AVE
COUNTY ROAD C
Previous
Redevelopment
Data Sources:
Ramsey County GIS (10/6/2006)
City of Roseville
0 200 400 600
Feet
N

Planning Commission Regular Meeting
City Council Chambers, 2660 Civic Center Drive
Draft Minutes - Wednesday, February 1, 2012

1. Call to Order

Chair Daniel Boerigter called to order the regular meeting of the Planning Commission meeting at approximately 6:30 p.m. and reviewed the role and purpose of the Planning Commission.

2. Roll Call & Introductions

City Planner Thomas Paschke called the Roll.

Members Present:	Chair Daniel Boerigter; and Members Joe Wozniak; John Gisselquist; Jeff Lester; Michael Boguszewski; and Peter Strohmeier
Members Absent:	Member Glenn Cook
Staff Present:	City Planner Thomas Paschke; Associate Planner Bryan Lloyd; and City Engineer Debra Bloom. City Attorney Mark Gaughan was also present.

3. Review of Minutes

MOTION

Member Boerigter moved, seconded by Member Gisselquist to approve regular meeting minutes of November 2, 2011 as presented.

Ayes: 6
Nays: 0
Motion carried.

4. Communications and Recognitions:

a. From the Public (Public Comment on items not on the agenda)

None.

b. From the Commission or Staff

None.

5. Public Hearings

Chair Boerigter reviewed the purpose and process for public hearings held before the Planning Commission.

a. PLANNING FILE 12-001

Request by Wal-Mart Stores, Inc. for approval of a PRELIMINARY PLAT of the land area bounded by County Road C, Cleveland Avenue, Twin Lakes Parkway, and Prior Avenue

Chair Boerigter opened the Public Hearing at 6:35 p.m.

Associate Planner Bryan Lloyd summarized the request of Wal-Mart Stores, Inc. in conjunction with Roseville Properties, owner of the subject property, seeking approval of a PRELIMINARY PLAT of the land area as identified and detailed in the staff report, and creating three (3) lots.

Mr. Lloyd advised that the request also included the transfer of ownership of a small portion of City-owned land adjacent to the Mount Ridge Road roundabout. Mr. Lloyd clarified that this request for a disposal of land by the City, was NOT a Vacation request, per se; but in lieu of a public hearing, and in accordance with State Statute, the Planning Commission must review the proposed disposal of land and determine whether it would be consistent with the Comprehensive Plan.

Staff recommended approval of the proposed PRELIMINARY PLAT of the land area bounded by County Road C, Cleveland Avenue, Twin Lakes Parkway, and Prior Avenue; along with the recommendation that the Commission determine that the proposed transfer of ownership of land area specified in the Preliminary Plat is in compliance with

the 2030 Comprehensive Plan; based on the comments and findings of Section 4-7, and the recommendation of Section 8 of the staff report dated February 1, 2012.

Chair Boerigter sought clarification on the original intent in the City acquiring the property for creation of Twin Lakes Parkway, and now the City's determination that it was no longer needed and could be disposed of.

Mr. Lloyd advised that the property had been originally acquired from the property owner for its potential use in connection with the roundabout as access to the redevelopment property, but had not been intended to create a public street south of the roundabout.

Chair Boerigter requested more detailed information from the City's Engineer.

City Engineer Debra Bloom
Ms. Bloom concurred with Mr. Lloyd's analysis of the City's original intent in using the property as the fourth leg of the roundabout for landscaping treatments. However, Ms. Bloom noted that this was prior to the City knowing final roadway design, the type or size of the development that may occur in this area, and that acquisition was for the most part precautionary in planning ahead; however, the City's need ended at the crosswalk and this property was no longer needed.

At the request of Member Boguszewski, Mr. Lloyd advised that the overall acreage of the Walmart/Roseville Properties property was approximately fourteen (14) acres.

Member Strohmeier asked how staff responded to his interpretation of various areas in city-wide plans versus Planning District 10 of the 2030 Comprehensive Plan (Chapters 4 and 7) and development of a big box retailer in the Twin Lakes area.

Mr. Lloyd noted staff comments that it was odd for a given development proposal to be reviewed by the Planning Commission against the Comprehensive Plan, since it was not intended for that purpose, and provided a misapplication of individual goals and policies of the Comprehensive Plan if it were used as a lens for this or any development. Mr. Lloyd noted that the purpose of the Comprehensive Plan was to serve as a guide for creating specific requirements attempting to meet its policies, for instance the zoning code update now addressing goals like walkable communities that were not addressed in previous code. Mr. Lloyd opined that no one business was going to achieve entirely the goal of walkable streets; however, walkable communities remained an overarching goal.

Member Strohmeier stated that he still had issues of apparent conflict, when focusing on District 10, Future Land Use Section, and the portion about Twin Lakes and shopping as a primary focus of land use.

Mr. Lloyd advised that the Twin Lakes area was generally described from Cleveland Avenue west to almost Snelling Avenue, and north to County Road C-2 and even beyond excluding Langton Lake Park. Mr. Lloyd noted that this was a large area with many existing developments that are relatively new (e.g. medical office) that were not retail; however, he also noted that there were a significant number of parcels that remained vacant and were ready for development. The fact that this is the first proposal for redevelopment in the area, Mr. Lloyd noted, just happened to be a retail use. Mr. Lloyd responded from staff's perspective, that there remained a lot of room for other uses as the area develops; and if it became apparent that retail was becoming the main focus for development in the Twin Lakes Redevelopment Area, it would then no longer be consistent with the Comprehensive Plan.

City Planner Thomas Paschke referenced the AUAR for Subarea 1, bounded by Cleveland Avenue, County Road C, and Fairview Avenue, which document gauges maximum thresholds in place governing the types of uses; noting that the AUAR identified retail for the subject area and noted that further development may create a threshold for too much retail in a given area. Mr. Paschke noted that, obviously, that would only become apparent as the area expanded further, and that the AUAR document would be used in judging any and all development or redevelopment, and tied to the recently-adopted overlay district requirements.

Based on his personal review, Member Strohmeier opined that the staff report's contention that this proposal was consistent with the Twin Lakes Master Plan (page 11) suggests that the area should not be recommended for large scale, big box retail, and sought staff's response.

Mr. Lloyd advised that the simplest response would be that it was also not prohibited; and that it was not a goal of the Master Redevelopment Plan to prohibit big box retail as it prohibited some industrial uses. As with any review, Mr. Lloyd noted that this development proposal may not fully achieve every goal and aspiration of the document, but this proposal was more or less consistent, and this specific retail use provides for some of the same things recommended in the Plan.

Member Wozniak questioned if this was the only Public Hearing on this development; with Mr. Lloyd responding that it was the only legally required hearing. Mr. Lloyd advised that the only reason for the Public Hearing requirement was due to the applicant's request for the disposal of the property and the Plat itself, and the need for discussion in this venue and format. Mr. Lloyd noted that the Preliminary Plat would not live or die with the analysis of the land proposed for disposal by the City; with nothing else in the proposed development triggering a Public Hearing, unless Wal-Mart found the need for a variance or other site issue in the future as the project developed.

Chair Boerigter sought clarification of the interaction of Preliminary Plat approval with the Comprehensive Plan, AUAR and Twin Lakes Plan. Chair Boerigter questioned if additional traffic control measures were part of the Preliminary Plat approval.

Mr. Lloyd advised that, as for the Plat itself, there was really no correlation with any of those documents, other than superficially, since the Comprehensive Plan addressed transportation, but the AUAR addressed transportation more specifically. Mr. Lloyd noted that when Twin Lakes Parkway was constructed as part of the City of Roseville's proactive infrastructure investment to facilitate redevelopment in the Twin Lakes area, it was not related to this specific development but the overall Twin Lakes Redevelopment Area, with each project, including this proposed Wal-Mart development, reliant on roadway connections. Mr. Lloyd advised that the traffic analysis for this particular development, as a requirement for all proposals, was still under preparation, to determine if additional traffic amenities were indicated (e.g. signals or additional turn lanes), staff did not anticipate that this particular project would trigger those additional amenities, but that they would realistically be triggered as additional developments came forward. Mr. Lloyd advised that roadway and traffic control considerations would be considerations for any development as they related to the Comprehensive Plan and AUAR, but had no bearing to other documents.

Chair Boerigter referenced Section 6.1 of the staff report, the last sentence, related to the Planning Commission's review of the requested City property disposal to make a determination about whether the proposed development facilitated by the disposal was in compliance with the City's Comprehensive Plan, and asked that staff explain it more clearly.

Mr. Lloyd explained that the staff report talked about the proposed use in general, not the specific site plan design under consideration, but whether the proposed retail use was consistent with the Comprehensive Plan.

Chair Boerigter confirmed the language of that sentence again, clarifying the applicable standard for which the Commission needed to make its determination.

Member Gisselquist questioned how intertwined the two recommended actions are, and whether the development could be platted without the disposal of City property.

Mr. Lloyd opined that the Plat could probably be designed without the additional property.

Mr. Paschke advised that the request for disposal of the land was not so much a platting issue as a site plan design issue; and opined that the developer could engineer the site if

it was the City's determination not to sell back that piece of land, and that it was not necessarily needed to make the proposed development work.

Chair Boerigter asked if the land would then remain available for City right-of-way; to which Mr. Paschke clarified that the property was not City right-of-way, nor was it needed as such.

Mr. Lloyd concurred, noting that this was the reason a formal vacation was not being requested, since the property had originally been intended to be used in conjunction with the roadway, but not strictly for right-of-way purposes.

Member Gisselquist noted his understanding of the decision currently before the Commission based strictly on land use, with parcels being brought together by private owners, with the land disposal considered in light of the Twin Lakes Master Plan and Comprehensive Plan. Member Gisselquist advised that the disposal of City land was of concern to him, understanding that plat itself allowed little decision-making by the Commission. However, Member Gisselquist noted that, with the land disposal, it brought to the forefront the documents worked on over several years by citizens (e.g. Zoning Code, Comprehensive Plan, etc.).

Mr. Lloyd indicated that the most fundamental way staff reviewed the proposal was seeing it as Comprehensive Plan amenable, noting that it was the purpose of the revised Zoning Code, and bringing it into consistency with the goals and policies of the 2030 Comprehensive Plan, not just for the entire City but specifically for the Twin Lakes Redevelopment Area as well. While the Zoning Code revisions are still fresh, Mr. Lloyd noted that staff made their recommendation after a thorough review and confidence that the development met zoning requirements, and fell under the guidance of the Comprehensive Plan.

Member Strohmeier expressed concern with the public notice issue after hearing from various neighbors who had also expressed their concerns about the public notice for this proposed development. Member Strohmeier questioned the trigger for requiring a community open house; opining that this was a pretty substantial planning decision, and questioned why it hadn't mandated an open house.

Mr. Lloyd advised that open houses are mandated for would-be applicants or applications that deviated from City Code, or those things not in the usual realm of a particular Zoning District. Mr. Lloyd noted that this plat had more to do with the Subdivision Code and realignment of parcels, and provided several examples of developments requiring open houses.

Member Strohmeier opined that the community, as well as he, had been caught off guard by this proposal.

Member Lester questioned what other land uses were proposed for this parcel in the future.

Mr. Lloyd advised that the overall Site Plan indicated several smaller restaurant uses on the smaller lots, but the Plan also facilitated ownership of parcels for other allowable uses. Mr. Lloyd opined that restaurant uses would typically follow a Wal-Mart development, but the buildings illustrated on the Site Plan presented were simply included to address potential zoning requirements as an example, but may not be their exact use as the parcel develops in the future.

At the request of Member Wozniak as to what other uses may occur, Mr. Lloyd advised that whatever was allowed as a use in a Community Mixed Use District.

Applicant Representatives:
Will Matzek, Engineer of Record for Wal-Mart development team
Mr. Matzeck thanked the Planning Commission for their time and consideration of the two requested actions, and concurred with staff's review of the proposal details. Mr. Matzeck advised that of the overall Twin Lakes Redevelopment Area of approximately 179 acres,

this portion was approximately fourteen (14) acres. Mr. Matzeck noted that the zoning designation and AUAR both looked at the possibility of a retail site in the Redevelopment Area, anticipating 175,000 square feet of retail at this location; noting that the actual area of the proposed Wal-Mart was somewhat less than that square footage. Mr. Matzeck advised that Wal-Mart intended to comply with all Zoning requirements and conditions as proscribed by staff in their report.

Member Boguszewski questioned if, for whatever reason, the Commission did not concur with disposing the City parcel of land, how that would affect Wal-Mart's plans or whether they could work around that.

Mr. Matzeck advised that, generally speaking, the rationale for their request was that the additional parcel would allow the site to function better and operate in a better and more efficient manner for the City of Roseville as well as Wal-Mart. Mr. Matzeck opined that the roundabout and City infrastructure in place will work well whether the City-owned property was purchased or not, and Wal-Mart engineers could modify the Site Plan accordingly, while that would not be their preference. Mr. Matzeck clarified that he didn't anticipate that failure to transfer the property would not halt the project.

Public Comment

Chair Boerigter opened the meeting to public comment at this time.

Written comments received by staff to-date via various sources were included in the staff report dated February 1, 2012, and included as Attachment F. Written comments via various sources received after distribution of the agenda packet, are also included for the record, ***will be attached hereto and made a part hereof***, from the following residents:

- **Wendy Thompson**, no address given (in opposition to Wal-Mart as the choice retailer);
- **Cary and Shannon Cunningham**, 2920 Fairview Avenue N (in opposition to the development of a big box retailer);
- **Doug Nonemaker**, 2179 Dellwood Avenue (in opposition to the development of a big box retailer); and
- **Gary Grefenberg**, 91 Mid Oaks Lane (requesting delay of action at this time for further review of the proposed development with the 2030 Comprehensive Plan).

Gary Grefenberg, 91 Mid Oaks Lane
As noted in Mr. Grefenberg's written comments, and for full disclosure purposes, Mr. Grefenberg serves on the City's Human Resources Commission, and as Chair of that Commission's Civic Engagement Task Force as a subcommittee.

Mr. Grefenberg's written comments and excerpt of the City's Comprehensive Plan (Economic Development and Redevelopment Sections 7.2, 7.3 and page 7.5) were provided by and included in the agenda packet attachments to the staff report. Mr. Grefenberg verbalized his written comments, and displayed the excerpted portion of the 2030 Comprehensive Plan during his comments; and referenced portions of the staff report that he opined were not sufficiently vetted by staff and allegedly inconsistent with the intent and goals and policies of the Comprehensive Plan. Mr. Grefenberg asked that a decision on this request be deferred until that additional vetting was done, and various areas specifically evaluated and addressed by staff and Wal-Mart representatives.

Mr. Grefenberg noted the specific concerns in his neighborhood, and asked that staff address how this development would not destroy his quality of life or provide rationale as to why specific questions were not addressed by staff. Opining that Wal-Mart represented one of the richest companies in the country, Mr. Grefenberg questioned why this development should be allowed to negatively impact Roseville residents; and opined that the community deserved more than a shallow and superficial statement by staff that the proposal was consistent with the Comprehensive Plan.

Steve Gjerdingen, 2211 N Albert Street, Apt. #102

For full disclosure purposes, Mr. Gjerdingen serves as a member of the City's Public Works, Environment and Transportation Citizen Advisory Commission.

Speaking as a resident, Mr. Gjerdingen noted design standards for Mixed Use Zoning Districts for placement of buildings on corner lots and their alignment to the property line; and questioned how this development appeared to deviate from that standard, as well as questioning what the actual front of the building was. Mr. Gjerdingen also questioned how this project would enhance or promote the primary statement of purpose to increase pedestrian and multi-modal travel opportunities rather than relying on vehicular transportation. Mr. Gjerdingen concurred with the comments of Mr. Grefenberg that action on this proposal be deferred until all questions had been answered.

Chair Boerigter interrupted public comment to reiterate that the purpose of tonight's meeting was not to react to a specific Site Plan, only to consider the Preliminary Plat and disposal of city-owned land. Chair Boerigter advised that, if the development itself was eventually approved, it would be required to meet all conditions of the City's Zoning Code.

At the request of Chair Boerigter, Mr. Lloyd responded to some of the items raised during public comment to-date. Mr. Lloyd concurred with Chair Boerigter that the location of access doors, frontage of the structure, and all other zoning requirements of the City would have to be met in order for the City to issue building permits; with no development allowed short of meeting those codes or application for a variance to deviate from any of them. Mr. Lloyd advised that the building front would be determined by whatever street address it was given by the City, once design of structures had been completed; and he anticipated that the primary street seeing the most traffic would indicate Mount Ridge Road as the front, on the northwest corner of the site, or possibly Twin Lakes Parkway itself.

Whatever the final designation was, Mr. Lloyd noted that the Twin Lakes Regulating Plan had been adopted late last year, and since codification of City Code only happened semi-annually, after which the website was updated, he suggested that the documents on the City's website pertaining to Community Mixed Use may not reflect that most recent adoption of the Twin Lakes Regulating Plan and its requirements that replaced previous code. Mr. Lloyd suggested that residents, when searching the website for the most up-to-date zoning requirements, rely on HTML texts rather the PDF version, since the revised text and the Overlay District may not yet be on the website in their entirety.

Member Strohmeier referenced the Statement of Purpose in Section 1005.07 of Zoning Code, Community Mixed Use District, for complimentary uses organized in cohesive uses, and connecting to trails, etc. to create pedestrian-oriented development. Member Strohmeier questioned how this Wal-Mart proposal was pedestrian-centered, since he saw it as more vehicle-centered; and asked for staff's response.

Mr. Lloyd advised that staff did not address that specifically for this Preliminary Plat, as Wal-Mart would become part of a larger redevelopment area of mixed uses, including offices, stand-along businesses, residences, and other allowed uses under the Regulating Plan, and pedestrian corridors would most likely be along the perimeters and would be cohesive for the overall redevelopment area. Mr. Lloyd opined that Wal-Mart, as the first and as an individual project would not achieve that pedestrian-friendly goal all at once or in a vacuum, but would be plugged into the pieces under that overarching Regulating Plan.

Mr. Paschke added that we (Roseville) an auto-oriented community like most all uses, but advised that the whole purpose of Mixed Use and Twin Lakes Regulating Plan was to promote other modes of transportation in the future. Mr. Paschke noted that sidewalks and trails were already in place throughout the Twin Lakes Redevelopment Area as part of the public infrastructure investment built to-date. Mr. Paschke advised that, within the Site Plan and as part of the Regulating Plan, the developer would be required to perform

additional work to achieve those requirements, as would other development projects as they came forward.

Tim Kotecki, 3078 Mount Ridge Road
In addition to questioning if this development fit with the Comprehensive Plan, Mr. Kotecki further questioned whether this development would be part of a Tax Increment Financing (TIF) District.

Mr. Paschke advised that the entire Twin Lakes Redevelopment Area was currently within a TIF District; however, he clarified that the developer had not requested any TIF financing for their project.

Mr. Kotecki further questioned how much retail was currently within a two (2) mile radius of the Rosedale Mall and including this area. Mr. Kotecki further questioned the ratio of shoppers anticipated from within the confines of Roseville, and those anticipated from outside Roseville. Mr. Kotecki questioned how many Wal-Marts had been built to-date in the Twin Cities area, and how many had closed in that same area since 2001.

Sue Steinwall, Land Use Attorney for Wal-Mart in Minnesota, with the firm of Frederickson, Byron, et al
In response to Mr. Kotecki's questions, and with recognition by Chair Boerigter, Ms. Steinwall advised that her client anticipated this Roseville Wal-Mart would serve primarily Roseville residents within a two-mile radius of the store. In the Twin Cities area, Ms. Steinwall estimated twenty (20) existing Wal-Mart stores; with five (5) of those within a ten (10) mile radius of this proposed store, with the closest locations being on University Avenue in St. Paul and in St. Anthony Village.

To her knowledge, Ms. Steinwall was unaware of any Wal-Mart closings in the metropolitan area; and was unable to respond to the amount of retail currently within two (2) miles of the Rosedale Mall area.

Mr. Kotecki questioned how Wal-Mart determined where to place a new store; and how much retail space per capita was already in Roseville, opining that it was very high.

Chair Boerigter suggested that public comment refocus on the land use issues before the Commission, not proprietary questions of Wal-Mart that they may choose not to respond to.

Jonathan Osborne, 1072 Shryer Avenue
Ms. Osborne questioned the process or next steps for this proposal, if the Planning Commission chose to approve the Preliminary Plat; and if there would be other forums for citizens to express themselves on the specific Plan for this site and for this specific retailer.

Mr. Paschke invited public comment, at any time, by passing them through staff or directly to City Councilmembers; however, he noted that there would be no further formal Public Hearings for approval of the Site Plan for this proposed use.

Mr. Osborne opined that this proposal had moved through various channels rather quickly; and wondered if more people had been aware of it, if more people would have been at tonight's meeting to speak on the proposal. Mr. Osborne reiterated that it seemed to have happened too quickly.

Vivian Ramalingam, 2182 Acorn Road
Ms. Ramalingam expressed similar concerns to those brought forward by the previous speaker. Generally speaking, Ms. Ramalingam opined that once the Planning Commission approved a Plan, it was rubber stamped at the City Council level and became action.

Ms. Ramalingam expressed a number of concerns with this particular proposal, opining that new business in Roseville should be locally-based to reach a regional consumer base. Ms. Ramalingam further noted that there had been no discussion on additional costs generated by this retailer (e.g. additional police, fire personnel, employee services

borne by the City; education for employee children; or food subsidies to feed those children required as a result of parents working in this particular low-wage situation). Ms. Ramalingam noted that those considerations were not included in the Government Decision triangle included in the staff report; and questioned whether there was any venue to address these concerns.

Mr. Paschke reiterated that the decision before the Commission tonight was not whether to support the Site Plan or the size of the proposed retail use on that site per se; but for their consideration of and potential recommendation to the City Council supporting this land division to create or reassemble lots in place into three (3) lots. From a process standpoint, Mr. Paschke advised that staff based the Planning Division recommendation to the Planning Commission for approval based on the lot lines, easements, and additional right-of-way meeting requirements of subdivision and zoning ordinances of the City.

Related to disposal of the 4,300 square feet of property currently owned by the City, Mr. Paschke advised that this action required a slightly different analysis for determination; but reiterated that those two items were not tied directly to a specific project or a given lot in Roseville; and therefore, no forum was available for vetting them, or any Public Hearing process to review and approve them based on those concerns raised, other than those provided to staff and forwarded to the City Council or received directly by the City Council.

Ms. Ramalingam thanked Mr. Paschke for the thoroughness of his response; however, she opined that it clearly showed a gap in the process itself.

Mr. Paschke recognized Ms. Ramalingam's opinion; however, he noted that staff's charge and instructions were based on the City's Zoning Ordinance and Codes in place that were used by the Planning Division to enforce, as well as the Regulating Plan designed and governing the Twin Lakes Redevelopment area, that didn't instruct staff differently than the process currently used and as recently adopted. Mr. Paschke advised that the Planning Division was unable to fundamentally change the process; and was required to use the same process throughout the City of Roseville for any project or application coming forward, in order to avoid preferential treatment. Mr. Paschke reiterated that it was staff's charge to enforce and implement the requirements within the Zoning Ordinance.

Ms. Ramalingam suggested that staff provide the City Council with the public comments and concerns received related to this proposal; with Mr. Paschke assured her that the City Council would receive minutes of tonight's meeting so they would be aware of public sentiment.

In response to repeated cell phone interruptions during tonight's meeting, Ms. Ramalingam asked that the Planning Commission or the City Council itself make a policy statement or accommodation to address such interruptions during public speaking, noting the difficulty in following procedures and in hearing discussions due to those distractions.

For the benefit of the public and listening audience, Member Gisselquist provided examples of issues that were heard by the Planning Commission (e.g. pawn shop request near Snelling Avenue as a Conditional Use based on zoning considerations) and other uses that are on the list of allowed uses (e.g. Source Comic Books at the same location) that do not come before the Commission since they are allowed uses. Member Gisselquist noted that, as long as the use met zoning requirements at a specific development site, there was less public involvement that occurred.

Member Strohmeier opined that City Code language related to Preliminary Plat approval (Chapter 1102.03) seemed to be broad. However, the health, welfare and general safety of citizens would appear to be applicable in one or more of those categories with some of the concerns being raised by citizens. Member Strohmeier suggested that, considering that broad language, perhaps the Commission's hands were not as tied as indicated.

Mr. Paschke responded that the language would only affect how the Subdivision Ordinance regulated or applied to this particular property, stating that the City's ordinances foster those things, and that the Subdivision Ordinance was created to look out for those things and how land divisions were required in Roseville through easements, lot sizes, etc. and meeting certain requirements within the Zoning Ordinance such as for residential lots with specific sizes in certain zoning classifications. Mr. Paschke advised that those topics would be germane to analyze Subdivision Zoning specific to land divisions, not uses on the land, since other regulations govern the requirements of those specific uses.

Mr. Paschke noted that City Attorney Mark Gaughan was present and could expand on that interpretation if he found it incorrect.

Rick Poeschl, 2220 Midland Grove Road
As a Roseville resident since 1968, Mr. Poeschl agreed with the comments heard during public comment as well as those expressed by Member Strohmeier that if more residents had known about the Wal-Mart plans, there would have been a much larger crowd in attendance tonight. Mr. Poeschl advised that he had only heard about the Public Hearing from a neighbor and fellow resident at Midland Condominiums; who had also mentioned that Roseville currently had more retail per capita that Bloomington, MN with their much larger population.

Mr. Poeschl noted that Mr. Grefenberg had highlighted and displayed on the overhead, several sections of the Comprehensive Plan's goals and policies that seemed inconsistent; and reiterated that if more people had known about tonight's meeting, they would have provided more feedback. While not clearly understanding staff's responsibility to follow the language of the Comprehensive Plan, Mr. Poeschl opined that more neighbors should get involved.

Mr. Poeschl stated that he was opposed to the proposed Wal-Mart, and didn't want a big box store in Roseville, including a Wal-Mart.

Megan Dushin, 2249 St. Stephen Street
As noted in her written comments and for full disclosure, Ms. Dushin serves on the City's Parks and Recreation Implementation Committee for Natural Resources.

Ms. Dushin verbalized her prepared, written comments, and for the record, provided a bench handout of those comments, ***attached hereto and made a part hereof.*** Ms. Dushin opined that she found it odd that this was the only public hearing to discuss this proposal, however opined that it was not surprising as this had happened before. Ms. Dushin further opined that staff seemed to be facilitating this request as quickly as possible, without taking the Comprehensive Plan into consideration. Ms. Dushin encouraged Commissioners to take her comments and questions into consideration when voting tonight. Ms. Dushin also questioned how the proposed bike trails off Fairview Avenue currently being proposed by the Parks and Recreation Commission would be impacted by this development.

Shirley Friberg, 2130 Fairways Lane
As a resident of Roseville since 1960, Ms. Friberg questioned if the Comprehensive Plan would be addressed if the Planning Commission recommended approval.

Mr. Paschke referenced tonight's proposed actions, as two (2) steps, as detailed in the staff report; emphasizing that neither action was related to the proposed use of the site. Mr. Paschke suggested that citizen input focus on whether the plat met the requirements of City Code as it related the Preliminary Plat and boundaries, and consistency of the requested city-owned land disposition with the Comprehensive Plan.

Ms. Friberg stated that she had just heard about this proposal, and questioned if the proposed Wal-Mart site was the same one considered by Costco several years ago; noting that she frequented both Costco and Sam's Club; and questioned whether there would be additional thefts to be concerned with if one of those stores were located there,

opining that they had many internal controls to monitor shoppers. However, Ms. Friberg noted the number of police reports at Rosedale Mall that she observed in the media, recognizing the size of that center and the number of stores; as well as youth in the area and bus stops. Ms. Friberg opined that one of the problems with a Wal-Mart store would be people coming from outside Roseville beyond two (2) miles, since Rosedale had people coming from Wisconsin, and even bypassing Maplewood Mall for Rosedale as a more preferred shopping destination. Ms. Friberg opined that there would be the need for increased police based on shoplifting, car vandalism, and other issues; and questioned the negative impacts to the senior residence in that area; and if they would be safe walking to Wal-Mart from their residence, given that potential negative impact.

Mr. Paschke advised that there was currently no sidewalk or trail on the east side that would facilitate pedestrians from the senior residence to the proposed Wal-Mart location.

Ms. Friberg referenced other communities, such as St. Louis Park and Excelsior Boulevard improvements and Edina at 50th and France; and questioned what we wanted Roseville to look like; or whether we preferred that it end up like the Richfield, Golden Valley, Brooklyn Center or Robbinsdale.

Chair Boerigter asked that Ms. Friberg refocus her comments on the issue before the Commission; and suggested that the public refrain from possible misperceptions that people coming to Wal-Mart were going to be of the criminal element and elevate crime levels in Roseville. Chair Boerigter noted that there was a Target store not too far from this area that didn't support that perception.

Ms. Friberg defended her position by noting that more youth would be coming into that area and when that happened, there were more crimes. Ms. Friberg opined that Target handled their store security quite well; however, she did have a concern with a Wal-Mart located in Roseville, given the types of problems their stores frequently had, and questioned if that was what type of community we wanted.

Member Wozniak questioned if it was reasonable for staff to address potential costs the City may incur for emergency services with such a development.

Mr. Paschke advised that he was unable to foresee the future to make a determination or estimate a potential cost for additional police, fire and/or rescue needs as the City developed. However, Mr. Paschke opined that this proposed business was no different than any other business coming into Roseville that the City's Codes would encompass for regulation and enforcement, whether parks, residential homes or complexes, or commercial/industrial businesses.

At the request of Member Wozniak as to how the City would recover those costs, Mr. Paschke responded that the City's main mechanism to support those services was through property taxes.

Member Gisselquist referenced Section 5.2 of the staff report, noting that part of the review process involved the Roseville Development Review Committee (DRC) composed of staff from various City Departments, and their representatives participating in reviews of such land use proposals, at which time the public safety issues most certainly would have been considered and discussed prior to staff's recommendation.

Mr. Paschke advised that the focus of those meetings, specific to this proposal, would have been the land divisions, and not necessarily the proposed use itself. However, Mr. Paschke noted that had been anticipated that a large retail use could come in, and staff had been prepared for that possibility and related comments coming forward. Mr. Paschke referenced that the Twin Lakes Redevelopment Area, through the AUAR and all Zoning, Comprehensive, Master and Regulating Plans had contemplated retail in this area, and noted that this use was consistent with those plans and potential uses; evidenced by the relevance of the proposed use and its fit with the City's Zoning Ordinance.

Member Strohmeier, based on his interest and background in public safety, and during his review of this proposal, referenced and quoted recent written comments provided by City of Roseville Police Chief Rick Mathwig in preparing for strategic planning discussions with the City Council for a long-term goal to *"...Add tow (2) commercial patrol officers to enhance the Police Department's ongoing efforts with the retail community. Retail and commercial development, especially a big box store, in the Twin Lakes area will increase theft-related incidents. One big box store is anticipated to bring 700 – 900 extra calls for police services each year. The Police Department's resources will be taxed by the development, and the resources currently in place at Rosedale will be stretched."* From a common sense standpoint, Member Strohmeier opined that a big box retailer would have considerable fiscal impacts to the City's Police Department.

Member Wozniak, from a historical standpoint, asked staff how long this property had been vacant or under-utilized; with Mr. Paschke advising that he had been with the City for thirteen (13) years with the property remaining vacant; and he was aware that the City had been attempting to develop the Twin Lakes Area since the 1980's.

Member Wozniak questioned how many, if any, developments had previously come forward for this specific parcel; with Mr. Paschke advising that, to his knowledge, there had been one other proposal, which was ultimately unsuccessful.

Member Wozniak asked Mr. Paschke what impacts he would see for this development on other parcels and further development in the Twin Lakes Redevelopment Area.

Mr. Paschke responded by opining that any development in the Twin Lakes area will spur other development, a historically proven occurrence. Mr. Paschke noted the enticement for that development based on the funds invested by the City to-date for infrastructure development in the area. However, how long that development would take Mr. Paschke refused to predict due to market conditions; however, he noted that many parcels in the Twin Lakes area were considered currently "development ready." Mr. Paschke noted further development would be based on clean up costs and the willingness of potential developers' willingness to build consistent with the City's Zoning Ordinance and Twin Lakes Regulating Plan, and couldn't predict if it would take this one proposed development or more to spur associated uses.

Member Boguszewski, from his career in health services and strategy in determining additional potential growth areas in which to place facilities, advised that they often looked for such developments as an indicator of a strong population and strong economic growth; opining that this supported Mr. Paschke comments.

Chair Boerigter closed the Public Hearing at 8:08 p.m., with no one appearing for or against.

Member Wozniak asked Mr. Paschke to comment on the proposed park dedication fee associated with this parcel and its use; and asked how that fee would be allocated.

While recognizing that it was not related to land use considerations under discussion at this venue, Mr. Paschke advised that park dedication fees paid to the City of Roseville were based on 5% of the property's fair market value as determined by the Ramsey County Assessor; and based on that calculation, he estimated that if the development proceeded they would pay the City in excess of $400,000 for this land division. Mr. Paschke advised that the fees were specifically designated for park enhancements and improvements in and around the City; but was unsure of the exact language as per State Statute.

Member Wozniak duly noted that, if this parcel was to be developed, the developer would be contributing a significant amount in fees toward the City's park system.

Planning Commission Discussion/Position Statements

Member Boguszewski noted the many layers in tonight's discussion; even though the Commission's decision-making was focused on the Preliminary Plat itself and parcel transfer. While other areas of discussion as to use or development of the parcel and how

the site was ultimately designed were not necessarily germane to the question at hand, at the same time, Member Boguszewski recognized the concerns of the audience that they may have no other opportunity to discuss the merits of the proposed use. Member Boguszewski noted that there would always be merits and demerits for any project or use, and at the risk of making his life less easy, he offered his thoughts and rationale for his position.

Member Boguszewski offered his personal assessment and analysis of the merits and demerits for this parcel; recognizing that it was a passionate issue for citizens, and that the passion often made it difficult for people to understand other points of view. Member Boguszewski noted that the comments heard tonight were not in favor of this particular use; however, he advised that he had personally received and seen support for a Wal-Mart in Roseville, and while not unanimous, it obviously remained a divided issue.

Member Boguszewski asked that residents keep several things in mind:

1) The City of Roseville does not own this land and has no ability to force any particular development or option such as an IKEA, Trader Joe's or other option. If the proposal meets City Code requirements, it is not the City's job to fetter that development. Member Boguszewski stated that he believed in the free market, and in comparing a Wal-Mart to the vacant parcel currently there, allowing all the negatives to rise to the forefront, when considered in isolation, there was nothing to compare it with.

2) Addressing another category of comments heard that Wal-Mart would be a blight or detriment to a beautiful spot, Member Boguszewski opined that this perception was in the eye of the beholder. When reviewing the location, Member Boguszewski noted that its location on the west side of the City, bounded on the south by a County road and railroad tracks, on the east by light industrial uses, and on the west by the Interstate; while further beyond that the area included a mass of car dealerships and similar uses, if Wal-Mart chose to locate in Roseville, he could think of no better spot. Member Boguszewski suggested that Roseville citizens could choose whether or not to shop at Wal-Mart, but if they were concerned that Wal-Mart was going to bring detritus to Roseville, this proposed location was at the most extreme edge of the community as possible.

3) Based on his personal bias, Member Boguszewski stated that he did not consider and remained unconvinced that Wal-Mart was similar to a nuclear waste plant.

Member Boguszewski advised that he took his role as a Planning Commissioner very seriously, and therefore had sought the advice of a market professor friend and was made aware of a number of articles on both sides of the issue, with as many saying that Wal-Mart was a positive for a community as those saying it was a negative. Member Boguszewski advised that his research of those articles and various opinions indicated that the impact to a community was based on a number of issues including, but not limited to, the area itself, existing retail, highway access, and existing "Mom and Pop" stores. Member Boguszewski advised that it would depend on Wal-Mart's business plan and their market research as to whether this store was a success or a failure; and was ultimately not the business of Roseville citizens anyway, since they had a right to develop in Roseville in compliance with City Codes.

While not believing that it was necessary to address the merits and/or demerits of a Wal-Mart in Roseville, since the Planning Commission's task was based on technical issues, Member Boguszewski advised that he had done so for the benefit of Roseville citizens, recognizing the importance to them. Member Boguszewski advised that he would be voting in support of the requested actions.

Member Wozniak thanked the audience for their public comment, noting that he had observed them through various forums before tonight's meeting as well. Member Wozniak expressed his disappointment in some of the comments he'd seen and heard, however he did support the public's right and appreciated their efforts to come out tonight to share them with the Planning Commission.

Member Wozniak concurred with the observations of Member Boguszewski in the narrow focus for Commission deliberations in approving property boundaries and transfer of City-owned property to a developer to facilitate a development. Member Wozniak stated that it was his belief that what was being proposed for this parcel was consistent with the Comprehensive Plan and retail use; and advised that he would support the property transfer and Preliminary Plat as proposed.

Member Wozniak noted the comments he'd heard about the City "railroading" this development; and stated that he strongly disagreed with that comments. If the proposal seemed to be moving fast, Member Wozniak reminded the public of the Statutory requirements for land use considerations and the time available for a City to act on a given proposal.

Member Wozniak clarified that the use itself as proposed was outside the scope of tonight's discussion, and was a permitted use not requiring discussion. However, Member Wozniak suggested that, while outside the scope of tonight's discussion, it was apparent that talking about the proposal may be a need for the community and encouraged Wal-Mart and their development staff to open dialogue with residents about their presence in the Roseville community, since it the proposal was successful, Wal-Mart would need to positively interact with the residents it sought to serve. Member Wozniak encouraged Wal-Mart representatives to look for opportunities to interact with the community on the positives they bring to the community, and not just allow the negatives or perceived negatives to remain in the forefront.

Member Lester advised that Members Boguszewski and Wozniak had effectively covered most of his comments. Member Lester advised that his analysis attempted to look at the end result, and after almost thirty (30) years of the City attempting to develop the Twin Lakes area, bringing in a potential use was a good thing, no matter who it was as long as it was meeting City Code requirements. Member Lester clarified again that tonight's request was focused on the Preliminary Plat, not the use; and discussions were based on a vacant piece of land on which a viable company was being proposed. Member Lester opined that Wal-Mart was a stable company; and further opined that the Comprehensive Plan supported such a retail use; and the need was evident for bringing in an initial development to further future development of the area. Member Lester advised that he supported the proposal and would support it.

Member Gisselquist thanked the public for their comments. Member Gisselquist advised that the Preliminary Plat portion of the request was an easy decision; basically assembling parcels of land for a proposed use, and it made sense to approve that request.

However, Member Gisselquist advised that he struggled with disposal of the land when applying it to the Comprehensive Plan until he reviewed the Twin Lakes Master Plan on line and reviewed that language. In referring back to previous discussions about a proposed Costco, Member Gisselquist opined that it appeared they had been chased out as the big box "bogey man."

Member Gisselquist advised that he would support the Preliminary Plat and land disposal.

In recognizing that the big box use served as the elephant in the room and remained present, Member Gisselquist opined that it had nothing to do with the request before the Commission; but assured that the Commission had heard the concerns expressed by those speaking tonight; and noted that Member Boguszewski had shared considerations on the other side of the issue as well.

Member Gisselquist stated that one part of being a Planning Commissioner was that he didn't like hearing criticisms of those seeking to come into the community. As a former "Richfield guy," Member Gisselquist advised that he took comments personally when they dished his former neighborhood. After thirty (30) years, Member Gisselquist opined that it was time to do something in the Twin Lakes area, referencing his personal observations

when last biking in the area of four foot (4') grass growing through broken asphalt, vacant spaces, and graffiti abounding. Member Gisselquist assured residents that there was already a good police presence in the area based on his experience he shared as an example. Member Gisselquist opined that the area was currently a wasteland and he supported someone developing it; and while it will continue to be controversial, it was the right thing to do.

Member Strohmeier thanked the public for their comments; and respectfully disagreed with other commissioners that the Commission's hands were tied regarding the Plat, opining that this was a major planning decision and a big deal. Member Strohmeier referenced various guiding documents showing that big box retail is not something that will benefit a community, including the Twin Lakes Master Plan, as well as sections of the Comprehensive Plan as displayed by Mr. Grefenberg and his comments, some of which he may disagree with. However, Member Strohmeier did recognize the numerous inconsistencies pointed out by Mr. Grefenberg. Member Strohmeier opined that he would agree with the Statement of Purpose for Commercial Mixed Use Districts, and the lack of a pedestrian, rather than vehicle-centered use. Member Strohmeier opined that this was simply one more way to add to the community's frustration in their apparent lack of a role in a role in local government, and expressed his disappointment in the current public process. Member Strohmeier advised that he would be voting in opposition to both requested actions.

Chair Boerigter thanked the public for their comments, and noted his rationale in allowing for some flexibility with the broad-based comments even when outside the specific scope being considered tonight; recognizing that this was a Public Hearing needing to allow a forum for those public comments. However, Chair Boerigter emphasized that the Commission's decision-making needed to focus on the limited scope of the Preliminary Plat and city-owned property disposal.

Chair Boerigter opined that he didn't personally think this was outside the Comprehensive Plan, but that it actually fit with the Comprehensive Plan and work done by the City over the last 5-6 years as a Planning Commission and City Council to guide Twin Lakes development.

Chair Boerigter further opined that to have a perception that Roseville residents didn't have a voice in this was quite ludicrous since the Twin Lakes Redevelopment Area had been a topic of discussion for years; and as late as last fall, the Planning Commission and City Council held numerous and substantive discussions on the Zoning Code, the Twin Lakes Regulating Map, and other issues, and the allowed uses in Twin Lakes, all of which were consistent with this proposal. Chair Boerigter suggested that, to think that a big box retailer may not develop in the Twin Lakes area was hard to imagine, when all that was required was to listen to discussions to understand that retail was a permitted use and it may include a large scale retailer.

Chair Boerigter stated that a review of the current Zoning Code would serve to dictate what was consistent with the Comprehensive Plan, and as pointed out by staff, the Zoning Code was amended to make it consistent with the 2030 Comprehensive Plan, along with development of the Regulating Map as the governing document to control development in the Twin Lakes area consistent with that Comprehensive Plan. Chair Boerigter opined that it was important to take the overall picture into consideration and what goes into the development area as a whole, and what the overarching guidance of the Comprehensive Plan indicated, rather than picking out bits and pieces. Chair Boerigter expressed his confidence that the Comprehensive Plan and Zoning Code were both very specific on the governance of what could or could not occur in developing and/or redeveloping the Twin Lakes Redevelopment Area.

Based on his review of these documents, Chair Boerigter opined that the Preliminary Plat and request for land disposition both met City Code requirements, and advised that he would support both.

MOTION
Member Boerigter moved, seconded by Member Lester, to RECOMMEND TO THE CITY COUNCIL approval of the proposed PRELIMINARY PLAT of the land area bounded by County Road C, Cleveland Avenue, Twin Lakes Parkway, and Prior Avenue; based on the comments and findings of Sections 4-7, and the conditions recommended in Section 8 of the staff report dated February 1, 2012.

Ayes: 5
Nays: 1 (Strohmeier)
Motion carried.

MOTION
Member Boerigter moved, seconded by Member Gisselquist, indicating the Commission's determination that the proposed transfer of ownership of land area specified in the Preliminary Plat is in compliance with the 2030 Comprehensive Plan; based on the comments and findings of Section 4-7 of the staff report dated February 1, 2012.

Ayes: 5
Nays: 1 (Strohmeier)
Motion carried.

Chair Boerigter noted the anticipated City Council action on this item is scheduled for February 27, 2012.

6. Adjourn

Chair Boerigter adjourned the meeting at approximately 8:36 p.m.

Phase I Environmental Site Assessment and All Appropriate Inquiry

Indianhead Parcel
1947 County Road C West
Roseville, Minnesota

Prepared For

Roseville Twin Lakes, LLC

and

M&I Marshall & Ilsley Bank

Project BL-05-05990C
August 3, 2006

Braun Intertec Corporation

BRAUN
INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: brauninterteccom

August 3, 2006

Project BL-05-05990C

Ms. Theresa Greenfield
Roseville Twin Lakes, LLC
c/o Rottlund Homes
3065 Centre Pointe Drive
Roseville, MN 55113

Re: Phase I Environmental Site Assessment and All Appropriate Inquiry
Indianhead Parcel
1947 County Road C West
Roseville, Minnesota

Dear Ms. Greenfield:

In accordance with your written authorization, Braun Intertec has conducted a Phase I Environmental Site Assessment and All Appropriate Inquiry (ESA/AAI) of the above-referenced property. The objective of the ESA/AAI was to evaluate the property for indications of recognized environmental conditions and to satisfy AAI criteria and requirements. This ESA/AAI was performed in general conformance with the scope and limitations of ASTM Practice E 1527-05 and the standards and practices set forth in 40 CFR Part 312.

This ESA/AAI has been prepared on behalf of and for use by Roseville Twin Lakes, LLC and M&I Marshall & Ilsley Bank. No other party has a right to rely on the contents of this ESA/AAI without our written authorization. This ESA/AAI has been prepared in association with the purchase of the property. Please refer to the attached report for the scope, methods and conclusions of our assessment.

We appreciate the opportunity to provide our professional services to you for this project. If you have any questions regarding this letter or the attached report, please call Jason Kunze at 952.995.2436.

Sincerely,

BRAUN INTERTEC CORPORATION

Erik A. Brenegan, GIT
Project Manager

Jason J. Kunze
Project Scientist

Daniel R. Holte, PG
Principal Scientist

Attachment:
ESA/AAI Report

PH I AAI Indianhead\ - 1947 C Road C

Table of Contents

Table of Contents (Continued)

Appendices

Executive Summary

Braun Intertec Corporation performed this Phase I Environmental Site Assessment and All Appropriate Inquiry (ESA/AAI) of the Indianhead Trucking parcel located at 1947 County Road C West in Roseville, Minnesota (Site) in general conformance with the scope and limitations of ASTM Practice E 1527-05 and the standards and practices set forth in 40 CFR Part 312.

At the time of this assessment, the Site consisted of an approximate 9.5-acre lot used for semi-trailer parking developed with two single-story, slab-on-grade buildings. Gravel, bituminous, and concrete parking area surrounded the buildings. The southeast building consisted of three attached concrete-block buildings with curved steel roofs and an attached, brick-faced office structure. The southeast building occupied approximately 38,000 square feet. The northwest building consisted of a concrete-block truck terminal building with bay doors and loading docks on the east and west sides. A small office area was located on the south end of the building.

Our research has revealed that the Site was first developed as a farmstead between 1848 and 1886. The Site was operated as a farm in the 1930s. A farmstead was located on the Site. Grading and excavating activities began on the Site in the early 1950s. The farmstead structures were removed from or demolished at the Site in the mid-1950s. The southeast truck maintenance building was constructed at the Site in the mid 1950s. The terminal building was constructed in the northwest corner of the Site in the mid 1960s, and extended in 1974. Indianhead operated the Site as a truck maintenance facility and truck terminal from the mid 1950s to 1998. Roseville Properties bought the Site in 2003, renting out small portions of the Site building to various tenants.

This assessment has revealed no indications of recognized environmental conditions in connection with the Site, with the exception of the following:

- The Site was historically operated as a semi truck maintenance and truck terminal facility from the mid-1950s through 2003. Site activities included the use and storage of hazardous substances and petroleum products.
- Fill material of unknown origin may be present on the Site.
- The Site is associated with closed LUST and SPILLS incidents. As a result, known soil and groundwater petroleum impacts are located on the Site.
- A review of governmental records identified several facilities in the surrounding area on various environmental databases.

Although not considered a recognized environmental condition, a water well is presently located at the Site. If the well is no longer being used, it must be properly abandoned by a licensed water well contractor in accordance with local city, county, and state regulations or a maintenance permit must be obtained.

Various environmental assessments were previously performed at the Site including a petroleum release investigation report completed by Dahl and Associates dated October 9, 1989, an excavation report completed by Nova Environmental dated November 8, 1990, and Phase II ESAs conducted by American Engineering Testing (AET) dated August 14, 2002 and September 16, 2005 relating to the Twin Lakes redevelopment area that included the Site. At the time of this ESA/AAI, Braun Intertec was completing a geotechnical evaluation and Phase II ESA at the Site, the results of which are provided under separate cover. Based on the subsurface investigations already performed at the Site, the geotechnical and environmental evaluation currently underway, and the proposed demolition of the existing Site buildings as part of the proposed Twin Lakes area redevelopment, Braun Intertec recommends that no further subsurface investigation be completed at the Site at this time. Nevertheless, subsurface conditions at the Site should be monitored by an environmental technician during Site excavation activities as part of demolition and redevelopment to appropriately manage hazardous substances, petroleum products, buried debris, septic systems, wells, storage tanks, or other structures and products that may be present that require appropriate management.

In addition, Braun Intertec recommends that the known drinking water well located on the Site be abandoned by a licensed water well contractor prior to demolition and redevelopment activities.

A. Introduction

A.1. Purpose

Braun Intertec Corporation received authorization from Mr. Steven Kahn of Roseville Twin Lakes, LLC (Client) to conduct a Phase I environmental site assessment and All Appropriate Inquiry (ESA/AAI) of the Indianhead Trucking Parcel located at 1947 County Road C West in Roseville, Minnesota (Site). This ESA/AAI has been prepared on behalf of and for the use by Roseville Twin Lakes, LLC and M&I Marshall & Ilsley Bank (User) in accordance with the contract between Roseville Twin Lakes, LLC and Braun Intertec, which includes the Braun Intertec General Conditions. No other party has a right to rely on the contents of this ESA/AAI without written authorization of Braun Intertec.

According to the Roseville Twin Lakes, LLC, this ESA/AAI has been prepared in association with the redevelopment of the Site. The opinions expressed herein are influenced by the stated reason for conducting the ESA /AAI. Furthermore, the expressed opinions may not be applicable to alternate reasons for reliance on the contents of this ESA/AAI.

The purpose of this ESA/AAI was to evaluate the Site for indications of "recognized environmental conditions," and to satisfy All Appropriate Inquiry (AAI) criteria and requirements. Recognized environmental conditions (RECs) are defined by ASTM Practice E 1527-05 as: "The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." We have developed and conducted the AAI in conformance with regulations set forth in 40 CFR Part 312. ESA/AAI was conducted by or under the supervision of an environmental professional as defined in 40 CFR Part 312.

A.2. Scope of Services

The services provided for this project consisted of the following ASTM Standard scope of services:

- Preparing a description of the Site location, current use and improvements and surrounding area.

- Preparing a general description of the topography, soils, geology and groundwater flow direction at the Site.

- Reviewing reasonably ascertainable and practically reviewable regulatory information published by state and federal agencies, health, and/or environmental agencies.

- Reviewing the history of the Site, including aerial photographs, fire insurance maps, directories, and other readily available Site development data.

- Conducting a reconnaissance and environmental review of the Site, including observations of the Site for indications of hazardous materials, petroleum products, polychlorinated biphenyls (PCBs), wells, storage tanks, solid waste disposal, pits and sumps, and utilities.

- Conducting an area reconnaissance, including a brief review of adjacent property uses and any pertinent environmental information noted in the Site vicinity.

- Interviewing current owners and/or occupants of the property, and accessible past property owners, operators and/or occupants.

- Interviewing local government officials or agencies having jurisdiction over hazardous waste disposal or other environmental matters in the area of the Site.

- Reviewing previous environmental reports prepared for the Site.

- Preparing a written report of our methods and conclusions.

The Standard Scope of the ASTM Practice E 1527-05 is not intended to provide a universal analysis of potential environmental risks and hazards. This assessment included no analysis of non-standard scope environmental risks and hazards unless otherwise listed above. Listed below are examples of non-standard scope issues for consideration. The following examples of non-standard scope issues are presented for informational purposes only and are not intended to imply relevance to this project. In addition, this list of examples of non-standard scope issues is not intended to be an all-inclusive list of possible issues to consider.

- Asbestos-containing materials
- Radon
- Lead in drinking water
- Lead Paint
- Wetlands
- Industrial hygiene
- Geotechnical engineering and consulting
- Ecological resources (i.e., NEPA)
- Regulatory compliance
- Endangered species
- Mold
- Property condition assessment
- Soil and groundwater testing
- Construction materials testing

Analysis of these or other non-standard scope issues by Braun Intertec would require additional contractual arrangements.

A.3. User Provided Information

As part of ASTM Practice E 1527-05, in order to qualify for one of the Landowner Liability Protections, the User must provide information to the environmental professional (Braun Intertec), if available, to help identify the possibility of recognized environmental conditions in connection with the Site.

A.3.a. Title Records

No information regarding chain-of-title ownership history or environmental liens recorded against the Site (if any) was provided to us by the User.

A.3.b. Environmental Liens

No information regarding environmental liens, ownership history, or environmental liens recorded against the Site (if any) was provided to us by the User.

A.3.c Specialized Environmental Knowledge

Previously completed environmental reports were provided to us by the User. Please refer to Section C.5. for information regarding the reports.

A.3.d. Commonly Known or Reasonably Ascertainable Information

No information regarding commonly known or reasonably ascertainable information was provided to us by the User.

A.3.e. Valuation Reduction for Environmental Issues

No information regarding valuation reduction for environmental issues was provided to us by the User.

A.3.f. Activity and Use Limitations

No information regarding activity and use limitations was provided to us by the User.

B. Site Description

B.1. Site Location

The Site is located within the southwest quarter of Section 4, Township 29 north, Range 23 west, in the City of Roseville, Ramsey County, Minnesota. A Site location map and Site sketch are attached in Appendices A and B, respectively. The Ramsey County property identification number is: 042923330011.

B.2. Site Characteristics

At the time of this assessment, the Site consisted of an approximate 9.5-acre lot used for semi-trailer parking developed with two single-story, slab-on-grade buildings. Gravel, bituminous, and concrete parking area surrounded the buildings. The southeast building consisted of 3 attached concrete-block buildings with curved steel roofs and an attached, brick-faced office structure. The southeast building occupied approximately 38,000 square feet. The northwest building consisted of a concrete-block truck terminal building with bay doors and loading docks on the east and west sides. A small office area was located on the south end of the building.

B.3. Adjoining Property Characteristics

The Site was roughly square-shaped, and was bordered on the north by the PIK Terminal parcels with vacant properties located beyond, on the east by muti-tenant office and industrial property with office properties located beyond, on the south by County Road C with commercial properties located beyond, and on the west by vacant former commercial properties and the Cummins Diesel building with I35W located beyond. The Site is located in a commercial and industrial area of Roseville, Minnesota.

C. Records Review

C.1. Physical Setting Information

C.1.a. Topography

According to the United States Geological Survey (U.S.G.S) 7.5-minute topographic map series, New Brighton, Minnesota quadrangle, the Site is located at an elevation of approximately 935 feet above mean sea level and slopes downward to the east.

C.1.b. Geology

The unconsolidated sedimentary deposits in the vicinity of the Site are Pleistocene-age, Grantsburg Sublobe sandy lake sediment deposits, which consist of fine to medium sand with minor amounts of silt and clay. The deposits may have scattered dropstones (Patterson, 1992).

The uppermost bedrock units in the vicinity of the Site is the Middle Ordovician, Platteville and Glenwood Formations and the Middle Ordovician Decorah Shale. The Plattville formation is reportedly located in the northwest portion of the Site while the Decorah Shale is located in the southeast portion of the Site. The Platteville Formation is described as a fine-grained dolostone and limestone, underlain by green, sandy shale of the Glenwood Formation (Mossler and Bloomgren, 1990). The Decorah Shale is described as green, calcareous shale with thin interbeds of limestone (Mossler and Bloomgren, 1990).

The depth to bedrock in the vicinity of the Site is approximately 50 feet to 100 feet below land surface (Mossler and Cleland, 1992).

C.1.c. Hydrogeology

The reported depth to groundwater in the vicinity of the Site is approximately 25 to 55 feet below land surface (Kanivetsky and Cleland, 1992). According to published geologic information, the regional groundwater flow direction within the unconsolidated deposits in the vicinity of the Site is generally to the southwest (Kanivetsky and Cleland, 1992).

The site-specific groundwater flow direction was not determined through direct measurement during this ESA/AAI. Additional field investigation, beyond the Scope of Services of this ESA/AAI, would be required to determine this information.

The site-specific groundwater flow direction was not determined through direct measurement during this ESA/AAI. Based on well data compiled during the completion of previous environmental reports in the area, groundwater flow may be flowing in a radial pattern originating at Langton Lake. This pattern would suggest a groundwater flow direction in the vicinity of the Site as generally to the south-southwest, however additional field investigation beyond the Scope of Services of this ESA/AAI would be required to determine this information.

C.2. Regulatory Information

We obtained regulatory information pertaining to the Site and surrounding area from Environmental Data Resources, Inc. (EDR). The EDR regulatory information report is a compilation and summary of current federal and state regulatory lists and databases and is attached in Appendix C.

The objective of the regulatory information review is to evaluate whether the Site or nearby properties are listed as having a past or present record of actual or potential environmental hazards that are under investigation or may have an adverse impact on the Site.

C.2.a. Federal Database Records

The EDR report included a compilation of the following United States Environmental Protection Agency (USEPA) databases and lists of verified and potential hazardous-waste problem facilities located at, adjacent to, or within ASTM Standard Search Distances from the Site:

- USEPA National Priorities List (NPL). The NPL is the USEPA's national listing of uncontrolled or abandoned hazardous waste facilities identified for priority remedial actions under the Superfund Program.

- USEPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). The CERCLIS is the USEPA's national listing of actual and potential hazardous waste facilities.

- USEPA CERCLIS-No Further Remedial Action Planned (CERC-NFRAP). Database of archived designated Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) facilities, that to the best of the USEPA's knowledge, has had an assessment completed and a determination has been made that no further steps will be taken to list a facility on the NPL.

- USEPA Corrective Action Report (CORRACTS). CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

- Institutional and Engineering Controls (IECON-US). The federal database of properties with land use and/or groundwater use restrictions and/or controls as a result of known contamination.

- USEPA Resource Conservation and Recovery Information System Treatment, Storage, and Disposal Facilities (RCRIS-TSD). The RCRIS-TSD is a listing of facilities that are required to register their hazardous waste activity under the Resource Conservation and Recovery Act (RCRA).

- USEPA Resource Conservation and Recovery Information System (RCRIS), Large-Quantity Generators (LQG), Small-Quantity Generators (SQG) of hazardous waste.

- USEPA Emergency Response Notification System (ERNS). The ERNS is the USEPA's national listing of releases of oil and hazardous substances reported to the USEPA, U.S. Coast Guard, the National Response Center and the Department of Transportation.

We also reviewed the EDR Orphan Sites, which is a compilation of facilities from the above federal databases that could not be specifically located due to a lack of suitable information. Please note that information provided by EDR is limited for these facilities. Therefore, the potential impact to the Site from facilities listed on the EDR Orphan Sites cannot always be determined based on the available information.

Table 1 contains a summary of the findings.

Table 1. Federal Database Records

Database	Site	Search Distance (Miles)	< 1/8	1/8-1/4	1/4-1/2	1/2-1	Total Listed
NPL	0	1	0	0	0	0	0
CERCLIS	0	1/2	0	0	0		0
CERC-NFRAP	0	1/4	0	0			0
CORRACTS	0	1	0	0	0	1	1
IECON-US	0	1/2	0	0	0		0
RCRIS-TSD	0	1/2	0	0	0		0
RCRIS-LQG	0	Site and adjoining properties	0				0
RCRIS-SQG	2	Site and adjoining properties	12				14
ERNS	0	Site					0

The EDR report indicated that the Site (Indianhead Truckline and Transport International Pool) was listed twice on the RCRIS-SQG database. Identification of the Site on the RCRIS-SQG database indicates that the Site is a licensed small-quantity generator of hazardous waste and is required to register its hazardous waste activity under the Resource Conservation and Recovery Act (RCRA) and does not imply that a release has occurred at the facility.

According to the EDR report, the following CORRACTS facility was listed within 1 mile of the Site:

- U.S. Filter Recovery Services Incorporated, 2430 Rose Place; located approximately 0.94 mile west-southwest of the Site.

Based on the location of the U.S. Filter Recovery Services Incorporated facility relative to the Site and the general groundwater flow direction within the surficial aquifer in the vicinity of the Site (south-southwest, see Section C.1.), it appears unlikely that groundwater contamination associated with the U.S. Filter Recovery Services Incorporated facility (if groundwater contamination exists) would have an adverse impact on the groundwater quality beneath the Site.

According to the EDR report, the following RCRIS-SQG facilities were listed adjacent to the Site:

- Hyman Freightways (PIK Terminal), 2690 Prior Avenue North; located adjacent to and northeast of the Site.
- RR Donnelly Logistics, 2690 Prior Avenue; located adjacent to and northeast of the Site.
- Dedicated Logistics, Inc.; Roseville, 2680 Prior Avenue; located adjacent to and northeast of the Site.

- Dedicated Logistics, Inc.; 2680 Prior Avenue; located adjacent to and northeast of the Site.
- All Tune and Lube, 2031 West County Road C; located adjacent to and southwest of the Site.
- Hale Companies, 1950 West County Road C; located adjacent to and south of the Site.
- Cummins North Central, Inc.; 2690 Cleveland Avenue North; located adjacent to and west of the Site.
- Minnesota Imprinted Apparel, Inc.; 2660 Cleveland Avenue North; located adjacent to and southwest of the Site.
- Systemone Minneapolis, 2660 Cleveland Avenue #7; located adjacent to and southwest of the Site.
- Midwest Great Dane Trailers, 1905 West County Road C; located adjacent to and east of the Site.
- C3 International, Inc.; 2019 West County Road C; located adjacent to and southwest of the Site.
- Xtra Lease, 2700 North Cleveland Avenue; located adjacent to and northwest of the Site.

Identification of a facility on the RCRIS-SQG database indicates that the facility is a licensed small-quantity generator of hazardous waste and is required to register their hazardous waste activity under the Resource Conservation and Recovery Act (RCRA) and does not imply that a release has occurred at the facility.

According to the EDR report, no additional facilities were listed within the ASTM standard search radii.

EDR included a listing of supplemental federal databases not required by the ASTM Standard for the Site. The Site (Indianhead Truckline and Transport International Pool) was listed on the Facility Index System (FINDS) database and US Brownfields database (Indianhead [Parcel #4]). The FINDS database contains both facility information and "pointers" to other sources that contain more detail. The EDR report indicated that the Site occupants were listed on at least one of the following databases under the FINDS database:

- National Compliance Database System
- Minnesota - Permitting, Compliance, and Enforcement Information Management System
- Resource Conservation and Recovery Act Information System

The Site is listed on the FINDS database since it was a licensed small-quantity generator of hazardous waste.

The Site (Indianhead [Parcel #4]) was listed on the US Brownfields database. The US Brownfields database includes brownfields properties addressed by cooperative Agreement Recipients and brownfields property addressed by Targeted Brownfields Assessments (TBA). EPA's TBA program provides funding and/or technical assistance for environmental assessments at brownfields sites

throughout the country. TBAs supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. The Site is part of the Twin Lakes redevelopment project.

C.2.b. State Database Records

The State Database Records report summarized the State of Minnesota databases and lists. EDR evaluated the following State Database Records for current listings of verified and potential problem facilities located on, adjacent to, or within ASTM Standard search distances from the Site:

- State Hazardous Waste Sites (SPL). SPL or SHWS records are the states' equivalent to CERCLIS. These facilities may or may not already be listed on the federal CERCLIS list.

- State Voluntary Investigation and Cleanup Program (SCL). The SCL is the Minnesota Pollution Control Agency's (MPCA) registry of properties at which a voluntary investigation and cleanup (VIC) program has been or is being conducted. The MPCA staff provide technical review of the investigation and any necessary remedial activities. A number of these properties have been investigated and cleaned up or found not to require any cleanup work.

- Brownfields. The purpose of the MPCA Petroleum Brownfields Program is to provide technical assistance and liability assurances to expedite and facilitate the development, transfer, investigation and/or cleanup of property that is contaminated with petroleum.

- Solid Waste Facilities/Landfill Sites (SWLF). SWLF-type records typically contain an Inventory of solid waste disposal facilities or landfills in a particular state.

- Institutional and Engineering Controls (IECON-STATE). The state database of properties with land use and/or groundwater use restrictions and/or controls as a result of known contamination. This database includes deed restrictions. This database includes deed restrictions.

- Leaking Underground Storage Tank Incident Reports (LUST). LUST records contain an inventory of reported leaking underground storage tank incidents.

- Liens. Sites included in the Site Remediation System Database that have environmental liens.

- Registered Underground Storage Tanks (UST). USTs are regulated under Subtitle I of the RCRA and must be registered with the state or tribal department responsible for administering the UST program.

- Spills (SPILLS). Database listing of spills reported to the MPCA. The data includes information regarding initial cause, initial source, material spilled, and quantity.

We also reviewed the EDR Orphan Sites, which is a compilation of facilities from the above state databases that could not be specifically located due to a lack of suitable information. Please note that information provided by EDR is limited for these facilities. Therefore, the potential impact to the Site from facilities listed on the EDR Orphan Sites cannot always be determined based on the available information.

Table 2 contains a summary of the findings.

Table 2. State Database Records

Database	Site	Search Distance (Miles)	<1/8	1/8-1/4	1/4-1/2	1/2-1	Total Listed
SPL (SHWS)	0	1	0	0	0	0	0
SCL (VIC)	1	1/2	0	4	7		12
Brownfields	0	1/2	0	0	0		0
SWLF	0	1/2	0	0	0		0
IECON-STATE	0	1/2	0	0	0		0
LUST	1	1/2	2	4	21		28
Liens	0	Site	0				0
UST	1	Site and adjoining properties	2				3
SPILLS	1	Site					1

According to the information provided by EDR, the Site (Indianhead Truckline) was listed on the SCL, UST, LUST, and SPILLS database.

Our review of the EDR Orphan Sites revealed a SCL listing for the Twin Lakes Parkway Corridor. The location of the Twin Lakes Parkway Corridor was between Cleveland and Fairview Avenues. Upon review of the City of Roseville web page for the proposed Twin Lakes Redevelopment area, it was determined that a portion of the Twin Lakes Parkway Corridor was located at the Site. We added the Twin Lakes Parkway Corridor listing on the EDR Orphan Sites under the Site column in the above table.

The EDR report indicated that the Twin Lakes Parkway Corridor (VP13320) is located between Cleveland and Fairview Avenues. According to information from EDR, the Twin lakes Parkway Corridor is a roadway corridor located approximately between Langton Lake and Terrace Drive and is approximately 90 feet wide and 3,000 feet long.

The EDR report indicated that six registered USTs were removed from the Site. The removed USTs consisted of one 10,000-gallon diesel UST; one 6,000-gallon diesel UST; one 6,000-gallon fuel-oil UST; one 4,000-gallon gasoline UST; one 1,000-gallon used or waste-oil UST; and one 1,000-gallon motor-oil UST.

According to the EDR report, four LUST incidents were listed at the Site in association with these USTs:

- Leak ID# 1303. Date leak closed: July 27, 1990. This incident is related to contamination associated with USTs located in a truck fueling area north of the truck maintenance building at the Site.

- Leak ID# 3627. Date leak closed: March 20, 1991. This incident is related to contamination associated with heating oil and waste oil USTs located outside of the southeast corner along the east wall of the truck maintenance building.

- Leak ID# 1475. Date leak closed: November 4, 1991. This incident was apparently related to contamination associated with a gasoline UST located in a truck fueling area north of the truck maintenance building at the Site.

- Leak ID# 3628. Date leak closed: December 17, 1991. This incident was related to contamination associated with a 10,000-gallon UST located in a truck fueling area north of the truck maintenance building at the Site.

According to the EDR report, a SPILL was reported at the Site on August 11, 1989 to the MPCA that originated from a UST. The SPILL report date was the same as the leak date for Leak ID# 1175 that was "closed" by the MPCA on November 4, 1991.

According to the EDR report, eleven SCL facilities were listed within 1/2 mile of the Site. Seven of the SCL facilities were located in the inferred down-gradient or cross-gradient groundwater flow direction from the Site. Based on the location of the seven SCL facilities relative to the Site and the general groundwater flow direction within the surficial aquifer in the vicinity of the Site (south-southwest, see Section C.1.), it appears unlikely that groundwater contamination associated with these SCL facilities (if groundwater contamination exists) would have an adverse impact on the groundwater quality beneath the Site.

According to the EDR report, the following SCL facilities were located adjacent to the Site:

- Great Dane (VP3850), 1905 West County Road C; located adjacent to and east of the Site. According to the MPCA, a No Action letter was issued on July 31, 1995. No additional information was available from the MPCA.

- Great Dane/Hold Back (VP3851), 1905 West County Road C; located adjacent to and east of the Site. No additional information was available from the MPCA.

- Great Dane/Hold Back II (VP3852), 1905 West County Road C; located adjacent to and east of the Site. According to the MPCA, a No Action letter was issued on July 31, 1995. No additional information was available from the MPCA.

- Cummins North Central, Inc. (VP4670 and VP4671), 2690 Cleveland Avenue North; located adjacent to and west of the Site. According to the MPCA web page, a No Action letter was sent on March 21, 1997 for VP4670.

Based on the general groundwater flow direction within the surficial aquifer in the vicinity of the Site (south-southwest, see Section C.1.), it appears unlikely that groundwater contamination associated with the adjacent SCL facilities (if groundwater contamination exists) would have an adverse impact on the groundwater quality beneath the Site.

According to the EDR report, twenty-seven LUST facilities were listed within 1/2 mile of the Site. Twenty-five of the LUST facilities were located in the inferred down-gradient or cross-gradient groundwater flow direction from the Site. Based on the location of the twenty-five LUST facilities relative to the Site and the general groundwater flow direction within the surficial aquifer in the vicinity of the Site (south-southwest, see Section C.1.), it appears unlikely that groundwater contamination associated with these LUST facilities (if groundwater contamination exists) would have an adverse impact on the groundwater quality beneath the Site.

According to the EDR report, the following LUST facilities were located adjacent to the Site:

- Cummins Diesel Sales, Inc. (Leak ID# 3309), 2690 Cleveland Avenue North; located adjacent to and west of the Site. Date leak closed: May 6, 1991. According to the EDR report, no groundwater contamination was associated with this release.

- Cummins Diesel Sales, Inc. (Leak ID# 9286), 2690 Cleveland Avenue North; located adjacent to and west of the Site. Date leak closed: May 30, 1996. According to the EDR report, groundwater contamination was associated with this release. However, it is unknown if off-site contamination exists. Soil contaminated with waste oil remains at the facility.

Based on the general groundwater flow direction within the surficial aquifer in the vicinity of the Site (south-southwest, see Section C.1.c.), it appears unlikely that soil or groundwater contamination associated with the Cummins Diesel Sales, Inc. facility would have an adverse impact on the groundwater quality beneath the Site.

- Hyman Freight (Leak ID# 1326), 2690 Prior Avenue; located adjacent to and northeast of the Site. Date leak closed: December 28, 1999. According to the EDR report, groundwater contamination was associated with this release. Soils contaminated with gasoline and diesel fuel remain at the facility.

Based on the location and proximity of the Hyman Freight facility relative to the Site, the potential exists that contamination associated with the Hyman facility could have an adverse impact on the groundwater beneath the Site.

According to the EDR report, the following UST facilities were located adjacent to the Site:

- Hyman Freightways, Inc.; 2690 North Prior Avenue; located adjacent to and northeast of the Site.
- Cummins Diesel Sales, Inc.; 2690 Cleveland Avenue North; located adjacent to and west of the Site.

C.3. Additional Government Records

C.3.a. City of Roseville Files

We obtained records of building permits, water permits, and historical maps from the City of Roseville. According to a historical map obtained from the City of Roseville website, the Site was part of an agricultural farm in 1931 operated by William Coleman and used for strawberry and raspberry farming.

According to the building and water records, building, plumbing and sanitary sewer permits were issued in June through October 1962. The building permit records an entry for installation of a propane tank to be located along the side the building. A permit for a water well meter was issued in April 1969. A permit for a building addition was issued in October 1972. According to the sewer service connection permit record, a water well was located at the Site. Selected building records and blueprints are available in Appendix D.

C.3.b. Minnesota County Well Index

The Minnesota Geological Survey (MGS) maintains a limited database of water well records called the Minnesota County Well Index (MCWI). Not all private water wells are listed in that database. Our review of the MCWI database revealed no documentation of water wells located on the Site. A previous

Phase I ESA contained a well log pertaining to the Site. According to the well log, the Minnesota Department of Health Unique Number is #00200067. The well is listed as having been completed to 505 feet in depth with a 10-inch casing to 107 feet and 8 inches to 241 feet. The drilling completion date is listed as September of 1954. The well was noted during the Site reconnaissance located in the boiler room (Section E.11. of this report).

C.4. Historical-Use Information

The objective of the historical-use information review is to develop a history of the previous uses of the Site and surrounding area, in order to help identify the likelihood of past uses having led to recognized environmental conditions in connection with the property. We consulted only those historical sources that were readily available and practically reviewable and were likely to be useful to develop a history of the previous uses of the Site and surrounding area within the time and cost constraints of this ESA/AAI.

C.4.a. Fire Insurance Maps

Fire insurance maps are produced by private fire insurance map companies and indicate uses of property at specified dates. The information noted on the maps includes uses of individual structures, locations of fuel and/or chemical storage tanks, and storage of other potentially toxic substances.

We retained EDR to obtain fire insurance maps in the area. No historic map coverage is available for the Site.

C.4.b. City Directory Information

We retained Historical Information Gatherers (HIG) to obtain city directory information pertaining to the Site and surrounding area. We obtained city directories for the years 1956, 1966, 1971, 1976, 1981, 1986 and 1999 from HIG's Digital Library.

The following listings were noted in the city directories:

1947 County Road C West

1956	Indianhead Truck Line, Inc.
1966	Indianhead Truck Line, Inc; Moore Motor Freight Lines
1971, 1976, 1981	Indianhead Truck Line, Inc.

1986	Indianhead Truck Line, Inc.; Quast Transfer Inc., Caroline Freight Carriers Corp.
1999	No Listing

C.4.c. Aerial Photographs

We obtained aerial photographs of the Site dated 1937, 1940, 1947, 1953, 1957, 1958, 1966, 1974, 1979, 1980, 1984, 1985, 1991, 1996, 1997, 2000, and 2003 from HIG. Copies of the aerial photographs are attached in Appendix E.

1937

The Site appears to be cultivated cropland with a farmstead discernable in the northwest corner.

1940

The farmstead is apparent on the Site. Marshes are apparent in the central and northeast portions of the Site.

1947

Two farmstead buildings and a shed are discernable in the northwest corner of the Site. The marshes or ponds are discernable on the Site.

1953

Cut and grading activity is apparent at the Site. The farmstead is discernable in the northwest corner of the Site.

1957

The Site is developed with the arch-roofed maintenance and office buildings currently located in the southeast corner of the Site. The remainder of the Site is utilized as a semi truck parking area. The farmstead buildings are no longer apparent on the Site. A parking lot is discernable southwest of the building, and a landscaped area is apparent southeast of the building. Roads are discernable along the eastern and western edges of the Site.

1958

An apparent fueling island is apparent in the northeast quadrant of the Site. Development activity is apparent west of the Site.

1966

The northwest corner of the Site is developed with a truck terminal building. No other significant changes are apparent on the Site. Commercial buildings are apparent east and west of the Site.

1974
The truck terminal building appears extended to the north. No other significant changes are apparent on the Site.

1979, 1980, 1984, 1985
No significant changes are apparent on the Site.

1991
The fueling island is no longer apparent on the Site. An apparent AST is discernable northeast of the truck maintenance buildings.

1996, 1997
No significant changes are apparent on the Site.

2000
The apparent AST is not longer discernable on the Site.

2003
No significant changes are apparent on the Site.

C.4.d. Additional Historical Records

We obtained historical topographic maps for the years 1903, 1952, 1958, 1967, 1972, 1980, 1993, and 1997 from EDR and reviewed a historical plat map of the vicinity of the Site. The plat map, dated 1886, depicts the west portion of the Site as a farmstead owned by Herman Kohman and the east portion of the Site as a farmstead owned by Joseph Schacht. Selected historical maps are available in Appendix F.

The following features were depicted on the historical topographic maps:

1903
A small structure is depicted on the Site.

1952, 1958
Two small structures and two ponds are depicted on the Site.

1967, 1972
A rectangular building and a smaller, square building are depicted on the Site.

1980
The square building is depicted with an addition to the north.

1993, 1997
No significant changes are depicted on the Site.

No additional historical records were reviewed as part of the scope of this assessment.

C.5. Previous Environmental Documents

We reviewed the following environmental document pertaining to the Site:

- *Petroleum Hydrocarbon Release Investigation Report; 1947 West County Road C; Roseville, Minnesota;* October 9, 1989 (Dahl and Associates, Inc., 586-001)
- *Excavation Report; Indianhead Truck Lines, Inc.; Leak No. 1475;* November 8, 1990 (Nova Environmental Services)
- *Ryan Twin Lakes III; VP 8040; Remedial Action and Design; Remedial Action Work Plan;* March 3, 1997 (Liesch Associates)
- *Phase I Environmental Site Assessment; Regor Parcel at 1947 West County Road C; Roseville, Minnesota;* July 19, 2002 (AET # 03-01355)
- *Phase II Environmental Site Assessment; 1947 West County Road C; Roseville, Minnesota;* August 14, 2002 (AET # 03-01355.ii)
- *Report of Phase II Environmental Site Assessment; Twin Lakes Mixed Use Development; Roseville, Minnesota;* September 16, 2005 (AET # 03-01962)

According to the Dahl and Associates 1989 Report, four USTs were removed from the Site in July and August 1989. The report was prepared in reference to MPCA Leak No. 1303. The tanks consisted of a 4,000-gallon gasoline UST located in the fueling area north of the truck-maintenance building, a 1,000-gallon motor-oil tank located within the northwest corner of the truck-maintenance building, a 1,000-gallon waste-oil and 6,000-gallon heating-oil tank located in close proximity to each other outside of the southeast edge of the truck-maintenance building.

According to the Dahl and Associates 1989 Report, no petroleum impacts were detected during the excavation of the 1,000-gallon motor-oil tank. Petroleum-impacted soils were detected in the basin associated with the 1,000-gallon waste-oil and 6,000-gallon heating-oil tanks. Soil borings were conducted in the vicinity of those tanks. Approximately 500 cubic yards of soil were excavated from the tank basin and removed to an off-site facility. The MPCA granted regulatory closure for the leak facility in a letter dated July 27, 1990.

According to the 1990 Excavation Report, Nova observed the removal of one 10,000-gallon and one 6,000-gallon UST on September 10, 1990. A 4,000-gallon UST was reportedly removed at the Site on August 10, 1989. The USTs were apparently located north of the main semi-truck service building and were apparently oriented northeast to southwest. The tanks were associated with the fueling area located at the Site. According to the Excavation Report, approximately 10,900 cubic yards of contaminated soil was excavated and removed to an off-site facility.

According to the 1997 Report prepared by Liesch for redevelopment activity east of the Site, toluene contamination with apparently limited aerial extent was encountered (located off site). The report was prepared as part of State Voluntary Investigation and Cleanup Program (SCL) number 8040. Impacted soil reportedly remained in the area near a utility line in the vicinity of a former tank basin related to closed LUST facility 4863.

Several findings were identified as recognized environmental conditions at the time of the July 2002 Report including:

- The potential for floor drains, waste traps and associated piping, other process lines, floor staining/corrosion related to the Site activities, and drain traps formerly connected to an on-site septic system to impact the subsurface.
- Stained soils below the dock areas of the truck terminal building in the northwest corner of the Site.
- Former outdoor ASTs located at the Site.
- Diesel-range organic (DRO)-impacted soils encountered in borings at the Site.
- Adjacent LUST and VIC facilities.

A former diesel UST and fuel island area was noted in the 2000 report, but it was not considered a recognized environmental condition.

An interview was conducted by AET with the Site owner during the preparation of the July 2002 Report. The previous owner, Mr. Wilsey, indicated the location of the water well at the Site, and the locations of various equipment including parts washers within the truck maintenance building. Mr. Wilsey indicated that Indianhead ceased operations at the Site in 1998.

The scope of the August 2002 report included the completion of 30 soil borings on the Site utilizing hand augers and push-probe technology. Soil and groundwater samples were obtained from the borings and reportedly analyzed for the presence and concentrations of DRO, gasoline-range organics (GRO), volatile and semi-volatile organic compounds (VOCs, SVOCs), benzene, ethyl benzene, toluene, xylenes (BETX), MDA List 1 pesticides, and the Resource Conservation and Recovery Act metals (RCRA Metals).

Samples collected from the former UST basins north of the truck-maintenance building reportedly appeared stained and exhibited elevated photoionization detector (PID) readings. DRO and GRO were detected at concentrations of up to 690 parts per million (ppm) and 450 ppm in the basin at depths of 21 to 16 feet below land surface (bls). Relatively low concentrations of other petroleum constituents were reportedly detected in the former UST basin. The results appeared to suggest that native soils beneath fill soils were petroleum impacted, but indicated that the fill soils were generally not impacted.

Samples collected at shallow depths from various locations in the parking area west of the truck maintenance area reportedly exhibited elevated concentrations of DRO.

No DRO, GRO, BETX,VOCs, or PCBs were detected in samples collected in the basin of a former heating UST on the southeast side of the truck maintenance building.

Soils in two former AST locations were analyzed at the Site. Relatively high concentrations of DRO and GRO were reportedly detected in the vicinity of a concrete tie-down pad located near the northwest corner of the truck-maintenance building. DRO and GRO were detected at concentrations of up to 3,600 ppm and 99 ppm, respectively. The pad was the former location of a large diesel-fuel tank. Relatively high concentrations of DRO and GRO (15,000 ppm and 910 ppm) were reportedly detected in the near-surface sample obtained from the location of the former heating-oil AST location south of the truck terminal building on the northwest portion of the Site. Other petroleum constituents were also detected in the sample.

Soil samples obtained from stained soil below dock levelers at the truck terminal building were reportedly impacted with DRO of up to 15,000 ppm from a near surface sample. Petroleum impacts extended to a depth of at least 2 1/2 feet bls.

One sample was collected and analyzed for the MDA List 1 pesticides, but no pesticides were apparently detected.

One groundwater sample was reportedly obtained from a boring completed in the suspected location of a former septic field on the northern side of the truck terminal building. Relatively low concentrations of DRO, VOCs and an SVOC (butylbenzylphthalate) were reportedly detected in the groundwater sample. Trichloroethylene (TCE) was reportedly detected in the groundwater sample at a concentration of 77 parts per billion (ppb) from the sample collected at approximately 14 feet bls. Further investigation was deemed necessary by AET to define the vertical and horizontal extent of the contamination in areas where construction was planned.

According to the September 2005 report, an additional 29 soil borings were completed on the Site. The borings further defined the magnitude and extent of petroleum impacts in soil and groundwater at the Site. DRO and TCE were detected at relatively high concentrations in groundwater samples obtained from borings completed on the Site.

D. Interviews

We obtained information regarding the Site from the following individuals:

- Mr. Rancone (project manager, Roseville Properties)

According to Mr. Rancone, Roseville Properties acquired the Indianhead Site in 2003. Mr. Rancone reported that tenants including a small truck-repair operation and D and E Mechanical rented out small portions of the Site buildings since 2003, but that the Site is currently not occupied by a tenant.

- Mr. John Loftus (fire marshal, City of Roseville)

We contacted Mr. John Loftus, fire marshal, City of Roseville, for information pertaining to the Site. Mr. Loftus recalled he heard of solvent and/or used oil releases associated with the Site, but did not know specific information.

E. Site Reconnaissance

A Site reconnaissance was conducted by Braun Intertec project manager (Erik Brenegan) on June 1, 2006 to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the Site. At the time of the Site reconnaissance, the weather was sunny with a temperature around 80 degrees Fahrenheit.

E.1. Site Layout

During the reconnaissance, the Site topography appeared to slope downward toward the east. The drainage on the Site appeared to be roughly northeast towards lower elevations. The Site buildings were located on flat ground in the northwest and southeast corners of the Site.

A Site Sketch and Site Photographs are attached in Appendices B and G, respectively.

E.2. Site Improvements

The Site is connected to municipal water and sanitary sewer services. The buildings were historically heated with fuel oil. Natural gas piping was noted at the Site buildings. A water well is located inside the boiler room of the southeast building at the Site. Two buildings and an unpaved parking area are present on the Site.

E.3. Site Land Use

At the time of this assessment, the Site buildings were unoccupied. Semi-truck trailers were parked on the Site. No other business activities were being performed at the time of the reconnaissance.

E.4. Land Surface Observations

No indications of any current storage areas, waste disposal areas or burn pits were noted during the Site reconnaissance. The majority of the Site not occupied by buildings was a flat, gravel-covered parking area.

E.5. Hazardous Substances

No indications of current storage areas of hazardous substances were noted during the reconnaissance, with the exception of a small pan of engine oil in a small garage in the eastern half of the truck-maintenance building. Indications of past use of hazardous substances related to the maintenance of semi trucks were noted throughout the southeast building. These included areas of stained concrete and walls and wall-mounted hardware apparently used for grease guns. A trench drain with what appeared to be a flammable-waste trap (oil-water separator) was noted in a shop area on the northern end of the southeast building.

E.6. Petroleum Products

Petroleum staining was noted on the Site at the time of our reconnaissance. Indications of past use of petroleum products related to the maintenance of semi trucks were noted throughout the Site buildings. Stained floors and walls were noted in the southeast building. Approximately 20 garage bays located in the northwest building utilized a hydraulic system to operate lift gates meant to facilitate the loading and unloading of trailers. The hydraulic systems of these gates appeared to have leaked a petroleum fluid onto the walls, concrete floor, and ground beneath. The system was connected to a overhead barrels located within the building.

A heating-oil-fired boiler was noted in the northwest building. No tank was noted in association with the boiler, but indications of a former AST was noted on the south side of the building.

A heating-oil-fired boiler was noted in the truck-maintenance building. No indications of an existing tank were noted in the adjoining area outside of the building. A fuel-oil UST was historically located along the southeastern edge of the truck-maintenance building.

E.7. Storage Tanks

No indications of current above-ground or underground storage tanks were noted on the Site during our Site reconnaissance. Please refer to Section E.6. and Section C.2.b. of this report for more information regarding the former USTs and ASTs at the Site.

E.8. Electrical Equipment

No indications of potential polychlorinated biphenyl (PCB)-containing electrical equipment was noted at the Site.

E.9. Waste Disposal

No indications of the uncontrolled disposal of solid waste or dumping were noted on the Site. Solid wastes were not generated at the Site at the time of the Site reconnaissance.

E.10. Wastewater Discharges

The Site is apparently connected to City of Roseville, water and sewer utilities. City records suggest that a septic system was possibly located north of the truck-maintenance building at the Site.

E.11. Wells

One water well was noted at the Site during the reconnaissance. The well was located in the boiler room of the maintenance building at the Site.

E.12. Adjacent Property Observations

The former Hyman Freightways (PIK Terminal) parcel was located adjoining the Site to the north. A multi tenant medical clinic and office property was located adjoining east of the Site. A multi-tenant commercial and light industrial building was located on the property south of County Road C. Several vacant former multi tenant office warehouse buildings were located adjoining the Site to the west. Former uses of these properties included automotive maintenance facilities.

F. Summary of Land Use Activities

F.1. Current Site and Adjoining Property Land Use

At the time of this assessment, the Site consisted of an approximate 9.5-acre lot used for semi-trailer parking developed with two single-story, slab-on-grade buildings. Gravel, bituminous, and concrete parking area surrounded the buildings. The southeast building consisted of 3 attached concrete-block buildings with curved steel roofs and an attached, brick-faced office structure. The southeast building occupied approximately 38,000 square feet. The northwest building consisted of a concrete-block truck terminal building with bay doors and loading docks on the east and west sides. A small office area was located on the south end of the building.

The Site was square-shaped, and was bordered on the north by former PIK Terminal parcel with vacant properties located beyond, on the east by muti-tenant office and industrial property with office properties located beyond, on the south by County Road C with commercial properties located beyond, and on the west by vacant former commercial properties and the former Cummins Diesel building with I35W located beyond. The Site is located in a commercial and industrial area of Roseville, Minnesota.

F.2. Historical Site and Adjoining Property Land Use

Our research has revealed that the Site was first developed as a farmstead between 1848 and 1886. The Site was operated as a farm in the 1930s. A farmstead was located on the Site. Grading and excavating activities began on the Site in the early 1950s. The farmstead structures were removed from or demolished at the Site in the mid-1950s. The truck-maintenance building was constructed at the Site in

the mid 1950s. A truck terminal building was constructed in the northwest corner of the Site in the mid 1960s, and extended in 1974. Indianhead operated the Site as a truck-maintenance facility and truck terminal from the mid 1950s to 1998. Roseville Properties bought the Site in 2003, renting our small portions of the Site building to various tenants.

G. Limitations and Data Gaps

The findings and conclusions presented in this report are based on procedures described in ASTM Practice E 1527-05 and 40 CFR Part 312, inquiries with public officials, available literature cited in this report, conditions noted at the time of our ESA/AAI, and our interpretation of the information obtained as part of this ESA/AAI. Our findings and conclusions are limited to the specific project and properties described in this report and by the accuracy and completeness of information provided by others.

An environmental site assessment cannot wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property within reasonable limits of time and cost.

In conducting its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession practicing in the same locality at the time the services were provided. No other warranty is made or intended.

No intentional deviations from the ASTM Practice E 1527-05 or 40 CFR Part 312 were made in conducting this ESA/AAI for the Site.

No data gaps were identified during the ESA/AAI process, with the exception of the following:

- Historical resources were not readily available for 5-year-or-less intervals from the time of the first developed use.

- Site contacts were not readily available for adjoining properties.

Based on the availability of historical and environmental information on adjacent parcels, the identified data gap did not affect the environmental professional's ability to render opinions regarding conditions indicative of a release or threatened release.

H. Findings

The findings include identified known or suspect recognized environmental conditions, historical recognized conditions, *de minimis* conditions and additional issues in connection with the Site.

The following findings were identified:

- The Site was historically operated as a semi-truck maintenance and truck terminal facility from the mid-1950s through 2003. Site activities included the use and storage of hazardous substances and petroleum products.

- The Site is associated with closed LUST and SPILLS incidents. As a result, known soil and groundwater petroleum impacts are located on the Site.

- Fill material of unknown origin may be present on the Site.

- A review of governmental records identified several facilities in the surrounding area on various environmental databases.

- Structures associated with a farmstead were previously located on the northwest corner of the Site prior to current development.

- A water well was located at the Site.

I. Opinions

I.1. Recognized Environmental Conditions

A "recognized environmental condition," as defined by ASTM Practice E 1527-05 is "The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions of storage and use in compliance with laws."

This assessment identified no recognized environmental conditions in connection with the Site, with the exception of the following:

- The Site was historically utilized for semi truck maintenance operations from the mid-1950s through 2003. Due to the nature of activities at the Site (use and storage of hazardous substances and petroleum products, presence of floor drains, a flammable waste trap, the presence of petroleum product lines), the potential exists that soil and/or groundwater beneath the Site has been impacted due to these activities. The use and storage of hazardous substances and petroleum products represents a recognized environmental condition.

- Fill material of unknown origin may be present on the Site. Materials may be present in fill soils that require management as solid or hazardous waste.

- The Site is associated with closed LUST, SCL, and SPILL incidents. Residual petroleum contamination related to the closed LUST, SCL, SPILL incidents likely remain at the Site.

- The governmental records review identified several facilities in the surrounding area on various environmental databases. The identified facilities include the Hyman Freight (PIK Terminal) located adjoining the Site to the north. Groundwater impacts are present on the adjoining PIK Terminal parcel and on the Site. Petroleum-impacted soils are present in several areas of the Site including the former UST basins, two former AST locations, and the dock area of the northwest truck terminal building. Based on the groundwater and soil impacts at the Site, the known concentrations of regulated substances, and on the planned redevelopment of the Site for commercial and/or residential uses, the identified impacts represent a recognized environmental condition.

I.2. Historical Recognized Environmental Conditions

Historical Recognized Environmental Conditions are conditions that were or would have been considered to be Recognized Environmental Conditions in the past but because of further information or a change of conditions are no longer considered Recognized Environmental Conditions. This assessment identified no historical recognized environmental conditions in connection with the Site.

I.3. *De Minimis* Conditions

A *de minimis* condition is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of regulatory governmental agencies. No *de minimis* conditions were identified in relation to the Site.

I.4. Additional Issues

- Structures associated with a farmstead were previously located on the northwest corner of the Site prior to current development. It is unclear if these structures were buried on the property or hauled away for disposal. There is a potential that solid waste, demolition debris, USTs or wells exist at the Site.

- A former water supply well was located in the boiler room of the southeast truck-maintenance building. Although not considered a recognized environmental condition, a well is located at the Site. If the well will no longer be used, the well must be properly sealed by a licensed water well contractor in accordance with local city, county, and state regulations or a maintenance permit must be obtained.

J. Conclusions

We have performed this Phase I ESA of the Site in general conformance with the scope and limitations of ASTM Practice E 1527-05. Any exceptions to, or deletions from, this practice are described in Section A.3 of this report.

This assessment has revealed no indications of recognized environmental conditions in connection with the Site, except for the following:

- The Site was historically operated as a semi-truck maintenance and truck terminal facility from the mid-1950s through 2003. Site activities included the use and storage of hazardous substances and petroleum products.

- Fill material of unknown origin may be present on the Site.

- The Site is associated with closed LUST and SPILLS incidents. As a result, known soil and groundwater petroleum impacts are located on the Site.

- A review of governmental records identified several facilities in the surrounding area on various environmental databases.

K. Recommendations

Various environmental assessments were previously performed at the Site including a petroleum release investigation report completed by Dahl and Associates dated October 9, 1989, an excavation report completed by Nova Environmental dated November 8, 1990, and Phase II ESAs conducted by American Engineering Testing (AET) dated August 14, 2002 and September 16, 2005 relating to the Twin Lakes redevelopment area that included the Site. At the time of this ESA/AAI, Braun Intertec was completing a geotechnical evaluation and Phase II ESA at the Site, the results of which are provided under separate cover. Based on the subsurface investigations already performed at the Site, the geotechnical and environmental evaluation currently underway, and the proposed demolition of the existing Site buildings as part of the proposed Twin Lakes area redevelopment, Braun Intertec recommends that no further subsurface investigation be completed at the Site at this time. Nevertheless, subsurface conditions at the Site should be monitored by an environmental technician during Site excavation activities as part of demolition and redevelopment to appropriately manage hazardous substances, petroleum products, buried debris, septic systems, wells, storage tanks, or other structures and products that may be present that require appropriate management.

In addition, Braun Intertec recommends that the known drinking water well located on the Site be abandoned by a licensed water well contractor prior to demolition and redevelopment activities.

L. Qualifications of Environmental Professionals

A Braun Intertec Statement of Qualifications for this ESA/AAI project will be provided to the User upon request.

M. Environmental Professional Statement

We, Erik Brenegan, Jason Kunze, and Dan Holte, do declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

BRAUN INTERTEC CORPORATION

Erik A. Brenegan, GIT
Project Manager

Jason J. Kunze
Project Scientist

Daniel R. Holte, PG
Principal Scientist

N. References

Kanivetsky, R.; and Cleland, J. M.; 1992a; Surficial Hydrogeology, in Meyer, G. N.; and Swanson, L., eds.; Geologic Atlas - Ramsey County, Minnesota: University of Minnesota - Minnesota Geological Survey, County Atlas Series, Atlas C-7, Plate 6, Scale 1:48,000.

Kanivetsky, R.; and Cleland, J. M.; 1992b; Bedrock Hydrogeology, in Meyer, G. N.; and Swanson, L., eds.; Geologic Atlas - Ramsey County, Minnesota: University of Minnesota - Minnesota Geological Survey, County Atlas Series, Atlas C-7, Plate 7, Scale 1:48,000.

Mossler, J. H.; and Bloomgren, B. A.; 1992; Bedrock Geology, in Meyer, G. N.; and Swanson, L., eds.; Geologic Atlas - Ramsey County, Minnesota: University of Minnesota - Minnesota Geological Survey, County Atlas Series, Atlas C-7, Plate 2, Scale 1:48,000.

Mossler, J. H.; and Cleland, J. M.; 1992; Depth to Bedrock Map, in Meyer, G. N.; and Swanson, L., eds.; Geologic Atlas - Ramsey County, Minnesota: University of Minnesota - Minnesota Geological Survey, County Atlas Series, Atlas C-7, Plate 5, Scale 1:48,000.

Patterson, C. J.; 1992; Surficial Geology, in Meyer, G. N.; and Swanson, L., eds.; Geologic Atlas - Ramsey County, Minnesota: University of Minnesota - Minnesota Geological Survey, County Atlas Series, Atlas C-7, Plate 3, Scale 1:48,000.

Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, 2005, Annual Book of ASTM Standards, Vol. 11.04, E 1527-05.

Appendix A

Site Location Map

Traffic Impact Analysis

Walmart (Store #3404-05)

Roseville, Minnesota

Prepared for:

Walmart Stores, Inc.
Bentonville, Arkansas

Prepared by:

Kimley-Horn and Associates, Inc.
St. Paul, Minnesota

July 2011
116199066

Kimley-Horn
and Associates, Inc.

Traffic Impact Analysis

Walmart (Store #3404-05)

Roseville, Minnesota

Prepared for:

Walmart Stores, Inc.
Bentonville, Arkansas

Prepared by:

Kimley-Horn and Associates, Inc.
St. Paul, Minnesota

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By: _____
Brian R. Smalkoski, P.E.
License No. 47531

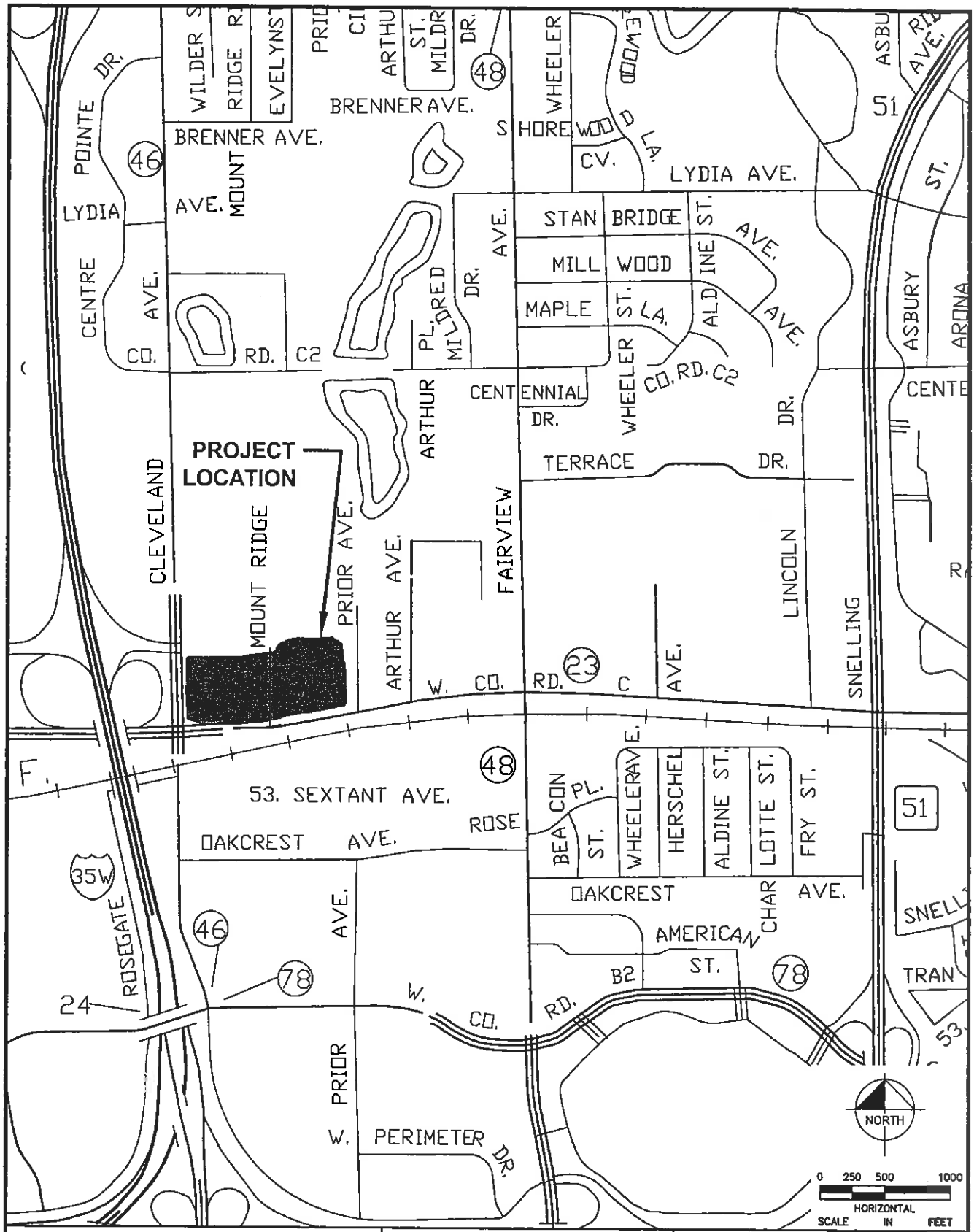
Date: 8/4/2011

Introduction

Walmart Stores, Inc. is proposing the construction of a new store, number 3404-05, in the northeast quadrant of the intersection of County Road C W, also known as County State Aid Highway (CSAH) 23, and Cleveland Avenue N (CSAH 46) in Roseville, Minnesota (see **Figure 1**). The project is anticipated to be completed by the year 2013, and will include retail and grocery land uses on undeveloped property. In the longer term, two restaurants are proposed for the outlots in the northwest and southwest corners of the site, respectively. The proposed development site plan is shown in **Figure 2**. The purpose of this report is to document the anticipated traffic impacts that the change in land use at the proposed Walmart site will have on the surrounding roadway network intersections.

This traffic impact analysis (TIA) represents a review of traffic impacts of the project, based on land use and site plan information, and is intended to identify the key traffic issues associated with the project. This TIA documents the existing traffic conditions in the vicinity of the site, estimates the traffic anticipated to be generated by the project, distributes and assigns these trips to the adjacent roadway system, and evaluates the traffic operations of key intersections near the site and those providing access to and from the site. In order to have a basis of comparison, a "no-build" analysis was completed for each future scenario that includes the general background growth on the adjacent roadways as well as traffic generated by other possible development adjacent to the project.

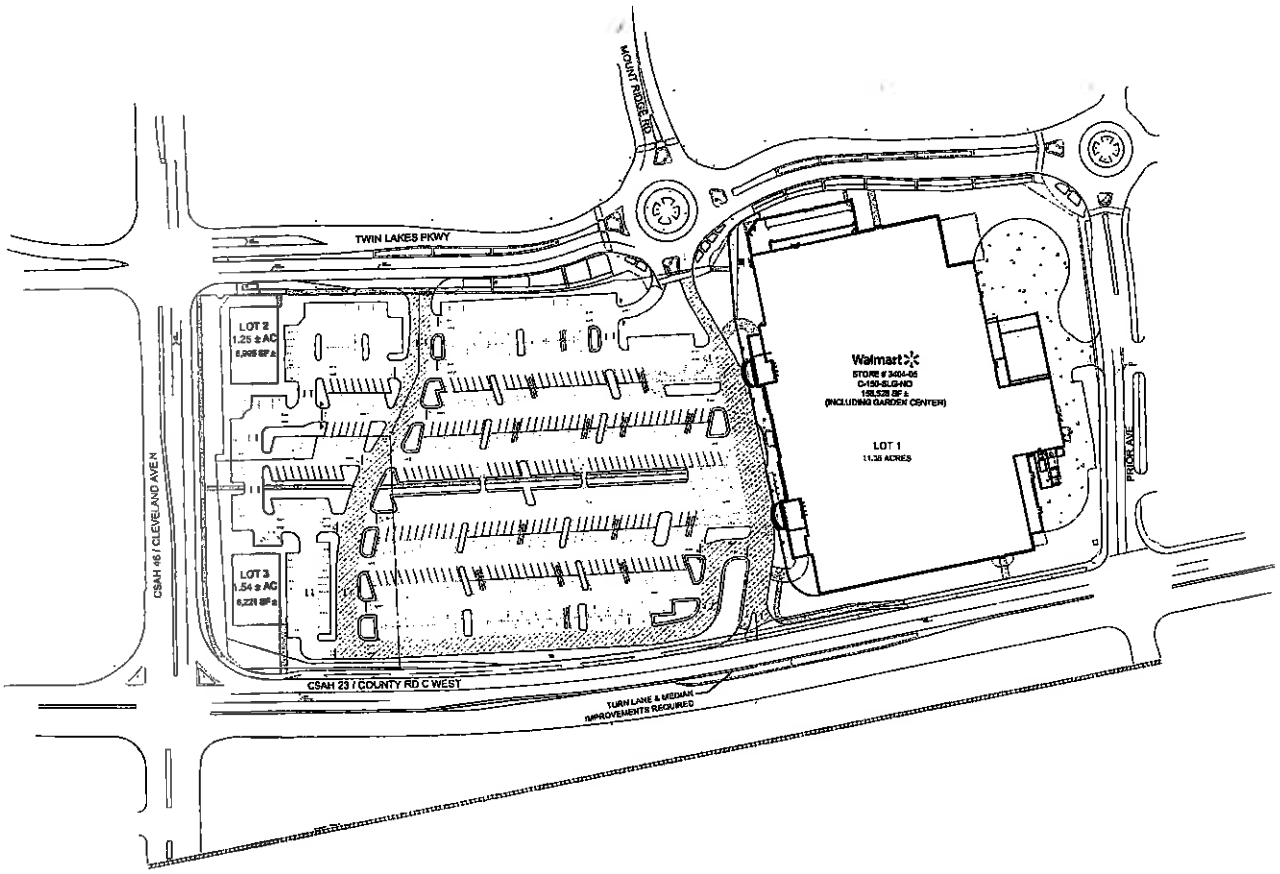
Based on the analysis, the TIA evaluates roadway and/or traffic control mitigation measures to accommodate future traffic levels in the system and whether these mitigation measures are triggered by background growth or the proposed project.



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

FIGURE 1:
PROJECT LOCATION



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

FIGURE 2:
SITE PLAN

Study Area

The project site is bounded by Cleveland Avenue N (CSAH 46) on the west, County Road C W (CSAH 23) on the south, Prior Avenue on the east, and Twin Lakes Parkway on the north. The proposed development will include an up to 160,000 square foot Walmart store, with the addition of two restaurants with bars in the future. The 6,995 square foot and 6,221 square foot restaurants will occupy the northwest and southwest corners of the site, respectively. The site is currently undeveloped and is zoned as Community Mixed Use. The site is in the southwest corner of the Twin Lakes redevelopment area, which consists of mostly industrial or vacant parcels that the City of Roseville has identified to be redeveloped with a mix of multi-family residential, office, and retail. The development of a Walmart Supercenter is permitted with the current zoning. Current nearby land uses are a mix of industrial, residential, retail, and office.

Three access points are proposed for the site, two on Twin Lakes Parkway and one on County Road C W (CSAH 23). As part of the Twin Lakes area redevelopment, Twin Lakes Parkway is planned to be extended to the east to Fairview Avenue N (CSAH 48). An eastbound right-in/right-out access is proposed approximately 300 feet east of Cleveland Avenue N (CSAH 46) on Twin Lakes Parkway. The existing median opening on County Road C W (CSAH 23) between Cleveland Avenue N (CSAH 46) and Prior Avenue is proposed to be moved approximately 150 feet to the east, to provide a ¾ access allowing eastbound left turns into the site, while prohibiting southbound left turns out of the site. The south leg of the roundabout at Twin Lakes Parkway and Mount Ridge Road is the only proposed full access serving the site.

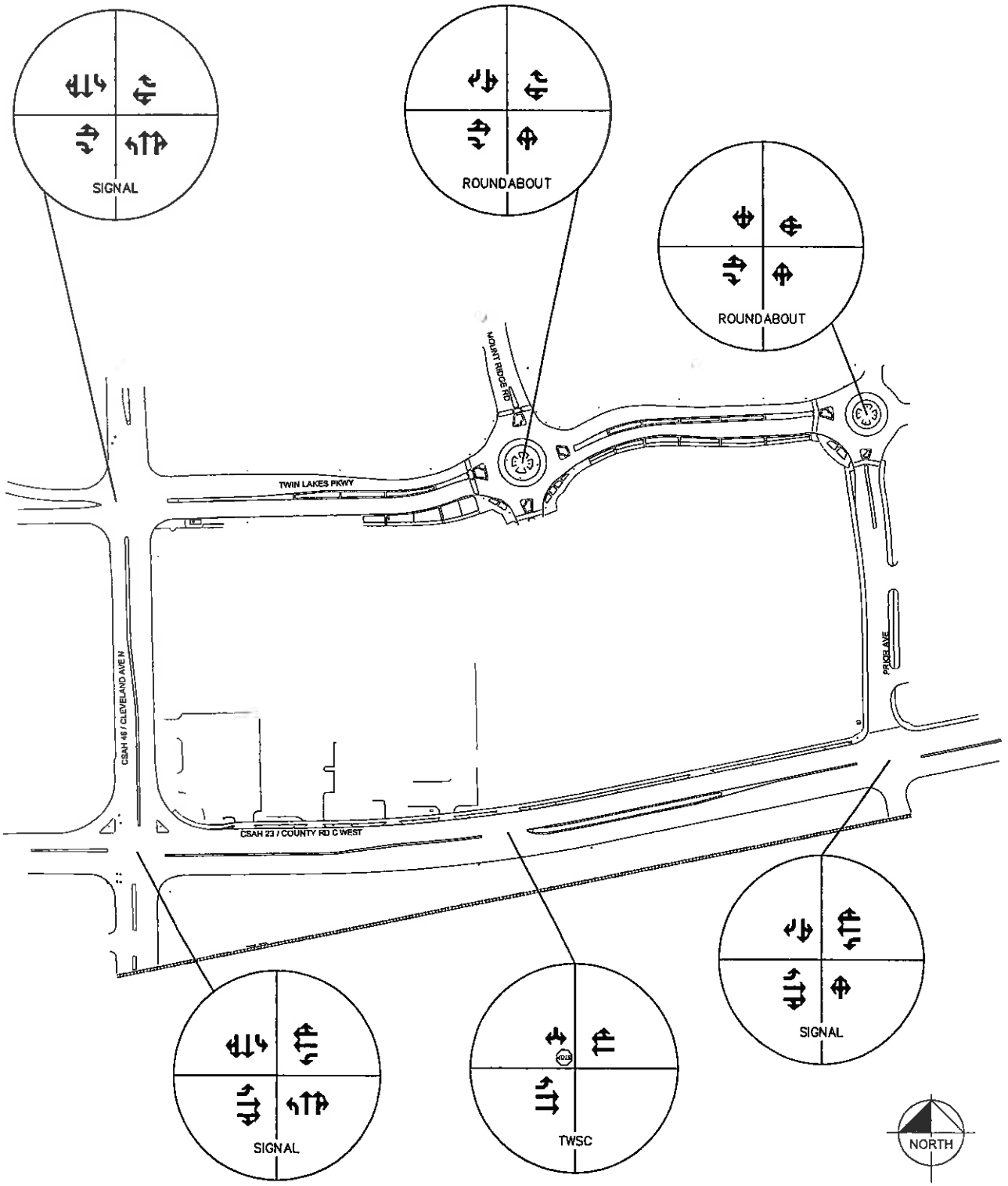
Data Collection

Intersection turning movement counts (TMCs) were collected at the following four locations:

- Cleveland Avenue N (CSAH 46) & I-35W NB Ramps/Twin Lakes Parkway
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23)
- County Road C W (CSAH 23) & Prior Avenue
- Twin Lakes Parkway & Mount Ridge Road

Intersection TMCs were conducted on January 18, 2011 between the hours of 4:00 p.m. and 6:00 p.m. for all four intersections. At the time the traffic counts were conducted, the intersection of Twin Lakes Parkway and Prior Avenue was under construction and not yet open to traffic. The south and east legs of the Twin Lakes Parkway and Mount Ridge Road roundabout were also closed to traffic since they did not provide access to anything.

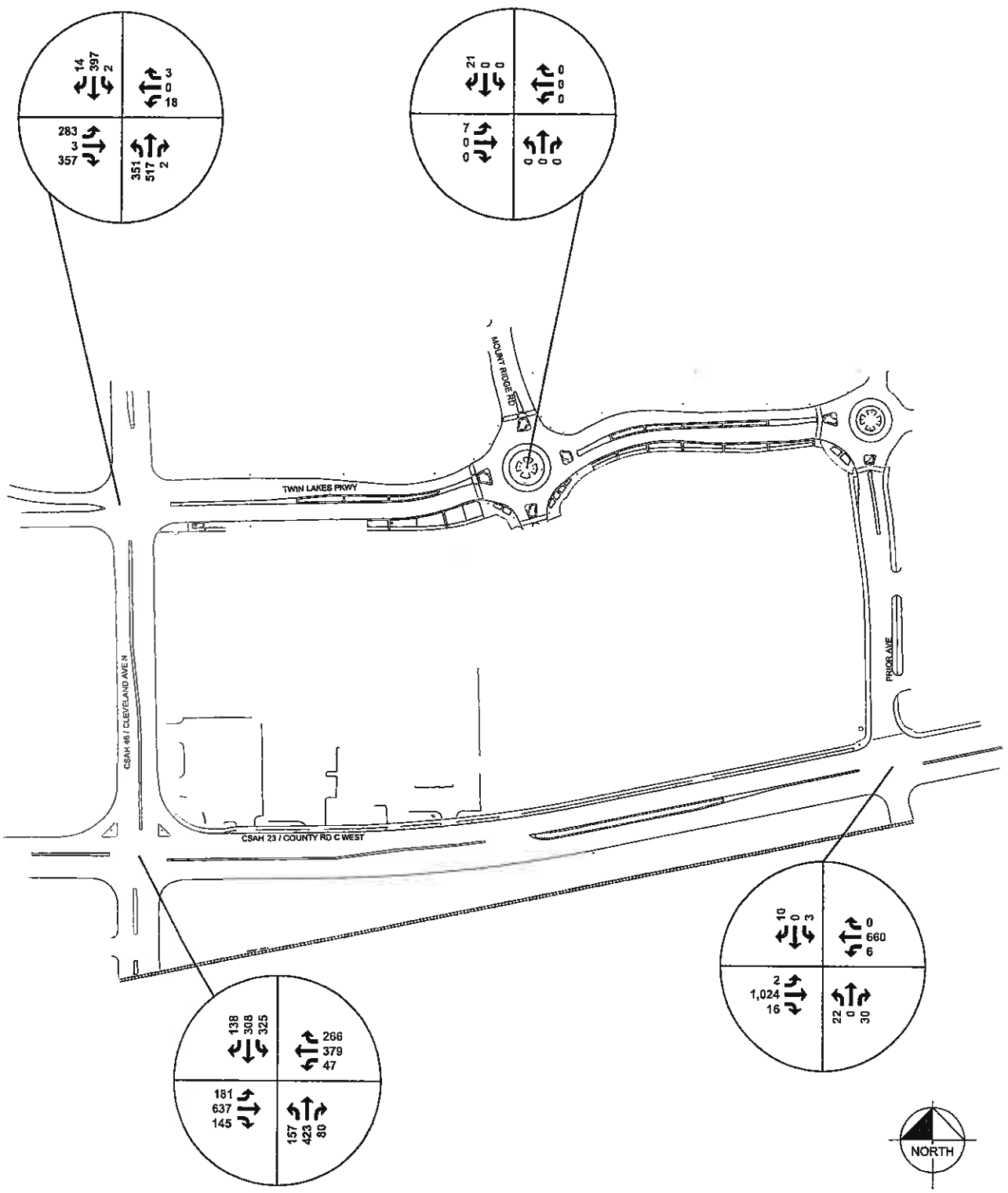
Figure 3 displays the existing lane geometry and traffic control for the intersections in the study area. **Figure 4** summarizes the existing turning movement volumes for the p.m. peak hour, with volumes balanced along Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23). See **Appendix A** for the raw turning movement count data.



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

FIGURE 3:
EXISTING LANE GEOMETRY



NOTE: INTERSECTION OF TWIN LAKES PKWY AND PRIOR AVE WAS UNDER CONSTRUCTION AND NOT OPEN TO TRAFFIC AT TIME THE TRAFFIC COUNTS WERE COLLECTED.

Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

FIGURE 4
2011 EXISTING TURNING MOVEMENT VOLUMES

Trip Generation

The Institute of Transportation Engineers' (ITE) *Trip Generation, 8th Edition,* was used to calculate the anticipated net new external project trips for the proposed development. A 160,000 square foot free-standing discount superstore (land use code 813) was used to determine the number of trips generated by the site. The pass-by trip reduction was determined to be 28 percent and was taken from existing traffic on Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23).

Existing non-vehicular travel was examined in the TMCs and determined to be negligible; therefore, no reductions were made for transit use or pedestrian travel. The trip generation for the proposed project with adjustments for pass-by trips is shown in **Table 1**. The proposed site is anticipated to generate 531 trips (261 entering, 270 exiting) in the p.m. peak hour.

In the longer term, the two restaurants on the outparcels on the west side of the site were also assumed to be in operation. Land use code 932, representing high-turnover (sit-down) restaurants, was used for both outparcels. An internal capture rate of 20 percent between the two restaurants and Walmart was assumed based on the Institute of Transportation Engineers' (ITE) *Trip Generation Handbook, 2nd Edition*. As the smaller trip generator, the restaurants were the limiting factor in determination of total internal trips, with a total of 29. Pass-by was then applied to the remaining external trips, at a rate of 28 percent for the Walmart and 43 percent for the restaurants. In total, the three parcels are expected to generate 577 external trips (292 entering, 285 exiting) in the p.m. peak hour. Trip generation for the Walmart store and two outparcels for 2030 analysis is shown in **Table 2**.

Table 1. Trip Generation for PM Peak Hour

Land Use #	Land Use Description	Size	Units	Formula	Total Trips	Enter	Exit	% Pass-by	Pass-by Total Pass-by Trips	Pass-by Trips Enter	Pass-by Trips Exit	Net New External Trips Total	Net New External Trips Enter	Net New External Trips Exit
813	Free-Standing Discount Superstore	160.000	KSF	T = 4.61*(X)	738	362	376	28%	207	101	106	531	261	270

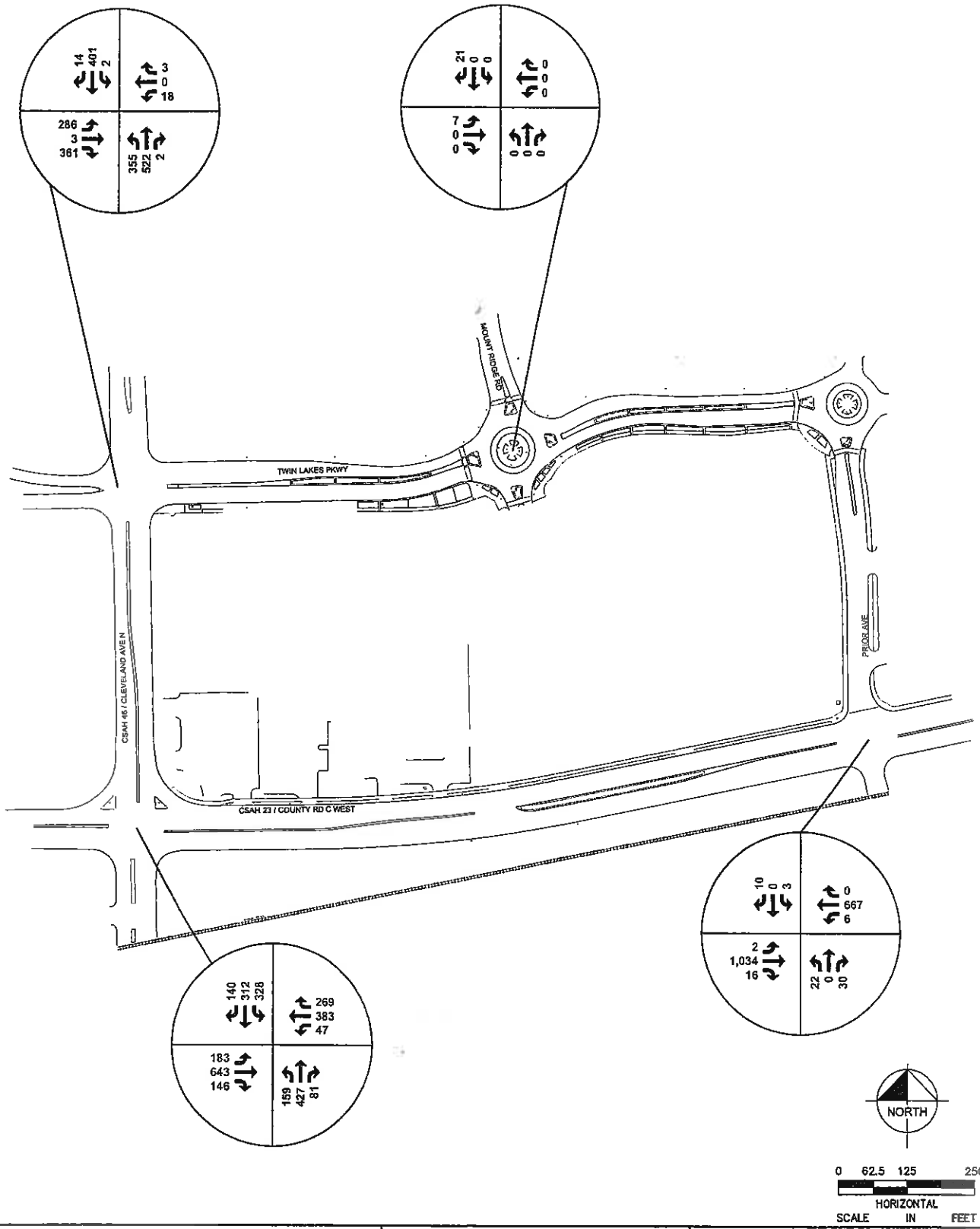
Table 2. Trip Generation with Outlots for PM Peak Hour

Land Use #	Land Use Description	Size	Units	Formula	Total Trips	Enter	Exit	Internal Capture % Internal	Internal Capture Total Internal Trips	Internal Capture Internal Enter	Internal Capture Internal Exit	Total External Trips	Pass-by % Pass-by	Pass-by Total Pass-by Trips	Pass-by Pass-by Trips Enter	Pass-by Pass-by Trips Exit	Net New External Trips Total	Net New External Trips Enter	Net New External Trips Exit
813	Free-Standing Discount Superstore	160.000	KSF	T = 4.61*(X)	738	362	376	20%	29	12	17	709	28%	199	98	101	510	252	258
932	High-Turnover (Sit-Down) Restaurant	6.995	KSF	T = 11.15*(X)	78	46	32	20%	15	9	6	63	43%	27	16	11	36	21	15
932	High-Turnover (Sit-Down) Restaurant	6.221	KSF	T = 11.15*(X)	69	41	28	20%	14	8	6	55	43%	24	14	10	31	19	12

Future Traffic Projections

The Walmart store is expected to open in 2013. Linear growth of 0.5 percent per year was applied to the TMCs to obtain background traffic volumes for the year 2013. This growth is based on historical annual average daily traffic (AADT) in the area which actually showed a decline over the last decade, so a minimum rate of 0.5 percent was used. The 2013 no build peak hour traffic volumes are shown in **Figure 5**.

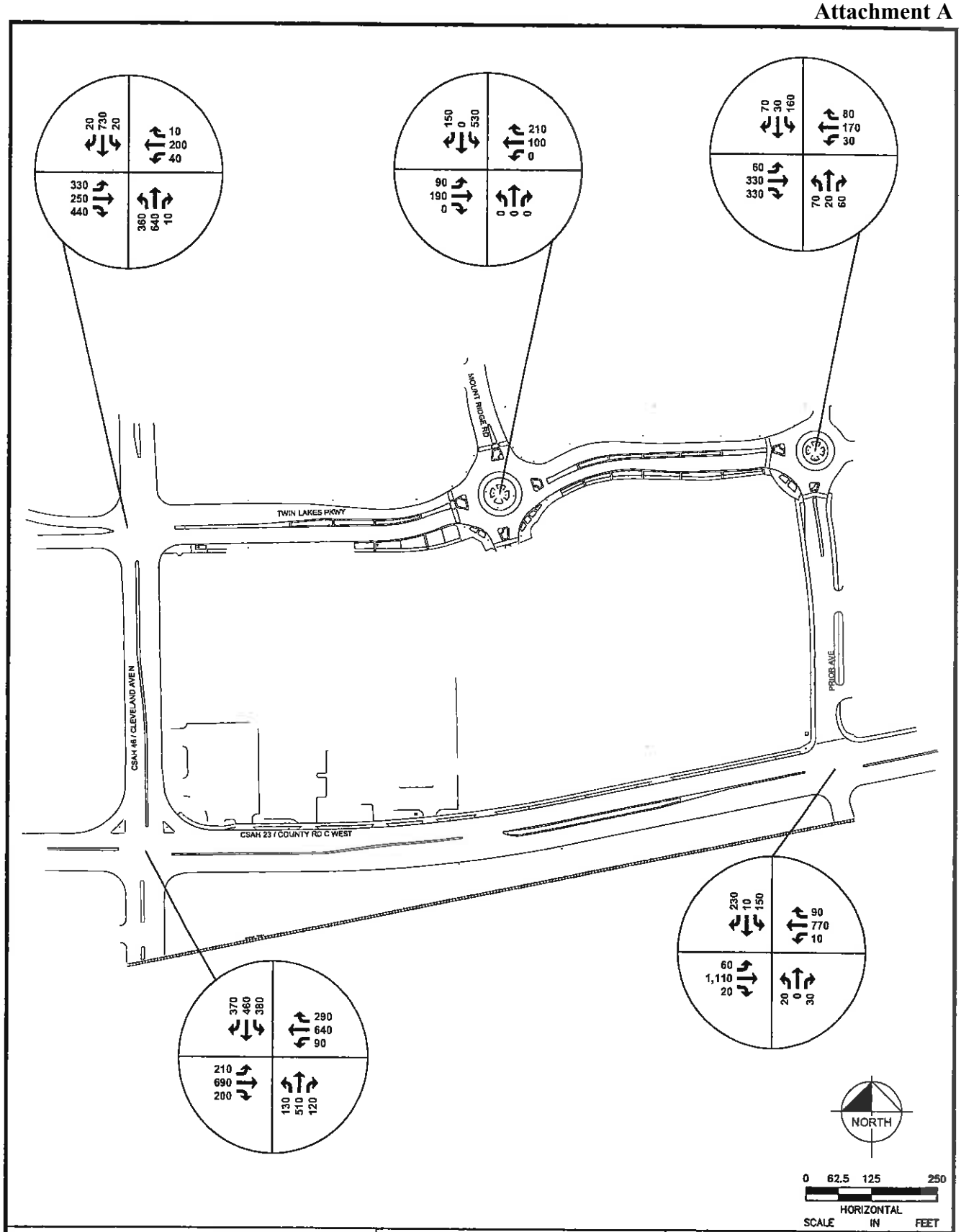
A long term future analysis was also completed for the year 2030. Traffic volumes for 2030 were calculated from the volume data available in the *Twin Lakes AUAR Update Technical Memorandum – Traffic, Air and Noise Analysis* and the *Infrastructure Improvements for the Twin Lakes AUAR Area Final Report*. Trips generated by the site, as calculated in those documents, were subtracted from the 2030 turning movement volume forecasts from the study. The results were used as the 2030 no build peak hour traffic volumes, shown in **Figure 6**.



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

FIGURE 5
2013 NO BUILD TURNING MOVEMENT VOLUMES



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

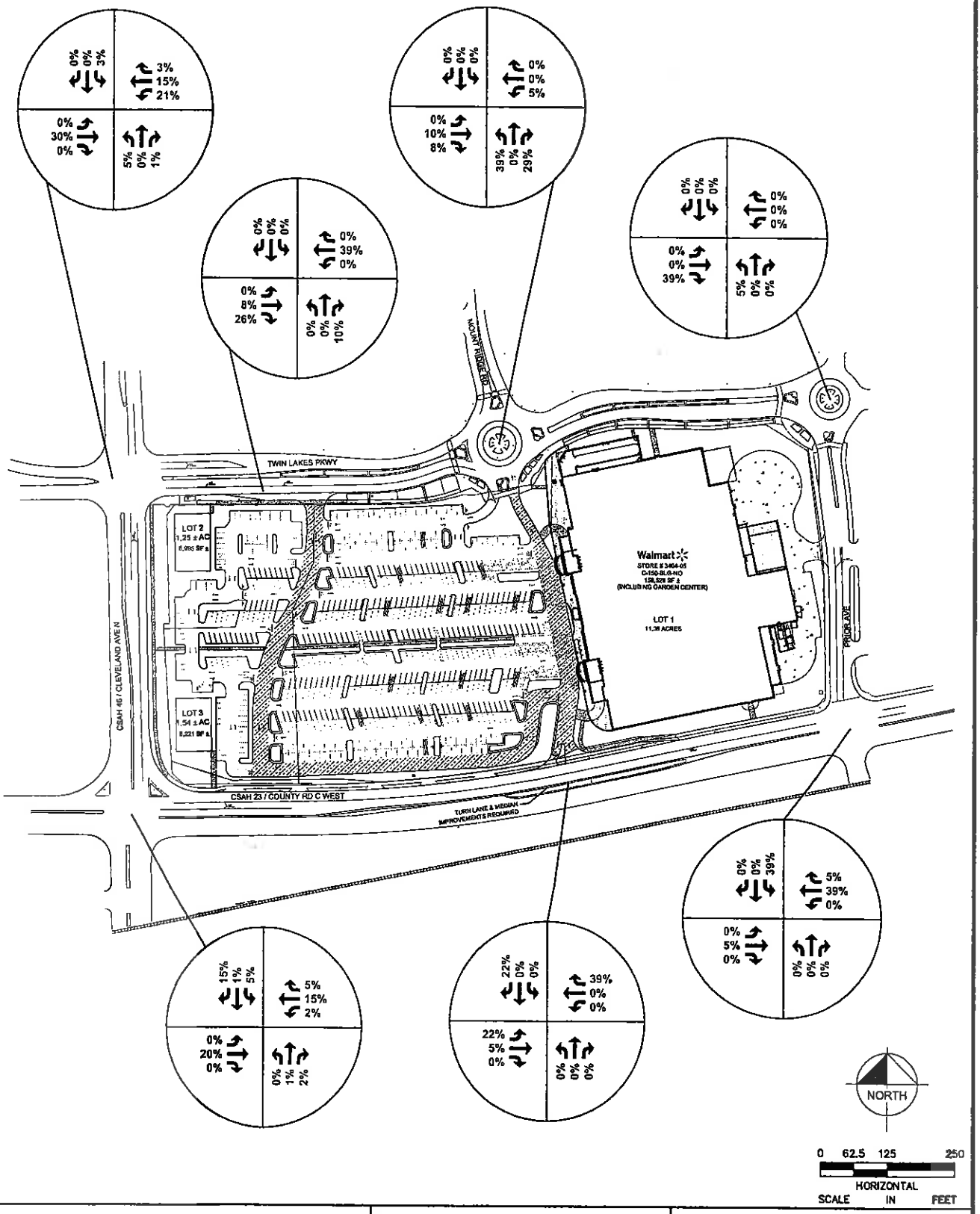
Walmart
Roseville, MN

FIGURE 6
2030 NO BUILD TURNING MOVEMENT VOLUMES

Project Trip Distribution

The project trip distribution is based on a selected zone analysis from the Metropolitan Council travel demand model and existing traffic patterns. As the Twin Lakes area is redeveloped, Twin Lakes Parkway is expected to be extended to the east to provide an additional east-west connection between Cleveland Avenue N (CSAH 46) and Fairview Avenue N (CSAH 48). Slight differences in the project trip distribution for 2013 and 2030 are due to this network change, and are shown in **Figures 7** and **8**, respectively.

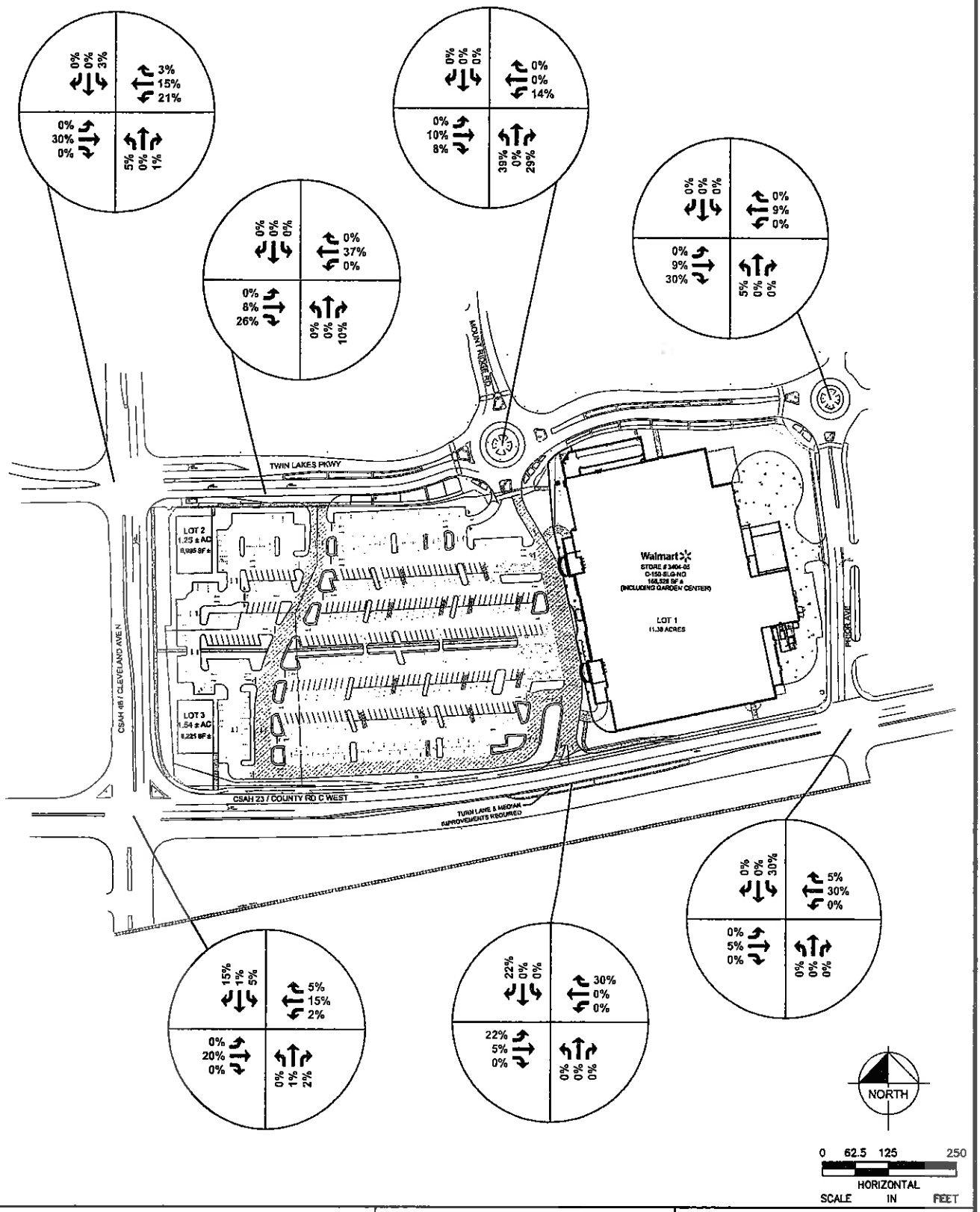
Estimated project trips, shown in **Figures 9** and **10**, were added to 2013 and 2030 no build traffic conditions, along with corrections for pass-by trips, as shown in **Figures 11** and **12**. The final traffic estimates for the build condition are shown in **Figures 13** and **14** for 2013 and 2030, respectively. To reflect the uncertainty in longer range estimates and forecasts, the 2030 volumes are rounded to the nearest 10.



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

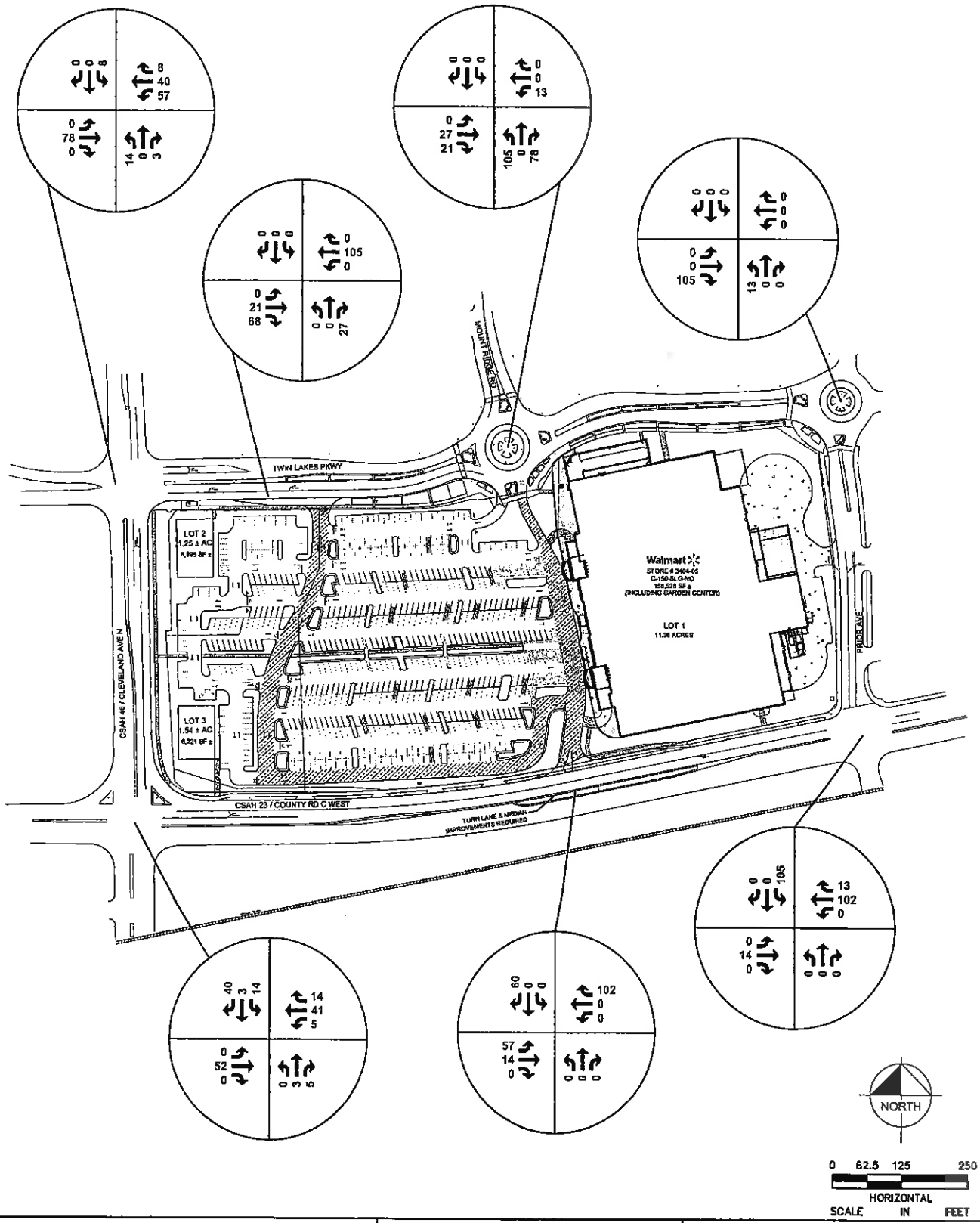
FIGURE 7:
2013 SITE TRIP DISTRIBUTION



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

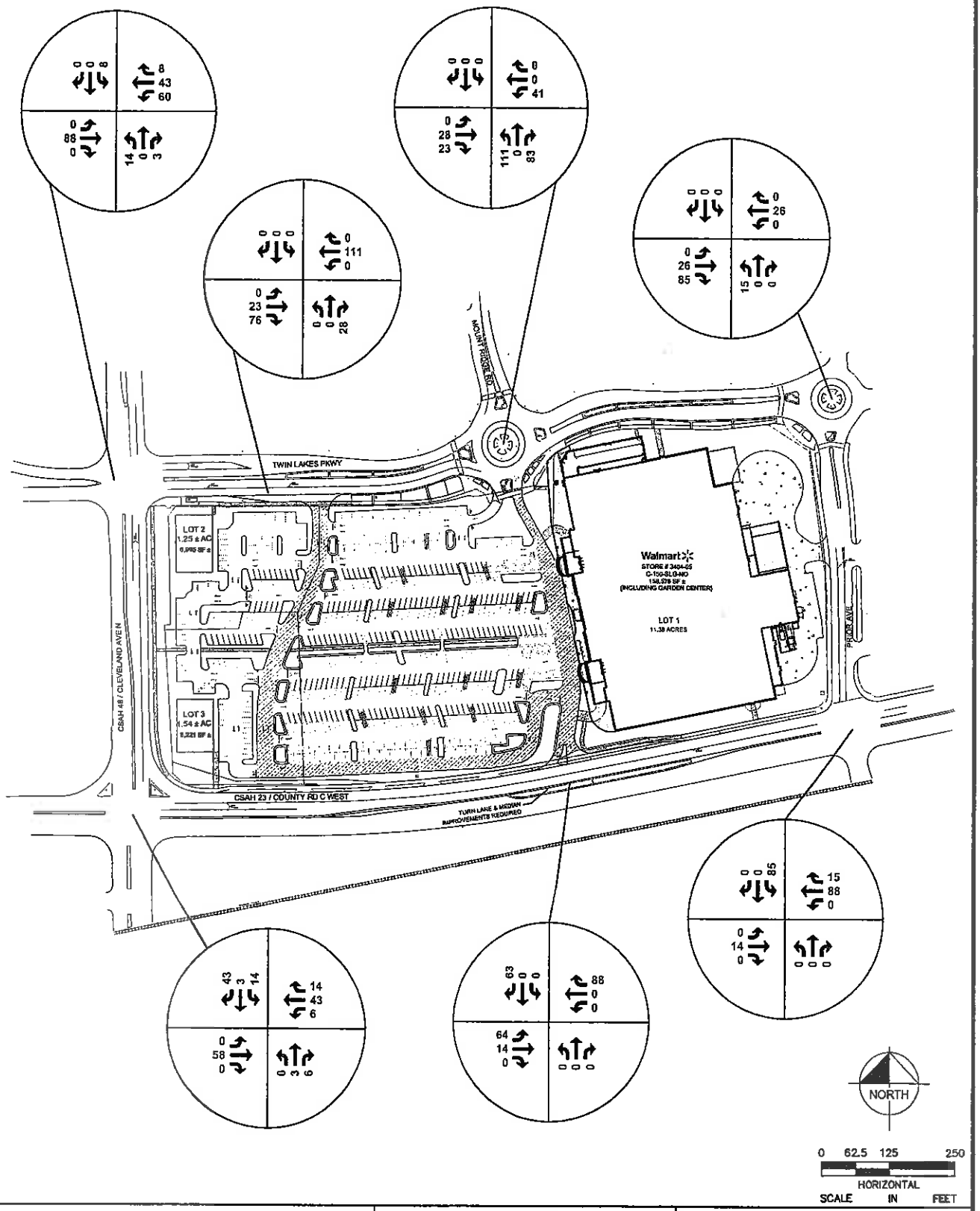
FIGURE 8:
2030 SITE TRIP DISTRIBUTION



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

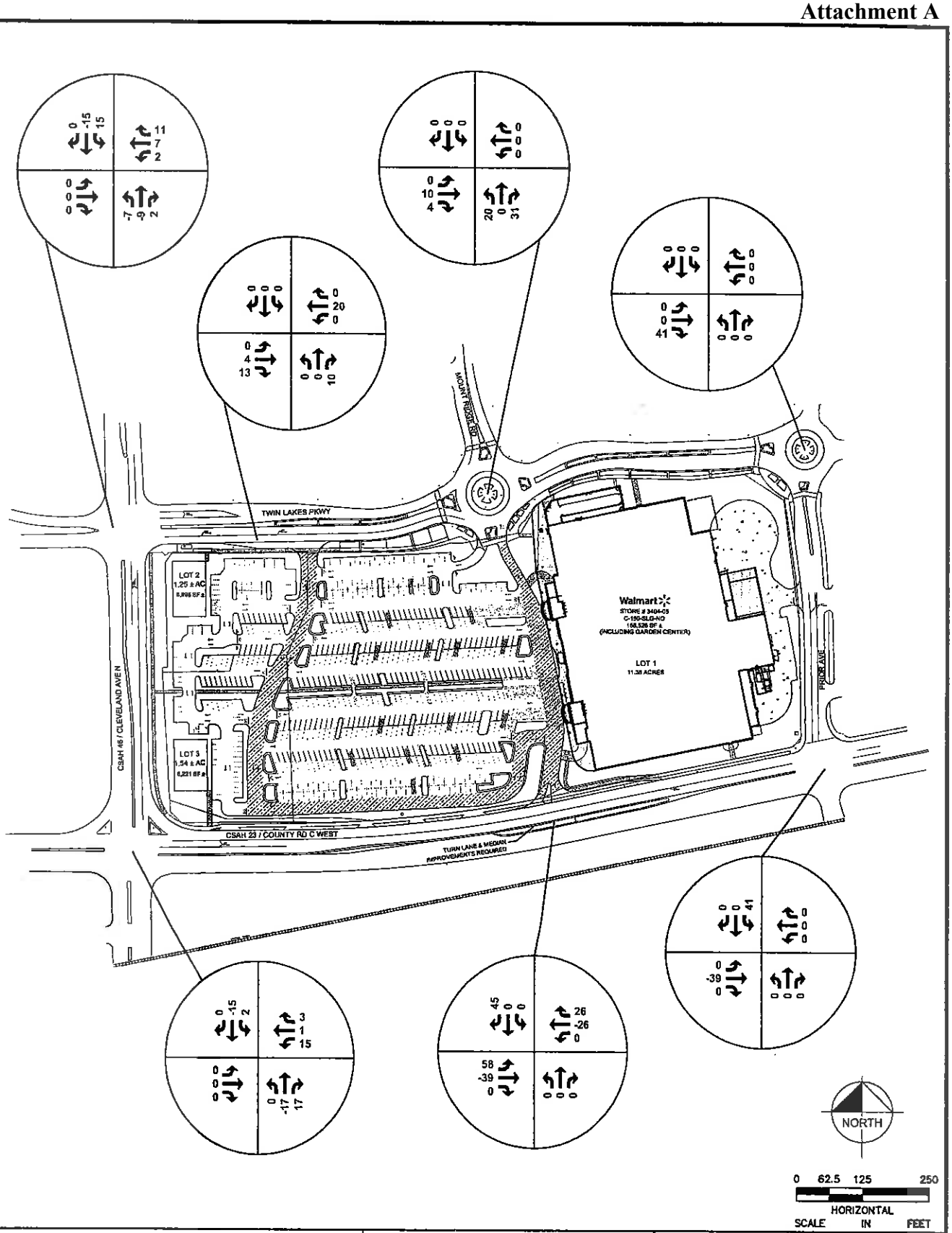
FIGURE 9:
2013 PROJECT
TRAFFIC VOLUMES



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

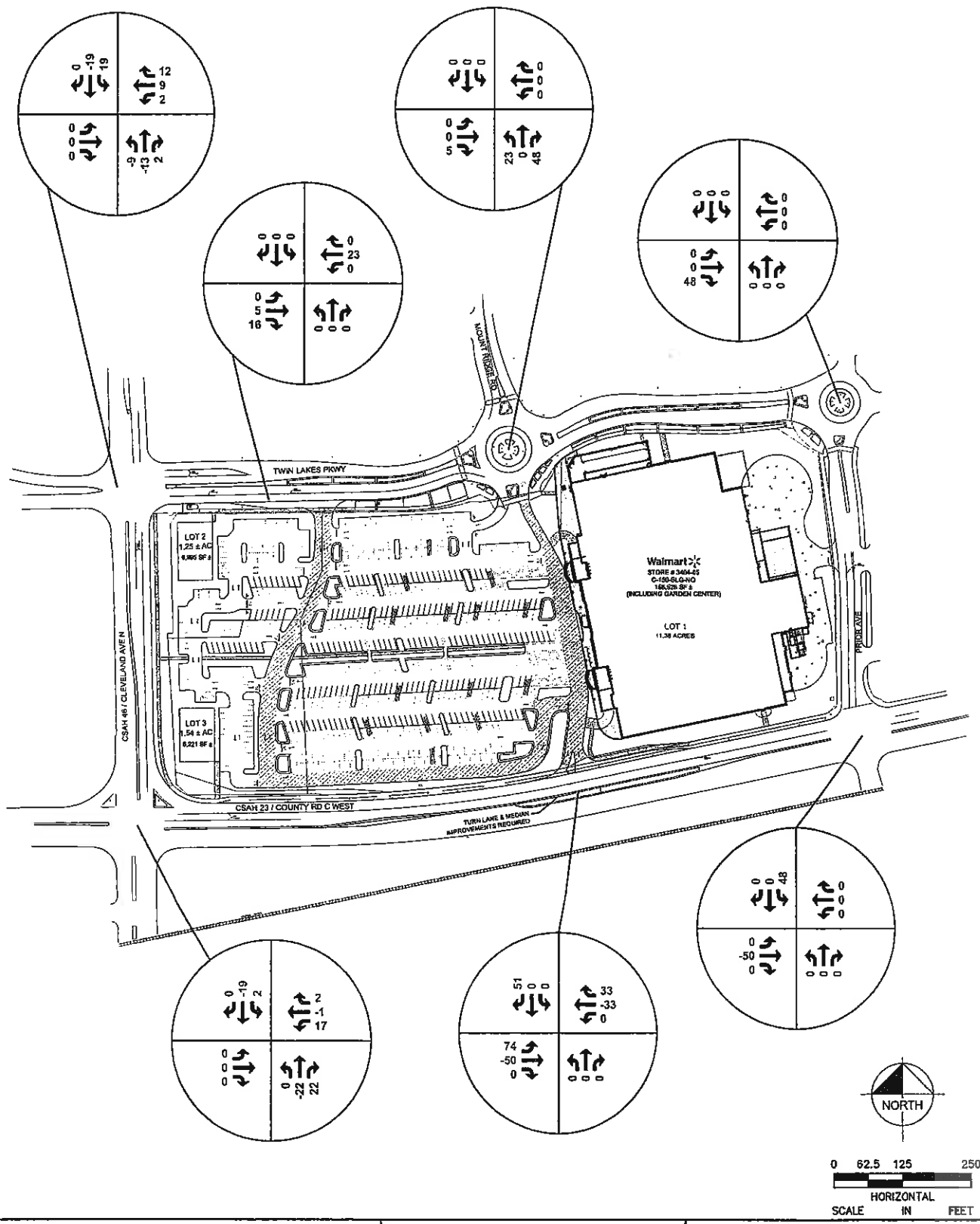
FIGURE 10:
2030 PROJECT
TRAFFIC VOLUMES



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL NO. (651) 645-4197
FAX NO. (651) 645-5116

Walmart
Roseville, MN

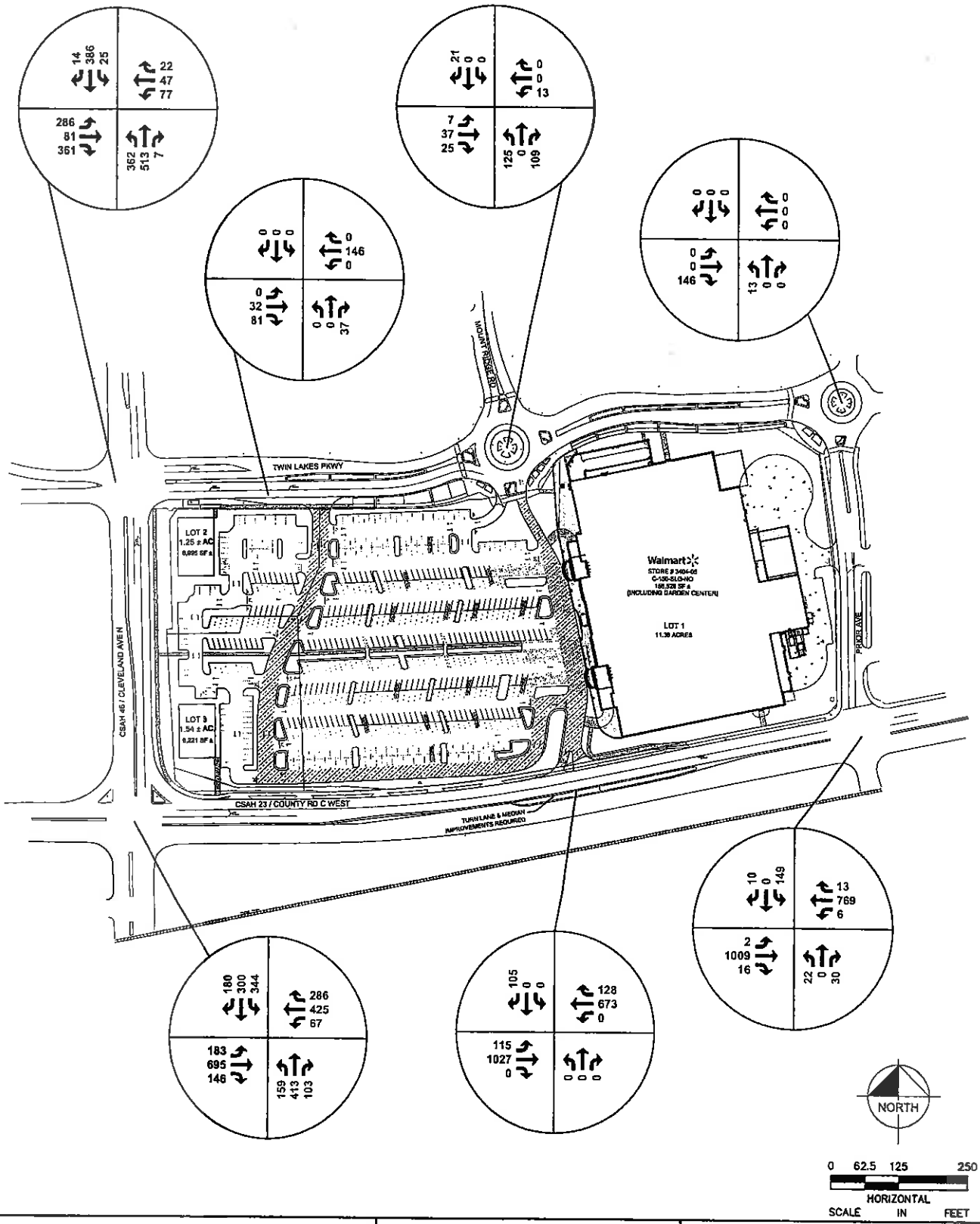
FIGURE 11:
2013 PASS-BY
TRAFFIC VOLUMES



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

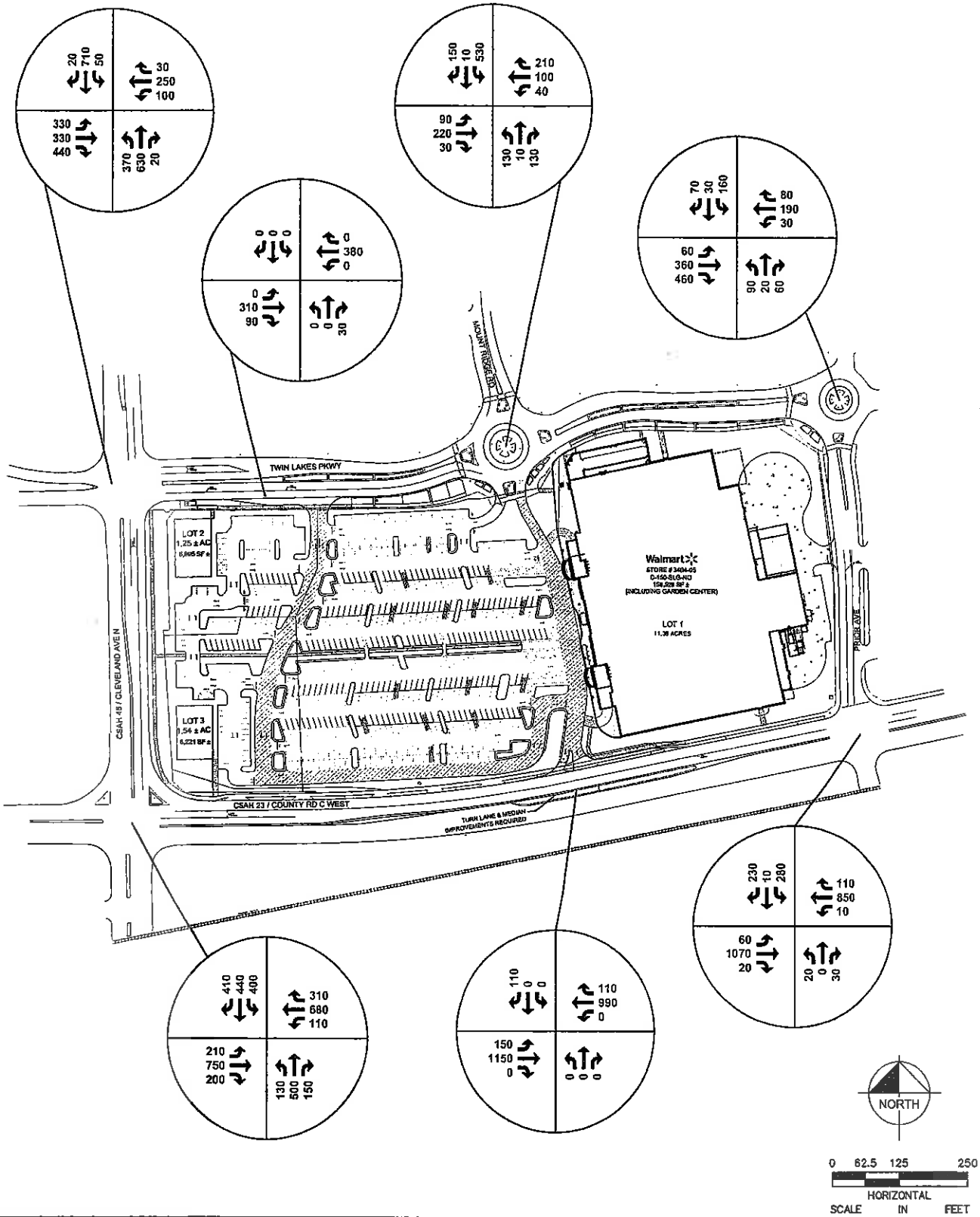
FIGURE 12:
2030 PASS-BY
TRAFFIC VOLUMES



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

FIGURE 13:
2013 BUILD TURNING MOVEMENT VOLUMES



Kimley-Horn and Associates, Inc.
2550 UNIVERSITY AVE. WEST, SUITE 238N
ST. PAUL, MINNESOTA 55114
TEL. NO. (651) 645-4197
FAX. NO. (651) 645-5116

Walmart
Roseville, MN

FIGURE 14:
2030 BUILD TURNING MOVEMENT VOLUMES

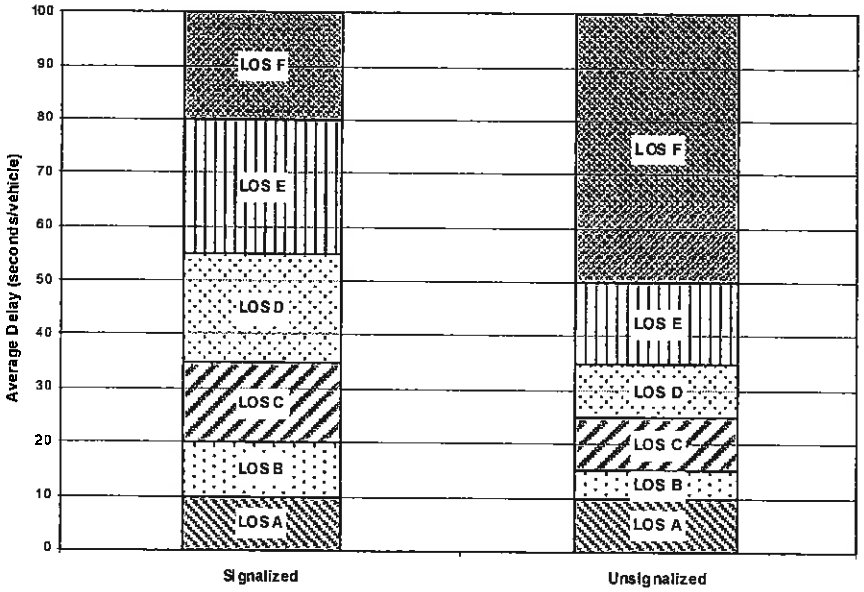
Level of Service Analyses

Intersection level of service (LOS) analyses were performed for each of the intersections within the study area using the signalized analysis methodology found in the *Highway Capacity Manual (HCM)* and Trafficware's Synchro/SimTraffic version 7. Each intersection was analyzed for p.m. peak hours for the following scenarios:

- 2011 existing traffic conditions
- 2013 no build (without project trips) conditions
- 2013 build (with project trips added) conditions
- 2030 no build (without project trips) conditions
- 2030 build (with project trips added) conditions

One of the primary measures of effectiveness used to evaluate intersection traffic operations, as defined in the HCM, is level of service (LOS)—a qualitative letter grade (A through F) based on seconds of vehicle delay due to the traffic control device at an intersection. By definition, LOS A conditions represent high-quality operations (i.e., motorists experience very little delay or interference) and LOS F conditions represent very poor operations (i.e., extreme delay or severe congestion). This study used the LOS D/E boundary as an indicator of satisfactory traffic operations. **Figure 15** displays the LOS thresholds for signalized and unsignalized intersections.

Figure 15. Highway Capacity Manual Level of Service Criteria.



It was assumed that for the future scenarios an intersection with unsatisfactory operations should be addressed through signal timing modifications, or if that was not possible, through implementation of an intersection or roadway improvement.

In order to determine the impacts of the project on the transportation network, a traffic operations analysis was performed on the internal and surrounding roadway network. The analysis process included determining level of service and queue lengths at each of the study intersections for existing, no build, and build conditions. Supporting SimTraffic reports are included in **Appendix B**. For each scenario, five one-hour simulations were conducted in SimTraffic.

In each of the following sections, a description of potentially unsatisfactory operational characteristics is summarized for each scenario modeled. For each scenario, a table is included where the intersection level of service and delay is summarized. The SimTraffic reports were reviewed to identify individual movements that experience unsatisfactory level of service and delay or queues that are anticipated to block the adjacent lane. Only in instances where an individual movement experiences an unsatisfactory measure of effectiveness will the movement information be summarized.

2011 Existing Operations

Tables 3 and **4** provide 2011 LOS and queuing results, respectively. All intersections operate at LOS C or better during the p.m. peak period. A total of three movements operate at LOS E or F:

- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway eastbound through: average delay 99 seconds of per vehicle, LOS F. There are only 3 vehicles making this movement in the peak hour. This is a result of the long cycle length (120 seconds) and random arrivals, and does not represent an operational deficiency.
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) southbound left: average delay of 75 seconds per vehicle, LOS E. This is a very heavy movement in the p.m. peak hour, with 325 vehicles making this left turn, many of which come from the I-35W northbound exit ramp 550 feet to the north. The 95th percentile queue is 364 feet, compared to a turn lane length of 200 feet. The southbound left turn queue often spills out of the turn lane and blocks traffic in the adjacent through lane.
- County Road C W (CSAH 23) & Prior Avenue southbound left: average delay of 56 seconds per vehicle, LOS E. This movement has only 3 vehicles making this turn and the delay does not represent an operational deficiency.

Aside from the southbound left turn queue at Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23), no other queues spill out of the turn lane. However, several turn lanes do get blocked by the queues in the adjacent through lanes:

- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway southbound left
- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway eastbound right
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) northbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) southbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) eastbound left

Table 3. Existing (2011) LOS Results.

Intersection	Control	Approach	Operations by Movement								Overall Intersection	
			Left			Through			Right		Delay (sec/veh)	LOS
			Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS	
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NB	351	18	B	528	10	A	2	5	A	20	B
		SB	2	19	B	397	23	C	14	16	B		
		EB	283	43	D	3	99	[redacted]	357	15	B		
		WB	18	39	D	0	0	A	3	4	A		
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NB	157	35	D	423	46	D	80	37	D	34	C
		SB	325	75	[redacted]	328	40	D	138	10	A		
		EB	181	32	C	637	25	C	145	21	C		
		WB	47	25	C	380	29	C	266	9	A		
County Rd C W (CSAH 23) & Prior Ave	Signal	NB	22	54	D	0	0	A	30	17	B	4	A
		SB	3	56	[redacted]	0	0	A	10	4	A		
		EB	2	5	A	1044	4	A	16	5	A		
		WB	6	15	B	660	1	A	0	0	A		
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	NB	NA	NA	NA	NA	NA	NA	NA	NA	NA	6	A
		SB	NA	NA	NA	NA	NA	NA	21	6	A		
		EB	7	3	A	NA	NA	NA	NA	NA	NA		
		WB	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Table 4. Existing (2011) 95th Percentile Queue Lengths.

Intersection	Control	Movement	Storage Length (ft)	Taper Length (ft)	95% Queue Length (ft)	
					Turn Lane	Adjacent Thru Lane
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NBL	175	125	189	117
		SBL	75	50	7	168
		EBR	200	100	184	308
		WBR	250	125	13	46
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NBL	200	100	168	260
		SBL	200	125	364	458
		EBL	150	125	178	287
		WBL	275	125	63	195
County Rd C W (CSAH 23) & Prior Ave	Signal	EBL	150	125	7	56
		WBL	125	100	16	59
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	SBR	75	75	0	0

2013 No Build Operations

Tables 5 and **6** provide 2013 no build LOS and queuing results, respectively. Signal timings were optimized for 2013 no build operations. Because of the high volumes at the signalized intersections, operations can be very sensitive to changes in volume. In the p.m. peak hour, with signal timings optimized, all intersections are expected to operate at LOS C or better, and all individual movements are expected to operate at LOS D or better. The 95th percentile queue (339 feet) for the southbound left turn at Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23) extends beyond the length of the turn lane (200 feet) and is expected to block the adjacent through lane, as does the northbound left turn queue at Cleveland Avenue N (CSAH 46) and Twin Lakes Parkway (240-foot 95th percentile queue compared to a 175-foot turn lane). As in the existing conditions, the following turn lanes are blocked by the 95th percentile queues in the adjacent through lanes:

- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway southbound left
- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway eastbound right
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) northbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) southbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) eastbound left

Table 5. 2013 No Build LOS Results.

Intersection	Control	Approach	Operations by Movement									Overall Intersection	
			Left			Through			Right			Delay (sec/veh)	LOS
			Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS		
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NB	355	18	B	522	11	B	2	12	B	20	C
		SB	2	18	B	401	24	C	14	13	B		
		EB	286	44	D	3	38	D	361	13	B		
		WB	18	35	D	0	0	A	3	3	A		
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NB	159	35	C	427	49	D	81	35	D	31	C
		SB	328	42	D	312	28	C	140	8	A		
		EB	183	34	C	643	28	C	146	23	C		
		WB	47	26	C	383	34	C	269	10	B		
County Rd C W (CSAH 23) & Prior Ave	Signal	NB	22	48	D	0	0	A	30	11	B	3	A
		SB	3	53	D	0	0	A	10	3	A		
		EB	2	4	A	1034	2	A	16	1	A		
		WB	6	13	B	667	2	A	0	0	A		
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	NB	NA	NA	NA	NA	NA	NA	NA	NA	NA	2	A
		SB	NA	NA	NA	NA	NA	NA	21	2	A		
		EB	7	2	A	NA	NA	NA	NA	NA	NA		
		WB	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Table 6. 2013 No Build 95th Percentile Queue Lengths.

Intersection	Control	Movement	Storage Length (ft)	Taper Length (ft)	95% Queue Length (ft)	
					Turn Lane	Adjacent Thru Lane
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NBL	175	125	240	173
		SBL	75	50	8	178
		EBR	200	100	190	306
		WBR	250	125	12	47
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NBL	200	100	167	272
		SBL	200	125	339	340
		EBL	150	125	191	293
		WBL	275	125	60	214
County Rd C W (CSAH 23) & Prior Ave	Signal	EBL	150	125	11	56
		WBL	125	100	17	63
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	SBR	75	75	0	0

2013 Build Operations

Table 7 provides 2013 build LOS results. Signal timings were optimized for 2013 build operations. In the p.m. peak hour, the 2013 build condition analysis showed that all intersections are expected to operate at LOS C or better, and all individual movements are expected to operate at LOS D or better. All movements at the proposed right-in/right-out access on Twin Lakes Parkway and the ¾ access on County Road C W (CSAH 23) operate at LOS A with no queuing issues.

Table 8 provides 2013 build queuing results. Queues spilled out of and blocked turn lanes at the two intersections on Cleveland Avenue N (CSAH 46). Ninety-fifth percentile queues are expected to block the adjacent through lanes for the following movements:

- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway northbound left: 306-foot queue, 175-foot turn lane
- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway eastbound right: 264-foot queue, 200-foot turn lane
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) southbound left: 368-foot queue, 200-foot turn lane

Turn lanes were blocked by the 95th percentile queues of the adjacent through lanes for the following movements:

- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway northbound left
- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway southbound left
- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway eastbound right

- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) northbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) southbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) eastbound left

Except for the northbound left at Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23), the 95th percentile queue of the adjacent through lane in each case is more than 150 feet longer than the turn lane.

Table 7. 2013 Build LOS Results.

Intersection	Control	Approach	Operations by Movement									Overall Intersection	
			Left			Through			Right			Delay (sec/veh)	LOS
			Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS		
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NB	362	27	C	513	19	B	7	17	B	28	C
		SB	25	26	C	386	34	C	14	19	B		
		EB	286	46	D	81	48	D	361	16	B		
		WB	77	32	C	47	28	C	22	4	A		
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NB	159	36	D	413	48	D	103	39	D	34	C
		SB	344	54	D	300	30	C	180	8	A		
		EB	183	39	D	695	32	C	146	28	C		
		WB	67	36	D	425	33	C	286	12	B		
County Rd C W (CSAH 23) & Prior Ave	Signal	NB	22	44	D	0	0	A	30	12	B	8	A
		SB	149	52	D	0	0	A	10	5	A		
		EB	2	9	A	1009	4	A	16	2	A		
		WB	6	15	B	769	4	A	13	2	A		
Twin Lakes Pkwy & NW Site Access	TWSC (Right In / Right Out)	NB	NA	NA	NA	NA	NA	NA	37	2	A	1	A
		SB	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		EB	NA	NA	NA	32	1	A	81	2	A		
		WB	NA	NA	NA	146	0	A	NA	NA	NA		
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	NB	125	3	A	0	0	A	109	3	A	3	A
		SB	0	0	A	0	0	A	21	2	A		
		EB	7	3	A	37	4	A	25	2	A		
		WB	13	2	A	0	0	A	0	0	A		
Twin Lakes Pkwy & Prior Ave	Roundabout	NB	13	2	A	0	0	A	NA	NA	NA	2	A
		SB	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		EB	NA	NA	NA	NA	NA	NA	146	2	A		
		WB	NA	NA	NA	NA	NA	NA	NA	NA	NA		
County Rd C W (CSAH 23) & Mount Ridge Rd	TWSC (3/4 Access)	NB	NA	NA	NA	NA	NA	NA	NA	NA	NA	3	A
		SB	NA	NA	NA	NA	NA	NA	105	5	A		
		EB	115	9	A	1027	3	A	NA	NA	NA		
		WB	NA	NA	NA	673	3	A	128	2	A		

Table 8. 2013 Build 95th Percentile Queue Lengths.

Intersection	Control	Movement	Storage Length (ft)	Taper Length (ft)	95% Queue Length (ft)	
					Turn Lane	Adjacent Thru Lane
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NBL	175	125	306	334
		SBL	75	50	46	195
		EBR	200	100	264	507
		WBR	250	125	38	132
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NBL	200	100	158	265
		SBL	200	125	368	454
		EBL	150	125	206	332
		WBL	275	125	98	232
County Rd C W (CSAH 23) & Prior Ave	Signal	EBL	150	125	8	118
		WBL	125	100	26	118
Twin Lakes Pkwy & NW Site Access	TWSC (Right In / Right Out)	EBR	60	60	11	0
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	SBR	75	75	13	0
Twin Lakes Pkwy & Prior Ave	Roundabout	EBR	150	150	0	0
County Rd C W (CSAH 23) & Mount Ridge Rd	TWSC (3/4 Access)	EBL	150	125	83	0

2030 No Build Operations

Tables 9 and **10** provide 2030 no build LOS and queuing results, respectively. Signal timings were optimized for 2030 no build operations. The 2030 no build analysis showed that the two intersections on Cleveland Avenue N (CSAH 46) are expected to be over capacity in the p.m. peak hour given existing geometry and 2030 volumes, with the Twin Lakes redevelopment area built out with the exception of the Walmart site. Both intersections operate at LOS F with excessive queuing, in particular, west onto northbound I-35W and north along Cleveland Avenue N (CSAH 46). The other intersections appear to operate at LOS A; however, they are not serving the actual hourly demand due to the bottleneck on Cleveland Avenue N (CSAH 46).

Table 9. 2030 No Build LOS Results.

Intersection	Control	Approach	Operations by Movement								Overall Intersection	
			Left			Through			Right			
			Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NB	360	129	[redacted]	640	33	C	10	30	C	277	[redacted]
		SB	20	422		730	433	[redacted]	20	392	[redacted]		
		EB	330	474		250	476		440	427			
		WB	40	32	C	200	28	C	10	5	A		
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NB	130	48	D	510	84	[redacted]	120	67	[redacted]	99	[redacted]
		SB	380	113		460	32	C	370	14	B		
		EB	210	514	[redacted]	690	168	[redacted]	200	143	[redacted]		
		WB	90	56		640	53	D	290	31	C		
County Rd C W (CSAH 23) & Prior Ave	Signal	NB	20	44	D	0	0	A	30	12	B	10	A
		SB	150	48	D	10	49	D	230	8	A		
		EB	60	12	B	1110	5	A	20	3	A		
		WB	10	16	B	770	8	A	90	7	A		
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	NB	NA	NA	NA	NA	NA	NA	NA	NA	NA	7	A
		SB	530	9	A	NA	NA	NA	150	9	A		
		EB	90	7	A	190	8	A	NA	NA	NA		
		WB	NA	NA	NA	100	4	A	210	3	A		
Twin Lakes Pkwy & Prior Ave	Roundabout	NB	70	5	A	20	5	A	60	4	A	4	A
		SB	160	4	A	30	5	A	70	4	A		
		EB	60	5	A	330	6	A	330	4	A		
		WB	30	3	A	170	4	A	80	3	A		

Table 10. 2030 No Build 95th Percentile Queue Lengths.

Intersection	Control	Movement	Storage Length (ft)	Taper Length (ft)	95% Queue Length (ft)	
					Turn Lane	Adjacent Thru Lane
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NBL	175	125	340	644
		SBL	75	50	60	965
		EBR	200	100	400	1554
		WBR	250	125	20	239
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NBL	200	100	244	456
		SBL	200	125	380	653
		EBL	150	125	345	1476
		WBL	275	125	146	431
County Rd C W (CSAH 23) & Prior Ave	Signal	SBR	300	100	97	205
		EBL	150	125	64	160
		WBL	125	100	23	147
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	SBR	75	75	69	163
Twin Lakes Pkwy & Prior Ave	Roundabout	EBR	150	150	32	62

2030 Build Operations

Table 11 provides 2030 build LOS results. Signal timings were optimized for 2030 build operations. Similar to the 2030 no build scenario, the 2030 build analysis showed that the two intersections on Cleveland Avenue N (CSAH 46) are expected to be over capacity given existing geometry, 2030 volumes, and the Twin Lakes redevelopment area built out. Both intersections operate at LOS F with excessive queuing, in particular, west onto northbound I-35W and north along Cleveland Avenue N (CSAH 46). The other intersections appear to operate at LOS C or better, but the bottleneck at Cleveland Avenue N (CSAH 46), prevents the actual hourly demand from reaching the surrounding intersections.

In addition to the multiple movements on Cleveland Avenue N (CSAH 46), the southbound right turn movement from the proposed Walmart site onto County Road C W (CSAH 23) is expected to operate at LOS F. This delay, representing exiting demand from the site, is due to the long westbound queue on County Road C W (CSAH 23) at Cleveland Avenue N (CSAH 46), which can extend almost to Prior Avenue. The westbound queue prevents vehicles from exiting the site and also causes some free movements on eastbound and westbound County Road C W (CSAH 23) to operate at LOS C at the site access. No queuing issues are anticipated at the right-in/right-out access on Twin Lakes Parkway. **Table 12** provides 2030 build queuing results.

Table 11. 2030 Build LOS Results.

Intersection	Control	Approach	Operations by Movement										Overall Intersection	
			Left			Through			Right				Delay (sec/veh)	LOS
			Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS			
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NB	370	225		630	56		20	50			360	
		SB	50	233		710	228		20	216				
		EB	330	834		330	844		440	798				
		WB	100	32	C	250	32	C	30	3	A			
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NB	130	598		500	729		150	679			433	
		SB	400	92		440	33	C	410	17	B			
		EB	210	2343		750	1211		200	992				
		WB	110	136	4	680	135		310	127				
County Rd C W (CSAH 23) & Prior Ave	Signal	NB	20	46	D	0	0	A	30	12	B		17	B
		SB	280	48	D	10	44	D	230	11	B			
		EB	60	14	B	1070	8	A	20	6	A			
		WB	10	15	B	850	16	B	110	13	B			
Twin Lakes Pkwy & NW Site Access	TWSC (Right In / Right Out)	NB	NA	NA	NA	NA	NA	NA	30	2	A		4	A
		SB	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		EB	NA	NA	NA	310	2	A	90	2	A			
		WB	NA	NA	NA	380	7	A	NA	NA	NA			
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	NB	130	9	A	10	8	A	130	9	A		12	B
		SB	530	19	C	10	14	B	150	14	B			
		EB	90	9	A	220	9	A	30	2	A			
		WB	40	3	A	100	4	A	210	3	A			
Twin Lakes Pkwy & Prior Ave	Roundabout	NB	90	5	A	20	7	A	60	5	A		5	A
		SB	160	5	A	30	5	A	70	4	A			
		EB	60	6	A	360	7	A	460	5	A			
		WB	30	4	A	190	4	A	80	3	A			
County Rd C W (CSAH 23) & Mount Ridge Rd	TWSC (3/4 Access)	NB	NA	NA	NA	NA	NA	NA	NA	NA	NA		18	C
		SB	NA	NA	NA	NA	NA	NA	110	160				
		EB	150	18	C	1150	3	A	NA	NA	NA			
		WB	NA	NA	NA	990	17	C	110	16	C			

Table 12. 2030 Build 95th Percentile Queue Lengths.

Intersection	Control	Movement	Storage Length (ft)	Taper Length (ft)	95% Queue Length (ft)	
					Turn Lane	Adjacent Thru Lane
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NBL	175	125	301	555
		SBL	75	50	104	891
		EBR	200	100	402	1380
		WBR	250	125	38	192
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NBL	200	100	362	599
		SBL	200	125	382	617
		EBL	150	125	300	1664
		WBL	275	125	388	950
County Rd C W (CSAH 23) & Prior Ave	Signal	SBR	300	100	139	330
		EBL	150	125	58	165
		WBL	125	100	24	274
Twin Lakes Pkwy & NW Site Access	TWSC (Right In / Right Out)	EBR	60	60	0	0
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	SBR	75	75	136	376
Twin Lakes Pkwy & Prior Ave	Roundabout	EBR	150	150	32	74
County Rd C W (CSAH 23) & Mount Ridge Rd	TWSC (3/4 Access)	EBL	150	125	101	0

2030 Build Operations with Twin Lakes AUAR improvements

Table 13 provides LOS results for the 2030 build scenario with the implementation of the Twin Lakes AUAR recommended improvements. Signal timings were optimized. Changes to the roadway network consisted of the following improvements at Cleveland Avenue N (CSAH 46) and Twin Lakes Parkway:

- Addition of a northbound left turn lane (dual lefts)
- Addition of a northbound right turn lane
- Addition of 2 eastbound through lanes and conversion of shared left/through lane to dedicated left turn lane
- Conversion of westbound shared left/through lane to dedicated left turn lane
- Addition of a westbound through lane and conversion of right-turn lane to shared through/right lane
- Extension of the existing southbound left turn lane

In addition, a westbound right-turn lane with turn lane storage was recommended at Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23). Turn lane lengths

were not specified in the AUAR and were modeled at lengths to mirror existing turn lanes or at 300 feet.

The 2030 build analysis with improvements showed that all intersections are expected to operate at LOS D or better during the p.m. peak hour, with the exception of the Cleveland Avenue N (CSAH 46) and I-35W NB Ramps/Twin Lakes Parkway intersection, which is projected to operate at LOS E. The following movements operate at LOS E or F:

- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway southbound left: average delay of 113 seconds per vehicle, LOS F.
- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway southbound through: average delay of 128 seconds per vehicle, LOS F.
- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway southbound right: average delay of 76 seconds per vehicle, LOS E.
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) northbound through: average delay of 57 seconds per vehicle, LOS E.
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) southbound left: average delay of 110 seconds per vehicle, LOS F.
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) eastbound left: average delay of 122 seconds per vehicle, LOS F.
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) westbound left: average delay of 207 seconds per vehicle, LOS F.

These delays are primarily due to the heavy southbound left turn volume at Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23). With 400 vehicles making this movement, a second left-turn lane is necessary, but is presumably not recommended in the AUAR due to limited right-of-way. As a result the southbound left turn queue at Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23) spills out of the turn lane into the adjacent through lane, and back through the upstream intersection. In addition, the long split needed to serve this phase reduces time available for other movements at the intersection.

Queues are reduced with the improvements on Cleveland Avenue N (CSAH 46), but turn lane spillback is expected for several movements. Ninety-fifth percentile queues exceeded turn lane storage lengths for the following movements:

- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway eastbound right: 320-foot queue, 200-foot turn lane
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) southbound left: 391-foot queue, 200-foot turn lane
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) eastbound left: 334-foot queue, 150-foot turn lane

- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) westbound left: 358-foot queue, 275-foot turn lane
- Twin Lakes Parkway & Mount Ridge Road southbound right: 165-foot queue, 75-foot turn lane

In some cases, such as the long southbound queue at Cleveland Avenue N (CSAH 46) and Twin Lakes Parkway resulting from downstream delay, the queuing and blocking issues are not reported as the AUAR does not provide recommendations for storage lane length. According to the SimTraffic results, turn lanes were blocked by the 95th percentile queues of the adjacent through lanes for the following movements:

- Cleveland Avenue N (CSAH 46) & Twin Lakes Parkway eastbound right
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) northbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) southbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) eastbound left
- Cleveland Avenue N (CSAH 46) & County Road C W (CSAH 23) westbound left
- County Road C W (CSAH 23) & Prior Avenue eastbound left
- County Road C W (CSAH 23) & Prior Avenue westbound left
- Twin Lakes Parkway & Mount Ridge Road southbound right

Most of these queuing and blocking issues are due to the aforementioned heavy southbound left at Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23). At County Road C W (CSAH 23) and Prior Avenue, the 95th percentile queues indicate that the eastbound and westbound turn lanes are anticipated to be blocked by a couple vehicles during the p.m. peak hour.

Queues for the southbound right turn at Twin Lakes Parkway and Prior Avenue were never observed to spill out of the storage lane during simulation. According to the Synchro Studio 7 User Guide (page 23-12), "SimTraffic tries to determine whether the stopping is due to queuing or lane changes. In some cases stopping for lane changes will be counted as queuing." Since no queues were observed to fill the turn lane and the free right–turn movement has few conflicts, it is likely that vehicles stopped in the through lane waiting for access to the right-turn lane were sometimes considered to be part of the turn lane queue. The reported maximum queues are likely due to the limitations of the modeling software and do not represent an operational deficiency. The queue lengths and available storage lengths are summarized in **Table 14**.

Table 13. 2030 Build with AUAR Recommendations LOS Results.

Intersection	Control	Approach	Operations by Movement										Overall Intersection	
			Left			Through			Right				Delay (sec/veh)	LOS
			Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS	Volume	Delay (sec/veh)	LOS			
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NB	370	29	C	630	27	C	20	7	A		57	E
		SB	50	113	F	710	128	F	20	76	E			
		EB	330	51	D	330	38	D	440	35	C			
		WB	100	54	D	250	45	D	30	30	C			
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NB	130	39	D	500	57	E	150	48	D		53	D
		SB	400	110	F	440	28	C	410	13	B			
		EB	210	122	F	750	50	D	200	43	D			
		WB	110	207	F	680	44	D	310	7	A			
County Rd C W (CSAH 23) & Prior Ave	Signal	NB	20	39	D	0	0	A	30	13	B		15	B
		SB	280	45	D	10	45	D	230	10	B			
		EB	60	17	B	1070	9	A	20	8	A			
		WB	10	19	B	850	14	B	110	13	B			
Twin Lakes Pkwy & NW Site Access	TWSC (Right In / Right Out)	NB	NA	NA	NA	NA	NA	NA	30	3	A		1	A
		SB	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		EB	NA	NA	NA	310	2	A	90	2	A			
		WB	NA	NA	NA	380	1	A	NA	NA	NA			
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	NB	130	13	B	10	10	A	130	12	B		15	C
		SB	530	24	C	10	29	D	150	16	C			
		EB	90	16	C	220	19	C	30	3	A			
		WB	40	4	A	100	5	A	210	3	A			
Twin Lakes Pkwy & Prior Ave	Roundabout	NB	90	5	A	20	6	A	60	5	A		5	A
		SB	160	5	A	30	5	A	70	4	A			
		EB	60	6	A	360	7	A	460	5	A			
		WB	30	4	A	190	4	A	80	3	A			
County Rd C W (CSAH 23) & Mount Ridge Rd	TWSC (3/4 Access)	NB	NA	NA	NA	NA	NA	NA	NA	NA	NA		5	A
		SB	NA	NA	NA	NA	NA	NA	110	11	B			
		EB	150	17	C	1150	3	A	NA	NA	NA			
		WB	NA	NA	NA	990	4	A	110	3	A			

Table 14. 2030 Build with AUAR Recommendations 95th Percentile Queue Lengths.

Intersection	Control	Movement	Storage Length (ft)	Taper Length (ft)	95% Queue Length (ft)	
					Turn Lane	Adjacent Thru Lane
Cleveland Ave N (CSAH 46) & Twin Lakes Pkwy	Signal	NBL	175	125	166	141
		NBR	*	*	47	274
		SBL	*	*	276	801
		EBL	*	*	427	244
		EBR	200	100	320	406
		WBL	*	*	148	166
Cleveland Ave N (CSAH 46) & County Rd C W (CSAH 23)	Signal	NBL	200	100	191	378
		SBL	200	125	391	675
		EBL	150	125	334	626
		WBL	275	125	358	410
		WBR	*	*	26	403
County Rd C W (CSAH 23) & Prior Ave	Signal	SBR	300	100	131	333
		EBL	150	125	79	222
		WBL	125	100	27	219
Twin Lakes Pkwy & NW Site Access	TWSC (Right In / Right Out)	EBR	60	60	12	7
Twin Lakes Pkwy & Mount Ridge Rd	Roundabout	SBR	75	75	165	450
Twin Lakes Pkwy & Prior Ave	Roundabout	EBR	150	150	30	70
County Rd C W (CSAH 23) & Mount Ridge Rd	TWSC (3/4 Access)	EBL	150	125	117	24

* = Recommended storage and taper lengths not given in AUAR

Access Alternatives

Alternative access options were considered to investigate whether fewer accesses would be sufficient to serve the site. Options considered included removing the right-in/right-out on Twin Lakes Parkway, reducing the ¾ access on County Road C W (CSAH 23) to a right-in/right out, and combinations thereof.

Removing the right-in/right-out on Twin Lakes Parkway reduces access to the two outlots on the west end of the site. It would require all outlot vehicles to circulate through the Walmart parking lot. The right-in/right-out has been moved further east based on discussions with City of Roseville staff.

Left turns from eastbound County Road C W (CSAH 23) into the site experience little delay and do not affect the through traffic. Reducing the access to a right-in/right-out would increase the number of vehicles that would use Cleveland Avenue N (CSAH 46) to

access the site, leading to additional congestion at the two intersections with County Road C W (CSAH 23) and Twin Lakes Parkway.

Recommendations

With the construction of Walmart store #3404-05 in the northeast quadrant of the Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23) intersection, no off-site mitigation measures are recommended. Some limited lane blocking and turn lane spillback are expected at project buildout (2013), but average delays are projected to be acceptable. With small signal timing adjustments, the network is expected to operate as well as it does in existing conditions.

In the long term, growth in the area should continue to be monitored. If the area develops as anticipated in the AUAR, consideration should be given to the intersections on Cleveland Avenue N (CSAH 46). Even with improvements as defined in the Twin Lakes AUAR, several movements are expected to operate at LOS F and the Cleveland Avenue N (CSAH 46) and Twin Lakes Parkway intersection is expected to operate at LOS E. It appears that one of the primary problems is the southbound left turn at Cleveland Avenue N (CSAH 46) and County Road C W (CSAH 23). Some of the traffic making that movement may be diverted to the new east-west connection on Twin Lakes Parkway, but that may not eliminate the issue. Many of the projected problems could be resolved with the reconfiguration of the I-35W interchange at County Road C W (CSAH 23).

APPENDIX

Appendix A
Raw Turning Movement Volume Counts

Traffic Data Inc.
3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241124-twin lakes & mt ridge (roundabout)
Site Code : 1241124_
Start Date : 1/18/2011
Page No : 1

Twin Lakes & Mt Ridge
Roseville, MN

Groups Printed- Class 1

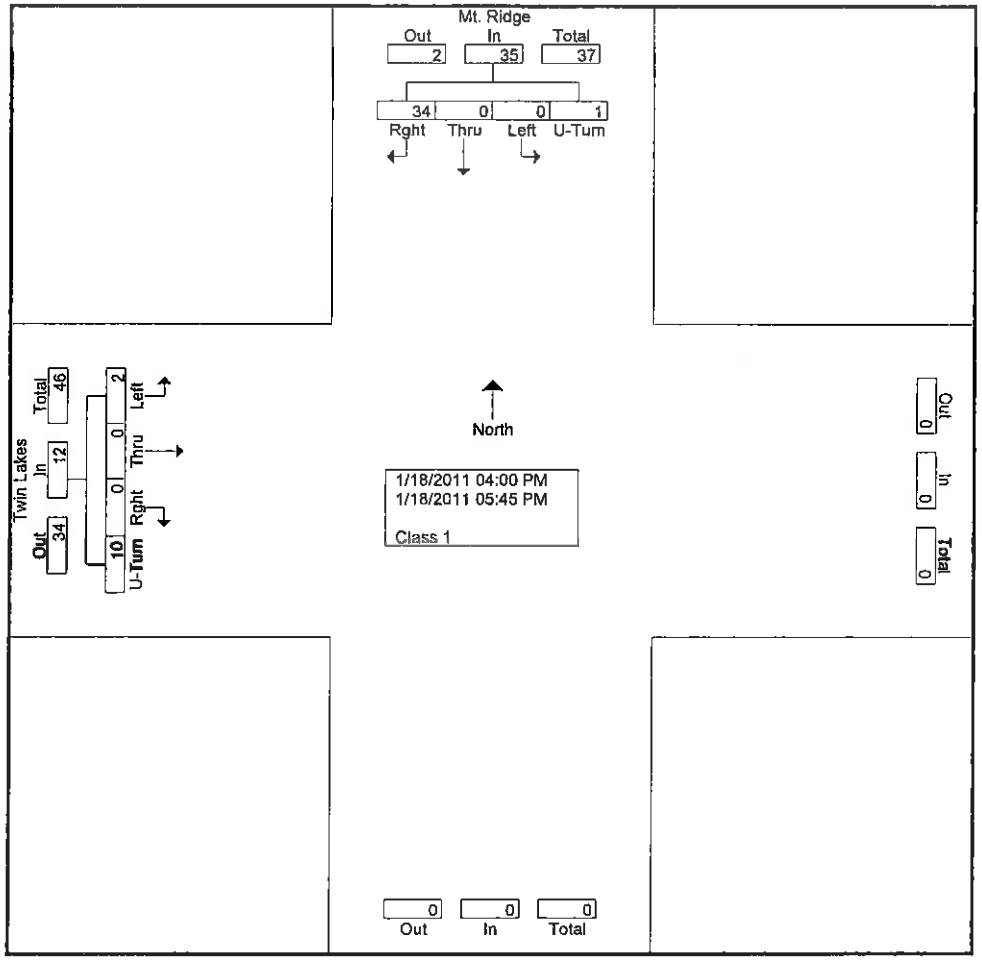
	Mt. Ridge Southbound						Westboun d	Northboun d	Twin Lakes Eastbound						
Start Time	Rght	Thru	Left	Peds	U-Turn	App. Total	App. Total	App. Total	Rght	Thru	Left	Peds	U-Turn	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	1.0				1.0	1.0	1.0	1.0	1.0		
04:00 PM	8	0	0	0	0	8	0	0	0	0	0	0	1	1	9
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
04:30 PM	5	0	0	0	0	5	0	0	0	0	1	0	0	1	6
04:45 PM	7	0	0	0	0	7	0	0	0	0	0	0	0	0	7
Total	20	0	0	0	0	20	0	0	0	0	1	0	3	4	24
05:00 PM	6	0	0	0	0	6	0	0	0	0	0	0	0	0	6
05:15 PM	3	0	0	0	0	3	0	0	0	0	0	0	2	2	5
05:30 PM	3	0	0	0	1	4	0	0	0	0	1	0	4	5	9
05:45 PM	2	0	0	0	0	2	0	0	0	0	0	0	1	1	3
Total	14	0	0	0	1	15	0	0	0	0	1	0	7	8	23
Grand Total	34	0	0	0	1	35	0	0	0	0	2	0	10	12	47
Apprch %	97.1	0	0	0	2.9				0	0	16.7	0	83.3		
Total %	72.3	0	0	0	2.1	74.5	0	0	0	0	4.3	0	21.3	25.5	

Traffic Data Inc.

3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241124-twin lakes & mt ridge (roundabout)
Site Code : 1241124_
Start Date : 1/18/2011
Page No : 2

Twin Lakes & Mt Ridge
Roseville, MN



Traffic Data Inc.

3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241124-twin lakes & mt ridge (roundabout)
Site Code : 1241124_
Start Date : 1/18/2011
Page No : 3

Twin Lakes & Mt Ridge
Roseville, MN

	Mt. Ridge Southbound						Westboun d	Northboun d	Twin Lakes Eastbound						
Start Time	Rght	Thru	Left	Peds	U-Turn	App. Total	App. Total	App. Total	Rght	Thru	Left	Peds	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 04:45 PM															
04:45 PM	7	0	0	0	0	7	0	0	0	0	0	0	0	0	7
05:00 PM	6	0	0	0	0	6	0	0	0	0	0	0	0	0	6
05:15 PM	3	0	0	0	0	3	0	0	0	0	0	0	2	2	5
05:30 PM	3	0	0	0	1	4	0	0	0	0	1	0	4	5	9
Total Volume	19	0	0	0	1	20	0	0	0	0	1	0	6	7	27
% App. Total	95	0	0	0	5				0	0	14.3	0	85.7		
PHF	.679	.000	.000	.000	.250	.714	.000	.000	.000	.000	.250	.000	.375	.350	.750

Traffic Data Inc.

3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241123-Twin Lakes & Cleveland
Site Code : 01241123
Start Date : 1/18/2011
Page No : 1

Twin Lakes Pkwy & Cleveland Ave N
Roseville, MN

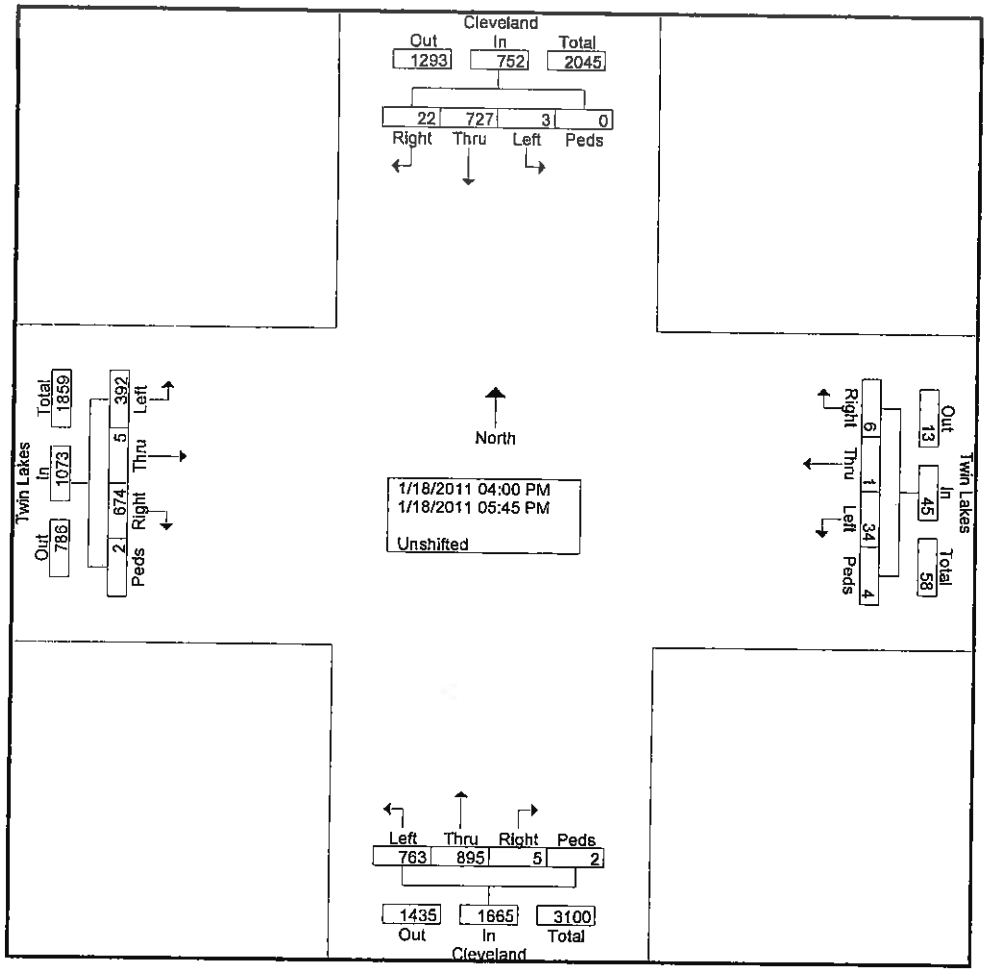
Groups Printed- Unshifted

	Cleveland Southbound					Twin Lakes Westbound					Cleveland Northbound					Twin Lakes Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	3	93	1	0	97	1	0	8	0	9	1	96	117	0	214	41	0	10	0	51	371
04:15 PM	0	75	0	0	75	0	0	2	0	2	2	88	101	0	191	65	0	35	0	100	368
04:30 PM	6	91	0	0	97	1	0	4	0	5	0	123	84	0	207	77	1	79	0	157	466
04:45 PM	3	105	0	0	108	0	0	7	0	7	0	125	82	0	207	92	1	77	2	172	494
Total	12	364	1	0	377	2	0	21	0	23	3	432	384	0	819	275	2	201	2	480	1699
05:00 PM	2	111	0	0	113	0	0	1	1	2	0	126	94	0	220	112	0	66	0	178	513
05:15 PM	3	90	2	0	95	2	0	6	1	9	2	143	91	2	238	76	1	61	0	138	480
05:30 PM	1	87	0	0	88	0	1	3	2	6	0	110	82	0	192	109	1	39	0	149	435
05:45 PM	4	75	0	0	79	2	0	3	0	5	0	84	112	0	196	102	1	25	0	128	408
Total	10	363	2	0	375	4	1	13	4	22	2	463	379	2	846	399	3	191	0	593	1836
Grand Total	22	727	3	0	752	6	1	34	4	45	5	895	763	2	1665	674	5	392	2	1073	3535
Apprch %	2.9	96.7	0.4	0		13.3	2.2	75.6	8.9		0.3	53.8	45.8	0.1		62.8	0.5	36.5	0.2		
Total %	0.6	20.6	0.1	0	21.3	0.2	0	1	0.1	1.3	0.1	25.3	21.6	0.1	47.1	19.1	0.1	11.1	0.1	30.4	

Traffic Data Inc.
3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241123-Twin Lakes & Cleveland
Site Code : 01241123
Start Date : 1/18/2011
Page No : 2

Twin Lakes Pkwy & Cleveland Ave N
Roseville, MN



TRAFFIC DATA INC.

Traffic Data Inc.

3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241123-Twin Lakes & Cleveland
Site Code : 01241123
Start Date : 1/18/2011

Twin Lakes Pkwy & Cleveland Ave N
Roseville, MN

	Cleveland Southbound					Twin Lakes Westbound					Cleveland Northbound					Twin Lakes Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	6	91	0	0	97	1	0	4	0	5	0	123	84	0	207	77	1	79	0	157	466
04:45 PM	3	105	0	0	108	0	0	7	0	7	0	125	82	0	207	92	1	77	2	172	494
05:00 PM	2	111	0	0	113	0	0	1	1	2	0	126	94	0	220	112	0	66	0	178	513
05:15 PM	3	90	2	0	95	2	0	6	1	9	2	143	91	2	238	76	1	61	0	138	480
Total Volume	14	397	2	0	413	3	0	18	2	23	2	517	351	2	872	357	3	283	2	645	1953
% App. Total	3.4	96.1	0.5	0		13	0	78.3	8.7		0.2	59.3	40.3	0.2		55.3	0.5	43.9	0.3		
PHF	.583	.894	.250	.000	.914	.375	.000	.643	.500	.639	.250	.904	.934	.250	.916	.797	.750	.896	.250	.906	.952

Traffic Data Inc.
3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241122-cr c & cleveland
Site Code : 01241122
Start Date : 1/18/2011
Page No : 1

CR C & Cleveland Ave N
Roseville, MN

Groups Printed- Cars - Heavy Veh.

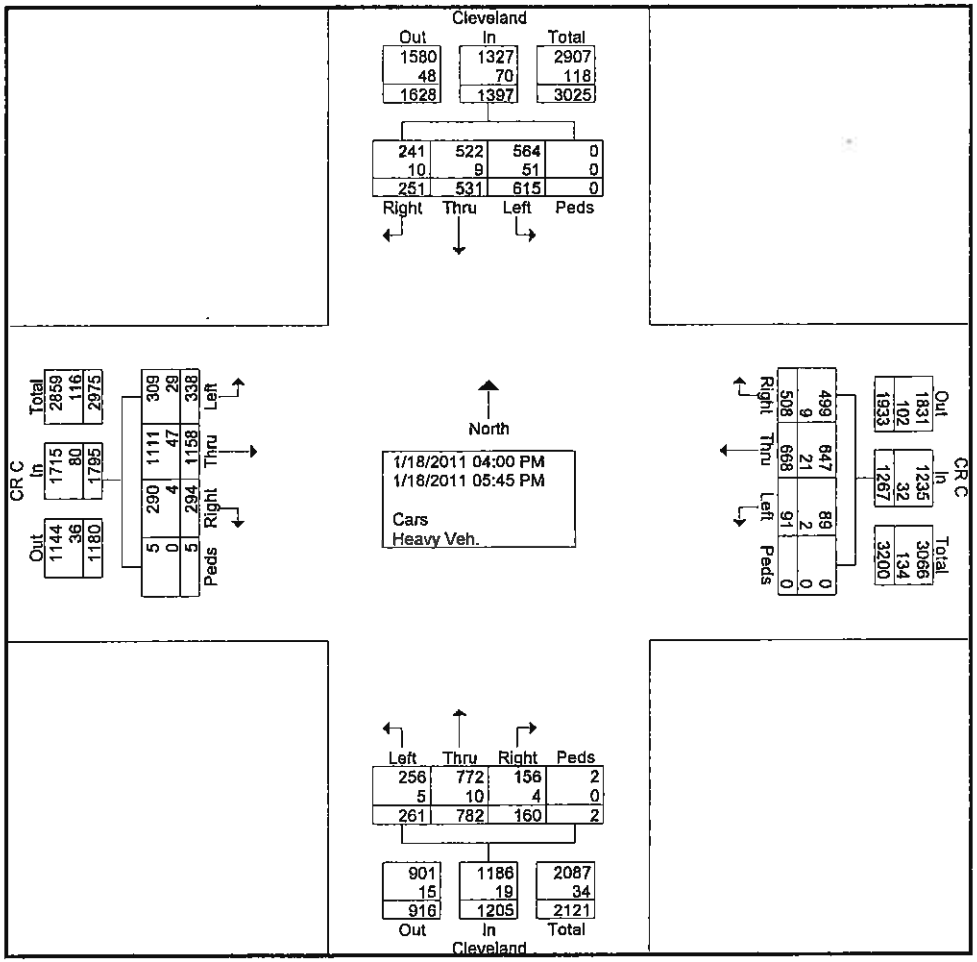
	Cleveland Southbound					CR C Westbound					Cleveland Northbound					CR C Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	34	54	55	0	143	54	77	14	0	145	17	111	24	1	153	26	126	45	0	197	638
04:15 PM	31	40	66	0	137	59	82	9	0	150	27	86	24	0	137	34	120	37	2	193	617
04:30 PM	26	81	68	0	175	69	78	10	0	157	19	99	35	1	154	33	145	48	1	227	713
04:45 PM	26	81	90	0	197	54	80	7	0	141	18	94	37	0	149	37	153	43	0	233	720
Total	117	256	279	0	652	236	317	40	0	593	81	390	120	2	593	130	544	173	3	850	2688
05:00 PM	44	72	85	0	201	70	109	12	0	191	23	109	52	0	184	43	153	42	1	239	815
05:15 PM	38	64	68	0	170	64	100	16	0	180	20	119	33	0	172	32	186	48	0	266	788
05:30 PM	29	83	100	0	212	69	79	11	0	159	18	80	34	0	132	47	153	38	1	239	742
05:45 PM	23	56	83	0	162	69	63	12	0	144	18	84	22	0	124	42	122	37	0	201	631
Total	134	275	336	0	745	272	351	51	0	674	79	392	141	0	612	164	614	165	2	945	2976
Grand Total	251	531	615	0	1397	508	668	91	0	1267	160	782	261	2	1205	294	1158	338	5	1795	5664
Apprch %	18	38	44	0		40.1	52.7	7.2	0		13.3	64.9	21.7	0.2		16.4	64.5	18.8	0.3		
Total %	4.4	9.4	10.9	0	24.7	9	11.8	1.6	0	22.4	2.8	13.8	4.6	0	21.3	5.2	20.4	6	0.1	31.7	
Cars	241	522	564	0	1327	499	647	89	0	1235	156	772	256	2	1186	290	1111	309	5	1715	5463
% Cars	96	98.3	91.7	0	95	98.2	96.9	97.8	0	97.5	97.5	98.7	98.1	100	98.4	98.6	95.9	91.4	100	95.5	96.5
Heavy Veh.	10	9	51	0	70	9	21	2	0	32	4	10	5	0	19	4	47	29	0	80	201
% Heavy Veh.	4	1.7	8.3	0	5	1.8	3.1	2.2	0	2.5	2.5	1.3	1.9	0	1.6	1.4	4.1	8.6	0	4.5	3.5

Traffic Data Inc.

3268 Xenwood Avenue South
St Louis Park, MN 55416

CR C & Cleveland Ave N
Roseville, MN

File Name : 1241122-cr c & cleveland
Site Code : 01241122
Start Date : 1/18/2011
Page No : 2



TRAFFIC DATA INC.

Traffic Data Inc.

3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241122-cr c & cleveland
Site Code : 01241122
Start Date : 1/18/2011
Page No : 3

CR C & Cleveland Ave N
Roseville, MN

	Cleveland Southbound					CR C Westbound					Cleveland Northbound					CR C Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	26	81	90	0	197	54	80	7	0	141	18	94	37	0	149	37	153	43	0	233	720
05:00 PM	44	72	85	0	201	70	109	12	0	191	23	109	52	0	184	43	153	42	1	239	815
05:15 PM	38	64	68	0	170	64	100	16	0	180	20	119	33	0	172	32	186	48	0	266	788
05:30 PM	29	83	100	0	212	69	79	11	0	159	18	80	34	0	132	47	153	38	1	239	742
Total Volume	137	300	343	0	780	257	368	46	0	671	79	402	156	0	637	159	645	171	2	977	3065
% App. Total	17.6	38.5	44	0		38.3	54.8	6.9	0		12.4	63.1	24.5	0		16.3	66	17.5	0.2		
PHF	.778	.904	.858	.000	.920	.918	.844	.719	.000	.878	.859	.845	.750	.000	.865	.846	.867	.891	.500	.918	.940

Traffic Data Inc.

3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241121-CR C & Prior
Site Code : 1241121_
Start Date : 1/18/2011
Page No : 1

CR C & Prior Ave
Roseville, MN

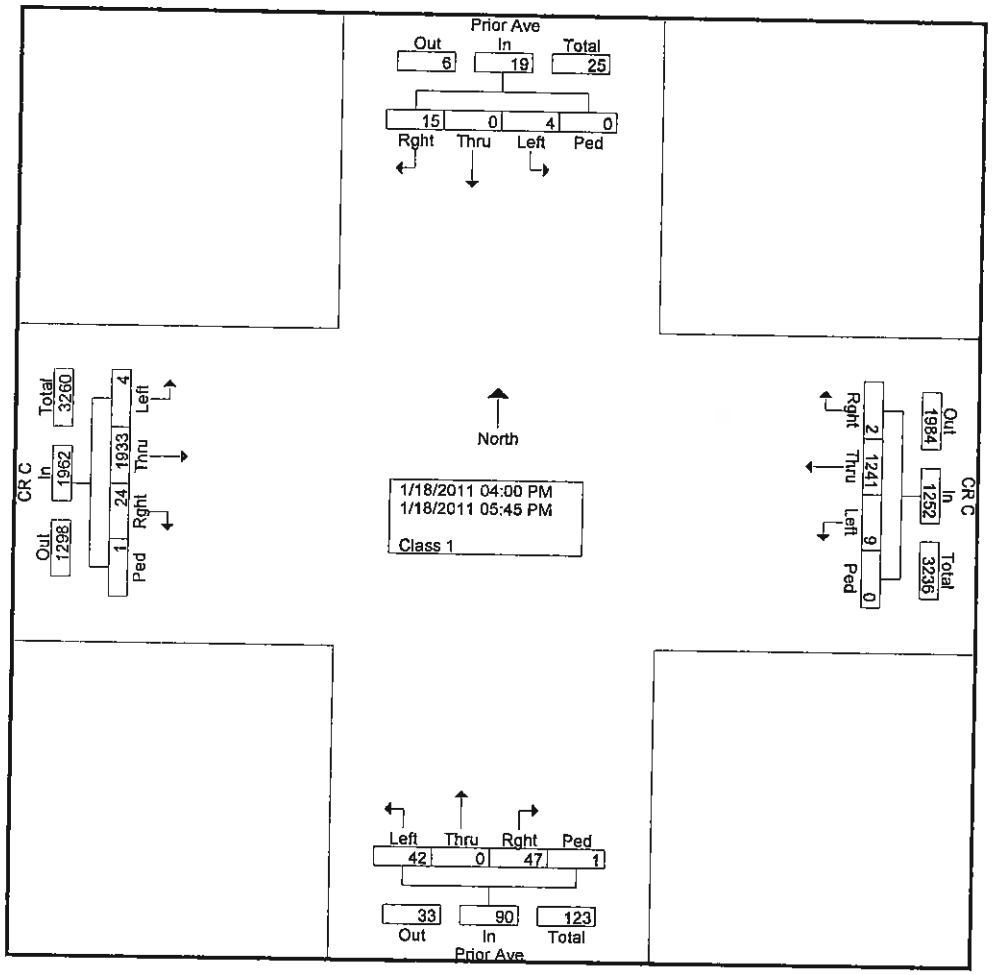
Groups Printed- Class 1

	Prior Ave Southbound					CR C Westbound					Prior Ave Northbound					CR C Eastbound					
Start Time	Rght	Thru	Left	Ped	App. Total	Rght	Thru	Left	Ped	App. Total	Rght	Thru	Left	Ped	App. Total	Rght	Thru	Left	Ped	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	4	0	1	0	5	2	143	0	0	145	5	0	7	0	12	0	189	0	0	189	351
04:15 PM	0	0	0	0	0	0	144	2	0	146	6	0	4	1	11	5	216	1	0	222	379
04:30 PM	2	0	2	0	4	0	161	5	0	166	13	0	6	0	19	3	238	1	1	243	432
04:45 PM	1	0	1	0	2	0	135	1	0	136	7	0	6	0	13	6	256	1	0	263	414
Total	7	0	4	0	11	2	583	8	0	593	31	0	23	1	55	14	899	3	1	917	1576
05:00 PM	6	0	0	0	6	0	198	0	0	198	6	0	4	0	10	4	261	0	0	265	479
05:15 PM	1	0	0	0	1	0	166	0	0	166	4	0	6	0	10	3	269	0	0	272	449
05:30 PM	0	0	0	0	0	0	148	1	0	149	3	0	3	0	6	3	271	1	0	275	430
05:45 PM	1	0	0	0	1	0	146	0	0	146	3	0	6	0	9	0	233	0	0	233	389
Total	8	0	0	0	8	0	658	1	0	659	16	0	19	0	35	10	1034	1	0	1045	1747
Grand Total	15	0	4	0	19	2	1241	9	0	1252	47	0	42	1	90	24	1933	4	1	1962	3323
Apprch %	78.9	0	21.1	0		0.2	99.1	0.7	0		52.2	0	46.7	1.1		1.2	98.5	0.2	0.1		
Total %	0.5	0	0.1	0	0.6	0.1	37.3	0.3	0	37.7	1.4	0	1.3	0	2.7	0.7	58.2	0.1	0	59	

Traffic Data Inc.
3268 Xenwood Avenue South
St Louis Park, MN 55416

CR C & Prior Ave
Roseville, MN

File Name : 1241121-CR C & Prior
Site Code : 1241121_
Start Date : 1/18/2011
Page No : 2



Traffic Data Inc.

3268 Xenwood Avenue South
St Louis Park, MN 55416

File Name : 1241121-CR C & Prior
Site Code : 1241121_
Start Date : 1/18/2011
Page No : 3

CR C & Prior Ave
Roseville, MN

	Prior Ave Southbound					CR C Westbound					Prior Ave Northbound					CR C Eastbound					
Start Time	Rght	Thru	Left	Ped	App. Total	Rght	Thru	Left	Ped	App. Total	Rght	Thru	Left	Ped	App. Total	Rght	Thru	Left	Ped	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	2	0	2	0	4	0	161	5	0	166	13	0	6	0	19	3	238	1	1	243	432
04:45 PM	1	0	1	0	2	0	135	1	0	136	7	0	6	0	13	6	256	1	0	263	414
05:00 PM	6	0	0	0	6	0	198	0	0	198	6	0	4	0	10	4	261	0	0	265	479
05:15 PM	1	0	0	0	1	0	166	0	0	166	4	0	6	0	10	3	269	0	0	272	449
Total Volume	10	0	3	0	13	0	660	6	0	666	30	0	22	0	52	16	1024	2	1	1043	1774
% App. Total	76.9	0	23.1	0		0	99.1	0.9	0		57.7	0	42.3	0		1.5	98.2	0.2	0.1		
PHF	.417	.000	.375	.000	.542	.000	.833	.300	.000	.841	.577	.000	.917	.000	.684	.667	.952	.500	.250	.959	.926

Appendix B
SimTraffic Reports

SimTraffic Performance Report
Existing PM

6/15/2011

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Delay / Veh (s)	43.1	99.3	14.5	38.9	3.8	18.3	9.8	5.2	18.6	22.7	15.9	19.8
Vehicles Entered	272	1	350	18	2	348	542	3	1	381	11	1929

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	32.4	24.7	20.9	25.0	29.4	9.2	35.1	46.3	36.6	74.5	40.0	9.9
Vehicles Entered	177	651	141	47	384	268	163	434	87	301	324	144

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	33.8
Vehicles Entered	3121

9: Twin Lakes Pkwy & Mt Ridge Rd Performance by movement

Movement	EBL	SBR	All
Delay / Veh (s)	2.8	6.4	5.6
Vehicles Entered	6	20	26

13: County Rd C West & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBR	All
Delay / Veh (s)	4.5	4.2	5.1	14.5	1.4	54.1	17.0	55.6	3.6	4.0
Vehicles Entered	2	1042	20	5	669	20	29	2	10	1799

Total Network Performance

Delay / Veh (s)	45.1
Vehicles Entered	3479

Queuing and Blocking Report
Existing PM

6/15/2011

Intersection: 1: I-35W Ramps & Cleveland Ave N/CSAH 46

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	449	254	60	24	235	158	152	13	216	164
Average Queue (ft)	178	83	16	2	103	44	60	1	86	68
95th Queue (ft)	308	184	46	13	189	117	125	7	168	141
Link Distance (ft)	599		547			529	529		778	778
Upstream Blk Time (%)	0									
Queuing Penalty (veh)	0									
Storage Bay Dist (ft)		200		250	175			75		
Storage Blk Time (%)	7	0			2	0			12	
Queuing Penalty (veh)	26	1			4	0			0	

Intersection: 5: County Rd C West & Cleveland Ave N/CSAH 46

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	228	364	389	74	226	305	219	306	289	325	453	387
Average Queue (ft)	97	161	194	29	107	140	92	179	179	244	192	145
95th Queue (ft)	178	287	323	63	195	259	168	260	267	364	458	299
Link Distance (ft)		565	565		1255	1255		503	503		529	529
Upstream Blk Time (%)											2	0
Queuing Penalty (veh)											7	0
Storage Bay Dist (ft)	150			275			200			200		
Storage Blk Time (%)	2	8			0		0	5		30	0	
Queuing Penalty (veh)	6	16			0		0	9		46	1	

Intersection: 9: Twin Lakes Pkwy & Mt Ridge Rd

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
Existing PM

6/15/2011

Intersection: 13: County Rd C West & Prior Ave N

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LR	LR
Maximum Queue (ft)	17	92	103	28	82	112	88	31
Average Queue (ft)	1	15	30	3	21	25	32	9
95th Queue (ft)	7	56	80	16	59	72	69	32
Link Distance (ft)		1255	1255		360	360	389	460
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150			125				
Storage Blk Time (%)		0						
Queuing Penalty (veh)		0						

Network Summary

Network wide Queuing Penalty: 116

SimTraffic Performance Report
2013 PM No Build - Optimized signal timings 6/14/2011

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Delay / Veh (s)	43.7	37.6	13.2	35.3	3.4	18.1	11.1	12.4	18.0	23.8	12.6	20.2
Vehicles Entered	278	3	366	20	3	353	532	1	2	405	16	1979

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	33.9	28.3	22.9	26.4	33.5	10.2	35.0	48.8	35.4	41.6	28.2	7.7
Vehicles Entered	182	648	137	41	389	270	166	420	83	326	331	153

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	31.1
Vehicles Entered	3146

9: Twin Lakes Pkwy & Mt Ridge Rd Performance by movement

Movement	EBL	SBR	All
Delay / Veh (s)	1.9	2.2	2.2
Vehicles Entered	7	24	31

10: County Rd C West & Mt Ridge Rd Performance by movement

Movement	EBT	WBT	All
Delay / Veh (s)	2.7	0.8	1.9
Vehicles Entered	1081	702	1783

13: County Rd C West & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBR	All
Delay / Veh (s)	4.4	1.8	0.7	12.6	1.6	47.6	11.4	52.9	3.2	2.5
Vehicles Entered	3	1046	18	5	668	20	27	4	11	1802

14: Twin Lakes Pkwy & Prior Ave N Performance by movement

Movement	NBT	All
Delay / Veh (s)	0.5	0.5
Vehicles Entered	3	3

Total Network Performance

Delay / Veh (s)	43.3
Vehicles Entered	3517

Queuing and Blocking Report
2013 PM No Build - Optimized signal timings 6/14/2011

Intersection: 1: I-35W Ramps & Cleveland Ave N/CSAH 46

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	375	293	57	22	293	246	229	20	216	171
Average Queue (ft)	190	90	16	1	125	62	77	1	95	75
95th Queue (ft)	306	190	47	12	240	173	175	8	178	146
Link Distance (ft)	1346		156	156		528	528		778	778
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		200			175			75		
Storage Blk Time (%)	7	0			3	0			16	
Queuing Penalty (veh)	24	0			8	1			0	

Intersection: 5: County Rd C West & Cleveland Ave N/CSAH 46

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	251	324	361	72	263	319	225	321	339	324	452	330
Average Queue (ft)	101	174	211	26	118	156	91	180	174	205	132	120
95th Queue (ft)	191	293	328	60	214	287	167	272	274	339	340	230
Link Distance (ft)		1292	1292		747	747		503	503		528	528
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											1	0
Storage Bay Dist (ft)	150			275			200			200		
Storage Blk Time (%)	3	9			0		1	6		14	0	
Queuing Penalty (veh)	10	17			0		3	9		22	0	

Intersection: 9: Twin Lakes Pkwy & Mt Ridge Rd

Movement												
Directions Served												
Maximum Queue (ft)												
Average Queue (ft)												
95th Queue (ft)												
Link Distance (ft)												
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)												
Storage Blk Time (%)												
Queuing Penalty (veh)												

Queuing and Blocking Report
2013 PM No Build - Optimized signal timings 6/14/2011

Intersection: 10: County Rd C West & Mt Ridge Rd

Movement									
Directions Served									
Maximum Queue (ft)									
Average Queue (ft)									
95th Queue (ft)									
Link Distance (ft)									
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 13: County Rd C West & Prior Ave N

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	LR	LT	R
Maximum Queue (ft)	21	71	118	28	73	81	74	30	29
Average Queue (ft)	1	18	35	3	24	30	29	4	8
95th Queue (ft)	11	56	91	17	63	74	63	19	28
Link Distance (ft)		455	455		360	360	389		
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			125					
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 14: Twin Lakes Pkwy & Prior Ave N

Movement									
Directions Served									
Maximum Queue (ft)									
Average Queue (ft)									
95th Queue (ft)									
Link Distance (ft)									
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)									
Storage Blk Time (%)									
Queuing Penalty (veh)									

Network Summary

Network wide Queuing Penalty: 94

SimTraffic Performance Report
2013 PM Build - Optimized signal timings 6/14/2011

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	45.7	47.6	15.5	32.3	27.7	3.9	26.5	19.4	17.2	25.5	33.7	19.0
Vehicles Entered	291	95	351	84	54	26	368	522	7	26	382	17

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	27.6
Vehicles Entered	2223

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	38.9	31.7	27.8	36.2	33.2	11.5	35.5	47.8	39.2	53.6	29.7	7.5
Vehicles Entered	180	716	144	69	432	289	155	417	107	339	318	185

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	33.6
Vehicles Entered	3351

9: Twin Lakes Pkwy & Mt Ridge Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	NBL	NBT	NBR	SBR	All
Delay / Veh (s)	2.6	3.5	2.1	2.4	2.9	0.5	2.8	2.3	2.8
Vehicles Entered	7	35	26	12	141	10	119	22	372

10: County Rd C West & Mt Ridge Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBR	All
Delay / Veh (s)	9.3	3.0	2.7	2.3	5.1	3.3
Vehicles Entered	133	1046	678	135	111	2103

12: Twin Lakes Pkwy & NW Site Access Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Delay / Veh (s)	1.4	1.6	0.3	2.0	1.0
Vehicles Entered	34	93	163	33	323

13: County Rd C West & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Delay / Veh (s)	9.4	3.6	2.3	15.1	3.9	2.4	43.9	11.8	51.6	4.9	7.9
Vehicles Entered	1	1006	19	7	782	13	20	28	154	11	2041

SimTraffic Performance Report
2013 PM Build - Optimized signal timings 6/14/2011

14: Twin Lakes Pkwy & Prior Ave N Performance by movement

Movement	EBR	NBL	NBT	All
Delay / Veh (s)	2.4	2.2	0.1	2.3
Vehicles Entered	153	12	3	168

Total Network Performance

Delay / Veh (s)	52.6
Vehicles Entered	3932

Queuing and Blocking Report
2013 PM Build - Optimized signal timings 6/14/2011

Intersection: 1: I-35W Ramps & Cleveland Ave N/CSAH 46

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	603	300	154	36	300	437	302	72	216	194
Average Queue (ft)	277	115	76	13	171	133	128	14	110	94
95th Queue (ft)	507	264	132	38	306	334	245	46	195	170
Link Distance (ft)	1346		154	154		528	528		778	778
Upstream Blk Time (%)			0							
Queuing Penalty (veh)			0							
Storage Bay Dist (ft)		200			175			75		
Storage Blk Time (%)	16	0			7	1		0	22	
Queuing Penalty (veh)	59	0			19	4		0	5	

Intersection: 5: County Rd C West & Cleveland Ave N/CSAH 46

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	260	406	418	116	263	312	191	304	292	325	511	387
Average Queue (ft)	109	207	242	45	130	160	86	182	184	242	187	130
95th Queue (ft)	206	332	366	98	232	291	158	265	273	368	454	271
Link Distance (ft)		1292	1292		747	747		503	503		528	528
Upstream Blk Time (%)											0	
Queuing Penalty (veh)											1	
Storage Bay Dist (ft)	150			275			200			200		
Storage Blk Time (%)	5	14			0		0	5		22	0	
Queuing Penalty (veh)	16	25			0		1	9		34	1	

Intersection: 9: Twin Lakes Pkwy & Mt Ridge Rd

Movement	EB	WB	NB	SB
Directions Served	LT	LT	LTR	R
Maximum Queue (ft)	6	21	35	18
Average Queue (ft)	0	1	6	1
95th Queue (ft)	0	9	24	13
Link Distance (ft)	229	457	498	686
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
2013 PM Build - Optimized signal timings

6/14/2011

Intersection: 10: County Rd C West & Mt Ridge Rd

Movement	EB	WB	SB
Directions Served	L	TR	R
Maximum Queue (ft)	112	38	80
Average Queue (ft)	41	4	39
95th Queue (ft)	83	20	65
Link Distance (ft)		455	498
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	1		

Intersection: 12: Twin Lakes Pkwy & NW Site Access

Movement	EB	WB	NB
Directions Served	R	T	R
Maximum Queue (ft)	15	17	40
Average Queue (ft)	1	1	13
95th Queue (ft)	11	9	30
Link Distance (ft)		49	444
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)	60		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 13: County Rd C West & Prior Ave N

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LR	LT	R
Maximum Queue (ft)	11	143	163	34	155	154	86	250	34
Average Queue (ft)	1	51	72	6	57	63	30	118	8
95th Queue (ft)	8	118	141	26	118	122	66	205	29
Link Distance (ft)		455	455		360	360	389	472	472
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			125					
Storage Blk Time (%)		0			0				
Queuing Penalty (veh)		0			0				

Queuing and Blocking Report
2013 PM Build - Optimized signal timings 6/14/2011

Intersection: 14: Twin Lakes Pkwy & Prior Ave N

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 176

SimTraffic Performance Report
2030 PM No Build

6/14/2011

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	474.1	475.7	426.9	31.5	28.4	4.5	129.2	32.9	30.3	422.2	432.6	392.4
Vehicles Entered	286	213	383	35	194	8	335	611	10	15	666	19

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	277.1
Vehicles Entered	2775

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	514.1	167.6	143.1	56.3	53.0	30.7	47.5	83.6	66.8	112.7	32.4	13.9
Vehicles Entered	191	630	180	89	621	302	128	499	121	339	408	326

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	99.4
Vehicles Entered	3834

9: Twin Lakes Pkwy & Mt Ridge Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Delay / Veh (s)	7.4	8.4	3.8	2.9	9.1	8.7	7.3
Vehicles Entered	80	156	102	215	534	138	1225

10: County Rd C West & Mt Ridge Rd Performance by movement

Movement	EBT	WBT	All
Delay / Veh (s)	2.8	1.7	2.3
Vehicles Entered	1103	1017	2120

13: County Rd C West & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Delay / Veh (s)	12.3	5.1	3.0	15.5	8.3	7.0	44.4	12.4	47.7	48.9	7.9	9.9
Vehicles Entered	53	1013	21	9	774	92	14	28	151	11	221	2387

14: Twin Lakes Pkwy & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	4.5	5.6	3.8	2.9	3.7	2.9	4.6	5.1	4.4	4.4	4.9	4.1
Vehicles Entered	59	311	319	31	177	75	71	22	54	164	30	70

14: Twin Lakes Pkwy & Prior Ave N Performance by movement

Movement	All
Delay / Veh (s)	4.3
Vehicles Entered	1383

19: County Rd C West & Fairview Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	33.4	43.8	45.0	99.9	21.7	17.4	48.1	65.4	34.6	78.4	42.6	38.7
Vehicles Entered	112	984	209	162	494	102	200	602	344	234	377	62

19: County Rd C West & Fairview Ave Performance by movement

Movement	All
Delay / Veh (s)	47.1
Vehicles Entered	3882

Total Network Performance

Delay / Veh (s)	187.8
Vehicles Entered	7470

Queuing and Blocking Report
2030 PM No Build

6/14/2011

Intersection: 1: I-35W Ramps & Cleveland Ave N/CSAH 46

Movement	EB	EB	WB	WB	B12	B18	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	T	T	L	T	TR	L	T	TR
Maximum Queue (ft)	1381	300	228	31	61	12	300	549	592	104	812	803
Average Queue (ft)	1326	236	118	4	3	0	290	453	377	13	695	678
95th Queue (ft)	1554	400	203	20	27	9	340	644	627	60	965	946
Link Distance (ft)	1346		156	156	49	229		528	528		778	778
Upstream Blk Time (%)	34		6		1			12	5		42	31
Queuing Penalty (veh)	0		7		1			59	28		0	0
Storage Bay Dist (ft)		200					175			75		
Storage Blk Time (%)	57	5					71	3		0	80	
Queuing Penalty (veh)	252	27					227	12		0	46	

Intersection: 5: County Rd C West & Cleveland Ave N/CSAH 46

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	275	1211	1187	207	495	505	300	485	482	325	542	542
Average Queue (ft)	239	708	644	69	274	315	102	283	277	307	427	324
95th Queue (ft)	345	1476	1321	146	431	468	244	456	439	380	653	550
Link Distance (ft)		1292	1292		747	747		503	503		528	528
Upstream Blk Time (%)		24	5					4	3		11	0
Queuing Penalty (veh)		0	0					0	0		66	1
Storage Bay Dist (ft)	150			275			200			200		
Storage Blk Time (%)	71	18			6		0	34		57	1	
Queuing Penalty (veh)	244	38			6		0	44		132	5	

Intersection: 9: Twin Lakes Pkwy & Mt Ridge Rd

Movement	EB	WB	SB	SB
Directions Served	LT	LT	LT	R
Maximum Queue (ft)	144	43	258	129
Average Queue (ft)	59	6	74	11
95th Queue (ft)	113	26	163	69
Link Distance (ft)	229	457	686	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				75
Storage Blk Time (%)			8	
Queuing Penalty (veh)			12	

Intersection: 10: County Rd C West & Mt Ridge Rd

Movement	
Directions Served	
Maximum Queue (ft)	
Average Queue (ft)	
95th Queue (ft)	
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: County Rd C West & Prior Ave N

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LR	LT	R
Maximum Queue (ft)	83	227	230	33	181	214	82	240	129
Average Queue (ft)	29	69	89	6	61	79	26	123	54
95th Queue (ft)	64	160	180	23	147	174	57	205	97
Link Distance (ft)		455	455		1226	1226	388	463	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150			125					300
Storage Blk Time (%)		1			1			0	
Queuing Penalty (veh)		0			0			0	

Intersection: 14: Twin Lakes Pkwy & Prior Ave N

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (ft)	75	46	73	62	85
Average Queue (ft)	31	7	22	22	34
95th Queue (ft)	62	32	59	49	70
Link Distance (ft)	457		352	463	1208
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		150			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report
2030 PM No Build

6/14/2011

Intersection: 19: County Rd C West & Fairview Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	145	544	606	352	255	228	300	542	613	225	409	320
Average Queue (ft)	58	354	390	149	105	128	138	262	297	167	207	145
95th Queue (ft)	109	527	564	312	198	198	248	467	531	276	407	289
Link Distance (ft)		1226	1226		2358	2358		1971	1971			1569
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			375			325			125	350	
Storage Blk Time (%)		14		2			0	6	42	9	6	
Queuing Penalty (veh)		17		5			0	13	144	28	11	

Intersection: 19: County Rd C West & Fairview Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	258
Average Queue (ft)	158
95th Queue (ft)	231
Link Distance (ft)	1569
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty	1396

SimTraffic Performance Report
2030 PM Build 6/14/2011

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	834.3	844.1	798.4	32.4	31.8	3.3	225.1	55.5	49.7	233.1	227.8	215.6
Vehicles Entered	264	253	381	92	229	29	271	456	15	44	681	20

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	359.6
Vehicles Entered	2685

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	2342.8	1210.5	991.8	136.2	134.5	127.1	597.8	728.8	678.5	92.4	33.1	16.7
Vehicles Entered	111	427	123	109	646	298	98	380	110	331	418	349

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	432.7
Vehicles Entered	3400

9: Twin Lakes Pkwy & Mt Ridge Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	8.7	9.2	2.2	3.4	4.3	2.9	8.6	8.4	9.0	19.1	13.5	13.6
Vehicles Entered	73	165	26	40	102	196	98	9	106	521	7	153

9: Twin Lakes Pkwy & Mt Ridge Rd Performance by movement

Movement	All
Delay / Veh (s)	11.6
Vehicles Entered	1496

10: County Rd C West & Mt Ridge Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBR	All
Delay / Veh (s)	17.9	2.5	16.8	15.9	159.9	18.2
Vehicles Entered	91	788	968	114	104	2065

12: Twin Lakes Pkwy & NW Site Access Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Delay / Veh (s)	1.5	1.5	6.9	2.3	4.3
Vehicles Entered	237	73	351	29	690

SimTraffic Performance Report
2030 PM Build 6/14/2011

13: County Rd C West & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Delay / Veh (s)	14.0	7.7	5.8	15.2	15.8	12.8	46.2	12.3	48.1	44.1	11.1		16.5
Vehicles Entered	39	716	16	10	861	109	17	35	253	11	208		2274

14: Twin Lakes Pkwy & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	5.7	6.6	4.7	3.9	4.1	3.2	4.8	6.6	4.6	4.7	5.2	4.4
Vehicles Entered	49	324	418	28	195	87	75	19	53	170	23	65

14: Twin Lakes Pkwy & Prior Ave N Performance by movement

Movement	All
Delay / Veh (s)	5.0
Vehicles Entered	1506

19: County Rd C West & Fairview Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	26.3	37.1	35.2	102.0	22.2	18.1	54.7	54.1	26.0	63.1	42.7	34.0
Vehicles Entered	87	854	187	170	559	116	231	577	336	246	367	67

19: County Rd C West & Fairview Ave Performance by movement

Movement	All
Delay / Veh (s)	41.7
Vehicles Entered	3797

Total Network Performance

Delay / Veh (s)	377.7
Vehicles Entered	7199

Queuing and Blocking Report
2030 PM Build

6/14/2011

Intersection: 1: I-35W Ramps & Cleveland Ave N/CSAH 46

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	1383	300	166	40	300	545	629	124	773	765
Average Queue (ft)	1361	249	141	12	299	531	529	40	593	571
95th Queue (ft)	1380	402	192	38	301	555	688	104	891	858
Link Distance (ft)	1346		154	154		528	528		778	778
Upstream Blk Time (%)	40		19			30	23		21	12
Queuing Penalty (veh)	0		37			154	119		0	0
Storage Bay Dist (ft)		200			175			75		
Storage Blk Time (%)	59	3			86	3		0	77	
Queuing Penalty (veh)	260	17			272	13		1	39	

Intersection: 5: County Rd C West & Cleveland Ave N/CSAH 46

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	275	1333	1322	399	810	799	300	532	538	325	541	535
Average Queue (ft)	271	1152	919	168	606	625	172	499	489	289	350	303
95th Queue (ft)	300	1664	1638	388	950	930	362	599	604	382	617	501
Link Distance (ft)		1292	1292		747	747		503	503		528	528
Upstream Blk Time (%)		64	9		16	22		57	46		8	0
Queuing Penalty (veh)		0	0		87	119		0	0		47	2
Storage Bay Dist (ft)	150			275			200			200		
Storage Blk Time (%)	95	14		3	51		1	85		43	2	
Queuing Penalty (veh)	357	30		10	56		2	110		95	10	

Intersection: 9: Twin Lakes Pkwy & Mt Ridge Rd

Movement	EB	WB	WB	NB	SB	SB
Directions Served	LT	LT	R	LTR	LT	R
Maximum Queue (ft)	150	67	6	128	499	150
Average Queue (ft)	59	13	0	46	142	37
95th Queue (ft)	122	41	4	96	376	136
Link Distance (ft)	229	457	457	498	686	
Upstream Blk Time (%)					1	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)						75
Storage Blk Time (%)					24	
Queuing Penalty (veh)					37	

Queuing and Blocking Report
2030 PM Build

6/14/2011

Intersection: 10: County Rd C West & Mt Ridge Rd

Movement	EB	WB	WB	SB
Directions Served	L	T	TR	R
Maximum Queue (ft)	139	351	359	288
Average Queue (ft)	43	123	135	128
95th Queue (ft)	101	375	394	346
Link Distance (ft)		455	455	498
Upstream Blk Time (%)		1	2	2
Queuing Penalty (veh)		7	9	1
Storage Bay Dist (ft)	150			
Storage Blk Time (%)	0			
Queuing Penalty (veh)	2			

Intersection: 12: Twin Lakes Pkwy & NW Site Access

Movement	WB	EB	NB
Directions Served	T	T	R
Maximum Queue (ft)	118	147	40
Average Queue (ft)	45	20	13
95th Queue (ft)	127	108	32
Link Distance (ft)	49	229	444
Upstream Blk Time (%)	15	1	
Queuing Penalty (veh)	28	3	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: County Rd C West & Prior Ave N

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LR	LT	R
Maximum Queue (ft)	84	202	229	32	335	342	97	403	194
Average Queue (ft)	21	70	92	6	122	144	31	196	64
95th Queue (ft)	58	164	198	24	274	300	72	330	139
Link Distance (ft)		455	455		1226	1226	388	463	
Upstream Blk Time (%)								0	
Queuing Penalty (veh)								1	
Storage Bay Dist (ft)	150			125					300
Storage Blk Time (%)	0	1			6			2	
Queuing Penalty (veh)	0	0			1			3	

Intersection: 14: Twin Lakes Pkwy & Prior Ave N

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (ft)	101	48	104	70	89
Average Queue (ft)	32	6	25	23	36
95th Queue (ft)	74	32	72	51	77
Link Distance (ft)	457		352	463	1208
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		150			
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 19: County Rd C West & Fairview Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	192	501	546	308	250	267	355	420	475	225	404	230
Average Queue (ft)	52	285	328	159	120	146	162	213	238	157	195	129
95th Queue (ft)	126	455	495	307	213	239	313	343	393	268	344	213
Link Distance (ft)		1226	1226		2358	2358		1971	1971			1569
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			375			325			125	350	
Storage Blk Time (%)		8		0			3	1	34	8	2	
Queuing Penalty (veh)		9		1			10	2	115	24	4	

Intersection: 19: County Rd C West & Fairview Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	250
Average Queue (ft)	154
95th Queue (ft)	238
Link Distance (ft)	1569
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty	2093

SimTraffic Performance Report
2030 PM Build with all AUAR recs 6/14/2011

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	50.9	38.4	34.7	53.6	44.9	29.7	29.2	27.3	6.7	113.1	128.4	76.4
Vehicles Entered	342	334	439	101	247	31	362	623	19	45	685	20

1: I-35W Ramps & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	56.9
Vehicles Entered	3248

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	122.0	49.8	42.7	207.4	43.8	6.5	39.2	57.1	47.6	110.3	28.4	12.8
Vehicles Entered	201	743	201	111	662	305	129	494	150	374	464	399

5: County Rd C West & Cleveland Ave N/CSAH 46 Performance by movement

Movement	All
Delay / Veh (s)	52.7
Vehicles Entered	4233

9: Twin Lakes Pkwy & Mt Ridge Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	15.6	18.6	2.5	3.7	4.5	3.0	13.1	9.7	11.9	23.8	28.7	16.3
Vehicles Entered	90	206	32	41	101	200	128	11	132	523	9	149

9: Twin Lakes Pkwy & Mt Ridge Rd Performance by movement

Movement	All
Delay / Veh (s)	15.4
Vehicles Entered	1622

10: County Rd C West & Mt Ridge Rd Performance by movement

Movement	EBL	EBT	WBT	WBR	SBR	All
Delay / Veh (s)	16.6	3.3	3.9	3.0	11.0	4.6
Vehicles Entered	146	1143	962	116	115	2482

12: Twin Lakes Pkwy & NW Site Access Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Delay / Veh (s)	1.8	1.9	0.6	2.8	1.3
Vehicles Entered	302	92	378	28	800

13: County Rd C West & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Delay / Veh (s)	17.1	9.4	7.5	18.8	14.1	13.0	38.7	13.4	44.9	44.7	10.1	15.3
Vehicles Entered	58	1040	20	11	841	109	16	34	268	13	218	2628

14: Twin Lakes Pkwy & Prior Ave N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	5.8	7.0	5.1	3.6	3.9	3.1	5.3	5.6	4.9	4.5	5.1	4.4
Vehicles Entered	58	356	447	27	188	86	85	20	61	170	24	66

14: Twin Lakes Pkwy & Prior Ave N Performance by movement

Movement	All
Delay / Veh (s)	5.2
Vehicles Entered	1588

19: County Rd C West & Fairview Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Delay / Veh (s)	29.3	42.3	45.8	471.7	36.1	17.4	118.1	67.3	38.5	164.4	46.9	38.2
Vehicles Entered	113	1109	243	172	556	121	231	574	336	247	367	65

19: County Rd C West & Fairview Ave Performance by movement

Movement	All
Delay / Veh (s)	72.0
Vehicles Entered	4134

Total Network Performance

Delay / Veh (s)	101.1
Vehicles Entered	8131

Queuing and Blocking Report
2030 PM Build with all AUAR recs

6/14/2011

Intersection: 1: I-35W Ramps & Cleveland Ave N/CSAH 46

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	T	TR	L	L	T	T	R
Maximum Queue (ft)	484	325	464	297	170	206	145	175	241	348	299	70
Average Queue (ft)	245	129	141	189	73	94	92	84	108	172	182	6
95th Queue (ft)	427	244	406	320	148	166	141	149	189	290	274	47
Link Distance (ft)	1340	1340	1340		138	138	138			509	509	
Upstream Blk Time (%)					5	3	1			0		
Queuing Penalty (veh)					6	3	2			0		
Storage Bay Dist (ft)				200				175	175			175
Storage Blk Time (%)			0	12				0	0	5	7	
Queuing Penalty (veh)			2	20				0	1	17	1	

Intersection: 1: I-35W Ramps & Cleveland Ave N/CSAH 46

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	334	733	709
Average Queue (ft)	73	416	349
95th Queue (ft)	276	801	669
Link Distance (ft)		772	772
Upstream Blk Time (%)		12	2
Queuing Penalty (veh)		0	0
Storage Bay Dist (ft)	300		
Storage Blk Time (%)		36	
Queuing Penalty (veh)		18	

Intersection: 5: County Rd C West & Cleveland Ave N/CSAH 46

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	TR	L	T
Maximum Queue (ft)	275	639	590	342	426	412	35	263	419	443	325	529
Average Queue (ft)	207	373	368	172	221	222	1	88	239	244	305	433
95th Queue (ft)	334	626	576	358	410	403	26	191	378	376	391	675
Link Distance (ft)		1287	1287		742	742			503	503		509
Upstream Blk Time (%)									0	0		19
Queuing Penalty (veh)									0	0		119
Storage Bay Dist (ft)	150			275			300	200			200	
Storage Blk Time (%)	44	29		15	1	1		0	19		61	2
Queuing Penalty (veh)	167	62		50	1	3		0	25		134	6

Intersection: 5: County Rd C West & Cleveland Ave N/CSAH 46

Movement	SB
Directions Served	TR
Maximum Queue (ft)	553
Average Queue (ft)	299
95th Queue (ft)	536
Link Distance (ft)	509
Upstream Blk Time (%)	0
Queuing Penalty (veh)	2
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Twin Lakes Pkwy & Mt Ridge Rd

Movement	EB	EB	EB	WB	NB	SB	SB
Directions Served	LT	R	T	LT	LTR	LT	R
Maximum Queue (ft)	266	61	25	55	199	585	150
Average Queue (ft)	114	4	1	16	64	175	55
95th Queue (ft)	213	49	20	44	142	450	165
Link Distance (ft)	229	229	49	457	498	686	
Upstream Blk Time (%)	2	0	0			2	
Queuing Penalty (veh)	3	0	1			0	
Storage Bay Dist (ft)							75
Storage Blk Time (%)						32	0
Queuing Penalty (veh)						49	0

Queuing and Blocking Report
2030 PM Build with all AUAR recs

6/14/2011

Intersection: 10: County Rd C West & Mt Ridge Rd

Movement	EB	WB	SB
Directions Served	L	TR	R
Maximum Queue (ft)	160	34	129
Average Queue (ft)	61	4	46
95th Queue (ft)	117	24	90
Link Distance (ft)		455	498
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	150		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	2		

Intersection: 12: Twin Lakes Pkwy & NW Site Access

Movement	EB	EB	WB	WB	SB	NB
Directions Served	T	R	T	T	T	R
Maximum Queue (ft)	10	17	31	27	22	40
Average Queue (ft)	0	1	2	1	1	12
95th Queue (ft)	7	12	23	12	17	31
Link Distance (ft)	138		49	49	229	444
Upstream Blk Time (%)			0	0		
Queuing Penalty (veh)			1	0		
Storage Bay Dist (ft)		60				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 13: County Rd C West & Prior Ave N

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LR	LT	R
Maximum Queue (ft)	113	299	322	31	274	296	74	425	192
Average Queue (ft)	32	112	136	8	107	140	28	205	64
95th Queue (ft)	79	222	248	27	219	250	60	333	131
Link Distance (ft)		455	455		1226	1226	388	463	
Upstream Blk Time (%)								0	
Queuing Penalty (veh)								2	
Storage Bay Dist (ft)	150			125					300
Storage Blk Time (%)		3			4			1	
Queuing Penalty (veh)		2			0			3	

Intersection: 14: Twin Lakes Pkwy & Prior Ave N

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (ft)	93	52	79	61	92
Average Queue (ft)	33	6	27	27	37
95th Queue (ft)	70	30	66	53	75
Link Distance (ft)	457		352	463	1208
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		150			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 19: County Rd C West & Fairview Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	T	R	L	T
Maximum Queue (ft)	317	591	626	537	1025	885	442	513	558	225	529	584
Average Queue (ft)	66	386	433	409	443	343	252	263	292	176	336	196
95th Queue (ft)	181	536	579	693	1332	969	465	512	589	275	622	496
Link Distance (ft)		1226	1226		2358	2358		1971	1971			1569
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	275			375			325			125	350	
Storage Blk Time (%)		15		51			15	5	40	15	31	
Queuing Penalty (veh)		18		142			43	12	137	43	57	

Intersection: 19: County Rd C West & Fairview Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	441
Average Queue (ft)	183
95th Queue (ft)	361
Link Distance (ft)	1569
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 1155

Minnesota Department of Transportation
Metropolitan District
Waters Edge Building
1500 County Road B2 West
Roseville, MN 55113

February 24, 2012

Thomas Paschke, City Planner
City of Roseville
2660 Civic Center Dr.
Roseville, MN 55113

SUBJECT: Twin Lakes 2nd Addition
MnDOT Review # P12-004
NE Quad of County Rd C & I-35W
Roseville, Ramsey County
Control Section 6284

Dear Mr. Paschke:

Thank you for the opportunity to review the Plat Review for the Twin Lakes 2nd Addition. Please address the following comments before any further development:

Water Resources: The proposed development will need to maintain existing drainage rates to existing storm structure, which ultimately drains to the MnDOT pond. The applicant will need to submit plans as they develop and hydraulic computations for 10 and 100-yr storms at pre and post development stages. Please submit to Hailu Shekur, MnDOT Metro District's Water Resources Section (651-234-7521 or Hailu.Shekur@state.mn.us).

Traffic: This Walmart will likely generate 8,000-10,000 trips per day to an area that is currently vacant. The traffic study submitted is from the 2007 Twin Lakes Business Park AUAR. It appears that the AUAR was based on a lower volume traffic generator than a Walmart.

Figure 12 in the AUAR shows the 2030 P.M. Peak Hour Build forecasted volumes. MnDOT is particularly interested in the operation of the existing wood pole traffic signal at the Cleveland/Twin Lakes/35W ramp intersection, which shows a year 2030 level of service D at this location.

However, Figure 12 shows a lane configuration at this intersection that is not the present condition. For instance, the diagram shows four eastbound approach lanes (exiting traffic from northbound 35W) at the Cleveland/Twin Lakes signal, but in the present condition there are only two EB approach lanes.

The present lane configuration could result in a LOS F when Walmart opens. If traffic backs up onto northbound 35W from this inplace signal, that would be unacceptable to both MnDOT and the FHWA. Metro Traffic would like to request that the Synchro files from the 2007 AUAR be submitted for our review. Updated traffic volumes should be utilized in the submittal. Immediate consideration should be given to adding capacity at this intersection before further Twin Lakes Business Park developments are approved.

Review Submittal Options:
Mn/DOT's goal is to complete the review of plans within 30 days. Submittals sent in electronically can usually be turned around faster. There are four submittal options. Please submit either:

1. One (1) electronic pdf. version of the plans. Mn/DOT can accept the plans via e-mail at metrodevreviews.dot@state.mn.us provided that each separate e-mail is under 20 megabytes.
2. Three (3) sets of full size plans. Although submitting seven sets of full size plans will expedite the review process. Plans can be sent to:

   Mn/DOT – Metro District Planning Section
   Development Reviews Coordinator
   1500 West County Road B-2
   Roseville, MN 55113

3. One (1) compact disc.
4. Plans can also be submitted to Mn/DOT's External FTP Site. Please send files to: ftp://ftp2.dot.state.mn.us/pub/incoming/MetroWatersEdge/Planning Internet Explorer doesn't work using ftp so please use an FTP Client or your Windows Explorer (My Computer). Also, please send a note to metrodevreviews.dot@state.mn.us indicating that the plans have been submitted on the FTP site.

If you have any questions concerning this review please feel free to contact me at (651) 234-7793.

Sincerely,

Michael J. Corbett

Michael J. Corbett
Senior Planner

Copy sent via E-Mail:
Craig Hinzman, Ramsey County Department of Public Works
Joe Lux, Ramsey County Department of Public Works
Sue Tarasar, Sunde Land Surveying
Buck Craig, Permits
Nancy Jacobson, Design
Hailu Shekur, Water Resources
Lee Williams, Right-of-Way
Jennie Read, Area Engineer
Clare Lackey, Traffic
Gayle Gedstad, Traffic
Dave Torfin, Golden Valley

Spack -Draft -

THE TRAFFIC STUDY COMPANY

Traffic Impact Study

Walmart Store No. 3498-06
Blaine, Minnesota

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By: Michael P. Spack

Michael P. Spack, P.E., P.T.O.E.
MN License No. 40936

Date: October 12, 2011

-Draft -

Executive Summary

Walmart is proposing to build a 147,968 square foot store on a portion of a 39.13 acre site southeast of Interstate 35W and east of Lexington Avenue (Anoka County State Aid Highway 17) in Blaine, Minnesota. The proposed site is currently undeveloped. It is anticipated the store will be fully operational in 2013. The Walmart store will occupy approximately 17.08 acres with the remainder of the site divided into three outlots to be retained by the current property owner. The proposed site is highlighted in Figures 1 and 2 with a location map and proposed site plan. The outlots identified on the site are not proposed for development at this time, but a development concept has been prepared for the outlots and their potential traffic generation will be accounted for in the traffic analyses. The City of Blaine currently zones the site Planned Business District (PBD).

Access to the store is proposed on the southern portion of the site via a full intersection at Ball Road & Hupp Street and a secondary full access on the eastern portion of the site on Ball Road (see Figure 2).

There are no improvements planned within the study area and no current transportation studies have been completed for roadways within the vicinity of the proposed development. However, the City of Blaine has identified Lexington Avenue as a roadway corridor that will become increasingly congested. The Transportation Implementation section of Blaine's *Comprehensive Plan Update* (dated November 2009), states "The City will work with Anoka County and surrounding communities to initiate a transportation study of the Lexington Area that is projected to experience significant capacity problems in the future."

Summary of Analyses

The roadway corridors adjacent to the proposed site will function acceptably with the forecast 2030 Build daily traffic volumes being below each roadways theoretical capacity. All of the study intersections within the study area are forecast to operate acceptably at LOS D or better through the 2013 Build scenario.

Recommended Improvements

The following improvements are needed to accommodate traffic generated by the Walmart (as shown in Figure 3):

- Ball Road/North Site Driveway
  - One outbound left turn lane, one outbound right turn lane, and one inbound lane on the site driveway.
  - Stop sign control for the driveway's outbound traffic.
  - No changes to Ball Road.
- Ball Road/South Site Driveway/Hupp Street
  - One outbound left/through lane, one outbound right turn lane, and one inbound lane on the site driveway.

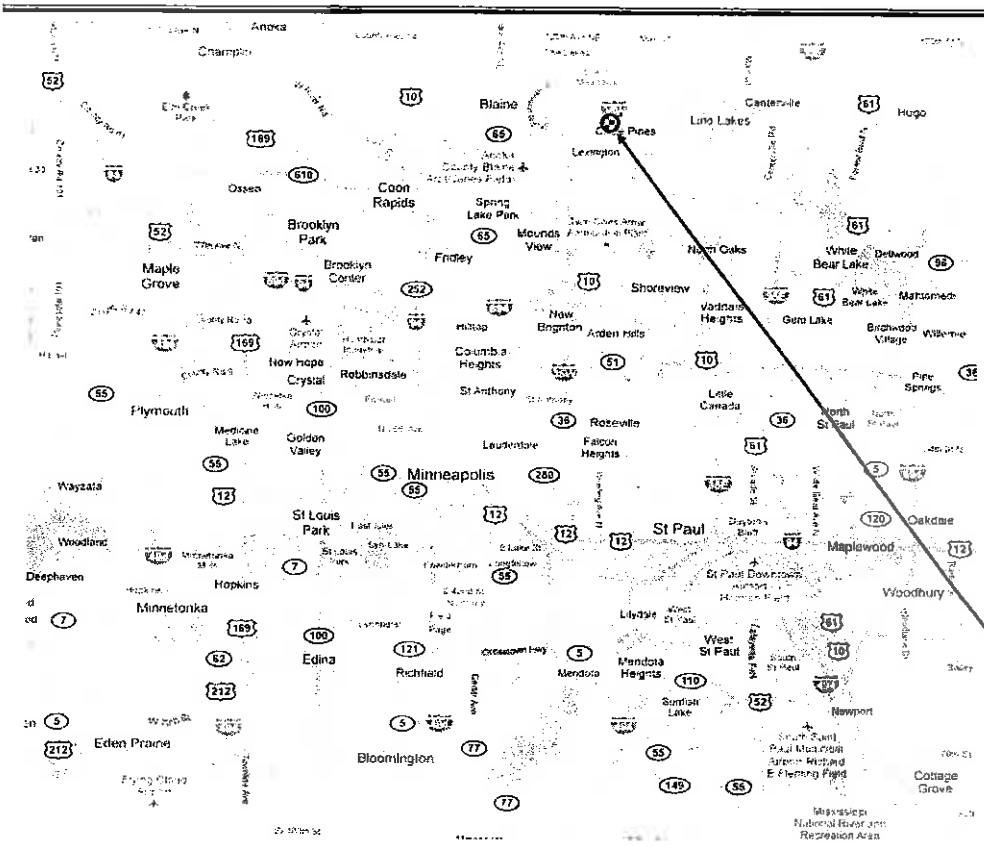
  - Stop sign control for the driveway's outbound traffic.
  - Add a center, two way left turn lane on Ball Road from Lexington Avenue to approximately 100 feet east of Hupp Street (plus a taper for the turn lane east of Hupp Street).
  - It is recommended the final design consider 11 foot wide travel lanes on Ball Road, which will have a traffic calming effect near the residences.
- Retime the traffic signals along Lexington Avenue in the study area after the new Walmart is fully operational to account for the change in traffic patterns.

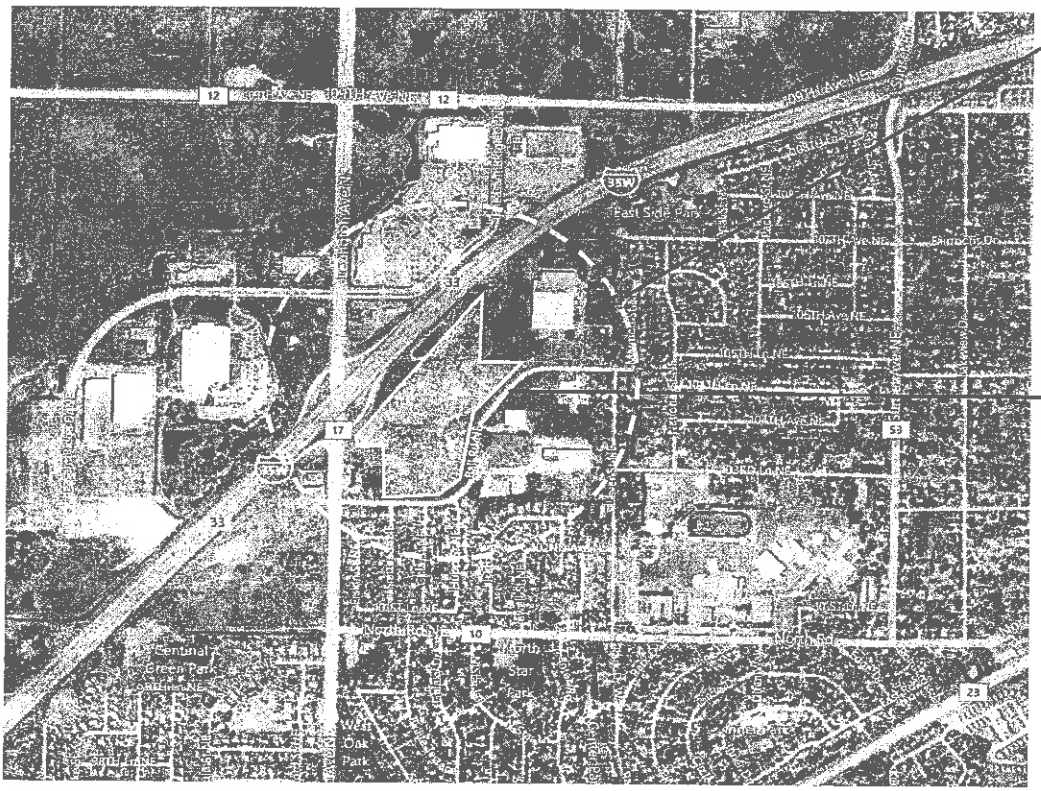
Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 1
Location Maps

North
No Scale



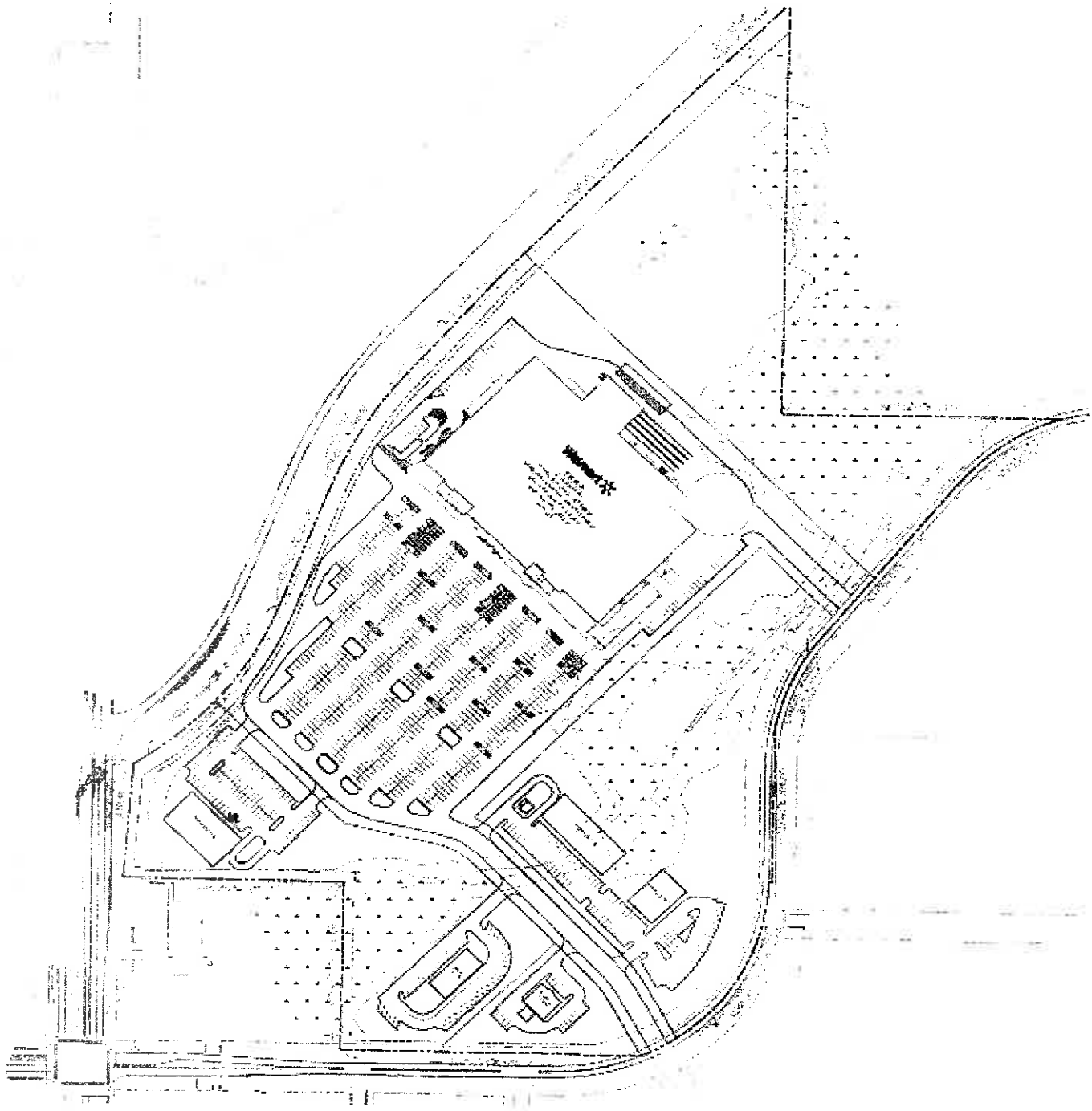


Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 2
Site Plan

North
No Scale

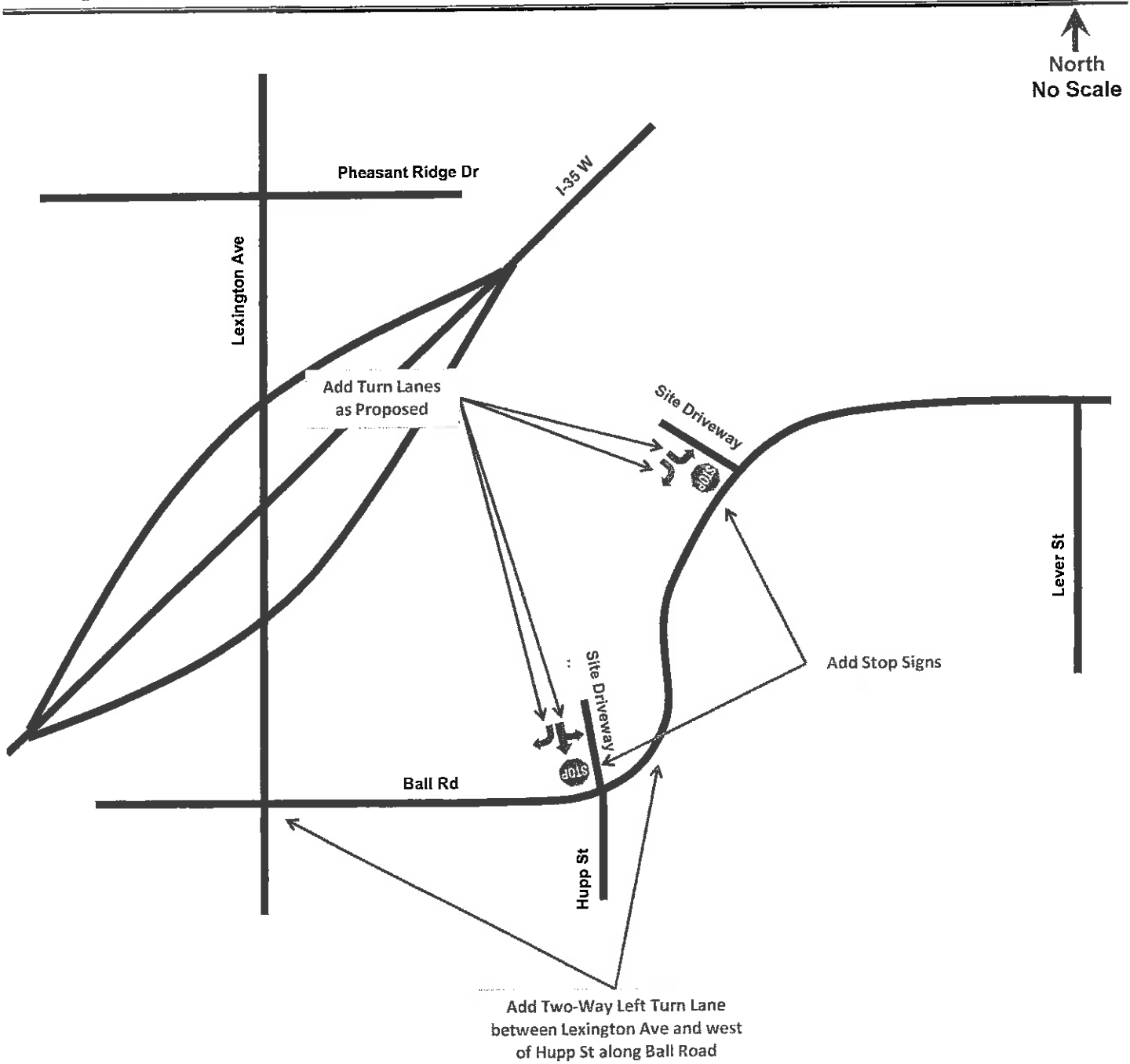


Site Plan prepared for Walmart by MFRA

Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 3
Improvements Needed for Walmart



-Draft -

Table of Contents

LIST OF FIGURES

LIST OF TABLES

-Draft -

I. Introduction

The purpose of this traffic impact study is to determine if completion of the proposed Walmart development in Blaine will significantly impact the adjacent transportation system. The specific study objectives are:

i. Determine how key intersections within the study area currently operate.
ii. Determine if key intersections within the study area will operate with acceptable vehicle delays in 2013.
iii. Determine if key intersections within the study area will operate with acceptable vehicle delays in 2030.
iv. Determine the appropriate access configuration for the site.
v. Recommend transportation improvements if needed.

This traffic study is being done per Walmart's requirements to determine the traffic impacts of the new development on the adjacent roadways. The impact of the development is studied in 2013 and 2030 (a City of Blaine requirement). The 2013 analyses are done to determine what should be constructed in the near term to accommodate the development's traffic. The 2030 analyses are done for planning purposes to allow appropriate right-of-way to be preserved and to highlight issues public agencies may want to address in long term transportation plans. The 2013 and 2030 traffic analyses include potential traffic impacts of developing the outlots on the site. However, these outlots are not proposed for development at this time.

The study area encompasses the transportation system within approximately one third of a mile of the site. The intersections studied are:

- Lexington Avenue N & Pheasant Ridge Dr NE
- Lexington Avenue N & Interstate 35W SB Ramp
- Lexington Avenue N & Interstate 35W NB Ramp
- Lexington Avenue N & Ball Road NE
- Ball Road NE & Hupp St NE
- Ball Road NE & Lever Street NE
- Ball Road NE & Proposed Site Driveway

The intersections are analyzed during the weekday a.m. peak hour and weekday p.m. peak hour to determine if the intersections will operate acceptably with completion of the development. The following scenarios are analyzed:

- Existing conditions
- Year 2013 No-Build
- Year 2013 Build (Walmart build-out year)
- Year 2030 No-Build
- Year 2030 Build

-Draft -

II. Area Conditions

A. Transportation Network Study Area

The proposed store location is southeast of Interstate 35W and east of Lexington Avenue in Blaine, Minnesota. The only roadway under Mn/DOT's jurisdiction within the study area is Interstate 35W. Interstate 35W is a four lane divided, northeast-southwest road with a 70 mph speed limit near the site. Mn/DOT classifies Interstate 35W as a High Priority Interregional Corridor (Subcategory 1F).

Lexington Avenue is the only roadway within the study area under the jurisdiction of Anoka County. It is designated as Anoka County State Aid Highway 17 and an A-Minor Arterial. It is a four lane divided road with a 45 mph speed limit near the site.

The City of Blaine has jurisdiction over Ball Road, Lever Street and Pheasant Ridge Drive. Ball Road and Lever Street near the site are both designated as Blaine Municipal State Aid Street 120 and Major Collectors. They are both two lane roads with 30 mph speed limits near the site. Pheasant Ridge Drive is designated as Blaine Municipal State Aid Street 128. It is a four lane divided road with a 35 mph speed limit near the site.

Existing speed limits, lane configurations, and traffic control for each of the study intersections is shown in Figure 4. No roadway improvements are programmed for the transportation network within the study area.

The existing peak hour turning movement volumes are shown in Figures 5 and 6 (weekday a.m. peak hour and weekday p.m. peak hour). The peak hour data for each intersection, in 15 minute intervals, is contained in the Appendix. The turning movement volumes were collected in August 2011, except for the Lexington Avenue/Pheasant Ridge Drive intersection which was counted by Anoka County in July 2011 (there is a noticeable imbalance in traffic volumes on Lexington Avenue between Pheasant Ridge Drive and the Interstate 35W SB Ramp that are smoothed out in the future year forecasts). Daily traffic volumes for the area roadways from Mn/DOT's traffic flow maps are shown on Figure 7.

The City of Blaine is served by Metro Transit buses; however, there are no transit stops within a reasonable walking distance (quarter mile) of the proposed site. It is unlikely any Walmart patrons will use transit for their shopping trips.

B. Study Area – Adjacent Land Use

The City of Blaine currently zones the site Planned Business District (PBD). Immediately southwest of the site is a vacant strip mall with a convenience store which is zoned Community Commercial (B-2). South of the site is zoned Single Family Residential. The areas east and northeast of the site are zoned Light Industrial and are generally occupied by office/warehouse/industrial buildings.

Northeast of the Lexington Ave/Pheasant Ridge Dr intersection is a large commercial area that currently has a Walmart, Cub Foods, Home Depot and various other smaller commercial buildings. The existing Walmart located on the north side of Interstate 35W will be closed when the Walmart on the south side of Interstate 35W is operational.

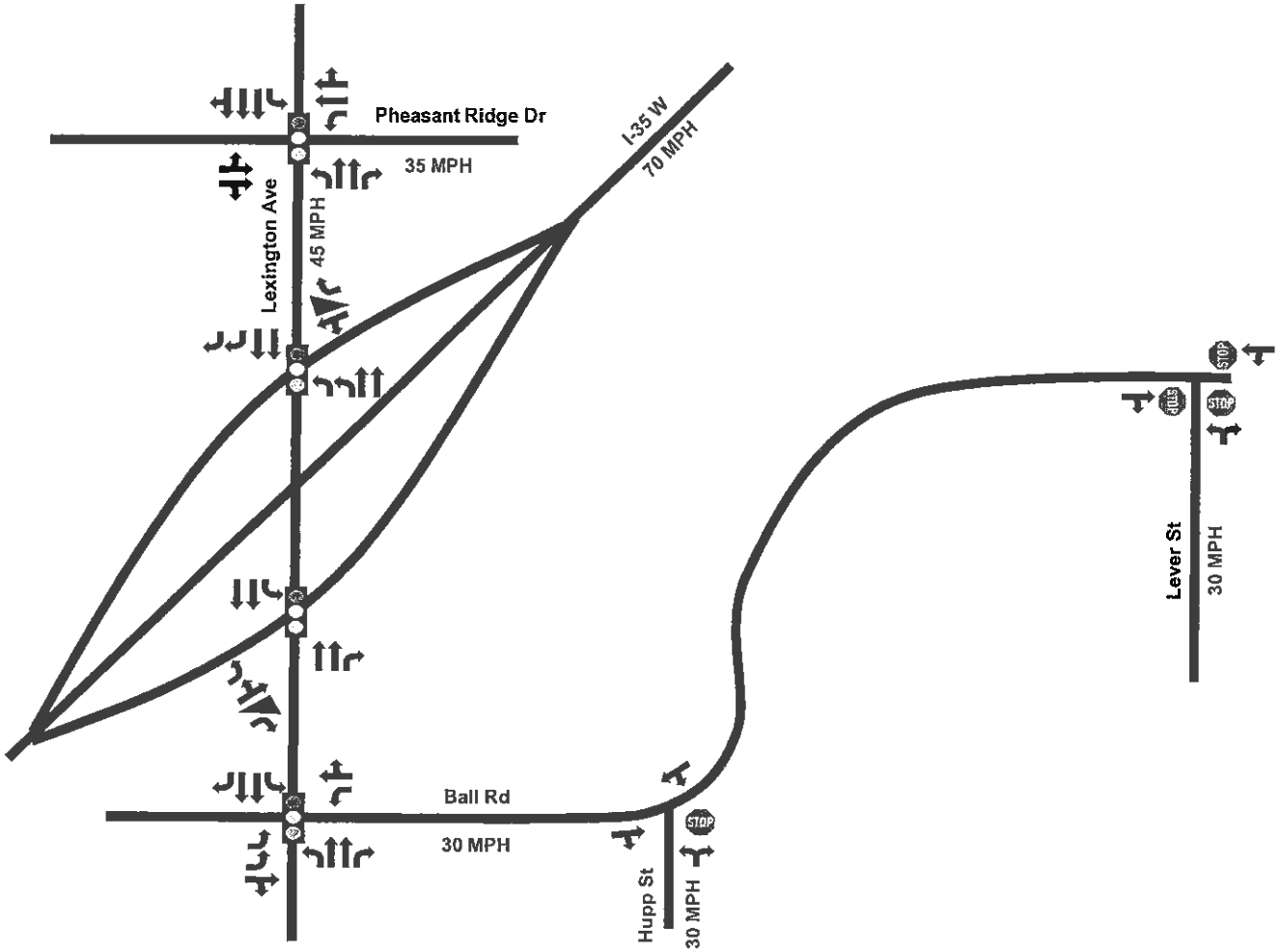
Blaine is a built-out suburb of Minneapolis and St. Paul. The 2010 census lists Blaine's population at 57,186 with the City of Blaine's *Comprehensive Plan Update* (adopted November 2009) forecasting it to grow to 78,000 by 2030.

Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 4
Existing Lanes & Traffic Control

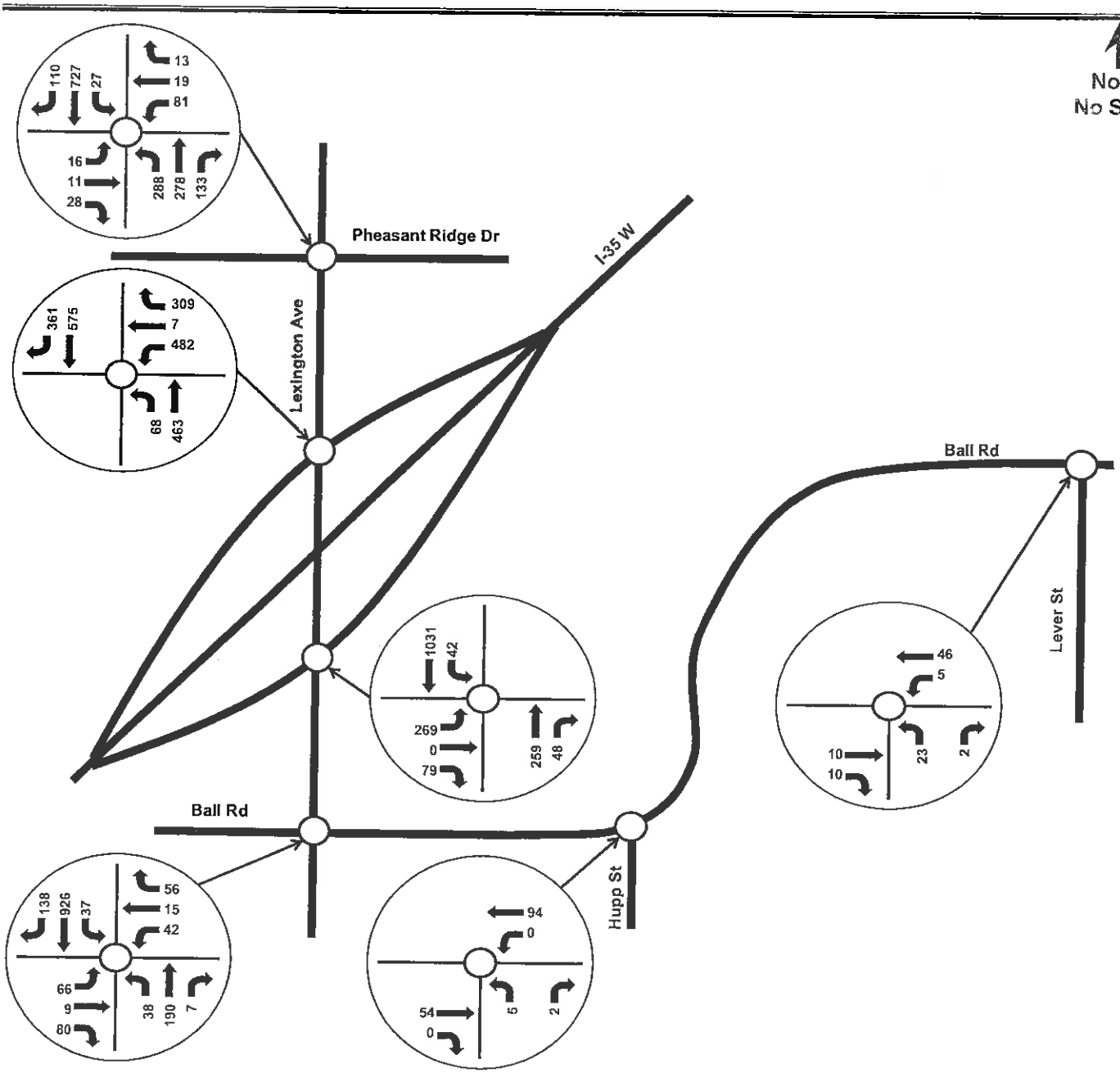
North
No Scale



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

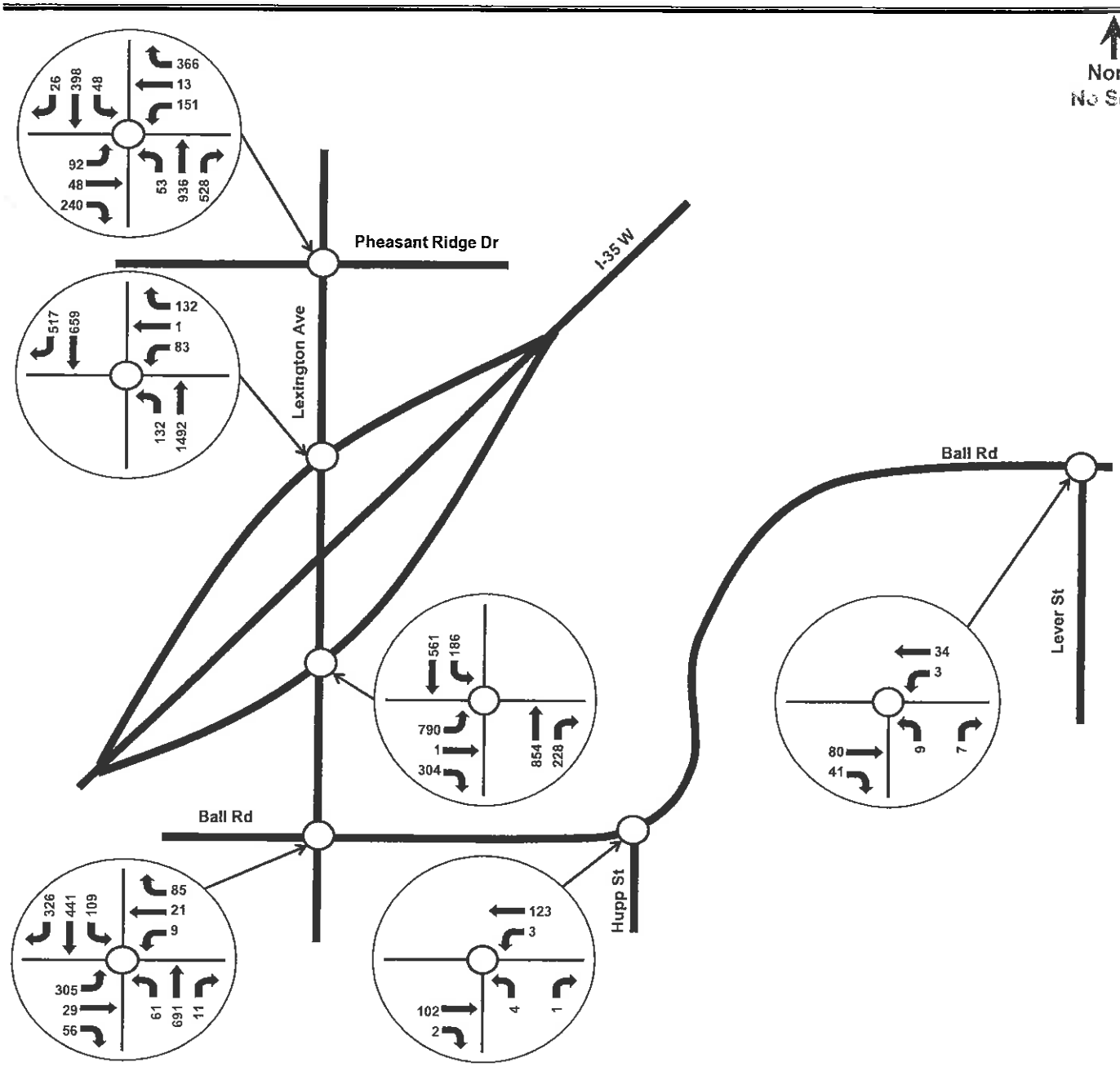
Figure 5
Existing AM Peak Hour Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

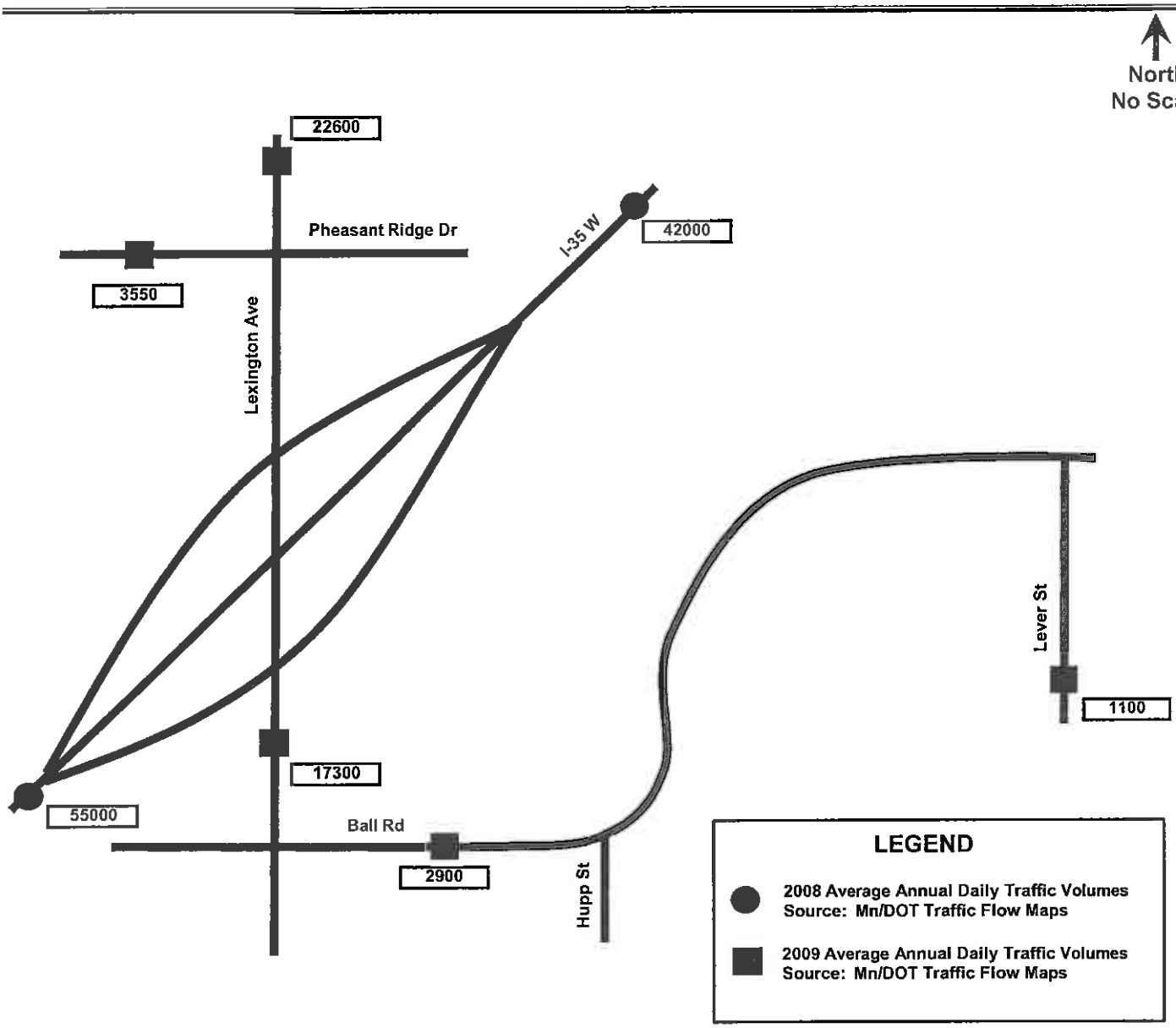
Figure 6
Existing PM Peak Hour Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 7
Existing Daily Traffic Volumes



-Draft -

III. Projected Traffic

A. Site Traffic

A trip generation analysis was performed for the site based on the methods published in the *ITE Trip Generation Manual, 8th Edition*. The *8th Edition* includes trip generation data from the March 28, 2008 *Nationwide Walmart Supercenter Study (Trip Generation Characteristics versus Gross Floor Area)* prepared by the Texas Transportation Institute. The trip generation results are shown in Table 1.

Along with the Walmart being fully operational in 2013, it is assumed the multiple other commercial uses on the southern portion of the site will also be operational in 2013. Based on buildable acreage and current market demand, these outlot uses are assumed to be an 11,000 square foot retail space, a 15,500 square foot retail space, a 1,500 square foot sit down restaurant, a 4,500 square foot fast food restaurant, and a 3,500 square foot bank. Though it is likely all of these uses may not be built and operational in 2013, they are included in the 2013 analyses to make the analysis more conservative. Trip generation results for these uses, based on the *ITE Trip Generation Manual, 8th Edition,* are also shown in Table 1.

Due to the fact that both of the proposed driveways for the development are located on Ball Road and there are low existing volumes on Ball Road near the site, it is assumed there will not be a significant amount of trips diverted into the site from the current volumes on Ball Road. No trip generation reductions have been taken for diverted/pass-by trips.

Some of the customers who visit the potential retail spaces, restaurants and bank on the southern portion of the site will also visit the Walmart. Based on data contained in the *ITE Trip Generation Handbook, 2nd Edition,* 20% of the new trips generated by these developments are assumed to also visit the Walmart. These are labeled internal trips in Table 1.

The directional trip distribution pattern for the trips generated in Table 1 is shown in Figure 8. The trip distribution pattern is based on existing traffic patterns and area population centers. The trip distribution pattern and trip generation assumptions were confirmed as reasonable with City of Blaine, Anoka County, and Mn/DOT engineering staff.

The weekday a.m. peak hour, weekday p.m. peak hour, and daily trips generated by the site were distributed to the area roadways per the trip distributions shown in Figure 8. The resulting 2013 traffic volume changes due to the site's development are shown in Figures 9, 10, and 11 respectively.

B. OTHER TRAFFIC

Traffic forecasts were developed for the year 2013 and 2030 No-Build scenarios by applying a 1.6% compounded annual growth rate to the existing traffic volume data. This growth rate is based on 20 year traffic forecasts of the area roadways provided by Mn/DOT. The 1.6% 20 year growth factor was confirmed as reasonable with City of Blaine, Anoka County, and Mn/DOT engineering staff. The 2013 No-Build traffic volumes are shown in Figures 12 through 14 and the 2030 No-Build traffic volumes are shown in Figures 15 through 17.

C. TOTAL FUTURE TRAFFIC

Traffic forecasts were developed for the year 2013 Build scenario by adding the site generated traffic as shown in Figures 9 through 11 to the No-Build volumes shown in Figures 12 through 14. The resultant 2013 Build forecasts are shown in Figures 18 through 20.

Traffic forecasts were developed for the year 2030 Build scenario by adding the site generated traffic as shown in Figures 9 through 11 to the No-Build volumes shown in Figures 15 through 17. The resultant 2030 Build forecasts are shown in Figures 21 through 23.

Although the Walmart north of Interstate 35W will be closed when this proposed Walmart is operational, no adjustments were made to the Build scenario traffic volumes to account for the store closure. It is assumed the shopping center will find another tenant (or tenants) to lease the vacated Walmart space and those uses will generate traffic similarly to the existing Walmart.

Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Table 1
Forecast Trip Generation

Daily Volumes

LAND USE	ITE CODE #	DEVELOPMENT UNITS (GFA)	QUANTITY	DAILY RATE	ENTER PERCENT	EXIT PERCENT	INTERNAL PERCENT	INTERNAL TRIPS	PASSBY PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
Free Standing Discount Superstore	813	1,000 GFA	148.0	53.13	50%	50%	0%	0	0%	0	3,932	3,932
General Retail	820	1,000 GFA	26.5	42.94	50%	50%	20%	228	0%	0	455	455
High Turnover Restaurant	932	1,000 GFA	1.5	127.15	50%	50%	20%	38	0%	0	76	76
Fast Food w/drive through	934	1,000 GFA	4.5	496.12	50%	50%	20%	447	0%	0	893	893
Bank w/drive through	912	1,000 GFA	3.4	148.15	50%	50%	20%	101	0%	0	201	201
TOTALS								814		0	5,557	5,557

AM Peak Hour

LAND USE	ITE CODE #	DEVELOPMENT UNITS (GFA)	QUANTITY	AM RATE	ENTER PERCENT	EXIT PERCENT	INTERNAL PERCENT	INTERNAL TRIPS	PASSBY PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
Free Standing Discount Superstore	813	1,000 GFA	148.0	1.67	56%	44%	0%	0	0%	0	138	109
General Retail	820	1,000 GFA	26.5	1.00	61%	39%	20%	5	0%	0	14	8
High Turnover Restaurant	932	1,000 GFA	1.5	11.52	52%	48%	20%	3	0%	0	7	7
Fast Food w/drive through	934	1,000 GFA	4.5	49.35	51%	49%	20%	44	0%	0	91	87
Bank w/drive through	912	1,000 GFA	3.4	12.35	56%	44%	20%	8	0%	0	20	14
TOTALS								60		0	270	225

PM Peak Hour

LAND USE	ITE CODE #	DEVELOPMENT UNITS (GFA)	QUANTITY	PM RATE	ENTER PERCENT	EXIT PERCENT	INTERNAL PERCENT	INTERNAL TRIPS	PASSBY PERCENT	PASSBY TRIPS	NEW TRIPS ENTER	NEW TRIPS EXIT
Free Standing Discount Superstore	813	1,000 GFA	148.0	4.61	49%	51%	0%	0	0%	0	334	348
General Retail	820	1,000 GFA	26.5	3.73	49%	51%	20%	20	0%	0	38	40
High Turnover Restaurant	932	1,000 GFA	1.5	11.15	59%	41%	20%	3	0%	0	8	5
Fast Food w/drive through	934	1,000 GFA	4.5	33.84	52%	48%	20%	30	0%	0	64	58
Bank w/drive through	912	1,000 GFA	3.4	25.82	50%	50%	20%	18	0%	0	35	35
TOTALS								71		0	479	486

NOTES:

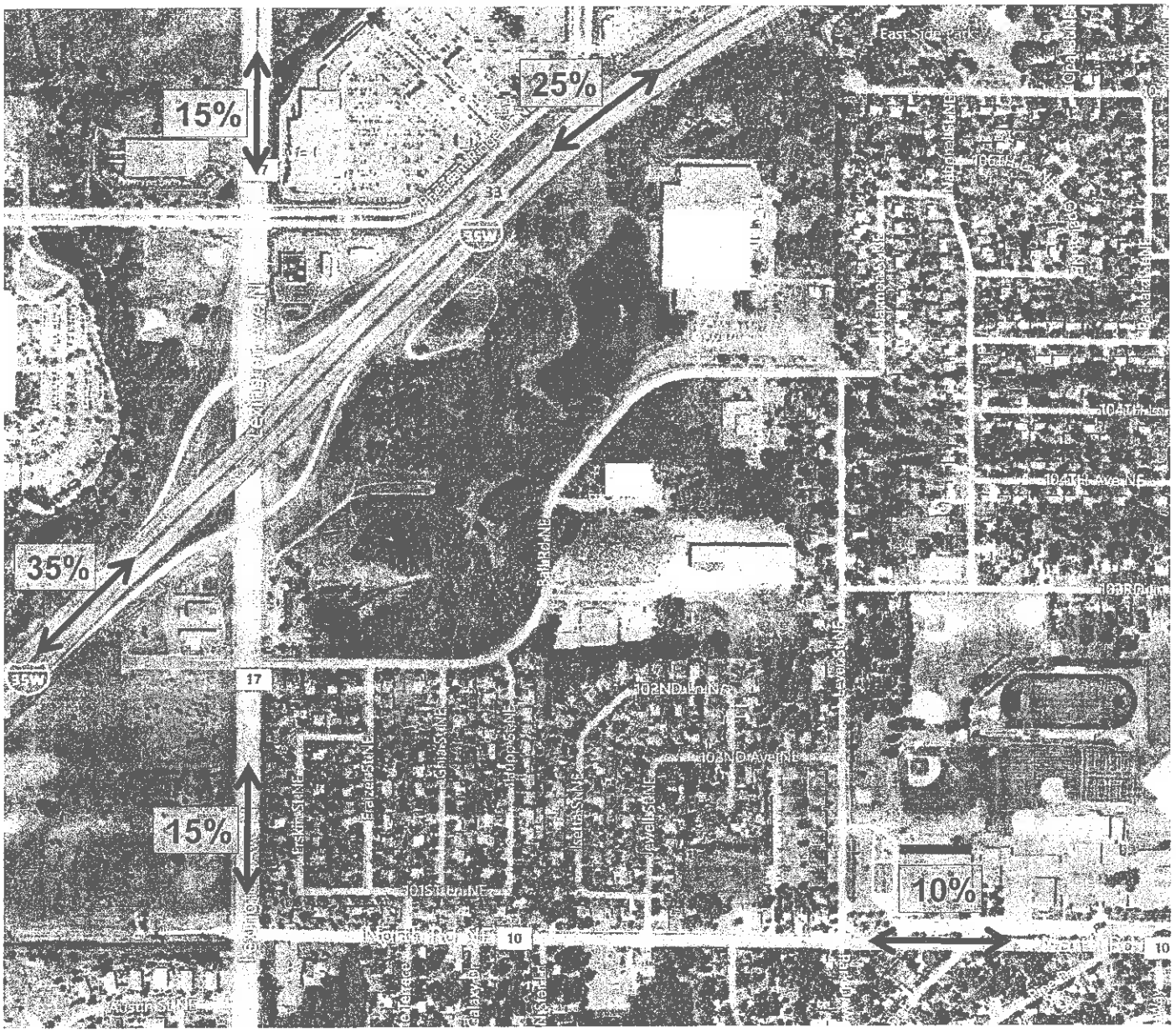
1. GFA = Gross Floor Area
2. All trip generation rates based on "Trip Generation", Institute of Transportation Engineers, 8th Edition unless otherwise noted.
3. Reduction for internal trips (Internal Percent) is based on "Trip Generation Handbook", Institute of Transportation Engineers, 2nd Edition.
4. A.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 7 and 9 a.m.).
5. P.M. Trip Generation is for the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.).

Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 8
Trip Distribution

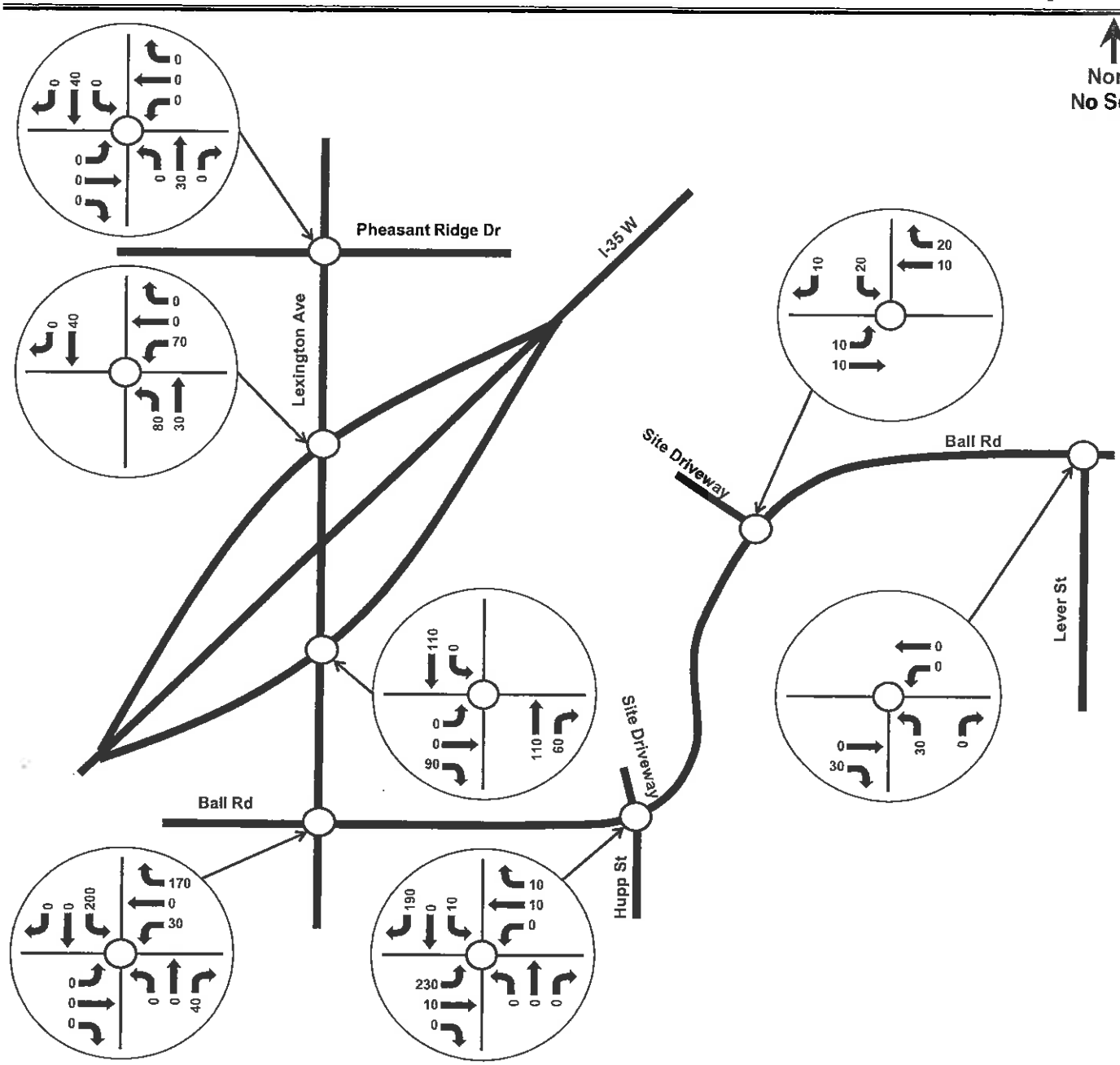
North
No Scale



Spack
THE TRAFFIC STUDY COMPANY

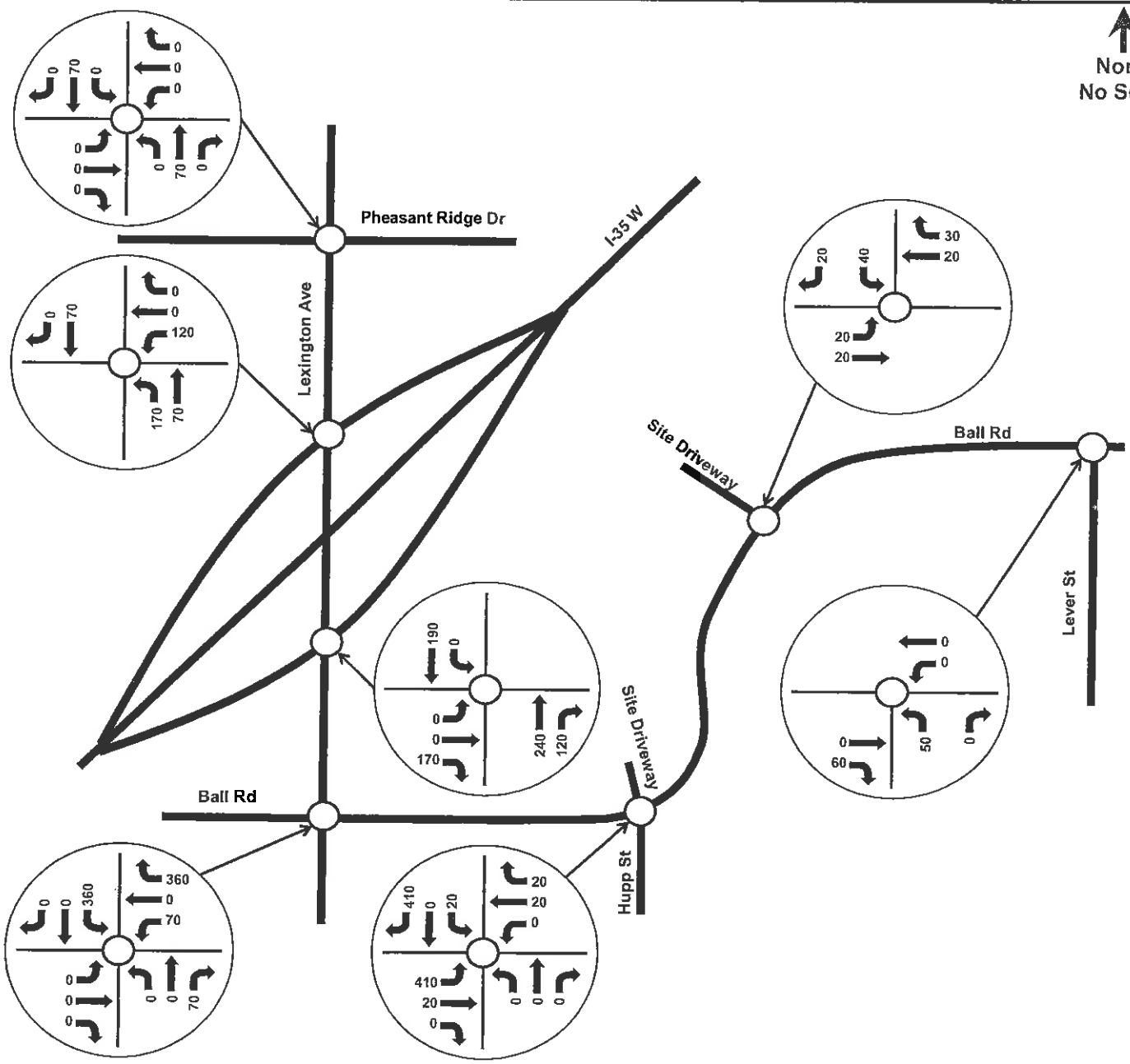
-Draft

Figure 9 - AM Peak Hour Traffic Volumes Due to Development



Spack
THE TRAFFIC STUDY COMPANY

-Draft Figure 10 - PM Peak Hour Traffic Volumes Due to Development

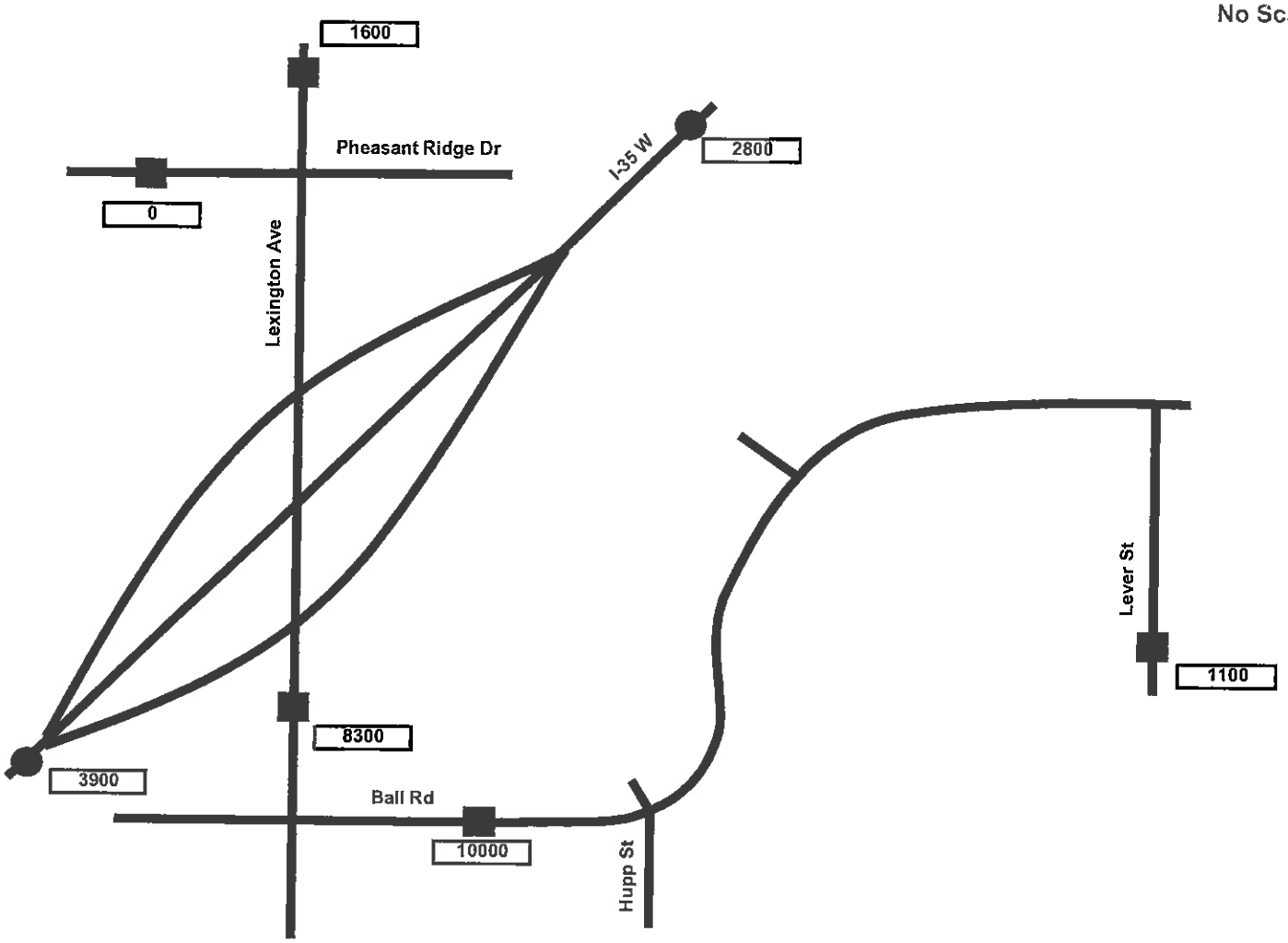


Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 11
Daily Traffic Volumes Due to Development

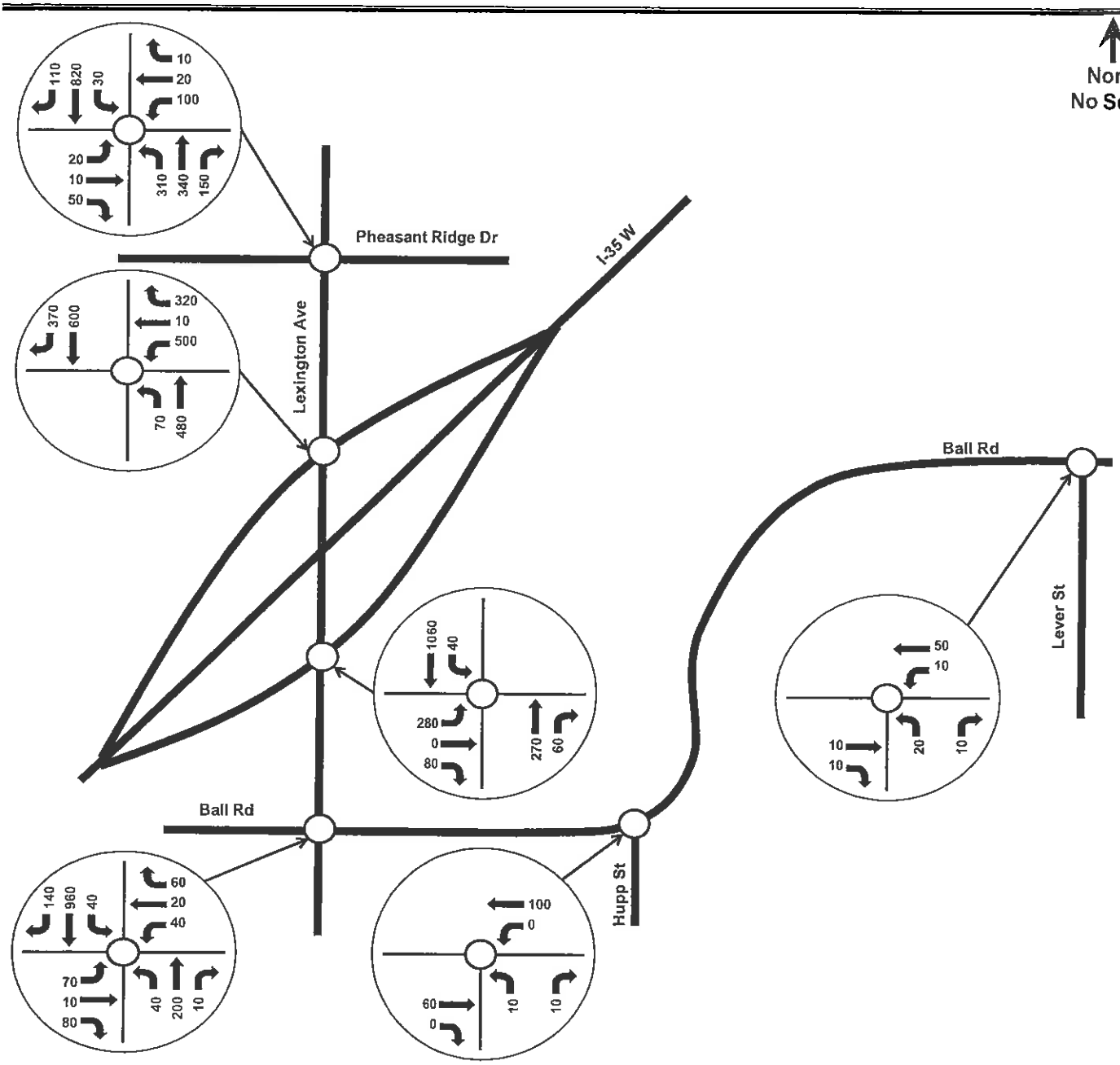
North
No Scale



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

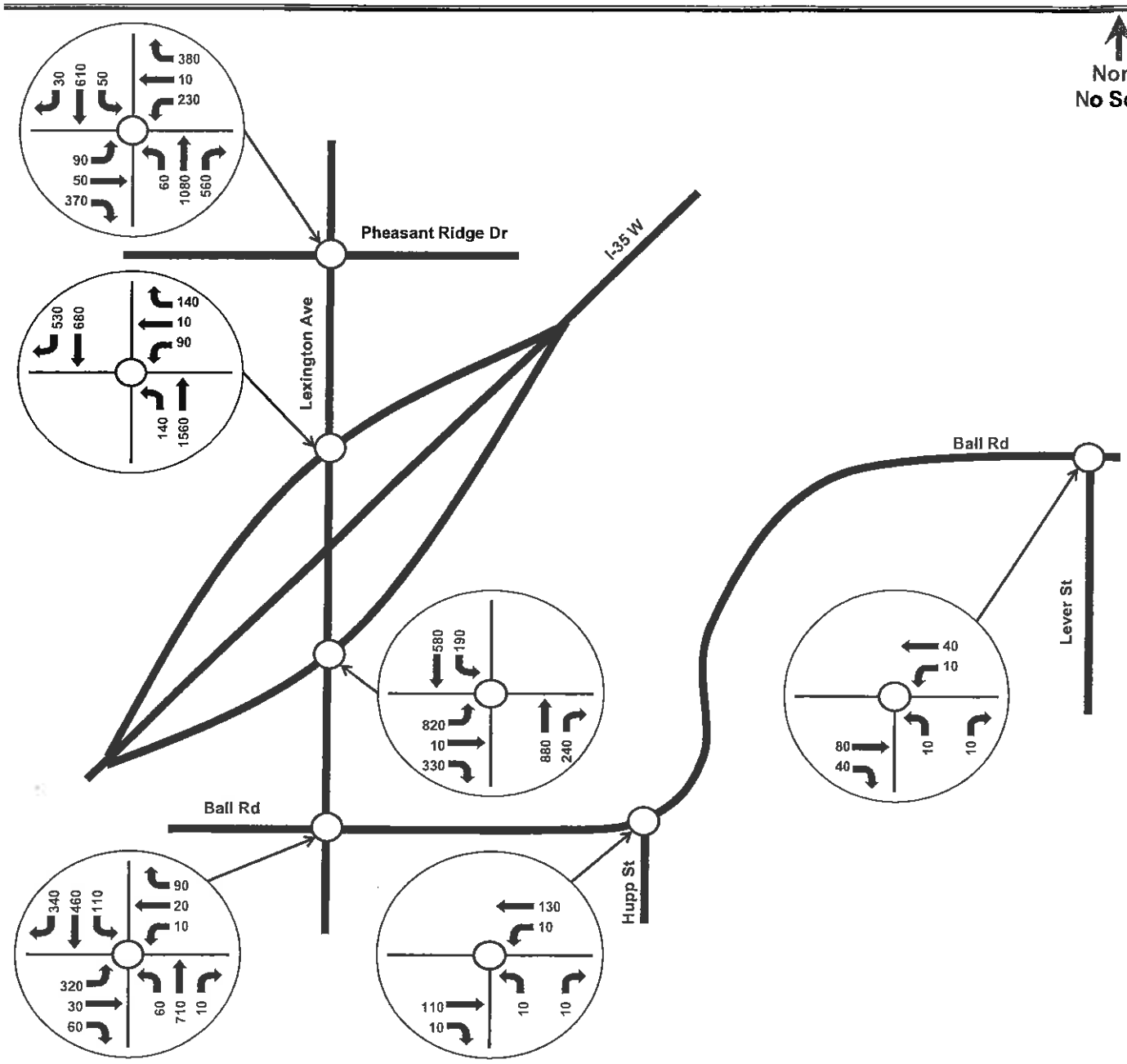
Figure 12
2013 AM Peak Hour No-Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

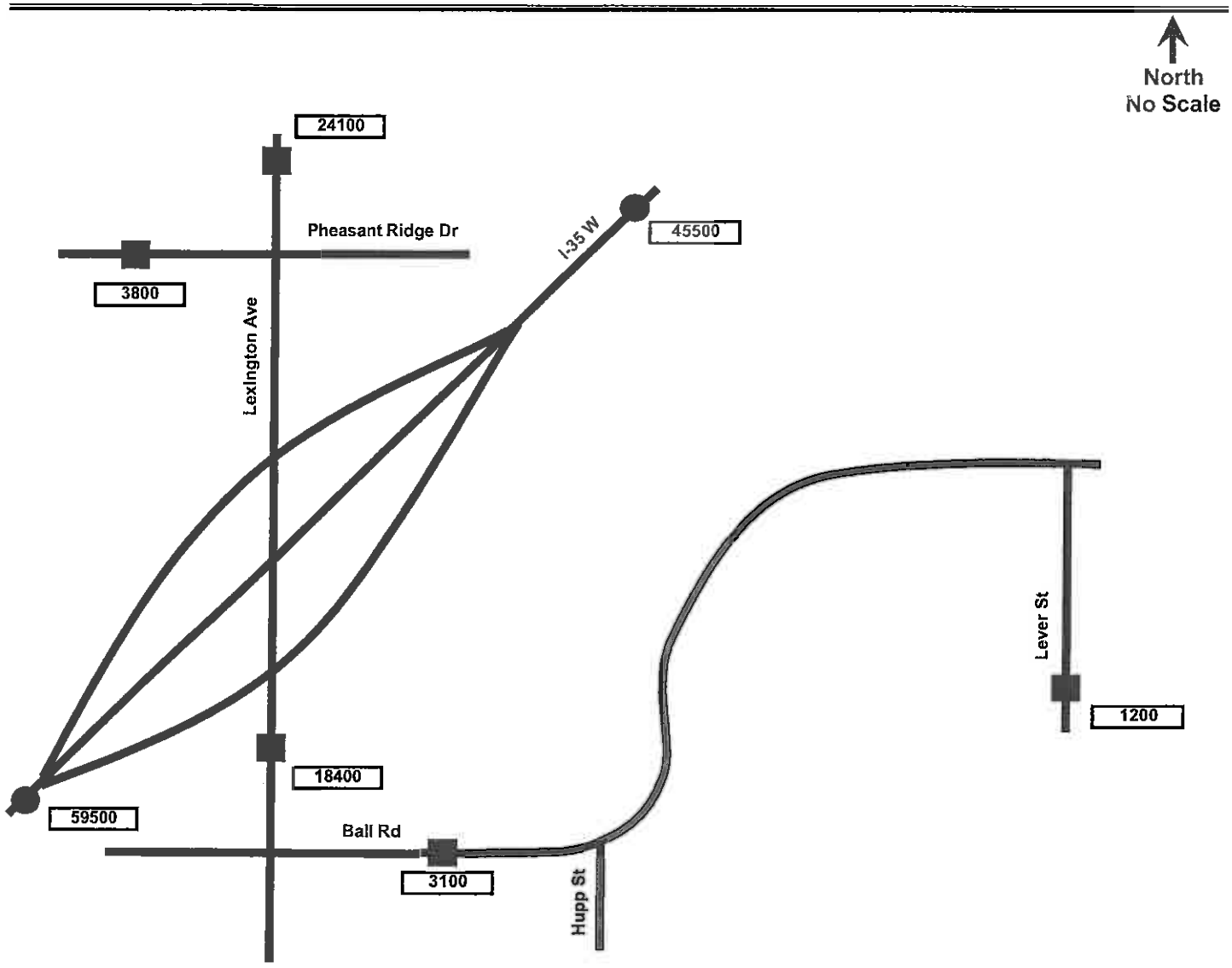
Figure 13
2013 PM Peak Hour No-Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

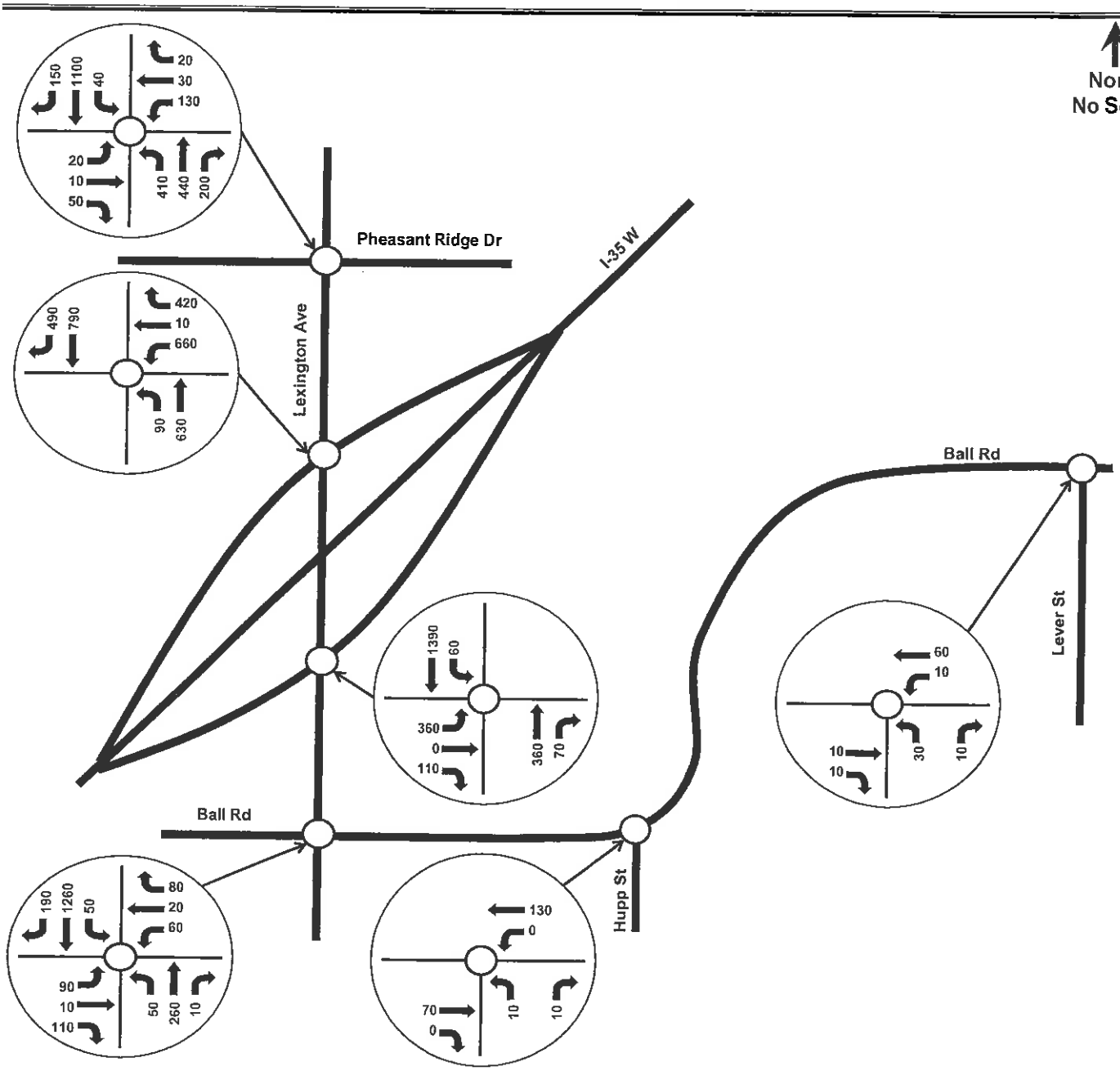
Figure 14
2013 Daily No-Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

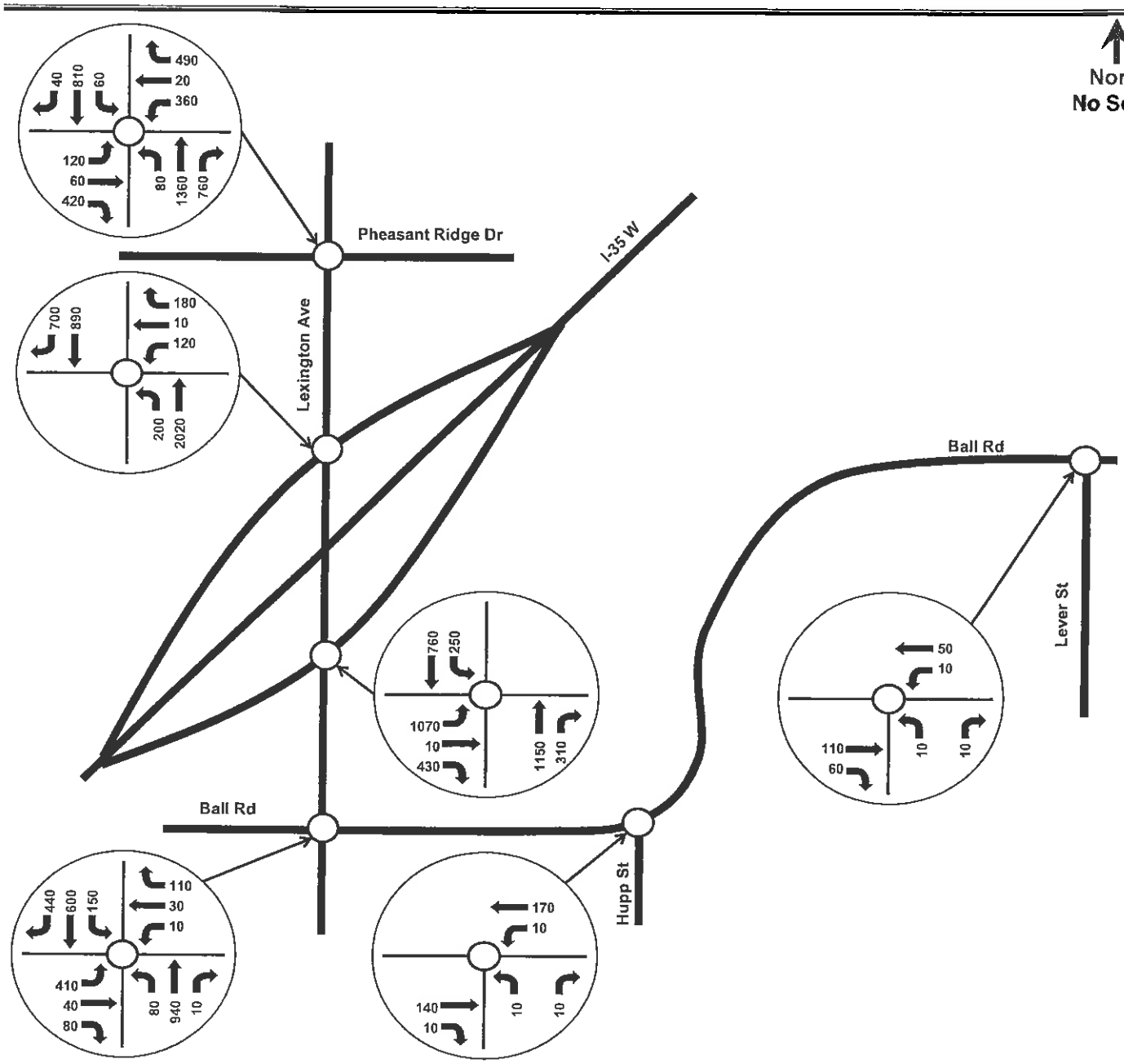
Figure 15
2030 AM Peak Hour No-Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

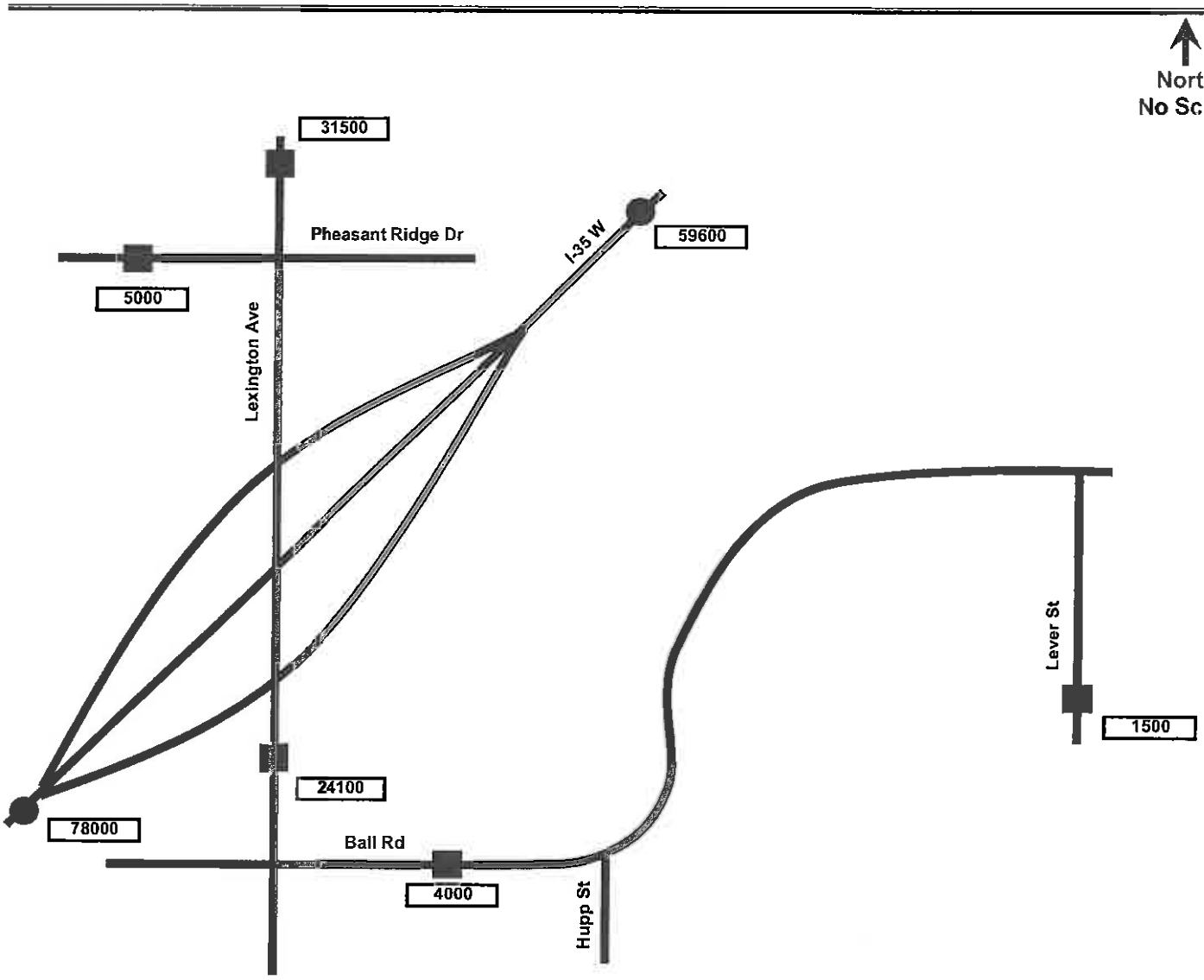
Figure 16
2030 PM Peak Hour No-Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

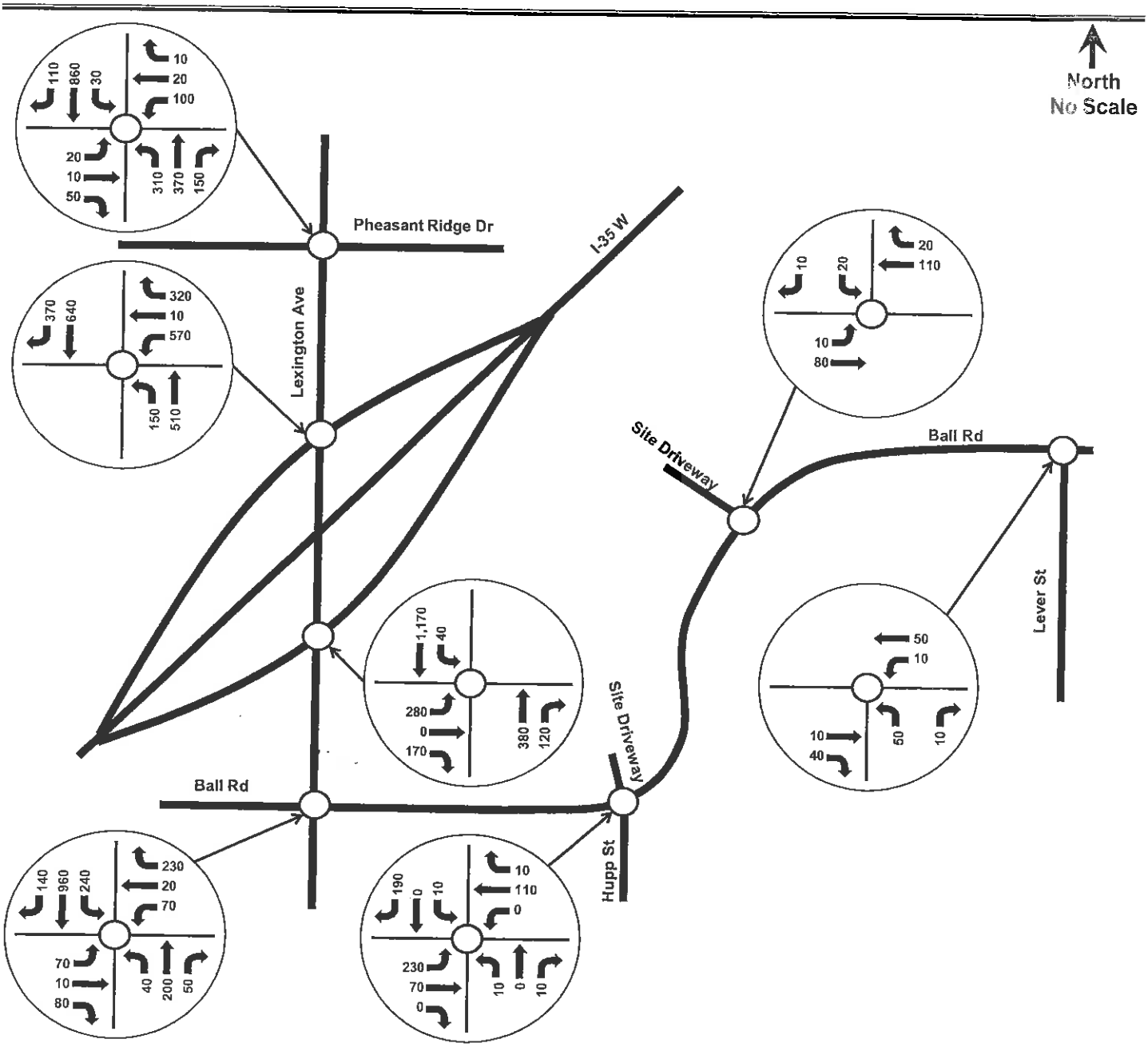
Figure 17
2030 Daily No-Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

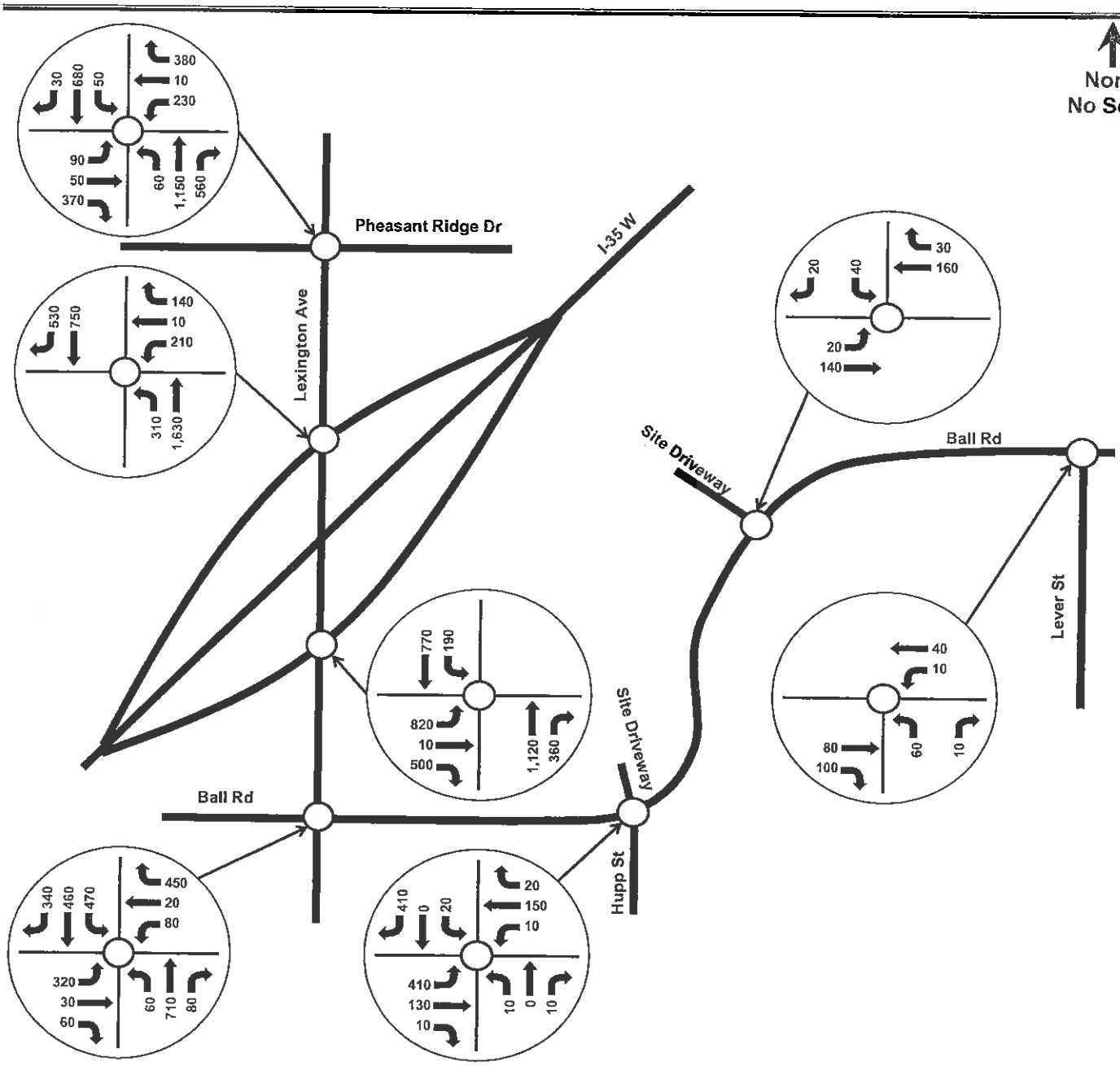
Figure 18
2013 AM Peak Hour Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

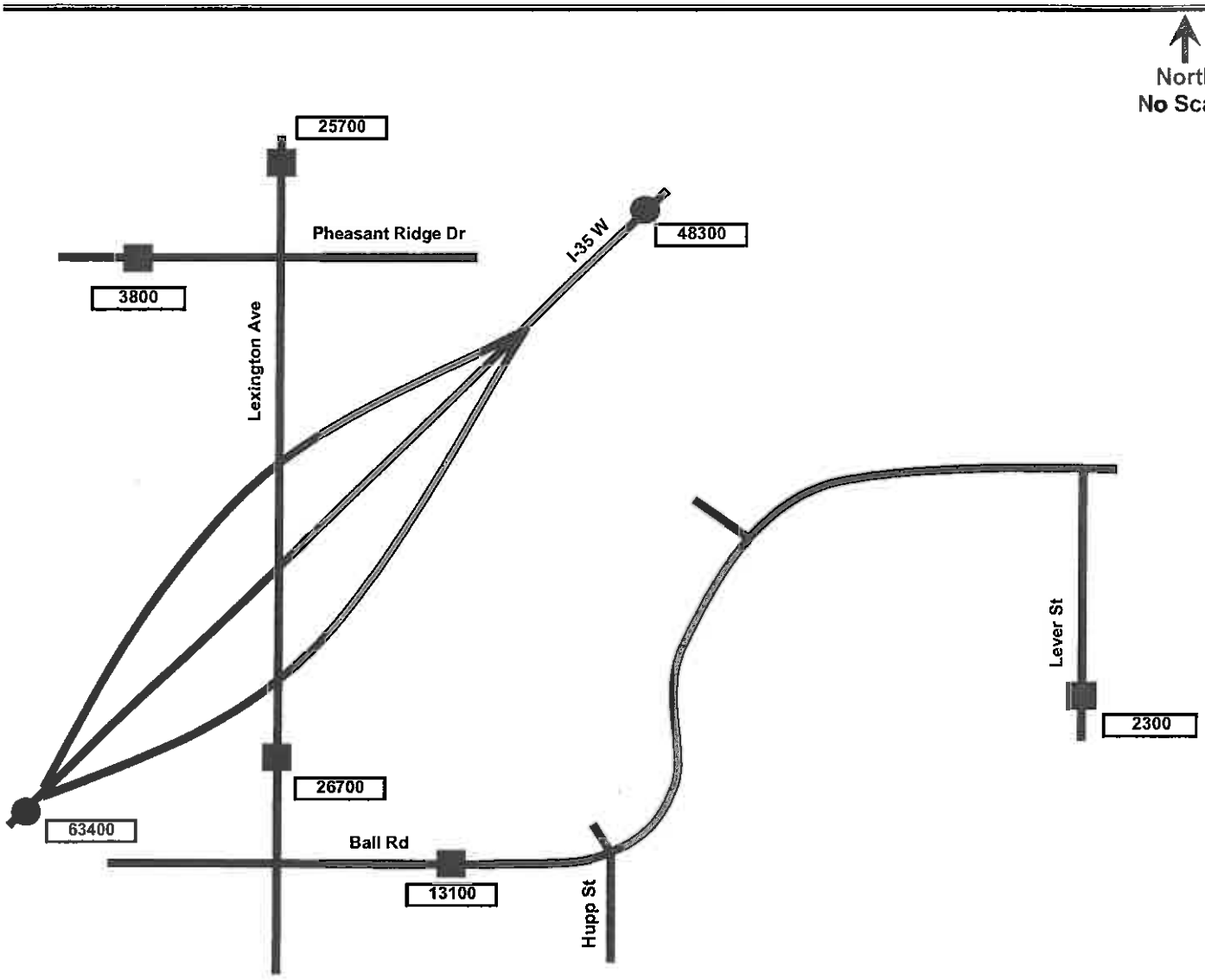
Figure 19
2013 PM Peak Hour Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

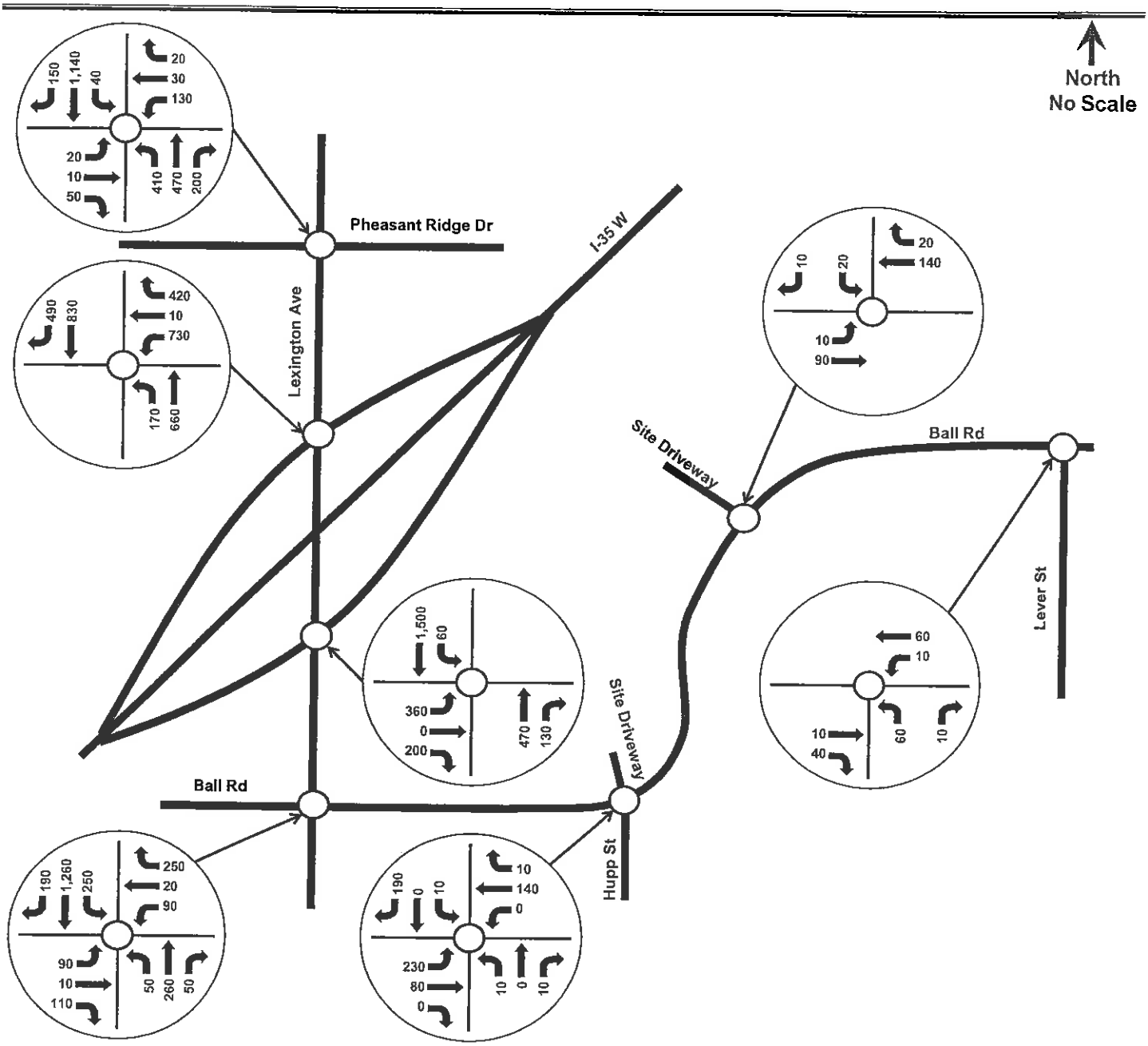
Figure 20
2013 Daily Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

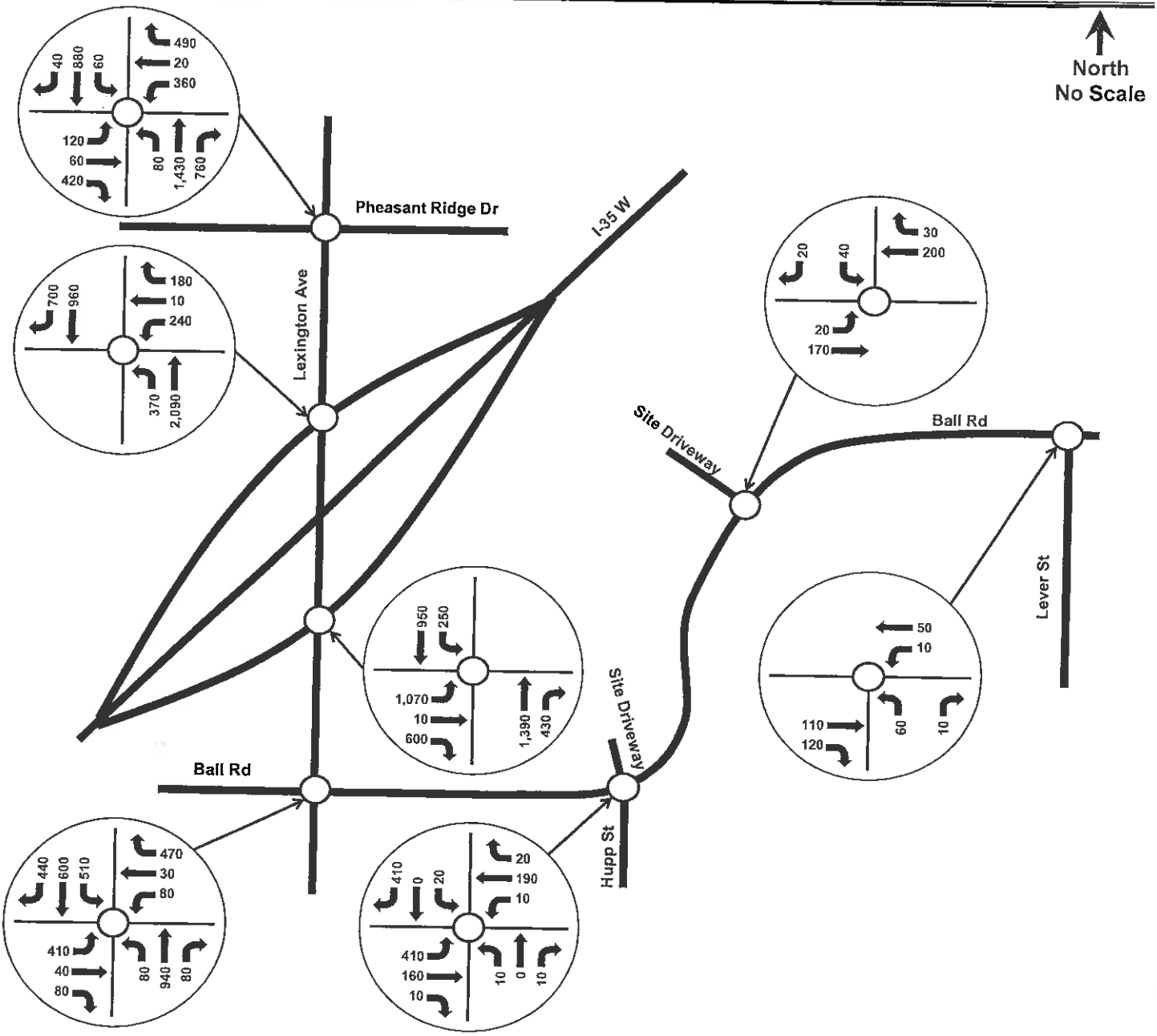
Figure 21
2030 AM Peak Hour Build Traffic Volumes



Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 22
2030 PM Peak Hour Build Traffic Volumes

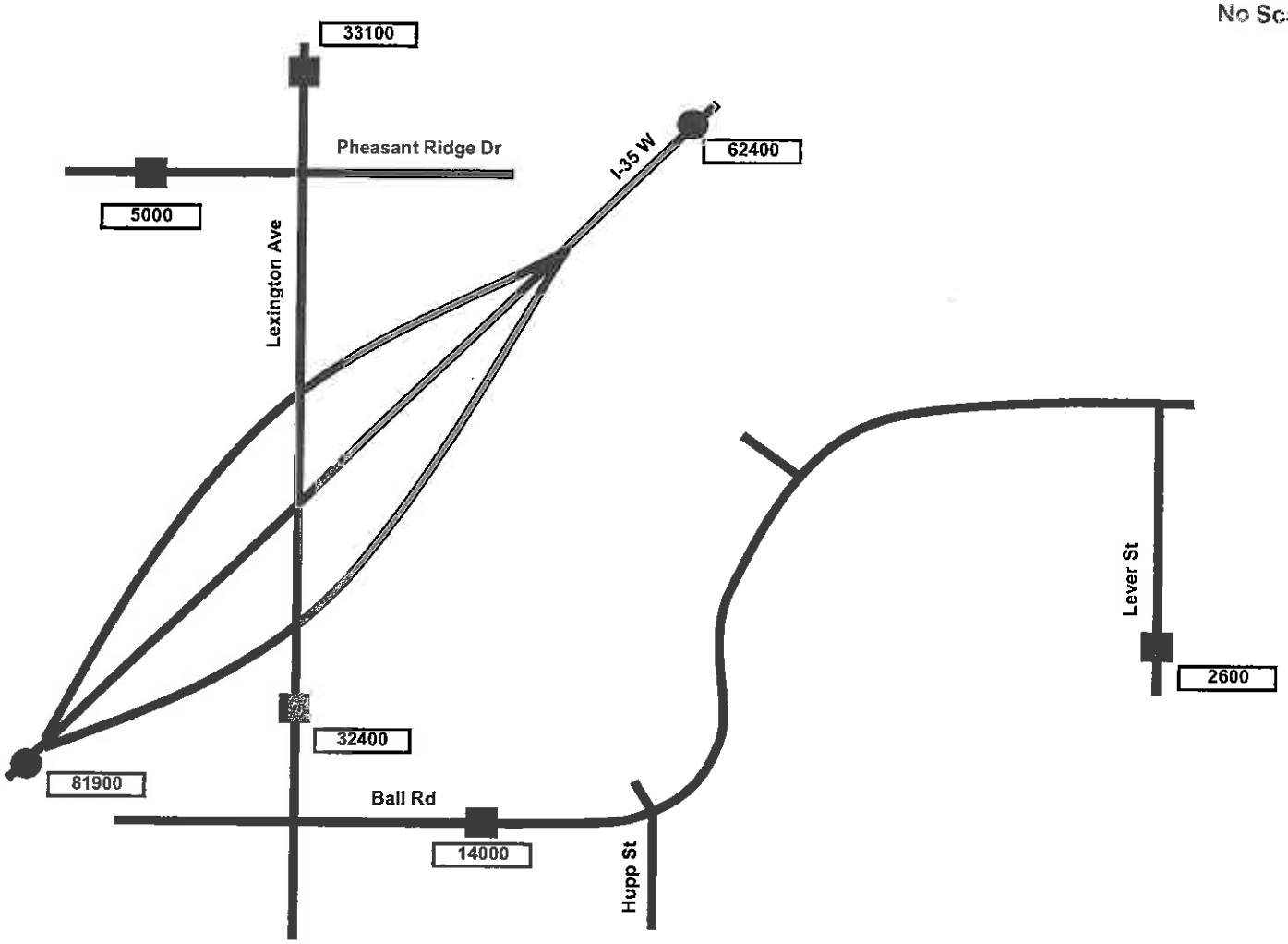


Spack
THE TRAFFIC STUDY COMPANY

-Draft -

Figure 23
2030 Daily Build Traffic Volumes

North
No Scale



-Draft -

IV. Traffic Analysis

This section begins by analyzing the traffic impacts of the proposed site plan. The end of the section provides recommended access configurations, near term roadway improvements, and right-of-way preservation for potential long term needs.

A. Site Access

The site will be served by two intersections along Ball Road. One of the proposed accesses will be at the current Ball Road & Hupp Street intersection (currently a three-legged intersection). This access is proposed to have two outbound lanes (one through-left lane and one right turn lane) and one inbound lane to the site. The other access will be northeast of the Ball Road & Hupp Street intersection and is proposed as a three-legged intersection with two outbound lanes (one left turn lane and one right turn lane) and one inbound lane to the site. Ball Road will remain free flowing at each access and the outbound driveways will be stop sign controlled.

Based on the forecast daily traffic volumes, it is assumed for analysis purposes that left turn lanes will be built on Ball Road at the intersection with Hupp Street (but no right turn lanes on Ball Road). It is also assumed that no turn lanes or bypass lanes will be added on Ball Road at the site's proposed northern driveway.

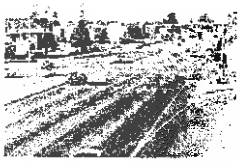
95th percentile queues (the highest amount of vehicle stacking that occurs over 95% of the peak hour) were calculated for each driveway movement per the methodology contained in the *Highway Capacity Manual*. These calculations are included in the Appendix. All of the turning movements at the proposed site access intersections are expected to have a 95th percentile queue of three vehicles or less with the traffic volumes from Figures 18, 19, 21, and 22 (the turning movement volumes from the Build scenarios). The proposed site plan would provide adequate ingress and egress for the site.

It appears the intersection sight distance provided at each intersection will be adequate per the requirements of the *Mn/DOT Road Design Manual* (dated June 2000). The intersection sight distance for each intersection should be confirmed through the final design process.

The site plan notes the possible need for traffic signal control at the Ball Road/Hupp Street intersection. The intersection is forecast to operate acceptably with stop sign control through the 2030 Build scenario; however the intersection should be monitored by the City of Blaine if a significant development is proposed east or south of the Walmart site. A peak hour warrant analysis was conducted for the intersection per the *Minnesota Manual on Uniform Traffic Control Devices (MnMUTCD)* and the intersection will not meet the peak hour warrant for traffic signal control in the 2013 or 2013 Build scenarios.

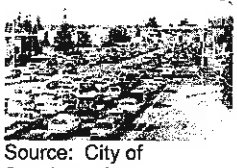
B. CAPACITY AND LEVEL OF SERVICE AT STUDY INTERSECTIONS

LOS A



LOS D = Acceptable

LOS F = Unacceptable



Source: City of San Jose, CA

An intersection capacity analysis was conducted for the existing intersections per the *Highway Capacity Manual*. Signalized and all-way stop controlled intersections are assigned a "Level of Service" letter grade for the peak hour of traffic based on the intersection geometry, traffic volumes, and traffic control. Level of Service A (LOS A) represents light traffic flow (free flow conditions) while Level of Service F (LOS F) represents heavy traffic flow (over capacity conditions). LOS D is considered acceptable in urban conditions.

At unsignalized intersections with side street stop sign control, the side street approaches are assigned LOS grades based on intersection geometry and traffic volumes. An unsignalized intersection with side-street stop sign control usually has little delay for the intersection because most of the traffic is moving through without stopping. It is common though for the side street approach to have a poor LOS during the peak hours. LOS F is considered acceptable at stop controlled approaches as long as the approach volumes are relatively light and there are no stacking problems. The LOS calculated at a stop sign controlled intersection is different than the LOS calculated at a signalized intersection because motorists have more tolerance for delay at a traffic signal than they do at a stop sign.

The existing weekday a.m. and weekday p.m. peak hour LOS results are shown in Table 2 (the LOS calculations are included in the Appendix). These are based on the existing lane configurations and traffic control (see Figure 4) combined with the existing peak hour turning movement volumes (see Figures 5 and 6). The signal timing plans used in the LOS calculations for the Lexington Avenue/Pheasant Ridge Drive, Lexington Avenue/I-35W SB Ramp, Lexington Avenue/I-35W NB Ramp and Lexington Avenue/Ball Road intersections were based on the existing signal timing plans, as provided by Anoka County.

-Draft -

Table 2 – Existing Peak Hour LOS Results[1]

Intersection	Traffic Control	Weekday A.M.	Weekday P.M.
Lexington Ave/Pheasant Ridge Dr	Signalized	C (e)	C (e)
Lexington Ave/I-35W SB Ramp	Signalized	B (d)	B (e)
Lexington Ave/I-35W NB Ramp	Signalized	B (e)	C (d)
Lexington Ave/Ball Rd	Signalized	B (e)	C (e)
Ball Rd/Hupp St	Side Street Stop Sign	A (a)	A (a)
Ball Rd/Lever St	Side Street Stop Sign	A (a)	A (a)

[1] The first LOS gives the LOS for the intersection. The LOS for the movement with the poorest operation is shown in parentheses.

All study intersections operate acceptably at LOS C or better in the existing weekday a.m. and weekday p.m. peak hours. It should be noted that some movements at the signal controlled intersections operate at LOS E, indicating significant delay and queuing for those movements even though the overall intersection operation is considered acceptable.

The 2013 peak hour traffic forecasts (shown on Figures 12, 13, 18, and 19) were used with the existing traffic control and lane configurations (shown in Figure 4) to calculate 2013 No-Build and Build LOS grades for the study intersections. The existing signal timing plans were used in the calculations. The LOS grades for 2013 are shown in Table 3 and the level of service calculations are contained in the Appendix. For the build scenarios the existing traffic control and lane configurations (shown in Figure 4) along with the two proposed driveways (the anticipated configurations of the two site driveway intersections as described in Section IV A of this report) were used.

Table 3 – 2013 Peak Hour LOS Results[1]

Intersection	Weekday A.M.		Weekday P.M.	
	No-Build	Build	No-Build	Build
Lexington Ave/Pheasant Ridge Dr	C (e)	C (e)	C (f)	C (f)
Lexington Ave/I-35W SB Ramp	B (d)	C(d)	B (e)	B (e)
Lexington Ave/I-35W NB Ramp	B (e)	B (e)	C (d)	D (e)
Lexington Ave/Ball Rd	B (e)	C (e)	C (e)	D (f)
Ball Rd/Hupp St/Proposed Driveway	A (a)	A (b)	A (a)	A (f)
Ball Rd/Lever St	A (a)	A (a)	A (a)	A (a)
Ball Rd/Proposed NorthDriveway	n/a	A (a)	n/a	A (b)

[1] The first LOS gives the LOS for the intersection. The LOS for the movement with the poorest operation is shown in parentheses.

All of the study intersections will operate acceptably at LOS D or better during the weekday a.m. and weekday p.m. peak hours under the no-build and build scenarios. There is currently congestion for certain movements along Lexington Avenue at all four of the intersections in the study area, even though the intersections operate acceptably at an overall LOS D or better. These delays will be exacerbated as traffic grows in the future.

Although the Ball Road/Hupp Street/Proposed Driveway intersection will operate acceptably at LOS A, the northbound movement will experience LOS F in the 2013 Build scenario p.m. peak hour. The 95th percentile queues are projected to be minimal (three vehicles or less at all movements - calculations included in the Appendix).

The 2030 peak hour traffic forecasts (shown on Figures 15, 16, 21, and 22) were used with the existing traffic control and lane configurations (shown in Figure 4) to calculate 2030 No-Build and Build LOS grades for the study intersections. The existing signal timing plans were used in the calculations. The LOS grades for 2030 are shown in Table 4 and the level of service calculations are contained in the Appendix. For the build scenarios the existing traffic control and lane configurations (shown in Figure 4) along with the two proposed driveways (the anticipated configurations of the two site driveway intersections as described in Section IV A of this report) were used.

Table 4 – 2030 Peak Hour LOS Results[1]

Intersection	Weekday A.M.		Weekday P.M.	
	No-Build	Build	No-Build	Build
Lexington Ave/Pheasant Ridge Dr	C (e)	C (e)	D (f)	**E (f)**
Lexington Ave/I-35W SB Ramp	C (e)	C (e)	A (e)	B (e)
Lexington Ave/I-35W NB Ramp	B (e)	B (e)	D (f)	**E (f)**
Lexington Ave/Ball Rd	C (e)	C (e)	D (f)	**F (f)**
Ball Rd/Hupp St/Proposed Driveway	A (a)	A (b)	A (a)	A (f)
Ball Rd/Lever St	A (a)	A (a)	A (a)	A (a)
Ball Rd/Proposed Driveway	n/a	A (b)	n/a	A (b)

[1] The first LOS gives the LOS for the intersection. The LOS for the movement with the poorest operation is shown in parentheses.

Most of the intersections will also operate acceptably in the 2030 scenarios. All of the study intersections will operate acceptably at LOS C or better during the 2030 weekday a.m. peak hour under the no-build and build scenarios. As in the 2013 Build scenario, the Ball Road/Hupp Street/Proposed Driveway intersection will operate acceptably at LOS A, but the northbound movement will experience LOS F in the 2030 Build scenario p.m. peak hour. The 95th percentile queues are projected to be minimal (four vehicles or less at all movements - calculations included in the Appendix).

Three of the intersections along Lexington Avenue are forecast to operate at LOS E or F in the 2030 Build weekday p.m. peak hour. The addition of turn lanes/adjusting the signal timing was iterated to determine if minor improvements would allow the intersections to operate at LOS D or better. No combination of signal timing alterations/added turn lanes short of converting Lexington Avenue to a six lane divided roadway from Pheasant Ridge Drive to Ball Road provides acceptable operations. A feasible alternative to accommodating future traffic through the Lexington Avenue corridor may be to install multi-lane roundabouts.

It is expected the City of Blaine will refine the long term traffic forecasts at the study intersections along Lexington Avenue with the future study of Lexington Avenue identified in their Transportation Plan. The preliminary analyses in this study indicate the need for Lexington Avenue to be a six lane facility through the study corridor. This interchange reconstruction project would be needed for regional traffic management and is well outside the scope of mitigation required for the proposed Walmart development. Installing multi-lane roundabouts and keeping the interchange bridge may be a viable alternative.

A minimum of 115 feet of right-of-way is provided along Lexington Avenue, which is enough to build a six lane facility. However, the City of Blaine and Anoka County should review their right-of-way requirements whenever a development adjacent to Lexington Avenue is proposed.

C. Queuing Analyses for 2013 Build Scenario

Analyses done with Synchro™ don't always reflect the interaction of vehicles between intersections or the long queues which can occur at traffic signals with extremely long cycle lengths. Micro-simulations, such as those done with the SimTraffic™ software package, can highlight issues that may be missed by Synchro™ analyses. To address these possible issues, the Synchro™ model from the 2013 Build scenario p.m. peak hour was transferred to SimTraffic™ for micro-simulation analysis.

This year 2013 was chosen as the critical year because the 2013 Build scenario analyses highlight mitigation measures that will likely need to be constructed within a year or two of the Walmart opening, while the 2030 analyses are presented for long range planning in order to preserve adequate right-of-way. The p.m. peak hour is chosen as the critical period for design purposes because the proposed site will generate more than twice as much traffic during the p.m. peak hour than the a.m. peak hour.

The simulation software was seeded with a random number seed of 0, a seeding duration of 3 minutes, and a recording duration of 60 minutes. Then the simulation software was run and recorded five times with random number seeds of 1, 2, 3, 4, and 3; using a seeding duration of 3 minutes and a recording duration of 60 minutes.

For the micro-simulation model to truly represent local conditions the 2011 models should be calibrated to match the delay and queuing currently experienced at each intersection movement. However this calibration is a very significant effort, which is not justified for this quality control check of the Level of Service results. Instead of fully calibrating the model, it is assumed the default settings in SimTraffic™ approximate the conditions in the study area. This is typical practice in Minnesota for traffic impact studies.

The stacking and delay results from the micro-simulation are contained in the Appendix. These reports include data on the existing network, such as link distances, turn lane storage lengths, and actuated signal timing plans. They also include measures of effectiveness for each intersection movement (such as delay per vehicle in seconds, maximum queues, average queues, 95th percentile queues, and upstream block times as a percentage of the peak hour). The average delay per vehicle is also provided for the overall intersection. Maximum queues for individual movements that extend beyond the available storage are highlighted with a red box.

The maximum queues documented through the un-calibrated micro-simulation show maximum turning queues extending out of turn lanes as well as through intersections at all four study intersections along Lexington Avenue.

To alleviate this queuing; improvements and coordinated signal timing plans were iterated until the queuing issues were largely resolved (the southbound Lexington Ave to northeastbound Interstate 35W left turn lane at the Lexington Avenue/Interstate 35W NB Ramp only has 140 feet of storage and will occasionally have queues extending past the turn lane, but solving this would require a major interchange reconstruction).

The combination of optimizing the signal timing plans, adding a 100 foot long westbound to northbound right turn lane on Ball Road at Lexington Avenue, and adding a second southbound to eastbound left turn lane on Lexington Avenue at Ball Road (along with adding a second eastbound through lane on Ball Road to receive traffic from the dual left turn lane) resulted in minimal stacking issues in the 2013 Build p.m. peak hour. The stacking and delay results from the micro-simulation are contained in the Appendix.

D. Capacity and Level of Service at Study Roadways

Based on calculations from the *Highway Capacity Manual*, the capacity of a four lane freeway, such as Interstate 35W, is approximately 72,000 to 85,000 vehicles per day. The capacity of a four lane divided roadway, such as Lexington Avenue and Pheasant Ridge Dr, is approximately 36,000 to 42,000 vehicles per day. The capacity of a two lane undivided roadway, such as Ball Road, is approximately 8,000 to 10,000 vehicles per day.

Based on the existing daily traffic volumes shown in Figure 7, all of the study roadway corridors currently have daily traffic volumes lower than their capacities.

All roadway volumes in the study area are forecasted to remain below their capacities through the 2030 Build scenario with the exception of Ball Road. Ball Road would operate acceptably with the proposed three lane section, which has a theoretical capacity of approximately 15,000 to 18,000 vehicles per day.

It should also be noted the 81,900 vehicles per day forecast on Interstate 35W southwest of Lexington Avenue is in the congested range and nearing the theoretical capacity of a four lane divided freeway.

E. Traffic Safety

All of the study intersections are controlled with either traffic signals or stop signs. There are no sight distance obstructions at any of the intersections. No future safety issues are anticipated.

F. Site Circulation and Parking

The site will have 685 ninety degree angled parking spaces, supplying a gross 4.6 parking spaces per 1,000 square feet of Walmart building. The parking aisles are perpendicular to the store front to promote safe pedestrian movements. City Ordinances currently require a minimum of 5.0 parking spaces per 1,000 square feet of building be supplied. A variance may be needed, but City of Blaine staff will need to prepare the final parking ratio calculations (the City of Blaine does not include unusable space in their calculations; hence the site will likely meet their parking requirements).

The loading docks are on the north corner of the building, segregated from customer traffic. Adequate turnarounds for delivery trucks are being provided. Trucks will be sharing the northeast access point to Ball Road with customers. Deliveries should be scheduled for off-peak times whenever possible to minimize truck/customer interactions at the site driveway.

G. Improvements to Accommodate Site Traffic

All of the study intersections are forecast to operate acceptably at LOS D or better in the 2013 Build scenario. In order to provide adequate ingress/egress at the site, the following configurations are recommended:

- Ball Road/North Site Driveway
  - One outbound left turn lane, one outbound right turn lane, and one inbound lane on the site driveway.
  - Stop sign control for the driveway's outbound traffic.
  - No changes to Ball Road.
- Ball Road/South Site Driveway/Hupp Street
  - One outbound left/through lane, one outbound right turn lane, and one inbound lane on the site driveway.
  - Stop sign control for the driveway's outbound traffic.
  - Add a center, two way left turn lane on Ball Road from Lexington Avenue to approximately 100 feet east of Hupp Street (plus a taper for the turn lane east of Hupp Street).

- It is recommended the final design consider 11 foot wide travel lanes on Ball Road, which will have a traffic calming effect near the residences.

After the new Walmart is fully operational, it is recommended Anoka County retime the traffic signals along Lexington Avenue in the study area to account for the change in traffic patterns caused by the closure of the northern Walmart along with the addition of the site generated traffic.

H. Alternative Improvements

Instead of constructing left turn lanes on Ball Road at the Hupp Street intersection, a single lane roundabout would likely function acceptably at the intersection. The proposed left turn lanes are expected to allow the intersection to operate acceptably through the 2030 Build scenario and they allow more flexibility to accommodate future traffic with traffic signal control if traffic volumes grow unexpectedly.

The study intersections will operate acceptably at LOS D or better in the 2013 Build scenario with the existing configuration, however Lexington Avenue will experience occasional stacking problems. The combination of optimizing the signal timing plans, adding a 100 foot long westbound to northbound right turn lane on Ball Road at Lexington Avenue, and adding a second southbound to eastbound left turn lane on Lexington Avenue at Ball Road (along with adding a second eastbound through lane on Ball Road to receive traffic from the dual left turn lane) would alleviate much of this stacking issue along Lexington Avenue.

I. Status of Improvements

No public funding is currently allocated to transportation improvements within the study area.

V. Conclusions

A. Summary of Roadways

The roadways adjacent to the proposed site will function acceptably with the forecasted 2030 Build daily traffic volumes being below each roadways theoretical capacity. However, the City of Blaine has identified Lexington Avenue as a roadway corridor that will become increasingly congested. The Transportation Implementation section of Blaine's *Comprehensive Plan Update* (dated November 2009); states "The City will work with Anoka County and surrounding communities to initiate a transportation study of the Lexington Area that is projected to experience significant capacity problems in the future." Lexington Avenue may need to be upgraded to a six lane facility in the future. Lexington Avenue could be upgraded to a six lane facility within the existing right-of-way.

B. Summary of Intersection Analysis

All of the study intersections within the study area are forecast to operate acceptably at LOS D or better through the 2013 Build scenario.

C. Summary of Needed Improvements

In order to provide adequate ingress/egress at the site through the 2030 Build scenario, the following configurations are recommended at the site driveways:

- Ball Road/North Site Driveway
  - One outbound left turn lane, one outbound right turn lane, and one inbound lane on the site driveway.
  - Stop sign control for the driveway's outbound traffic.
  - No changes to Ball Road.
- Ball Road/South Site Driveway/Hupp Street
  - One outbound left/through lane, one outbound right turn lane, and one inbound lane on the site driveway.
  - Stop sign control for the driveway's outbound traffic.
  - Add a center, two way left turn lane on Ball Road from Lexington Avenue to approximately 100 feet east of Hupp Street (plus a taper for the turn lane east of Hupp Street).
  - It is recommended the final design consider 11 foot wide travel lanes on Ball Road, which will have a traffic calming effect near the residences.

After the new Walmart is fully operational, it is recommended Anoka County retime the traffic signals along Lexington Avenue in the study area to account for the change in traffic patterns caused by the closure of the northern Walmart along with the addition of the site generated traffic.

VI. Appendix

A. Existing Traffic Data
B. Capacity Analyses
C. Queuing Analyses
D. Walmart Development Traffic Data Sheet

Revised 2/05

ENVIRONMENTAL ASSESSMENT WORKSHEET

Note to preparers: This form is available at http://www.eqb.state.mn.us. *EAW Guidelines* will be available in Spring 1999 at the web site. The Environmental Assessment Worksheet provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit or its agents to determine whether an Environmental Impact Statement should be prepared. The project proposer must supply any reasonably accessible data for — but should not complete — the final worksheet. If a complete answer does not fit in the space allotted, attach additional sheets as necessary. The complete question as well as the answer must be included if the EAW is prepared electronically.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project title**

2. **Proposer**
   Contact person
   Title
   Address
   City, state, ZIP
   Phone
   Fax
   E-mail

3. **RGU**
   Contact person
   Title
   Address
   City, state, ZIP
   Phone
   Fax
   E-mail

4. **Reason for EAW preparation** (check one)
   _____EIS scoping _____ Mandatory EAW_____ Citizen petition _____ RGU discretion
   Proposer volunteered

   If EAW or EIS is mandatory give EQB rule category subpart number and subpart name

5. **Project location** County_____ City/Township_____

   _____ ¼ _____ ¼ Section_____ Township _____ Range _____

   Attach each of the following to the EAW:
   - County map showing the general location of the project;
   - U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable);
   - Site plan showing all significant project and natural features.

6. **Description**
   a. Provide a project summary of 50 words or less to be published in the *EQB Monitor.*

   b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

   c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

d. Are future stages of this development including development on any outlots planned or likely to happen? __Yes __No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

e. Is this project a subsequent stage of an earlier project? __Yes __No
If yes, briefly describe the past development, timeline and any past environmental review.

7. **Project magnitude data**
Total project acreage
Number of residential units: unattached _____ attached _____maximum units per building
Commercial, industrial or institutional building area (gross floor space): total square feet_____

Indicate areas of specific uses (in square feet):

Office	Manufacturing
Retail	Other industrial
Warehouse	Institutional
Light industrial	Agricultural
Other commercial (specify)	

Building height If over 2 stories, compare to heights of nearby buildings

8. **Permits and approvals required.** List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

Unit of government	Type of application	Status

9. **Land use.** Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

10. **Cover types.** Estimate the acreage of the site with each of the following cover types before and after development:

Before	**After**	**Before**	**After**
Types 1-8 wetlands		Lawn/landscaping	
Wooded/forest		Impervious surfaces	
Brush/Grassland		Other (describe)	
Cropland			
		TOTAL	

If **Before** and **After** totals are not equal, explain why:

11. **Fish, wildlife and ecologically sensitive resources**
a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site? __Yes __No
If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the DNR Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: . Describe measures to minimize or avoid adverse impacts.

12. **Physical impacts on water resources.** Will the project involve the physical or hydrologic alteration — dredging, filling, stream diversion, outfall structure, diking, and impoundment — of any surface waters such as a lake, pond, wetland, stream or drainage ditch? __Yes __No
If yes, identify water resource affected and give the DNR Protected Waters Inventory number(s) if the water resources affected are on the PWI:_____. Describe alternatives considered and proposed mitigation measures to minimize impacts.

13. **Water use.** Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? __Yes __No
If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

14. **Water-related land use management district.** Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? __Yes __No
If yes, identify the district and discuss project compatibility with district land use restrictions.

15. **Water surface use.** Will the project change the number or type of watercraft on any water body? __Yes __No
If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

16. **Erosion and sedimentation.** Give the acreage to be graded or excavated and the cubic yards of soil to be moved:
acres_____; cubic yards_____. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

17. **Water quality: surface water runoff**
a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.

    b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

18. **Water quality: wastewaters**
a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

    b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

    c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

    d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements

necessary. Describe any required setbacks for land disposal systems.

19. **Geologic hazards and soil conditions**
a. Approximate depth (in feet) to ground water: _____ minimum _____ average _____
to bedrock: _____ minimum _____ average _____
Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

b. Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

20. **Solid wastes, hazardous wastes, storage tanks**
a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

21. **Traffic.** Parking spaces added _____ . Existing spaces (if project involves expansion) _____ .
Estimated total average _____
daily traffic generated _____ . Estimated maximum peak hour traffic generated (if known) and time of occurrence _____
_____ . Provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

22. **Vehicle-related air emissions.** Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *EAW Guidelines* about whether a detailed air quality analysis is needed.

23. **Stationary source air emissions.** Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

24. **Odors, noise and dust.** Will the project generate odors, noise or dust during construction or during operation? __Yes __No
If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

25. **Nearby resources.** Are any of the following resources on or in proximity to the site?
    Archaeological, historical or architectural resources? __Yes __No
    Prime or unique farmlands or land within an agricultural preserve? __Yes __No
    Designated parks, recreation areas or trails? __Yes __No
    Scenic views and vistas? __Yes __No
    Other unique resources? __Yes __No
    If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

26. **Visual impacts.** Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? __Yes __No
    If yes, explain.

27. **Compatibility with plans and land use regulations.** Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?
    __Yes __No. If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

28. **Impact on infrastructure and public services.** Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? __Yes __No. If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

29. **Cumulative impacts.** Minnesota Rule part 4410.1700, subpart 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts *(or discuss each cumulative impact under appropriate item(s) elsewhere on this form).*

30. **Other potential environmental impacts.** If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.

31. **Summary of issues.** *Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document, which must accompany the EAW.* List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

RGU CERTIFICATION. The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature_____ Date _____

Title

Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at the Administration Department. For additional information, worksheets or for *EAW Guidelines*, contact: Environmental Quality Board, 658 Cedar St., St. Paul, MN 55155, 651-296-8253, or http://www.eqb.state.mn.us

Discussing greenhouse gas emissions in Environmental Review

What is the purpose of this document?

This document gives guidance to project proposers who are required to provide information on greenhouse gas (GHG) emissions in an Environmental Assessment Worksheet (EAW) or an Environmental Impact Statement (EIS). This document only applies to projects where the Minnesota Pollution Control Agency (MPCA) is the responsible governmental unit for the EAW or EIS.

Who is required to respond to GHG questions in an EAW or EIS?

If your project requires an EAW, or an EIS, as well as an air emission permit from the MPCA, then you must provide information regarding GHG emissions.

What are GHGs?

The following six pollutants are the GHGs for the purpose of environmental review and air emissions permitting: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

What types of projects emit GHGs?

Greenhouse gas emissions are typically associated with burning fossil fuels, but can be generated through many other processes (e.g. ammonia production, nitric acid production, refrigerator and air conditioner production, semiconductor production, etc.).

The following table shows common types of projects and their associated GHG emissions. This table is not all inclusive and does not take the place of analyzing your specific project for its GHG emissions.

Common sources of GHG emissions

Emission source type	Typical GHG emitted
Animal feedlots	CH_4, N_2O
Electricity or steam production	CO_2, CH_4, N_2O
Ethanol plants	CO_2, CH_4, N_2O
Petroleum refineries	CO_2, CH_4, N_2O
Paper or pulp processing	CO_2
Solid waste incineration	CO_2, CH_4, N_2O
Solid waste landfills	CH_4
Wastewater treatment	N_2O, CH_4

What are my GHG information requirements for environmental review?

The requirements for an EAW and an EIS are usually not the same. The rest of this document is split into two parts. Part one applies to EAW projects and Part two applies to EIS projects. More information on MPCA's Environmental Review Program can be found at: www.pca.state.mn.us/index.php/topics/environmental-review/environmental-review.html.

Part 1 - Environmental Assessment Worksheets

Where do I provide GHG information in an EAW?

Provide your GHG information in question 23 of the EAW form.

What information do I provide?

Indicate the project's potential-to-emit (PTE) for each of the six GHGs, using the same data that you used in your project's air emissions permit application. The following MPCA webpage provides guidance on how to calculate your GHG emissions: www.pca.state.mn.us/index.php/emission-calculations.html.

The next step in the process is to convert your project's potential GHG emissions into carbon dioxide equivalents (CO_2e) as explained below. Use the following table to report your project's GHG data in your EAW. Be sure to replace the example data in the table, with the data from your specific project.

Example project's GHG emissions

Pollutant	PTE[1] (tons/year)	CO_2e conversion[2]	CO2e[3](tons/year)
CO_2	200	1	200
CH_4	1	21	21
N_2O	1	310	310
SF_6	0	23,900	0
HFCs	0	See 40CFR98[4]	0
PFCs	0	See 40CFR98[4]	0
		GHG Pollutants Total =	**531**

[1] Project's PTE for each GHG pollutant (use air emissions permit application data)
[2] Pollutant's global warming potential conversion factor (from 40CFR 98, Subp. A, Table A-1)
[3] CO_2e = Project's PTE for the pollutant multiplied by the pollutant's CO_2e conversion factor
[4] HFCs and PFCs are classes of chemicals composed of many constituents. To determine the conversion factor for a specific HFC or PFC, go to 40CFR98, Subp. A, Table A-1 (http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=95cee6c84de680777f0378e758db0acb&rgn=div9&view=text&node=40:21.0.1.1.3.1.1.10.11&idno=40)

What is a carbon dioxide equivalent?

Greenhouse gases do not all affect the atmosphere to the same extent since each individual GHG has a different potential to warm the environment. To account for this difference, each GHG is normalized against CO_2 using a global warming conversion factor. A one ton CO_2e emission of a substance is an emission with the same global warming potential over 100 years as the emission of one ton of CO_2 derived from fossil fuel.

Do I have to report biogenic GHG emissions in the EAW?

Yes, all biogenic (meaning that it was recently contained in living organic matter) GHG emissions must be reported in the EAW. However, if you were allowed to exclude biogenic GHG emissions from your air permit applicability analysis, you can list these GHG emissions separate from the GHG table in the EAW.

Part 2 - Environmental Impact Statements

What GHG information goes in an EIS?

The content of an EIS is case specific and may require a more detailed GHG emissions analysis than an EAW. It is not possible to pre-determine what GHG information may be required in an EIS. Before an EIS is prepared, it goes through a scoping process to ensure that the EIS only addresses impacts which are relevant and important for a project. The scoping process determines what GHG information is required for your project's EIS.

The following list provides examples of the types of information that *might be* in an EIS:

- **Direct GHG emissions** – The same GHG emissions information that is required for projects going through the EAW process (see Part 1 of this document).
- **Indirect GHG emissions from energy consumption** – Information on the mass of GHG emissions that are associated with the consumption of purchased or acquired electricity, steam, heating, or cooling.
- **Other indirect GHG emissions** – Information on such as upstream and downstream emissions, emissions resulting from the extraction and production of purchased materials and fuels, transport related activities in vehicles not owned or controlled by the reporting entity (e.g., employee commuting and business travel), use of sold products and services, outsourced activities, recycling of used products, waste disposal, etc.).
- **Alternatives analysis** – Information on the amount of GHG emissions from the project for several alternatives (e.g. alternative energy source, alternative process technology, etc.).

Where can I find additional information regarding GHGs?

The Climate Registry, of which the state of Minnesota is a founding member, has a GHG reporting protocol document which contains information on reporting GHG gases. This document can be found at: www.theclimateregistry.org/downloads/GRP.pdf.

ROSEVILLE TWIN LAKES BUSINESS PARK MASTER PLAN AMENDMENT TO THE COMPREHENSIVE PLAN

June 26, 2001

I. Introduction

The Twin Lakes Redevelopment Area Renewal Strategy (the "Master Plan") describes the development or redevelopment of 46 parcels within a 275-acre area and may include up to 3.0 million square feet of new and/or renovated building area in multi-story offices, one- to two-level high-tech flex space, service industries and multifamily housing. This additional square footage from the total 2.1 million outlined in the 1996 plan is due to added parcels and an increased number of multiple-level developments. (Refer to Section IV for the Twin Lakes Renewal Strategies). The Master Plan will be implemented in phases over the next 20 years beginning as early as 2002. Also, a new road, Twin Lakes Parkway, will be constructed by the City of Roseville beginning in late 2001 and completed in 2002 - 2003. The road will include walking and biking trails, safety, lighting, ponding and landscaping enhancements. The Twin Lakes Master Plan explains the refinements from the previous plans developed in 1988 and 1996, and the benefits and the impacts of the redevelopment in and surrounding the Twin Lakes area.

In Roseville a **"Business Park"** is a hybrid of a more typical industrial park with office park uses and a mix of service retail and housing that would serve as a more livable campus setting. It is defined as a geographically identifiable area which contains an architecturally consistent mix of office, office-laboratory, office-showroom-warehousing, biotechnical, biomedical, high-tech software and hardware production uses with support services such as limited retail, health, fitness, lodging and multifamily housing. The Business Park has well-planned roads, utilities, ponding and communication systems. Parcels within a Business Park have access to an internal parkway and/or external County minor arterials as well as access to the Interstate Highway System. Emphasis is placed on creating a unique, safe and high-quality work and play environment by installation of extraordinary, architecturally distinct buildings, transit and transportation services, site planning, environmentally sensitive landscaping, parks, trails and lighting.

II. Background

The Twin Lakes Redevelopment Area is located within the City of Roseville in an area generally bounded by County Road C on the south, County Road C-2 on the north, Cleveland Avenue on the west and Snelling Avenue on the east. (Refer to Twin Lakes Existing Land Use Map). The Twin Lakes Redevelopment Area now includes an additional 52.6 acres of developable and redevelopment property to the north of County Road C-2 along Cleveland Avenue and the industrial properties adjoining the north side of Terrace Drive, and is one of 15 Redevelopment Plan Concept Areas. (Refer to Twin Lakes Renewal Strategy Land Use Map & Roseville Redevelopment Plan Concept Map). Also, the Twin Lakes Redevelopment Area includes 41.11 acres of new right-of-way and greenspace.

Corner of County Road C and Cleveland

- **Best location for service component with a combination of hotel, fitness center, restaurant, bank, etc., that would serve the business park and general public**
    1. Ease of access from 35W and County Road C and very visible from 35W which is very important to these markets.
    2. Transit friendly location to attract workers needed for these industries.
    3. May create more light and traffic but is the farthest location away from residential and close to regional roadways.

Service Example

Big Box Retail and Strip Centers not recommended

1. Increased level of traffic.
2. Longer hours of operation.
3. Reduced quality and quantity of jobs created.
4. Lower value of building finish.
5. Large parking lots required due to parking demands.

Retail Example

Twin Lakes Business Park
Final AUAR Update

Prepared by the City of Roseville

Final AUAR Update Adopted October 15, 2007
(Update of Final AUAR Adopted August 13, 2001)

Table of Contents

List of Figures

All Figures are located in Appendix A

List of Appendices

A. AUAR Figures
B. "Worst Case" Documentation Tables for Scenario A – 2001 Twin Lakes Business Park Master Plan
C. Letter Dated November 1, 2006, from the Minnesota DNR Natural Heritage and Non-Game Research Program
D. Bibliography of Environmental Studies/Reports
E. Transportation, Air and Noise Analysis
F. Letter Dated April 6, 2001 from the Minnesota Historic Preservation Office
G. Draft AUAR Update Comments and Responses (received prior to the RGU authorizing distribution of the document for the public comment period)
H. Final AUAR Update Comments and Responses

Twin Lakes
Alternative Urban Areawide Review (AUAR) Update

The EQB requirements and guidance on this form pertinent to the AUAR process are in *italics* and preceded by the phrase "*AUAR Guidelines*". This AUAR guidance comes from the EQB document titled "Recommended Content and Format – Alternative Urban Areawide Review Documents" (April 2005). The *AUAR Guidelines* pertaining to each EAW item follows the **bold face** text from the EQB's standard EAW form. Updates to the 2001 AUAR are tracked throughout the document. Deletions are shown in ~~strikethrough~~ font and additions are underlined.

AUAR Guidelines: This guidance has been prepared by the EQB staff to assist in the preparation of AUAR documents. It is based on the directive of 4410.3610, subpart 4, that "the content and format [of an AUAR document] must be similar to that of an Environmental Assessment Worksheet EAW, but must provide for a level of analysis comparable to that of an Environmental Impact Statement (EIS) EIS for impacts typical of urban residential, commercial, warehousing, and light industrial development and associated infrastructure."

GENERAL GUIDANCE

This guidance is based on the items of the standard EAW form (February 1999 version); the numbers listed below refer to the item numbers of that form. Except where stated otherwise, the information requested here is intended to augment (or clarify) the requested information on the EAW form; therefore, the EAW form and the guidance booklet EAW Guidelines must be read along with this guidance.

The information requested must be supplied for each of the major development scenarios being analyzed, and it is important to clearly explain the differences in impacts between the various scenarios.

If this guidance indicates that an EAW item is not applicable to the AUAR, the item number and its title (the text in bold print on the EAW form) should be included with a notation that the EQB guidance indicates that no response is necessary in an AUAR (as opposed to just skipping reference to that item at all).

One general rule that should be kept in mind throughout the preparation of the AUAR document is that whenever a certain impact may or may not occur, depending on the exact design of future developments, the AUAR should cover the possible impacts through a "worst case scenario" analysis or else prevent the impacts through the provisions of the mitigation plan. Failure to cover possible impacts by one of these means risks the invalidation of the environmental review exemption for specific development projects.

1. **Project Title:** Twin Lakes Business Park

AUAR Guidelines: An appropriate descriptive title for the geographic area of the AUAR should be chosen

2. **Proposer:** Not Applicable

AUAR Guidelines: It is not necessary for AUAR proposers to identify property owners within the AUAR area (although it may be useful to use such names as identifiers of various land parcels).

3. **RGU:** City of Roseville

Contact Jamie Radel, Economic Development Coordinator
Address 2660 Civic Center Drive

Roseville, Minnesota 55113
Phone 651-792-7072
Fax 651-792-7070
E-Mail jamie.radel@ci.roseville.mn.us

4. **Reason for EAW Preparation**

AUAR Guidelines: Not applicable to AUAR

5. **Project Location** Parts of Section 4, 5, 8 and 9, Township 29 N, Range 23 W

County: Ramsey **City:** Roseville

Attach each of the following maps to the EAW: county map, USGS map, and a site plan.

AUAR Guidelines: The county map is not needed for an AUAR. The USGS map should be included. Instead of a site plan, include: (1) a map clearly depicting the boundaries of the AUAR and any subdistricts used in the AUAR analysis; (2) land use and planning maps as required in conjunction with items 9 and 27; and (3) a cover type map as required for item 10. Additional maps may be included throughout the document wherever maps are useful for displaying relevant information

All required maps and additional maps displaying relevant information are found in Appendix A.

6. Description

a. Provide a project summary of 50 words or less to be published in the *EQB Monitor.*

The City of Roseville, Minnesota proposes to update the 2001 AUAR for the Twin Lakes Business Park renewal strategy, a plan to redevelop 46 parcels dispersed within a 275-acre area over the next 20 years. Redevelopment would replace existing trucking, outdoor storage and industrial uses with new multi-level office, medical, high tech, showroom, multi-family and supporting commercial uses.

b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.
c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.
d. Are future stages of this development including development on any outlots planned or likely to happen? ☐Yes ☐ No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.
e. Is this project a subsequent stage of an earlier project? ☐ Yes ☐ No
If yes, briefly describe the past development, timeline and any past environmental review.

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

- *Anticipated types and intensity (density) of residential land and commercial/warehouse/light industrial development throughout the AUAR area*
- *Infrastructure planned to serve the development (roads, sewers, water, stormwater system, etc.). Roadways are 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 to be 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.*

Important Note: Every AUAR document MUST review one or more development scenarios based on and consistent with the RGU's Comprehensive Plan in effect when the AUAR is officially ordered. (This is equivalent to reviewing the "No-build" alternative in an EIS.) If an RGU expects to amend its existing Comprehensive Plan, it has the options of deferring the start of the AUAR until after adopting the amended plan or reviewing developments based on both the existing and amended comprehensive plans; however, it cannot review only a development based on an expected amendment to the existing plan. Also, the rules require that one or more development scenarios analyzed must be consistent with known development plans of property owners within the AUAR area.

Background

In June 2001, the City of Roseville adopted an amended Master Plan for the Twin Lakes redevelopment area. The 2001 Master Plan updated the 1986 plan for the business park that called for the redevelopment of 30 parcels within a 126-acre area with up to 2.1 million square feet of renovated or new building area. The current master plan describes the redevelopment of 46 parcels on 170 acres dispersed within a 275-acre area over 20-years and could include up to three million square feet of new and/or renovated building area in multi-story offices, high-tech flex space, showroom/warehouse space, multi-family housing and a service mix of supporting uses. The increase in square footage since the previous plan was due to the addition of parcels in the Business Park and an increased number of multiple story developments.

In 1997, the City prepared an EAW for the Twin Lakes Business Park and the construction of the new Twin Lakes Parkway. The City declared no negative impact from the redevelopment or the construction of the parkway. As described above, the City had amended its future plans for the AUAR area in 2001, and completed a State mandated environmental review in order to issue necessary permits in 2001. The City chose to order a substitute form of environmental review for the Business Park redevelopment plan - an Alternative Urban Areawide Review (AUAR).

The current Master Plan focuses on the redevelopment of 170 acres, which is anticipated to be implemented in phases over the next 20 years. Several parcels within the AUAR boundary have already been redeveloped (combined with the 170 acres add up to the total 275-acre area). All governmental decisions have been made for those projects.

In accordance with the 2001 Renewal Strategy, the City of Roseville will work with private developers to demolish 40- to 50- year old truck terminal and industrial buildings, to clean the sites and to replace them with newly constructed one to seven story mixed-use buildings. The truck terminals came to the area in the 1950s due to the availability of large sites and direct access to I-35W. By the late 1980s, federal deregulations prompted many businesses to move, consolidate or go out of business, and the process of redeveloping this area began.

A new road, Twin Lakes Parkway, will be constructed in stages. The road would be transit and pedestrian friendly, and include walking and biking trails, safety, lighting, ponding and landscaping enhancements. The City has also proposed a wide-range of housing opportunities for its present and future residents with some housing complementary to the Twin Lakes Area. Opportunities for multiple housing were a key component of the Master Plan and are planned as a land use transition from the commercial and industrial uses to single-family neighborhoods and as a buffer to the Langton Lake amenity.

Several events associated with the 2001 AUAR document occurred and are summarized below. It is noted that many of the post-2001 documents associated with the Twin Lakes area are posted on the City's website (http://www.ci.roseville.mn.us) and that the following information is only summary documentation of certain events.

- The City completed an AUAR for the Twin Lakes Business Park in 2001 and the City adopted the Twin Lakes Business Park Final AUAR on August 13, 2001. Since the adoption of the Final AUAR in 2001 no redevelopment has occurred within the AUAR area.
- In December 2003, the Roseville City Council entered into a Contract for Exclusive Negotiations with Roseville Twin Lakes, LLC, the selected master developer for Twin Lakes, which is a consortium of three development firms – The Rottlund Company, Welsh Companies, and Roseville Properties..
- The Twin Lakes Stakeholder process was conducted from January through July 2004 with the purpose to assist Roseville Twin Lakes, LLC with refinement of new concepts for Twin Lakes.
- After completing the six-month Twin Lakes Stakeholder Planning Process, Roseville Twin Lakes, LLC refined its site plans for submission to the City. In September 2004, Roseville Twin Lakes, LLC submitted an application for approval of a General Concept PUD for Phase 1 of the Twin Lakes redevelopment.

In October 2004, the Friends of Twin Lakes filed a Citizen Petition requesting that an EAW be prepared for the Roseville Twin Lakes, LLC project. It is noted that the Roseville Twin Lakes, LLC project is completely within the Twin Lakes Business Park AUAR boundary. The Petitioners stated that the 2001 AUAR addressed a fundamentally different project and that the Roseville Twin Lakes, LLC project was significantly different than the development assumptions reviewed in the 2001 AUAR. The Petitioners stated that the 2001 AUAR was not a valid environmental review for the Roseville Twin Lakes, LLC project.

- In December 2004, the Roseville City Council, the Responsible Governmental Unit (RGU), denied the EAW petition. The City determined that the 2001 AUAR was a valid environmental review for the Roseville Twin Lakes, LLC project.
- In January 2005, the Roseville City Council acted on Roseville Twin Lakes, LLC's application, including:
    - Amending the Twin Lakes Master Plan to incorporate the Roseville Twin Lakes, LLC project
    - Approving the preliminary plat and subdivision application
    - Rezoning the project site to PUD with a B-6, Office Park, underlying district
    - Approving the General Concept PUD
- In January 2005, Friends of Twin Lakes sued the City. The complaint alleged that the 2001 AUAR was not a valid environmental review for the Roseville Twin Lakes, LLC project and requested that the City revise the AUAR or prepare an EAW and/or EIS for the Roseville Twin Lakes, LLC project.
- In August 2005, the District Court issued an order that concluded that the Roseville Twin Lakes, LLC project fit within the 2001 AUAR assumptions, but that the City could consider impacts of the changes on need for revised AUAR or EAW.

- Friends of Twin Lakes appealed the District Court's decision.
- On August 10, 2006 the Court of Appeals issued its decision, which included the following items related to environmental review:
    - The City incorporated the 2001 Twin Lakes Master Plan into its Comprehensive Plan. This plan amendment was submitted to and reviewed by the Metropolitan Council in 2001. The Court ruled that the amendment to the Twin Lakes Master Plan, approved by the City Council in January 2005, was an amendment to the Comprehensive Plan. The 2005 Twin Lakes Master Plan amendment was approved by a simple majority vote (3/5); however, a Comprehensive Plan amendment requires a super majority vote (4/5). Therefore, the inclusion of this project into the 2005 Twin Lakes Master Plan Amendment, and therefore into the Comprehensive Plan, is ineffective.
    - There are eight circumstances that can trigger an update to an AUAR document (see MN Rules 4410.3610 subp. 7). The Court determined that MN Rules 4410.3610 subp. 7B applied, which requires an AUAR to be updated if a comprehensive plan amendment is proposed that would allow an increase in development over the levels assumed in the AUAR. The Court determined that the project did not exceed the development levels for entire Twin Lakes AUAR area; however, they determined that the project exceeded levels for Subareas 1-5, and 8.
    - In conclusion, the Court ordered the City to update the AUAR or complete an EAW to determine if an EIS was needed for the Roseville Twin Lakes, LLC project.
- AUARs must be updated every five years unless all development within the AUAR area has been given final approval by the City (MN Rules 4410.3610 Subp. 7A). No development has occurred within the AUAR area since 2001. The Final AUAR was adopted on August 13, 2001; therefore, a mandatory AUAR update is required for the Twin Lakes Business Park AUAR to remain valid since five years have passed since its adoption.
- The City hosted an AUAR Update scoping meeting with agencies on October 26, 2006 to discuss and confirm the scope of the AUAR update.
- The City hosted an AUAR Update Public Open House on November 2, 2006 to provide a forum for the public to ask questions and comment on the AUAR Update scope.

For the purpose of this AUAR, the Twin Lakes Business Park has been separated into three Subareas as allowed per MN Rules 4410-3610 subp. 3 (Figure 5.3). The 2001 Twin Lakes Master Plan and the 2001 AUAR included twelve "redevelopment blocks" (see Figure 5.3 from the 2001 AUAR in Appendix B). Each redevelopment block includes one to five different land use alternatives that represent different mixes of uses and development intensities. The land use alternatives are derived from the future land use options contained in the 2001 Twin Lakes Business Park Master Plan. This AUAR will explore a "worst case" development intensity for each block in the Master Plan (e.g., Scenario A).

Documentation regarding the "worst case" development alternatives for Scenario A are included in Appendix B. It is noted that a "worst case" development intensity was selected for each block and that the "worst case" development intensity varies, as appropriate, to answer the questions in the AUAR document. For example, the traffic analysis is based on

the land use alternatives, by block, that generate the greatest PM peak trips. Likewise, the predicted wastewater generation table is based on the land use alternative that generates the most wastewater.

Existing Land Use

The current uses within the Twin Lakes Business Park focus on heavy and light industrial uses that require significant outdoor storage areas. Specific uses include truck terminals, auto repair, manufacturing uses, business uses, and retail uses (Figure 6.1). There is a small amount (approximately 8 acres) of single-family detached residential uses currently within the redevelopment area (Table 6.1).).

A total of 328,500 sq. ft. of redevelopment occurred in the AUAR area prior to 2001 and includes the construction of a 48,000-sq. ft. office-flex building, a 74,500-sq. ft. office-flex building, a 66,000-sq. ft. medical office building, a 35,000-sq. ft. office-flex building and a 105,000-sq. ft. office-flex building.

The Twin Lakes Redevelopment Area is framed on the north by its namesake lakes and parks (Langton Lake Park and Oasis Park) and single-family residential neighborhoods; on the east by Snelling Avenue and associated commercial development; on the south by County Road C, a railroad, commercial/industrial development and single-family residential neighborhoods; and on the west by open space, wetlands, the Centre Pointe Business Park area and I-35W. As such, there is a wide representation of land uses adjacent to the study area (refer to Figure 6.1).

Table 6.1: Existing Land Use Summary

Land Use Type	Existing Land Use (Acres)
Business/Retail	6.92
Heavy Industrial	60.48
Light Industrial	104.36
Office	7.03
Parks and Open Space	8.54
R-O-W/Utility/Road	59.51
Single-Family Detached	8.29
Vacant	8.32
Vacant-Developable	11.51
TOTAL	275.05

Minnesota Rules state, “the Responsible Governmental Unit (RGU) may specify more than one scenario of anticipated development provided that at least one scenario is consistent with the adopted comprehensive plan. At least one scenario must be consistent with any known development plans of property owners with the area (MN Rules Chapter 4410.3610, Subp. 3).” The AUAR Update reviews three development scenarios that are consistent with the adopted comprehensive plan (Figure 6.2). There are two known development plans proposed within the area and all scenarios are consistent with the known plans. The proposed projects

include a 93-unit Senior Co-op located in the northernmost portion of Subarea III and a 120-unit hotel and freestanding restaurant located within Subarea I.

Scenario A – Twin Lakes Master Plan "Worst Case" Intensity

This scenario continues the revitalization and redevelopment of the Twin Lakes Business Park consistent with the adopted Comprehensive Plan (Figure 6.2). When the redevelopment of the Twin Lakes Business Park is complete, the trucking and outdoor storage gradually will be replaced by a more contemporary mix of high quality offices, medical facilities, showrooms and warehouse space, multiple family housing and a supporting service mix with uses such as day care and health club facilities, lodging, restaurants and complementary commercial businesses. Parking will be provided in a mix of parking ramps and surface parking. Future redevelopment will be responsive to the natural environmental amenities adjacent to the area.

The Comprehensive Plan currently designates the AUAR area as "BP-Business Park" (see Figure 6.2). The uses envisioned within the Comprehensive Plan designation of "BP-Business Park" include: office, office-laboratory, office-showroom-warehousing, bio-technical, biomedical, and high-tech software and hardware production uses with support services, such as limited retail, health, fitness, lodging and multifamily housing. The Comprehensive Plan reflects the 2001 Twin Lakes Business Park Master Plan. The Master Plan specifically states: "[this] new master plan amendment of 2001 will designate the areas as BP – Business Park." The 2001 Master Plan also includes four future land use maps ("Options 2, 3 and 4" and the "Twin Lakes AUAR Future Land Use Scenario") and several pages of text describing land use scenarios and goals. The intent of the 2001 Master Plan was to provide for a flexible mix of Business Park uses. For reference, the 2001 Master Plan is posted on the City's website: www.ci.roseville.mn.us.

A detailed breakdown of all of the proposed land uses alternatives in Scenario A is provided in Appendix B. The "worst case" land use intensities are described in AUAR Item 7, Project Magnitude Data. A general description follows below.

Hospital Campus

The future land use includes the potential for a hospital within Subarea I. The potential hospital could be six to seven stories in height and include approximately 600,000 sq. ft. of building area. This area breaks down into approximately 200,000 sq. ft. to accommodate 300 beds; 200,000 sq. ft. for outpatient care support (such as radiology/surgery); and 200,000 sq. ft. for non-patient care, such as a power plant, laundry and grounds-keeping.

The hospital could provide emergency services, but not a trauma center. There could be approximately five to seven ambulances per day. There could also be a helipad on the facility. It would have approximately 20 helicopter visits per month. The primary use of helicopters is for transport offsite. (The hospital would meet with Federal Aviation Administration (FAA) to survey the site to determine the primary and secondary route helicopters could take. Both routes are likely to be away from residential areas.)

Additionally, the hospital campus could include a primary medical office of an additional 150,000 sq. ft. The medical office would be filled with a suite of offices for primary caregivers, such as physicians with their own practices and diagnostic facilities that would have shared access with the hospital.

The hospital campus could include three buildings overall. One building would be for the hospital itself. One building would be for the associated medical office, connected to the hospital by tunnels or skyways. The third building would be the power plant for the hospital. The hospital campus would generate a need for parking for approximately 2,000 cars.

Office Uses
Scenario A proposes a variety of office uses, including medical, neighborhood and general offices. It also proposes High-Tech, High Flex offices and associated uses. The medical office uses could generally include four to seven stories with a 50,000 to 75,000 sq. ft. footprint. The neighborhood office would generally include one story buildings with 1,500 sq. ft. per office unit. The general office would generally include four to seven stories with a 40,000 to 60,000 sq. ft. footprint.

Service Mix[1]
Scenario A proposes service mix that could include services, such as retail, a hotel, a day care facility, a health club facility and restaurant uses that would be complementary to the other uses in the Twin Lakes Business Park.

High-Tech, High Flex Buildings
Scenario A proposes high-tech, high-flex buildings, which would be designed to be flexible to accommodate a wide range of office, technical, research, and light assembly activities. These buildings could be adapted to short- or long-term leases with the ability to expand or contract tenant space as needed.

Multi-Family Residential Uses
Scenario A includes a variety of multi-family alternatives within the AUAR area. These alternatives include townhomes (10 units/acre), work/live housing (18 units/acre), and apartments and condominiums (24 units/acre). The City encourages a mix of office and high-tech uses with multiple residential uses where they can take advantage of the amenities offered by the parks west and south of Oasis Park, and in a mixed office/residential area on the west and southeast sides of Langton Lake. In effect the multiple residence areas become the "new edge" to the existing adjoining residential areas.

Scenario B – Residential Emphasis

Scenario B includes land uses similar to those described for Scenario A, except that a hospital campus is not included in Scenario B. In comparison to Scenario A, Scenario B includes more residential uses (40% increase) and contains a reduced amount of office and service mix (38% and 18% decrease, respectively). The amount of office and service mix is reduced to better balance proposed land use with reasonable/feasible transportation system improvements. The proposed land uses per Subarea are described in AUAR Item 7, Project Magnitude Data.

[1] Please note that Service Mix has been analyzed from a retail perspective as retail generates greater impacts than the other potential uses described within service mix, thus providing the "worst case" development scenario.

Scenario C – Non-Residential Emphasis

Like Scenario B, Scenario C includes land uses similar to those described for Scenario A, except that a hospital campus is not included in Scenario C. In comparison to Scenario A, Scenario C includes a reduced amount of residential, office, and service mix (20%, 32% and 37% decrease, respectively). In comparison to Scenario B, Scenario C includes less residential and service mix (43% and 23% decrease, respectively) and more office (10% increase). Like Scenario B, the proposed land uses are balanced with reasonable/feasible transportation system improvements. The proposed land uses per Subarea are described in AUAR Item 7, Project Magnitude Data.

Infrastructure
The majority of required infrastructure for the Twin Lakes Business Park is currently in place with the exception of Twin Lakes Parkway (reviewed as part of the 1997 EAW) and interior sanitary sewer, water main, and storm sewer extensions west of Fairview Avenue. Major infrastructure improvements are not necessary to redevelop parcels located east of Fairview Avenue, however minor utility relocations and curb cuts in Terrace Drive may be required in some areas.

Roads
The AUAR area is generally bounded on the west by Cleveland Avenue and the east by Snelling Avenue. Fairview Avenue bisects the AUAR area into an east and west section. County Road C forms the southern boundary of the AUAR area. County Road C2 cuts through the northern portion of the area. Numerous improvements to the transportation system are recommended to accommodate the redevelopment of the AUAR area. These recommendations are detailed in AUAR Item 21, the Mitigation Plan, and Appendix E.

The AUAR area also includes the officially mapped future Twin Lakes Parkway (which was included in the 1997 Twin Lakes Business Park EAW). The full redevelopment of interior parcels located west of Fairview Avenue necessitates construction of the parkway. Twin Lakes Parkway is planned to begin at the intersection of Cleveland Avenue and the northbound I-35W entrance/exit ramps and run east to the intersection of Fairview Avenue and Terrace Drive.

The parkway is planned to include two 16-foot wide through lanes with left turn lanes and a center median throughout. A bituminous pedestrian trail is also proposed along the parkway. Twin Lakes Parkway will dead end prior to Snelling Avenue as currently planned.

Stormwater Management
The Twin Lakes area lies entirely within the jurisdiction of the Rice Creek Watershed District (RCWD). Development within the AUAR area will be required to meet the regulatory standards in place at the time of the building permit application. These include the requirements of the most current Comprehensive Storm-Water Management Plan and the Rice Creek Watershed rules. Runoff from development will be routed through storm water treatment ponds prior to discharging into natural water bodies. Areas draining to Langton Lake will incorporate infiltration and water quality standards required by RCWD. Additional trunk sewer facilities will be constructed to provide connections between proposed parcels and existing storm water treatment ponds. AUAR Item 17 includes the full surface water runoff analysis.

Sanitary Sewer
Sewage waste produced by Twin Lakes redevelopment will be discharged into the Roseville sanitary sewer collection system. The redevelopment area includes an extensive sanitary sewer network with trunk mains along Cleveland Avenue, County Road C and Fairview Avenue and several shorter lateral sewers throughout the interior and perimeter of the site. Sanitary sewer facilities are proposed to be constructed along the Mount Ridge easement to serve interior parcels in the development. AUAR Item 18 describes the sanitary sewer facilities in greater detail. Refer to Table 18.1 for estimated sewer flows.

Water Main
Water main facilities may be constructed along the easement at the Mount Ridge right of way and Twin Lakes Parkway to serve interior parcels in the development and provide additional loops within the City's water main grid. AUAR Item 13 includes additional information regarding water use.

Construction and Phasing

The expected year of completion for the Twin Lakes Master Plan is 2020 or beyond. Unfavorable market conditions or other circumstances may contribute to delays in the commencement or completion of construction.

The factors that may influence the timing and methods of construction include:

1) The extent of hazardous substances and the level of effort required for cleanup prior to site development work in order to receive approval by the Minnesota Pollution Control Agency (MPCA);

2) The national and local market conditions for the proposed type and total square footage for each property, competition with other regional business parks offering similar amenities, and marketability of individual site locations within the Twin Lakes Redevelopment Area;
3) The timing of the construction of Twin Lakes Parkway;

4) Degree of local controversy and challenges introduced by current and future landowners and area neighborhoods relative to relocations, condemnations for infrastructure and other purposes and site-specific impacts such as traffic or noise;

5) Business plans of existing property owners;

6) Dates on which the City expects that public funds needed for redevelopment will become available; and

7) Availability of tax increment funds subject to legislative changes.

Building, parking lot and outdoor storage area demolition and associated utility relocations will occur, and soil correction, surcharging, mass grading and pile driving will need to be completed to prepare the individual sites for building development. Erosion control practices will be implemented to protect erosion/sedimentation impacts to Langton Lake and Oasis Pond, and existing trees will be protected to the extent possible.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

It is noted that the AUAR guidelines state that a response is not required for Item 6.c.

d. Are future stages of this development including development on any outlots planned or likely to happen? *If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.*
☒**Yes** ☐No

It is noted that the AUAR guidelines state that a response is not required for Item 6.d.

e. Is this project a subsequent stage of an earlier project? *If yes, briefly describe the past development, timeline and any past environmental review.*
☒**Yes** ☐No

It is noted that the AUAR guidelines state that a response is not required for Item 6.e.

7. Project Magnitude Data (see Tables 7-1, 7-2, 7-3, and 7-4):
Total Project Acreage: _275 acres__
Number of residential units: _____ unattached _____ attached
Commercial, industrial or institutional building area (gross floor space): total square feet_____
Indicate areas of specific uses (in gross square feet):
Office: _____ Manufacturing: _____
Retail: _____ Other Industrial: _____
Warehouse: _____Institutional: _____
Light Industrial: _____ Agricultural: _____
Other Commercial (specify):_____
Building Height _____. If over two stories, compare to heights of nearby buildings.

AUAR Guidelines: No changes from the EAW form, except that the information should be given for each major development scenario:

This AUAR reviews the potential impacts associated with the redevelopment of 170 acres that would be implemented in phases over the next 20 years. Several parcels that lie within the AUAR boundary had already been redeveloped prior to the completion of the 2001 AUAR (which, combined with the 170 acres add up to the total Business Park area of 275 acres), with all governmental decisions made for those projects. The implementation of the projects described in this AUAR are expected to be market-driven with development beginning as early as 2007 until full development is reached over the next 20 years. Assumptions were made to measure the level of impact at full-build out. The maximum new development that each parcel will support is based upon a range of 30 to 75% coverage ratios with multi-level buildings and the potential for ramped and shared parking.

As previously stated in Item 6, the 2001 Twin Lakes Business Park Master Plan and the 2001 AUAR were separated into twelve "redevelopment blocks" (Refer to Figure 5.3 in Appendix B). The Court of Appeals ruling defined the "redevelopment blocks" as "Subareas" (see MN Rules 4410-.3610 subp. 3). This AUAR update consolidates the twelve "redevelopment blocks" into three "Subareas" (see Figure 5.3).

Each redevelopment block includes one to five land use alternatives that represent different mixes of uses and development intensities. The land use alternatives are derived from the future land use options contained in the 2001 Twin Lakes Business Park Master Plan, which is incorporated into the Comprehensive Plan. Table 7.1 represents the "worst case" land use density/intensity alternative for each Subarea. This is intended to provide the AUAR framework necessary to achieve the Master Plan's guiding principle to "Provide a flexible land use plan".

Table 7.1 Scenario A – Twin Lakes Master Plan "Worst Case" Intensity

Use	Subarea I	Subarea II	Subarea III	Total
Office (ft^2)	992,592	922,547	415,366	2,330,505
Multifamily Residential (attached units)	358	293	268	919
Hospital (ft^2)	446,583	0	0	466,583
Service Mix (ft^2)[2]	240,000	378,319	0	618,319

Additional documentation regarding the "worst case" development alternative from the 2001 Twin Lakes Business Park Master Plan is included in Appendix B. It is noted that a "worst case" development intensity was selected for each block and that the "worst case" development intensity varies, as appropriate, to answer the questions in the AUAR document. For example, the traffic analysis is based on the land use alternatives that generated the greatest PM peak trips. Likewise, the predicted wastewater generation table is based on the land use alternative that generates the most wastewater. This documentation is provided to assist the RGU in determining if future development proposals are consistent with the development levels assumed in this AUAR.

[2] Please note that Service Mix has been analyzed from a retail perspective as retail generates greater impacts than the other potential uses described within service mix, thus providing the "worst case" development scenario.

The proposed land uses per Subarea for Scenarios B and C are shown in Tables 7.2 and 7.3, respectively.

Table 7.2 Scenario B – Residential Emphasis

Use	Subarea I	Subarea II	Subarea III	Total
Office (ft^2)	645,154	415,000	380,000	1,440,154
Multifamily Residential (attached units)	732	295	255	1,282
Service Mix (ft^2)[3]	158,000	350,000	0	508,000

Table 7.3 Scenario C – Non-Residential Emphasis

Use	Subarea I	Subarea II	Subarea III	Total
Office (ft^2)	790,000	515,000	285,000	1,590,000
Multifamily Residential (attached units)	185	295	255	735
Service Mix (ft^2)[4]	255,000	135,000	0	390,000

Building heights will vary throughout the AUAR area and could range from one to seven stories (Table 7.3). Building height within the 300-foot shoreland area will be limited to 30 feet. Nearby existing buildings range from one to seven stories.

Table 7.4 Building Height

Use	Stories*
Office	1 to 7
Multifamily Residential	1 to 5
Hospital	6 to 7
Service Mix	1 to 2

*Building height in the shoreland area is limited to 30 feet.

[3] Please note that Service Mix has been analyzed from a retail perspective as retail generates greater impacts than the other potential uses described within service mix, thus providing the "worst case" development scenario.
[4] See footnote 3.

8. Permits and Approvals Required: List all known local, state, and federal permits, approvals, and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance, including bond guarantees, Tax Increment Financing and infrastructure.

AUAR Guidelines: 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 development scenario. This list will help orient reviewers to the regulatory 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 8.1 List of Permits and Approvals*

UNIT OF GOVERNMENT	TYPE OF APPLICATION	STATUS
Federal Government		
FAA	Determination of Helipad Routes	Future
Army Corps of Engineers	Section 404 Permit	Future
	Letter of No Wetland Jurisdiction	Future
State		
MPCA	NPDES/SDS General Permit	Future
	Sanitary Sewer Extensions and/or Changes Permit	Future
	Voluntary Investigation Clean-Up Program (VIC)	Future
	Petroleum Brownfields Program	Future
	Section 401 Water Quality Certificate or Waiver	Future
MN Department of Health	Water Main Extensions and/or Changes Permit	Future
	Sanitary Sewer Extension Permit Approval	Future
	Well Location and Construction Approval	Future
MN Environmental Quality Board	Environmental Review	Pending
MN Department of Natural Resources	Public Waters Work Permit	Future
	General Permit 97-005 for Temporary Water Appropriations (need if more than 10,000 gpd of water is appropriated	Future
	Storm Sewer Discharge Permit	Future
MN Department of Transportation	Drainage Permit	Future
	Use of or work within MnDOT right-of-way	Future
Regional		
Rice Creek Watershed District	Erosion and Sediment Control Permit	Future
	Stormwater Management Plan Approval	Future
	Wetland Delineation Boundary Confirmation	Future
	Certificate of Wetland Exemption	Future
	Drainage Authority Review and Approval	Future
Metropolitan Council	Sanitary Sewer Service Connection Approval	Future
Ramsey County	Final Plat Approval	Future
	County Road Access Permits	Future
Local		
City of Roseville	AUAR Update	Completed
	Rezoning	Future

UNIT OF GOVERNMENT	TYPE OF APPLICATION	STATUS
City of Roseville	Stormwater Management Plan Approval	Future
	Erosion Control Permit	Future
	Traffic Impact Analysis	Future
	Preliminary & Final Plat	Pending
	Grading Permit	Future
	Building Permits	Future

* All required permits and approvals will be obtained. Any necessary permits or approvals that are not listed in the table above were unintentionally omitted, and some listed may not be necessary.

Public Financial Assistance

For the last 20 years, the City of Roseville has and continues to support the redevelopment of the Twin Lakes AUAR area through the use of governmental financial assistance. The City has relied on tax incremental financing and federal, state, and regional grants and loans to spur reinvestment and development of infrastructure improvements in the area.

Tax Increment Financing

Most of the parcels in AUAR Subarea I that have not already undergone redevelopment are within Redevelopment Tax Increment Financing (TIF) District 17, which was certified in 2005. The City has also created a Hazardous Substance Subdistrict within District 17 to generate additional funds to assist with cleanup of environmentally contaminated properties Both the Redevelopment TIF District and Hazardous Substance Subdistrict are expected be in place until 2031. Currently Subareas II and III are not within a TIF District; however, in the future, the City may consider creating a district to address redevelopment needs in those areas.

Prior to the implementation of TIF District 17, the City created TIF District 11. As part of that now decertified district, the City committed over $10 million of tax increment funds to facilitate the cleanup of contaminated sites and the development of new buildings within the area. Approximately $3.3 million was used for contamination cleanup while the remaining $6.7 million was used for redevelopment incentives, such as land acquisition assistance, building demolition, soil correction, and other site improvements as allowable under tax increment financing statutes.

Grants and Loans

The City has aggressively sought federal, state, and regional grants and loans to assist with environmental cleanup and redevelopment in the AUAR area; however many of the grants and loans were returned due to a lack of progress implementing redevelopment plans for the area. Table 8.2 includes the grants that were received and used to date. The City will continue to look to outside funding sources to help provide financial resources to future projects in the AUAR area.

Table 8.2: Federal Grants

Grants and Loans	Agency	Date Received	Amount
Brownfields Assessment Demonstration Pilot Grant	U.S. EPA	Jun. 1999	$200,000
Brownfields Assessment Demonstration Supplemental Grant	U.S. EPA	Apr. 2001	$150,000
TOTAL Funding			**$350,000**

9. Land Use. Describe the current and recent past land use and development on the site and on adjacent lands. Discuss the compatibility of the project with adjacent and nearby land uses; indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazard due to past land uses, such as soil contamination or abandoned storage tanks.

AUAR Guidelines: No changes from the EAW form

Compatibility with Existing Land Use

The proposed development scenarios are not in conflict with the City of Roseville's redevelopment and reinvestment planning for the area and represents an effort to revitalize an underutilized industrial area and improve the access, circulation, and aesthetic quality of development within the district. Any proposed development must also consider the natural resources of the area as part of the plan by preserving their place as an attractive quality and focal point of the overall design of the Business Park.

The current uses within the Twin Lakes Business Park focus on heavy and light industrial uses that require significant outdoor storage areas. Specific uses include truck terminals, auto repair, manufacturing, business and retail. There is a small amount (approximately eight acres) of single-family attached residential uses currently within the redevelopment area(Refer to Figures 6.1 and).

A total of 328,500 sq. ft. of redevelopment occurred in the AUAR area prior to 2001 and includes the construction of a 48,000 sq. ft. office-flex building, a 74,500 sq. ft. office-flex building, a 66,000 sq. ft. medical office building, a 35,000 sq. ft. office-flex building and a 105,000 sq. ft. office-flex building.

Twin Lakes Redevelopment Area is framed on the north by its namesake lakes and parks (Langton Lake Park and Oasis Park) and single-family residential neighborhoods; on the east by Snelling Avenue and associated commercial development; on the south by County Road C, a railroad, commercial/industrial development and single family residential neighborhoods; and on the west by open space, wetlands, the Centre Pointe development area and I-35W. As such, there is a wide representation of land uses adjacent to the study area (Refer to Figure 6.1).

Neighborhoods south of County Road C and along Centennial Drive/Wheeler Street are the closest residential properties to the proposed redevelopment sites. There is no proposed redevelopment directly adjacent to these neighborhoods. Neighborhoods north and west of the AUAR area are largely buffered from the AUAR area by Langton Lake Park. The development also includes a recreational trail component, which will enhance the City's existing trail system from Twin Lakes Parkway to Langton and Oasis Lakes.

The 2001 Twin Lakes Business Park Master Plan (pgs 2-8) contains goals, policies, and strategies to mitigate potential land use compatibility issues. The broad planning principles include:

1) Create a buffer to protect and enhance the public enjoyment of Langton Lake
2) Protect the residential neighborhoods with less intrusive land uses
3) Create a livable environment with a mix of uses

4) Create compatibility between uses and building designs
5) Minimize the impact of commercial traffic onto residential streets; reduce congestion at main intersections
6) Clean up soil and groundwater pollution
7) Provide a range of quality jobs
8) Diversify the tax base
9) Provide a flexible land use plan
10) Located use in areas where they can best take advantage of necessary market forces

Future redevelopment projects will be subject to the 2001 Master Plan. The City will continue to implement its existing ordinances through its development review process to minimize land use conflicts and address site planning issues.

Refer to AUAR Items 19 and 20 for discussion of potential environmental hazards.

10. Cover Types. Estimate the acreage of the site with each of the following cover types before and after development

	Before	After
Types 1-8 wetlands		
Wooded/forest		
Brush/Grassland	Not Required for an AUAR	
Cropland		
Lawn/landscaping		
Impervious Surface		
Other (describe)		
Total		

If Before and After totals are not equal, explain why:

AUAR Guidelines: The following information should be provided instead:

a. *Cover Type Map, at least at the scale of a USGS topographic map, depicting:*
   - *wetlands - identified by type (Circular 39)*
   - *watercourses - rivers, streams, creeks, ditches*
   - *lakes - identify protected water status and shoreland management classification*
   - *woodlands - identify native and old field*
   - *grassland - identify native and old field*
   - *cropland*
   - *current development*

b. *An Overlay Map showing anticipated development in relation to the cover types; this should also depict any protection areas, existing or proposed, that will preserve sensitive cover types. Separate maps for each major development scenario should generally be provided.*

The City of Roseville conducted a City-wide natural resource inventory (NRI) in 2002. The Existing Landcover Map (Figure 10.1) depicts the location and extent of existing cover types within the AUAR area. A discussion of these cover types and the associated habitat they provide is found in AUAR Item 11.

Figure 10.2 depicts the potential land cover conversion for native cover types under a "worst case" analysis. Under a worst case scenario, all of the native cover types located outside of Langton Lake Park would be converted. This figure also shows non-native/altered cover types that could be restored as part of a future redevelopment project. A discussion of mitigation strategies is found in AUAR Item 11.

It is noted that City-owned parks and open space areas will not be impacted, except for the construction of a small portion of the officially mapped Twin Lakes Parkway (see Figure 10.2 for location of the "conversion" area in the southeastern portion of Langton Lake Park and the adjacent stormwater ponds). Twin Lakes Parkway impacts were reviewed in the 1997 EAW.

11. Fish, Wildlife, and Ecologically Sensitive Resources
    a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

AUAR Guidelines: The description of wildlife and fish resources should be related to the habitat types depicted on the cover type maps (item 10). Any differences in impacts between development scenarios should be highlighted in the discussion.

Fishery Resources
The AUAR area encompasses portions of the Langton Lake watershed. Langton Lake is a shallow lake that supports a fisheries population. The proposed redevelopment will not adversely impact the fishery within this lake. Because this area is considered as a whole rather than a series of smaller projects, it provides the opportunity to improve water quality in Langton Lake by meeting or exceeding water quality and quantity control requirements of governing agencies. This approach will improve the quality and appropriately manage the quantity of water reaching Langton Lake. The water quality study is discussed in more detail in AUAR Item 17 – Water Quality: Surface Water Runoff.

Wildlife Resources
The diversity and population of wildlife species in an area is directly related to the composition, quality, size, and connectivity of the natural communities including woodlands, grasslands, and wetlands. The study area is in a part of Roseville that has been fully developed for more than 30 years.

Impervious Surfaces (219 acres - 80%). The majority of the AUAR area is comprised of buildings, parking areas, and other mixes of impervious surfaces and provides little value to wildlife. Throughout the AUAR area, redevelopment will decrease the impervious/parking lot areas. Areas converted from impervious surface to lawn/landscaped areas will nominally increase wildlife value by creating more areas of perennial vegetation.

Non-Native/Altered (28 acres - 10%). The nonnative plant dominated areas within the AUAR area generally support habitat for urban-adapted wildlife such as passerine birds, crows, gray squirrels, rabbits, and raccoons. Conversion of portions of the low quality non-native/altered habitat areas found in Subareas I and III are anticipated to cause wildlife to disperse to nearby habitat. Because these wildlife species have the ability to readily adapt to changing land cover conditions, it is anticipated that they will move to and compete for surrounding habitats.

An additional wildlife habitat area is found in Subarea I, extending from Cleveland Avenue on the west, to the northwest, eventually reaching Langton Lake Park. This habitat consists of an approximately 50 to 100-foot wide strip dominated by nonnative grassland and scattered trees. Although the habitat is generally low quality in this area, it does have the potential to serve as a corridor between Langton Lake and the wetlands in the southwest portion of the AUAR area, associated with MN/DOT right-of-way.

Native Uplands (9 acres - 3%). Forest areas comprise the vast majority of native upland vegetations within the AUAR area and are found within Subareas I and III (Figures 5.3 and 10.1). The quality of these native cover vary and have the potential to support a variety of wildlife species including deer, squirrel, raccoon, beaver, cottontail rabbit and a variety of passerine birds by providing seasonal food and shelter.

The low quality oak forest area that is located in the northernmost portion of Subarea III (Figure 5.3) has a moderate wildlife value. The northern portion of this forest (located north of Langton Lake Park and single family homes along Cleveland Avenue) is anticipated for development, with the resulting loss of a segment of low quality oak forest and altered/nonnative deciduous forest, lowering the wildlife value for the northwest corner of the AUAR area. The Senior Co-op project is proposing to maintain some of his low quality oak forest area.

There are four oak forest segments that occur in the AUAR area, on the west side of Langton Lake Park. These are moderate quality oak forest areas with the highest wildlife value of the terrestrial wildlife habitats within and immediately adjacent to the AUAR area. Three oak forest areas occur in Subarea I, while one occurs in Subarea III. These four oak forest areas are anticipated for conversion to more developed land cover under a "worst case" scenario (see Figure 10.2).

The impact to existing forest cover types shall be mitigated through future dedication of open space within these oak forest areas, increasing the overall buffer and wildlife habitat value for Langton Lake Park.

In light of these theoretical impacts under a "worst case" scenario, mitigative restoration efforts should be made to improve the quality of remaining woodland areas within and immediately adjacent to the AUAR area. Restoring the remaining woodland and maintaining connectivity between woodland areas, particularly those surrounding Langton Lake will help to minimize impacts to wildlife. Restoration efforts should include cutting and treating of nonnative species, such as European buckthorn and Siberian elm, planting native species, and conducting management activities.

Mitigation for lost wildlife habitat within the AUAR area could include restoration of important oak forest areas within Langton Lake Park through implementation of the 2002 Roseville Parks Natural Resource Management Plan. Activities outlined in the management plan include cutting and treating European buckthorn and other invasive, nonnative vegetation, planting of native herbaceous species, and maintenance activities, such as prescribed burning. Such a restoration effort would increase the overall wildlife value for the AUAR area and its immediate surroundings.

Aquatic Resources (20 acres - 7%). The wetland/open water areas located throughout the AUAR area are known to be used by wildlife species adapted to human activity and/or human-modified landscapes, including species of waterfowl, such as mallard ducks and Canada geese, and shorebirds, such as great blue heron and common egret. Some of the smaller wetlands may also be utilized on a seasonal basis by species, such as American toad and migrating groups of warblers. The potential impact to wetlands is further addressed in AUAR Item 12 – Physical Impacts to Water Resources.

One non-jurisdictional wetland used as a stormwater treatment feature is anticipated to be partially impacted by construction of Twin Lakes Parkway through Subarea I (Figure 10.2). This area currently provides modest habitat value for common species of wildlife in the area, including mallard ducks and common shorebirds, such as great blue herons.

Likewise, the open waterway known as Ramsey County Ditch #4 in Subarea II may be impacted during the redevelopment process. Should these water resource features be impacted, similar water resource features/habitats should be constructed and/or restored within or near the AUAR area by restoring existing habitats or creating of new natural features.

Mitigation. Measures that can be taken to minimize impacts to wildlife in these areas include leaving corridors of existing habitats that connect adjacent higher quality habitat areas, including oak forest areas and reducing the amount of non-native vegetation. This will provide opportunities for existing species of wildlife to recolonize the area.

During the redevelopment process, native habitats should be created within the AUAR area that enable connectivity between habitats, and facilitating movement of wildlife between them. For instance, a natural or semi-natural area corridor can be created between the wetlands near Interstate 35-W and Langton Lake Park in Subarea I. The best opportunity to restore wildlife habitat corridor in the AUAR area occurs along the current alignment of Ramsey County Ditch #4 in Subarea II. This narrow ditch could be restored to a more natural cross-section, similar to the shallow gradient swale with interconnected shallow wetlands that likely existed prior to large-scale development of the area. An accompanying, unmanicured buffer of native vegetation could also be created along this restored waterway.

Other mitigative/restoration opportunities include using native plants as the major component of landscaped settings, including native trees, shrubs, grasses, and flowers. Although not a direct replacement for wildlife habitat that may be lost during the redevelopment process, this approach can mimic some aspects of natural habitats, provide important food and shelter, and maintain greater connectivity for wildlife between otherwise isolated native habitat patches.

b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site?
☐ Yes ☒ No If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the DNR Natural Heritage and Nongame Research Program has been contacted give the correspondence reference number: ERDB 20010827-004

AUAR Guidelines: For an AUAR, prior consultation with the DNR Natural Heritage program for information about reports of rare plant and animal species in the vicinity is required. 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 well.

A Natural Heritage Database search request was submitted to the Minnesota Department of Natural Resources. According to a letter received from the Minnesota DNR Natural Heritage and Non-Game Research Program dated November 1, 2006 (Refer to Appendix C), MN DNR determined that there are no records for State-listed species, regionally rare plant communities, or other similar unique features within or immediately adjacent to the AUAR area.. Within their study area, but outside of the actual AUAR area, the DNR review did identify one known occurrence of a rare species in the area searched, being a species of jumping spider. The species was identified in a marshy area at County Road B and Fairview Avenue in Roseville in 1967. Based on the nature and location of the Twin Lakes AUAR area, the DNR letter states that it was believed that the redevelopment of the Twin Lakes AUAR area would not affect the rare feature.

12. Physical Impacts on Water Resources. Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, impoundment) of any surface water such as a lake, pond, wetland, stream, drainage ditch? ☒Yes ☐No
If yes, identify water resource affected and give the DNR Protected Waters Inventory number(s) if the water resources affected are on the PWI. Describe alternatives considered and proposed mitigation measures to minimize impacts

AUAR Guidelines: 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 developments, the AUAR should cover the possible impacts through a "worst case scenario" or else prevent impacts through the provision of the mitigation plan.

There are a four large water resources within or adjacent to the AUAR area: Langton Lake (DNR PWI #49P) located near the northern portion of the AUAR area adjacent to Subarea I, Oasis Pond (DNR PWI #206W) adjacent to the northeast corner of the AUAR area adjacent to Subarea II, Wilson Pond (DNR PWI #203W) north of County Road C2 and east of Cleveland Avenue in Subarea III, and an unnamed pond (DNR PWI #50W) between Cleveland Avenue and I-35W in Subarea I, which are all identified on the DNR Public Waters Inventory Map for Ramsey County. Work below the Ordinary High Water (OHW) of Public Waters requires permits from the DNR. No direct impacts to any DNR Public Waters are anticipated. According to the DNR's comments on the 2001 AUAR, the DNR recommends that any applicable future work be done under the original DNR permit for DNR PWI #50W (DNR Permit #97-6067) and DNR PWI #49P (DNR Permit #94-6151).

There are several wetlands located within the AUAR area. One wetland is located in Subarea III, just west of the parking lot in Langton Lake Park. This is a degraded Type 2 wetland, dominated by invasive vegetation, mainly the nonnative species reed canary grass. The wetland does provide

some stormwater storage for the parking lot to the south and has the potential for providing wildlife habitat within the park. This wetland is mostly located within Langton Lake Park. Impacts to this wetland would have to be replaced per the Wetland Conservation Act (WCA) at a 2:1 ratio. Rice Creek Watershed District (RCWD) is the Local Governmental Unit responsible for administering the WCA. Two other wetlands, adjacent to the southeast corner of Langton Lake within Subarea I, are proposed to be impacted for the construction of Twin Lakes Parkway and a storm pond.

Two other water features exist within the AUAR area. Ramsey County Ditch #4 starts east of Fairview Avenue near County Road C in Subarea II and flows north through the AUAR area to Oasis Pond. This ditch is highly urbanized with eroded and steep sides. One option for the ditch would be to restore it to a more natural cross-section, similar to the one that occurred prior to development of the area. This would serve the added benefit of providing a wildlife corridor. Alterations to this ditch would be subject to state ditch law as administered by RCWD. In Subarea I, Ramsey County Ditch #5 starts at Wilson Pond and flows north along Cleveland Avenue and out of the AUAR area. Most of the ditch is out of the AUAR area, therefore, no or minimal disturbance is anticipated.

13. Water Use. Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? ☒ Yes ☐ No
If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

AUAR Guidelines: If the area requires new water supply wells, specific information about the 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..

City records indicate that three parcels within the AUAR area have had wells installed in the past. Further investigation will be required at the time of redevelopment to determine the status of these wells. Any open wells will require abandonment and sealing at the time of redevelopment in accordance will applicable rules and regulations. The following is a brief summary of the City's well records for the three parcels:

Parcel #13: 1947 County Road C, 6-inch diameter well, 400 feet deep.
Parcel #17: 2785 Fairview Avenue, 6-inch diameter well, 530 feet deep.
Parcel #19: 2711 Fairview Avenue, 4-inch diameter well, 139 feet deep.

The development will be served by the existing municipal water system and will not involve the installation of any wells. Roseville is a wholesale consumer of treated water from the City of St. Paul, and the City does not own any water treatment facilities. The City pumps directly from St. Paul's 30 MG Dale Street reservoir. The storage capacity within Roseville's distribution system is a 1.5 million gallon elevated storage tower on Fairview Avenue near Rosedale Shopping Center. Roseville's contract with the St. Paul Water Utility allows for on-demand pumping from its reservoir up to 28 million gallons per day (MGD). According to the City's Water Utility,

Water Conservation, and Emergency Response Plan, it is the City's understanding that the City of St. Paul has significant unused capacity within its source water and treatment facilities and would have the capacity to adequately supply water to Roseville well into the foreseeable future.

Water main facilities may be constructed along the easement at the Mount Ridge right of way and Twin Lakes Parkway to serve interior parcels in the development and provide additional loops within the City water main grid.

The quantity of water used is expected to be proportional to the amount of sanitary wastewater produced. Table 13.1 provides information on the estimated average daily water demand for each scenario. Water demand estimates for the scenarios were based on the assumption that consumption is approximately 110% of wastewater generation (see Item 18, Tables 18.1 – 18.4). Water demand will differ for each scenario according to development density and land use type. The maximum "worst case" daily water demand for Scenario A is 0.694 MGD, Scenario B is 0.618 MGD, and Scenario C is 0.460 MGD. No adverse impacts to the water supply system are anticipated.

Table 13.1 Estimated Daily Water Demand

Scenario	Subarea I (gpd)	Subarea II (gpd)	Subarea III (gpd)	Total (gpd)	Total Mgd
Scenario A	360,747.65	204,166.65	128,591.37	693,505.66	0.694
Scenario B	317,519.12	176,193.42	124,578.67	618,291.21	0.618
Scenario C	180,588.83	167,151.42	112,648.25	460,388.50	0.460

14. Water-related Land Use Management Districts. Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? If yes, identify the district and discuss project compatibility with district land use restrictions.
☒ Yes ☐ No

AUAR Guidelines: Such 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.

The City of Roseville has a Shoreland, Wetland, and Stormwater Management Ordinance (adopted in 1974 and amended in 1994) that applies to City water bodies specifically listed in the ordinance and shown on the Water Management Overlay Districts map (Figure 14.1). Langton Lake, Minnesota DNR Protected Water #49P, is classified as a "general development" lake. It is protected by the City's shoreland ordinance that includes lands within 300 feet of the ordinary high water mark of Langton Lake. Future redevelopment projects will comply with requirements of the shoreland management ordinance, including, but not limited to, regulations regarding height, erosion control, impervious surface, setbacks, and vegetation alterations.

The DNR's comments on the 2001 AUAR suggested processing future redevelopment projects that exceed the development density/intensities allowed within the Shoreland District through the PUD provisions of the Shoreland Ordinance in order to transfer the density (along with the development rights) of undeveloped City property within the Shoreland Districts to the proposed

development area that is within both the Shoreland District and the AUAR area (e.g., within Subarea I). This approach will be used to review future projects within the Shoreland overlay district.

The Wetland Protection District includes all upland within 100 feet of the wetland boundary of wetlands and those public waters not specifically listed as shoreland.

The Storm Water District includes all land either within 100 feet of the normal water level of constructed stormwater ponds or wetlands managed for stormwater quantity and quality management purposes, or all land below the 100-year flood elevation of such ponds or wetlands, whichever is most restrictive.

15. Water Surface Use. Will the project change the number or type of watercraft on any water body? ☐ Yes ☒ No
If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

AUAR Guidelines: This item need only be addressed if the AUAR area would include or adjoin recreational water bodies.

16. Erosion and sedimentation. Give the acreage to be graded or excavated and the cubic yards of s0il to be moved:____ acres____cubic yards. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

AUAR Guidelines: 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.

The native soils in the AUAR area are moderately to well drained loams, sandy loams and sand/gravel. Native soils are apparent only in small isolated pockets within the AUAR area. The majority of the AUAR area is classified as "Urban Land" which includes 90% coverage by buildings and pavement. Native soils identified as "Urban Land" have been greatly altered through excavation and filling undertaken during the original development of the area. Soil borings will be conducted prior to the design of buildings, roadway, utility, and other site improvements in order to more accurately classify the existing conditions.

The Twin Lakes AUAR area includes generally flat to mildly sloped developed sites. It is anticipated that grading required to redevelop the area will be minor and minimal changes to existing surface slopes will occur. Each future project will need to submit erosion and sediment control plans to the City and Rice Creek Watershed District for review and approval.

Sedimentation is a concern that is related primarily to the construction process. The use of best management practices (BMPs) for appropriate erosion control and turf establishment can greatly

reduce the amount of construction-related sedimentation into the receiving waters. These measures will be specified in the contract documents and on the design plans, as required. BMPs typically consist of silt fences, hay bales, wood fiber blankets, riprap, sodding, seeding and mulching. Ungrouted riprap with filter blankets will be placed at storm sewer outlets. All disturbed areas will also be seeded with native vegetation or sodded. Based on City standard site grading requirements, the maximum finished slope ratio is proposed to be 3 (horizontal): 1(vertical).

Erosion and sedimentation control measures will be implemented prior to grading and maintained in a functional condition during construction. The control measures will remain in place until the project area has been resurfaced and revegetated. Installing and maintaining temporary erosion protection and sedimentation control will be the responsibility of contractors working in the project area in strict conformance with approved erosion control plans.

17. Water Quality - Surface Water Runoff.

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

AUAR Guidelines: 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 system should 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.*

Drainage Patterns

The stormwater drainage subwatersheds within the AUAR area are shown in Figure 17.1. Each subwatersheds is described briefly below.

Northwest. The northwest subwatershed is approximately 54 acres in area. The existing impervious coverage in this subwatershed is approximately 58%, which reflects the fact that the northwestern portion of this parcel is still undeveloped. Runoff from the developed portions of the subwatershed is discharged untreated to a wetland (designated as Pond 35W-5 in the City's 2003 Stormwater Management Plan (SWMP)) in the southwestern corner of the subwatershed, which in turn discharges under Cleveland Avenue at the western boundary of the AUAR area.

Southwest. The southwest subwatershed is approximately 30 acres. Existing impervious coverage in this subwatershed is about 70%. Stormwater drainage from the developed area of this subwatershed currently discharges untreated to a wetland west of the proposed re-development area between Cleveland Avenue and Interstate 35W.

Langton Direct. The Langton Direct subwatershed is one of two subwatersheds within the AUAR area that discharge to Langton Lake. 32 acres of this subwatershed discharge untreated stormwater directly to the lake. These areas are located along the western and southwestern edge of the lake. Existing impervious coverage in the subwatershed is about 77%.

Langton Ponded. This 44-acre subwatershed includes the area southeast of Langton Lake and generates runoff that is treated in an existing detention basin prior to discharge to Langton Lake. The detention basin was constructed to help protect water quality in Langton Lake. The current impervious area of this subwatershed is about 80%.

East. The remainder of the AUAR area, approximately 74 acres, generates runoff that discharges untreated into Oasis Pond (Pond OP-2 in the May 2003 City's Stormwater Management Plan). Oasis Pond in turn discharges to City storm sewer that eventually carries this and other runoff to Lake Johanna, approximately one mile northeast of the AUAR area. Existing impervious area of this subwatershed is estimated at 80%.

Water Quality Analysis Approach

An analysis was conducted using the urban water quality model P-8 to estimate the existing and post- redevelopment average annual loads of total phosphorus (TP) and total suspended solids (TSS), as well as runoff volumes for the subwatersheds within the AUAR area. Three different scenarios were modeled for each subwatershed. They are as follows:

a. **Existing conditions**. The modeling reflects subwatershed areas and impervious conditions as outlined above.

b. **Redeveloped conditions without stormwater treatment**. Modeling for this scenario assumes an impervious area of 80% for all subwatersheds, which is a "worst case" upper limit of likely impervious coverage for the redeveloped condition. In addition, it calculates the load assuming no additional stormwater mitigation measures are applied. This scenario is for comparison purposes only and represents a hypothetical situation designed to illustrate the impact of stormwater treatment on post-redevelopment pollutant loads, as presented in "c" below.

c. **Redeveloped conditions with stormwater treatment**. This scenario is the same as "b" except that the loads reflect the effect of applying the minimum stormwater treatment standard proposed by the City of Roseville. Because the entire AUAR area is being

considered as a whole rather than a series of smaller projects, it significantly exceeds the area threshold that the City has adopted in its SWMP to require a high level of stormwater treatment. The minimum treatment standard that the City would apply is a 60% reduction in TP and a 90% reduction in TSS from the future redevelopment condition. This performance standard could be met through construction of detention basins to meet NURP criteria. Compliance with these criteria requires that detention basins be constructed with a dead storage of at least the runoff volume from a 2.5-inch rainfall over the tributary drainage area. Other accepted pond design standards, as outlined in the City's SWMP, would be applied as well to assure proper functioning of the detention basins.

It should be noted that the City and/or Rice Creek Watershed District may require other treatment approaches to replace or complement detention basins, such as infiltration. Specifically, RCWD will require infiltration of the 0.34-inch rainfall event. If it is demonstrated that the soils are not suitable for infiltration (i.e., due to contamination), stormwater management for the 0.34-inch event will still need to be proved in the form of filtration or biofiltration features. Application of other BMPs will likely depend on site-specific factors, such as soil conditions, that are not known at the time of preparation of this AUAR. However, the performance standard outlined above for TP and TSS reductions will be met, regardless of the combination of stormwater treatment approaches used. If infiltration BMPs are applied, decreases in stormwater runoff volume for the post-redevelopment condition can be expected, with the magnitude of these decreases dependent on the sizing of the BMP. Those impacts are not accounted for in this analysis.

Water Quality Analysis Results

Estimated average annual pollutant loads and runoff volumes are calculated at the points represented by the arrows on Figure 17.1. Modeling results for the three scenarios described above for each subwatershed are presented in Table 17.1. The loading analysis results for each subwatershed are summarized below.

Northwest. The modeling analysis indicates that with detention basins to treat post-redevelopment runoff, TP and TSS loadings to Pond 35W-5 will decrease by 47% and 86% respectively, from the existing condition. In the absence of infiltration practices, average annual runoff volumes are expected to increase by over 35%, due mainly to the conversion of the open undeveloped area in the northeast portion of this subwatershed (now 0% impervious) to housing and office uses with a maximum assumed impervious coverage of 80%.

Southwest. This drainage has somewhat less impervious coverage in the existing condition than the maximum impervious coverage it could have in the post-redevelopment condition (70% vs. 80%). In addition, there is currently no treatment of stormwater discharged from this subwatershed. TP and TSS loads exported to the wetland complex west of Cleveland Avenue from the Southwest subwatershed are expected to decrease by 55% and 88%, respectively, under the post-redevelopment condition because of the impact of the post-redevelopment stormwater treatment. Average annual runoff volume could increase slightly (about 14%) because of a possible moderate increase in impervious coverage.

Langton Direct. This subwatershed has slightly less impervious coverage under existing conditions compared to the potential maximum impervious coverage under future redevelopment (77% vs. 80%). With the stormwater treatment described above, TP and TSS loads to Langton Lake from this subwatershed are expected to decrease by about 60% and 90%, respectively, from the existing condition. Average annual runoff volume is expected to remain similar to what it is under existing conditions.

Table 17.1 Stormwater Quality Modeling Results

Sub-watershed	Area (acre)		Existing Conditions			Ultimate Conditions w/o Treatment			Ultimate Conditions w/ Treatment		
	Existing	Proposed	TSS Load (lbs/yr)	TP Load (lbs/yr)	Runoff Vol. (AF/yr)	TSS Load (lbs/yr)	TP Load (lbs/yr)	Runoff Vol. (AF/yr)	TSS Load (lbs/yr)	TP Load (lbs/yr)	Runoff Vol. (AF/yr)
Northwest	54	54	15390	53	54	21210	69	74	2120	28	74
Southwest	30	30	12380	40	43	14140	46	49	1410	18	49
Langton Direct	33	33	14650	48	51	15220	49	53	1520	20	53
Langton Ponded	44	44	2890	30	72	2890	30	72	2070	27	72
East	74	74	36170	117	126	36170	117	126	3620	47	126
Total	**235**	**235**	**81480**	**288**	**346**	**89630**	**312**	**374**	**10740**	**140**	**374**

Langton Ponded. Impervious coverage in this subwatershed is the same under existing conditions as the potential maximum under redeveloped condition. The existing detention basin that now treats runoff from this subwatershed prior to discharge to Langton Lake is slightly smaller than the pond that would be required to meet NURP requirements under future re-development conditions. It is assumed that the existing detention basin would be expanded or replaced as part of redevelopment activities to meet this standard. Average annual runoff volume is expected to remain the same under future conditions as it is under existing conditions. Post-redevelopment TP and TSS loads from this subwatershed are expected to decrease by 10% and 28%, respectively, from the existing condition as a result of expansion or replacement of the existing detention basin.

East. Again, impervious coverage in this subwatershed under the post-redevelopment condition is not anticipated to change significantly compared to the existing condition. Thus, runoff volume exported from the subwatershed to Oasis Pond is not expected to increase. Treatment of stormwater to NURP standards is expected to decrease TP and TSS loadings from this subwatershed to Oasis Pond by up to 60% and 90%, respectively, compared to the existing condition.

Langton Lake

One of the primary stormwater-related issues is the protection of Langton Lake (MnDNR ID No. 62-0049). Langton Lake has a total watershed area of approximately 212 acres, about 75 acres of which are included in the AUAR area. As presented above, the stormwater treatment that will be required as part of future redevelopment projects is expected to decrease phosphorus loading to Langton Lake from within the AUAR area by almost 40%. Water quality data and anecdotal evidence for Langton Lake suggests that water quality in the lake has improved since the 1970's and 1980's (Roseville Parks Natural Resources Management Plan, 2002). Although no lake response modeling was required for Langton Lake as part of this AUAR analysis, it is likely that a 40% reduction in phosphorus loading from the AUAR area will at least preserve the existing in-lake water quality and may improve existing water quality.

The Langton Lake is neither on Metropolitan Council's "priority lakes" list nor the State's impaired waters ("303d") list. Further, based on recent water quality data collected through the Citizen Assisted Monitoring Program coordinated by the Metropolitan Council, it appears that current water quality is likely high enough that it would not be listed for impairment due to nutrient enrichment.

18. Water Quality - Wastewater

a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

AUAR Guidelines: 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 tot he flows from the AUAR area; any necessary improvements should be described;*
- *if on-site systems will serve part of the AUAR the guidance in EAW Guidelines (pages 16-17) should be followed.*

Sewage waste produced by Twin Lakes redevelopment will be discharged into the Roseville sanitary sewer collection system. The redevelopment area includes an extensive existing sanitary sewer network with trunk mains along Cleveland Avenue, County Road C and Fairview Avenue and several shorter lateral sewers throughout the interior and perimeter of the site.

All of the sanitary sewer facilities flow into an existing Metropolitan Council Environmental Services (MCES) interceptor sewer, which bisects the AUAR area from west to east along the Iona Lane right-of-way and dedicated easements. The interceptor sewer ultimately discharges at the Metro Sewage Treatment Plant in St. Paul. The interceptor sewer increases in size from 36 inches in diameter near Cleveland Avenue to 42 inches in diameter near Fairview Avenue. The

proposed improvements include the extension of an 8-inch diameter sanitary sewer along the Mount Ridge easement from Iona Lane north to County Road C-2. No capacity improvements will be required at either the Metro Plant or with interceptor sewer facilities as a result of the proposed redevelopment of the AUAR area. No staging is necessary for the sewer extension.

Proposed uses in Twin Lakes include office, office-laboratory, office-showroom-warehousing, biotechnical, biomedical, and high-tech software and hardware production uses with support services, such as limited retail, health, fitness, lodging and multifamily housing. Generally these types of uses do not produce, handle or dispose of significant amounts of hazardous materials. It is possible that some occupants may use or handle hazardous materials as a part of their business. Any occupant who utilizes hazardous materials would be required to conform to all existing environmental laws and regulations in place at the time of development.

The estimated Sanitary Sewer Flows for the 2001 Twin Lakes Business Park Master Plan are shown below in Table 18.1, based on each Subarea. The estimated sewer flows anticipate the most intensive development scenario for each redevelopment block alternative (see Appendix B for further documentation).

Table 18.1 Scenario A "Worst Case" Predicted Wastewater Flow

Scenario	Subarea I (gpd)	Subarea II (gpd)	Subarea III (gpd)	Total (gpd)	Total Mgal/yr
Scenario A	327,952.40	185,606.04	116,901.25	630,459.69	230.12

Predicted wastewater flows for Scenarios B and C are shown in Tables 18.2 and 18.3, respectively.

Table 18.2 Scenario B - Predicted Wastewater Flow

Use	Quantity	SAC Rate	SAC Units	Total Wastewater (gallons/day)	Total Mgal/yr
Office	1,440,154 s.f.	1:2,400 s.f.	600.1	164,418	60.01
Multifamily Residential	1,282 units	1:1 unit	1282.0	351,268	128.21
Service Mix/Retail	508,000 s.f.	1:3,000 s.f.	169.3	46,397	16.94
Totals			2,051.4	562,083	205.16

Table 18.3 Scenario C - Predicted Wastewater Flow

Use	Quantity	SAC Rate	SAC Units	Total Wastewater (gallons/day)	Total Mgal/yr
Office	1,590,000 s.f.	1:2,400 s.f.	663	181,525	66.26
Multifamily Residential	735 units	1:1 unit	735	201,390	73.51
Service Mix/Retail	390,000 s.f.	1:3,000 s.f.	130	35,620	13.00
Totals			1,527.5	418,535	152.77

A comparison of the predicted wastewater flows for the Scenarios by Subarea is shown in Table 18.4.

Table 18.4 Comparison of Predicted Wastewater Flow

Scenario	Subarea I (gpd)	Subarea II (gpd)	Subarea III (gpd)	Total (gpd)	Total Mgal/yr
Scenario A	327,952.40	185,606.04	116,901.25	630,459.69	230.12
Scenario B	288,653.75	160,175.83	113,253.33	562,082.92	205.16
Scenario C	164,171.67	151,955.83	102,407.50	418,535.00	152.77

The City's Sanitary Sewer Plan estimates total flows for the entire City at 1,976 Mgal/yr in 2000, 2,201 Mgal/yr in 2010, and 2,284 Mgal/year by 2020. The development of Twin Lakes as outlined in the AUAR is assumed within these total City numbers. The entire Twin Lakes area has a current estimated sewer flow of 74 Mgal/yr. At full development under a "worst case" scenario – Scenario A, Twin Lakes will have an estimated total sewer flow of 230 Mgal/yr (see Table 18.1), or an increase of 156 Mgal/yr over the existing development pattern. The City does not anticipate that full development will occur by 2010 and therefore the worst case scenario increase is not expected to occur until 2020 or beyond depending upon market forces and public financing sources for brownfield redevelopment.

19. Geologic Hazards & Soil Conditions.

a. Approximate depth (in feet) to ground water: 4 feet minimum, 10 feet average
to bedrock: 50 feet minimum, 130 feet average
Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards.

AUAR Guidelines: A map should be included to show groundwater hazards identified. A standard soils map for the area should be included.

At this time, there are no known hazards to groundwater within the AUAR area. . Figure 19.1 depicts the soils within the AUAR area.

b. Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

AUAR Guidelines: A map should be included to show groundwater hazards identified. Include any relevant information on soil contamination due to past land uses within the area, as mentioned under item 9.

The native soils in the AUAR area are moderately to well drained loams, sandy loams and sand/gravel. Native soils are apparent only in small isolated pockets within the AUAR area. The majority of the AUAR area is classified as "Urban Land" which includes 90% coverage by buildings and pavement. Native soils under the "Urban Land" classification have been greatly altered through excavation and filling accomplished during the original development of the area. Soil borings will be conducted prior to the design of buildings, roadway, utility and other site improvements in order to more accurately classify the existing conditions.

As described in more detail in AUAR Item 20, the proposed uses in Twin Lakes redevelopment generally do not produce, handle or dispose of significant amounts of hazardous materials. Any occupant who utilizes hazardous materials would be required to conform to all existing environmental laws and regulations in place at the time of development.

Since the early 1990s, there have been Environmental Site Assessments (ESA) (Phase I and Phase II) conducted in the area of previous redeveloped sites. There have also been remediation work plans developed for these redeveloped sites (Twin Lakes Corporate Center, Arthur Street Extension, Ryan Twin Lakes IV property and the former Great Dane Site). In general, most of the to the investigations have revealed issues stemming from fuel spills and leaking underground storage tanks, hazardous waste or chemical generation on the property, potential PCB-containing materials, abandoned wells, inactive septic systems and building materials containing asbestos. Remediation activities on several of these properties have been completed. (Refer to Appendix D - Annotated Bibliography Regarding Hazardous Wastes/Contaminated Sites - for more detail)

In 1994, the City was dedicated road right of way for Arthur Street, only to find the presence of significant environmental contamination, which cost over $3.8 million to clean up. Contaminates found in this area included benzene, creosote, and construction adhesive that had begun to contaminate the ground water. Fortunately, the groundwater contamination was only found in lenses or pockets of water above the clay layer. To pay for this cleanup, which had become the City's responsibility, the community had to create a tax increment subdistrict to the already created tax increment district set up for the redevelopment of the area.

There are known locations of leaking fuel storage tanks within the AUAR area. The majority of these properties are located in the western one-third of the study area. ESA activities and remediation work programs similar to what has been conducted to date, as noted above, will continue as redevelopment proposals are received for the remainder of the properties in the Twin Lakes Development Area.

In the late 1990's, the City initiated environmental investigations within the Twin Lakes area with financial assistance from the U.S. Environmental Protection Agency. The City commenced Phase I and II ESAs along the officially mapped Twin Lakes Parkway right of way. In addition, the City undertook an Area-Wide Groundwater Evaluation. The purpose of the study was to evaluate if there is groundwater contamination and, if so, how to address it a regionally. The scope of work for this study focused on identifying potential sources of contamination; determining the hydrogeological conditions; predicting groundwater flow patterns; assessing the quality of the groundwater; identifying data gaps; and recommending the need for any additional groundwater quality data.

Work occurred in two phases: the first phase examined potential causes of groundwater contamination from within and surrounding the Twin Lakes area, while the second phase analyzed groundwater exclusively the area. During the first phase, the environmental consultant hired to complete this work analyzed 282 soil samples and examined groundwater samples from 68 monitoring wells, 23 soil borings, and 13 soils probes. Contaminates found in the soil samples were compared to MPCA's soil leaching values (SLVs), which represent an assessment of the risk posed to groundwater and associated receptors from a source of soil contamination in the unsaturated zone. Contaminants detected above the SLVs for included

petroleum, volatile organic compounds (VOCs), metals, polychlorinated biphenyls (PCBs), and polyaromatic hydrocarbons (PAHs). Contaminates identified in the groundwater data review were compared to the Minnesota Department of Health's Health Risk Limits, which represent a concentration of a contaminant that is safe to drink daily over a lifetime. Contaminates detected above HRLs included petroleum, VOCs, metals, PCBs, and PAHs. (Groundwater samples and analytical dates range from April 1988 to March 2003.) (The full Groundwater Evaluation Report is available for review at the City.)

The second phase of the Area-Wide Groundwater Evaluation took samples and analyzed groundwater conditions from monitoring wells that were placed in the Twin Lakes area. This investigation indicated that VOCs and diesel range organic (DRO) compounds are present in the glacial aquifer at Twin Lakes. The concentration of trichloroethylene (TCE) in two glacial monitoring wells exceeded the MN Department of Health's Health Risk Limit. TCE was not prevalent throughout the site, but DRO is found throughout the area, most likely due to historic petroleum releases. The environmental consultants concluded that the groundwater contamination detected in the glacial aquifer poses a minimal environmental risk basked on the lack of potential groundwater receptors (e.g. wells) in the glacial aquifer. They recommended additional environmental investigation of petroleum contamination due to the presence of DRO throughout the area in the glacial aquifer. They also advised that redevelopment within the Twin Lakes area should consider the presence of TCE in the glacial aquifer and site-specific investigations should be conducted in a manor that would help to identify the potential sources, magnitude, and extent of TCE across the redevelopment area. (The entire Supplemental Groundwater Evaluation Report is available for review at the City.)Since the completion of the Areawide Groundwater Study, additional environmental investigation and planning has taken place as part of private sector redevelopment efforts. Roseville Twin Lakes LLC, the development team attempting to redevelop approximately 55 acres of this area, worked with the Minnesota Pollution Control Agency's Voluntary Investigation and Cleanup Program (VIC) and the Petroleum Brownfields Program (PBP) to characterize soil and groundwater contamination and prepare clean up plans for this area under the guidelines established by these programs.

This work found that there is widespread petroleum contamination as well as areas of hazardous substances in the soil and groundwater. Contamination found within the soil included petroleum related contamination, including DRO/GRO (diesel range organic compounds/gasoline range organic compounds), BETX (benzene, ethylbenzene, toluene and xylenes), and VOCs (volatile organic compounds) throughout much of the Twin Lakes area. In addition, non-petroleum contamination included a limited number of chlorinated VOCs.

Issues associated with groundwater, petroleum contamination (DRO, GRO and petroleum compounds) and chlorinated VOCs were detected in both the upper perched and glacial aquifer samples. Chlorinated VOC's (trichloroethene and cis-1,2-dichloroethene) were identified in glacial aquifer samples collected at two local areas within proposed redevelopment area. One of the local areas covers the northwest portion of the Indianhead parcel and the adjoining southwest portion of the PIK parcel. The other local area is the southeast portion of the American Trailer parcel and the adjoining west-central potion of the PIK parcel. Additional investigation was planned to further characterize the level and extent of contamination within these areas.

A Response Action Plan and Redevelopment Response Action Plan were approved by the VIC and PBP, respectively, in late 2005. In order to mitigate the soil conditions within their project area, the development team planned to excavate and dispose of the petroleum-

contaminated and chlorinated VOC-impacted soils at offsite landfills. Confirmation sampling was planned to ensure sufficient cleanup had taken place. Groundwater cleanup was not fully detailed in these reports. (Full copies of the plans are available at the City of Roseville and the state program offices.)

In order to more fully characterize the soil and groundwater contamination within the Roseville Twin Lakes LLC redevelopment project area, the developers conducted Phase I and II ESAs for the Xtra Lease and Old Dominion Parcels within this area in summer 2006. (These parcels area generally located north of County Road C and east of Cleveland Avenue.) The Phase I ESA indicated that subsurface soil and groundwater testing should be conducted due to the historical past use of these sites as trucking terminals. Phase II results for the Xtra Lease indicated VOC, GRO and DRO concentrations below laboratory reporting limits in soil samples and limited concentrations of two chlorinated solvent VOCs in one sample and limited concentrations of DRO in three samples within the deeper groundwater aquifers (40-60 feet bgs). The presence of limited concentrations of VOCs and DRO in deeper groundwater aquifers and the lack of identified soil contamination indicated that this is a more regional groundwater issue, not stemming from this parcel. Phase II results for the Old Dominion parcel are similar to those for the Xtra Lease parcel. Cis-1,2-Dichlorethene and trichloroethene exceed their respective HRLs in a groundwater sample in the northeast corner of Old Dominion parcel. Soil results from the same location at a depth of 20 feet bgs indicated no concentrations of VOCs, GRO, or DRO above their respective limits. (Copies of these reports are available for review at Roseville's City Hall.)

In summary, no known hazards to groundwater have been identified within the AUAR area to date. As described above, the groundwater testing did reveal several locations within Subarea I where contamination was present at the deep groundwater level. All habitable structures will use the City's water system, which it obtains from the St. Paul Regional Water Services. Nevertheless, this contamination area will be more fully investigated prior to redevelopment in accordance with local, state, and federal regulations.

Refer to Appendix D for an annotated bibliography and brief summary regarding the Business Park area's known contaminated properties and hazardous waste sites.

20. Solid Wastes; Hazardous Wastes; Storage Tanks

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

AUAR Guidelines: For an AUAR, 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.

As stated in Item 19, proposed uses of the AUAR area include office, hospital/medical, high tech, showroom, warehouse and multiple-family uses. There would also be a supportive mix of service and commercial uses, such as day care and health club facilities, lodging and

restaurants. Generally these types of uses do not produce or handle significant amounts of hazardous materials. It is possible that some occupants may use or handle hazardous materials as a part of their business such as medical research facilities and clinics. Any occupant that utilizes hazardous materials would be required to conform to all existing environmental laws and regulations in place at the time of development.

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

AUAR Guidelines: No response is necessary for b.

It is noted that, while not required, the 2001 AUAR provided a response to Item 20b and that this information is more appropriately recorded in the response to Item 19 – Geologic and Soil Conditions. The 2001 AUAR response to 20b has been moved to Item 19.

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

AUAR Guidelines: For c, potential locations of storage tanks associated with commercial uses in the AUAR should be identified (e.g., gasoline tanks or service stations).

Service Mix uses have the potential for requiring storage tanks. Any future Service Mix uses are likely to be located along Cleveland Avenue and County Road C.

21. Traffic. Parking spaces added __. Existing spaces __(if project involves expansion). Estimated total average daily traffic generated___. Estimated maximum peak hour traffic generated (if known) and time of occurrence___. Provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system. For each affected road indicate the ADT and the directional distribution of traffic with and without the project. Provide an estimate of the impact on traffic congestion on the affected roads and describe any traffic improvements which will be necessary.

AUAR Guidelines: For most AUAR reviews a relatively detailed traffic analysis will be needed, especially if there is to be much commercial development in the AUAR area or if there are major congested roadways in the vicinity. The results of the traffic analysis must be used in the responses to item 22 and to the noise aspect of item 24.

Instead of responding to the information called for in item 21, the following information should be provided:

A a description and map of the existing and proposed roadway system, including state, regional, and local roads to be affected by 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;

B 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;

C 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 Levels of Service and delay times at critical points (if any);

D 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.

Note to AUAR Update Reviewers: The full traffic analysis is located in Appendix E.

AUAR Guidelines: 21.A. a description and map of the existing and proposed roadway system, including state, regional, and local roads to be affected by 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;

Existing Roadway System

The study area is served by two existing principal arterial roadways:

1. I-35W, to the west of the study area, is a six-lane interstate freeway with and an auxiliary lane in each direction from TH 36 to County Road C. Access to the study area is via County Road C and County Road D.

2. TH 36, approximately one-half mile to the south of the study area, is a four-lane freeway with access to the study area via Snelling Avenue (TH 51) and Fairview Avenue.

The study area is served by five minor arterials:

1. Cleveland Avenue (County State Aid Highway 48), a four-lane, undivided north-south arterial at the western end of the study area.

2. Snelling Avenue (Trunk Highway 51), a four-lane, divided north-south "expressway" to the east of the study area.

3. County Road C, a four-lane, east-west roadway approximately ¼ mile to the north of the study area.

4. County Road D, a two-lane, east-west roadway at the north edge of the study area.

5. Fairview Avenue (County State Aid Highway), a two-lane, north-south roadway through the study area. South of County Road C, it is a four-lane arterial with turning lanes.

Figure 2 in Appendix E depicts the primary roadway system, traffic controls, and PM peak traffic volumes.

AUAR Guidelines: 21.B. 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;

Traffic forecasts for the Twin Lakes AUAR area were developed for year 2030 build conditions. The Twin Lakes AUAR area is generally bounded by Snelling Avenue, Cleveland Avenue, County Road D and County Road C. The proposed land use components for the AUAR redevelopment area have been aggregated into three distinct redevelopment scenarios. The first represents the intent of the comprehensive plan and is inclusive of all major land use redevelopment options, based on a worst-case redevelopment scenario for traffic generation.

Each of the other two redevelopment alternatives was developed with a conscience effort to balance land use size and trip generation. Developing the proper balance between land use size and amount of trips generated ensures that feasible redevelopment alternatives are reviewed in relation to their potential traffic impacts. The second redevelopment scenario is focused on residential development, combined with other complimentary land uses (i.e., office and retail). The third redevelopment scenario represents a non-residential focus. See AUAR Item 6 – Development Description, AUAR Item 7 – Project Magnitude Data, and Appendix B of the overall Twin Lakes AUAR Update documentation for additional details regarding all scenarios reviewed.

Trip generation estimates for the p.m. peak hour and on a daily basis were calculated for the AUAR redevelopment scenarios based on trip generation rates from the 2003 ITE Trip Generation Reports. Tables 3, 4, and 5in Appendix E, display a summary of the trip generation calculations for each redevelopment scenario per individual block and AUAR Subarea.

The Metropolitan Council regional model was used to develop average daily traffic (ADT) volumes for the greater adjacent roadway network, directional distribution for the p.m. peak hour trip generation estimates and determine a background growth rate for the immediate adjacent roadway network. The Metropolitan Council regional model currently used is a year 2030 base network model. The "base network" statement refers to the programmed or planned roadway network improvements that are included in the model. This is important from a regional perspective because previous Metropolitan Council regional model (year 2020) base networks used in the 2001 Twin Lakes Business Park AUAR included capacity improvements to regional facilities adjacent to the Twin Lakes AUAR area (i.e., I-35W and TH 36 having one additional through-lane in each direction). This is no longer valid for the year 2030 Metropolitan Council regional model base network.

A subset of the key year 2030 base network infrastructure assumptions is as follows:

- I-35W, to the west of the study area, is a six-lane interstate, freeway facility with an auxiliary lane in each direction from TH 36 to County Road C with access to the study area via County Road D and County Road C.
- TH 36 is a four-lane, freeway facility with access to the study area via Snelling Avenue and Fairview Avenue.
- Cleveland Avenue is a four-lane, undivided arterial.
- Snelling Avenue is a four-lane, divided expressway with turn lanes.
- County Road C is a four-lane, divided arterial with turn lanes.
- County Road D is a two-lane, undivided arterial.
- Fairview Avenue is a two-lane, undivided arterial north of Terrace Drive and a four-lane undivided arterial south of Terrace Drive with turn lanes.

The year 2030 Metropolitan Council regional model includes forecast development (based on socio-economic data) and infrastructure improvements in the Twin Cities metro area over the next 24 years. Two adjacent redevelopment projects were taken into account when developing these ADT forecasts, the proposed Northwestern College expansion and the Rosedale Center expansion. In addition, the proposed Twin Lakes Parkway connection was added to the model in order to determine its role in the transportation system. The proposed redevelopment land use scenarios were also entered into the model to generate outputs relevant to this AUAR project. The updated model was then run to determine the adjacent roadway network ADT volumes and determine the directional distribution percentages for trips originating from or destined for the Twin Lakes AUAR area. Based on forecast year 2030 ADTs, existing ADTs and trip generation estimates for the redevelopment scenarios, an annual growth rate of one-half percent was applied to the existing peak hour turning movement volumes to develop year 2030 background traffic forecasts. Figure 3 in Appendix E displays existing and year 2030 forecast ADT volumes. Figure 4 in Appendix E displays the directional distribution percentages for the redevelopment scenarios.

AUAR Guidelines: 21.C. 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 Levels of Service and delay times at critical points (if any);

To determine how well the existing and future roadway system will accommodate redevelopment of the Twin Lakes AUAR area, an operations analysis was completed for year 2030 build conditions during the p.m. peak hour at each of the key intersections. All signalized intersections were analyzed using the Synchro/SimTraffic software (version 6.14) and unsignalized intersections were analyzed using the Highway Capacity Software (and compared with Synchro/SimTraffic). The intersection improvements identified at County Road C/Snelling Avenue under existing conditions are included in the year 2030 build analysis. Results of the analysis indicate that all key intersections are expected to operate poorly (LOS F) under year 2030 Scenario A build conditions. Twelve out of 14 key intersections are expected to operate poorly (LOS F) under year 2030 Scenario B and C build conditions. As stated each scenario will operate poorly without additional mitigation.

The analysis results shown in Table 21.1 represent the level of service operations at each of the key intersections with reasonable/feasible recommended improvements. It is evident that under year 2030 Scenario A build conditions, four intersections continue to operate at undesirable LOS E or worse. This is due to the limitations placed on the recommended

improvements (reasonable/feasible versus unconstrained improvements). It should be noted that previous analysis conducted for the 2001 Twin Lakes AUAR documentation did not identify the same reasonable/feasible improvement constraints.

Ramsey County staff has indicated that no additional improvements will be made to County Road C and its intersection nodes. However, geometric improvements are needed at a number of its intersections in order to improve operations under Scenario A. Without the recommended improvements, these intersections are expected to operate worse than the undesirable conditions stated under this scenario. The intersection of County Road C/Snelling Avenue will continue to operate at an undesirable LOS F with the recommended improvements. The amount of conflicting volume forecast at this intersection is too heavy to manage under year 2030 build conditions. Operational improvements are limited without a total reconstruction and grade-separation at this intersection. The combination of background traffic and trips generated by the redevelopment scenarios, level of service operation results, and recommended improvements for year 2030 build conditions are shown in Figures 5, 6 and 7 (Scenarios A, B, and C respectively), which are located in Appendix E.

Table 21.1 P.M. Peak Hour Capacity Analysis Summary Level of Service Results

Intersection	Level of Service			
	Existing Conditions	**Year 2030 Scenario A Build Conditions**	**Year 2030 Scenario B Build Conditions**	**Year 2030 Scenario C Build Conditions**
Long Lake Road at I-35W SB Ramps	B	C	C	C
Long Lake Road at County Road C	B	C	C	C
County Road C at Cleveland Avenue	D	**E (60 sec.)** [1]	D	D
County Road C at Fairview Avenue	D	**E (70 sec.)** [1]	D	D
County Road C at Snelling Avenue	**F (160)** [1] [2]	**F (160 sec.)** [1]	**F (115 sec.)** [1]	**F (115 sec.)** [1]
Snelling Avenue at County Road C2	D	**E (70 sec.)** [1]	D	D
Snelling Avenue at Lydia Avenue	D	D	C	C
Cleveland Avenue at I-35W NB Ramps	D	D	D [3]	D [3]
Cleveland Avenue at County Road C2	A/C [4]	B	B	B
County Road D at Cleveland Avenue	C	D	D	D
County Road D at I-35W NB Ramps	C	C	C	C
County Road D at Fairview Avenue	D [5]	C	C	C
Fairview Avenue at Lydia Avenue	C [5]	D	C	C
Fairview Avenue at Terrace Drive	A/B [4]	D	D [3]	C

[1]Value shown in parenthesis represents the average delay per vehicle.
[2]Level of service improves to LOS D with the recommended at-grade intersection improvements.
[3]LOS result is near the C/D threshold.
[4]Indicates an intersection with side-street stop control. Overall LOS is shown followed by worst approach LOS.
[5]Indicates an intersection with all-way stop control.

AUAR Guidelines: 21.D. a discussion of structural and non-structural improvements and traffic management measures that are proposed to mitigate problems;

Traffic Operations Analysis

- Under existing p.m. peak hour conditions, all key intersections operate at an acceptable overall LOS D or better with existing traffic controls and geometric layout, except for the intersection of County Road C/Snelling Avenue. This intersection currently operates at an undesirable LOS F.
- In order to improve County Road C/Snelling Avenue intersection operations to LOS D, the following geometric improvements are recommended:

  County Road C at Snelling Avenue

  - Construct an additional north and southbound through lane along Snelling Avenue
  - Construct an additional eastbound and westbound left-turn lane (dual left-turn lanes)

- The intersection improvements identified at County Road C/Snelling Avenue under existing conditions are included in the year 2030 build analysis. Results of the analysis indicate that all key intersections are expected to operate poorly (LOS F) under year 2030 Scenario A build conditions. Twelve out of 14 key intersections are expected to operate poorly (LOS F) under year 2030 Scenario B and C build conditions. As stated each scenario will operate poorly without additional mitigation.

- The analysis results shown in Table 21.1 represent the level of service operations at each of the key intersections with reasonable/feasible recommended improvements. It is evident that under year 2030 Scenario A build conditions, four intersections continue to operate at undesirable LOS E or worse. This is due to the limitations placed on the recommended improvements (reasonable/feasible versus unconstrained improvements).

- Please note that the recommended improvements listed below, unless noted specifically for Scenario A, should be applied to all scenarios (refer to Figures 5-7 in Appendix E for graphical representation).

  County Road C at Cleveland Avenue

  - Construct a dedicated westbound right-turn lane (with turn lane storage)
  - Construct an additional southbound left-turn lane (dual left-turn lanes) **(Scenario A only)**
  - Construct a southbound right-turn lane **(Scenario A only)**
  - Construct a northbound right-turn lane (**Scenario A only**)
  - Extend the existing eastbound left-turn lane (**Scenario A only**)

  County Road C at Fairview Avenue

  - Construct right-turn lanes for the eastbound, westbound and southbound approaches (**Scenario A only**)

  County Road C at Snelling Avenue

  - Construct an additional north and southbound through lane along Snelling Avenue (6-lane facility) **(assumed for existing conditions)**

- Construct an additional eastbound and westbound left-turn lane (dual left-turn lanes) **(assumed for existing conditions)**
- Construct a westbound right-turn lane (**Scenario A only**)

Snelling Avenue at County Road C2

- Construct an additional north and southbound through lane along Snelling Avenue (6-lane facility) **(assumed for existing conditions)**
- Construct an additional eastbound left-turn lane (dual left-turn lanes)
- Extend the existing westbound left-turn lane
- Construct a westbound right-turn lane

Snelling Avenue at Lydia Avenue

- Construct an additional north and southbound through lane along Snelling Avenue (6-lane facility) **(assumed for existing conditions)**
- Construct an additional eastbound left-turn lane (dual left-turn lanes)

Cleveland Avenue at I-35W Northbound Ramps

- Construct an additional northbound left-turn lane (dual left-turn lanes)
- Construct a northbound right-turn lane
- Extend existing southbound left-turn lane
- Construct an additional eastbound left-turn lane (dual left-turn lanes) (**Scenario A only**)
- Construct two eastbound through lanes
- Construct a westbound left-turn lane
- Construct two westbound through lanes
- Construct a westbound right-turn lane (**Scenario A only**)

Cleveland Avenue at County Road C2

- Install traffic signal
- Construct a westbound right-turn lane
- Construct a northbound right-turn lane

Cleveland Avenue at County Road D

- Construct two northbound left-turn lanes (dual left-turn lanes) (**Scenario A only**)
- Construct an eastbound left-turn lane
- Construct an eastbound right-turn lane (**Scenario A only**)

County Road D at I-35W Northbound Ramps

- Construct a westbound right-turn lane
- Extend the existing northbound right-turn lane

County Road D at Fairview Avenue

- Eliminate the northwest approach (New Brighton Road) to create a 4-legged intersection
- Convert County Road D to a three-lane section between Cleveland Avenue and Fairview Avenue with a continuous center left-turn lane
- Install traffic signal

- Construct a northbound left-turn lane
- Construct a southbound right-turn lane

Fairview Avenue at Lydia Avenue

- Install traffic signal
- Construct a northbound right-turn lane
- Construct a southbound left-turn lane
- Construct a westbound right-turn lane

Fairview Avenue at Terrace Drive

- Install traffic signal
- Construct an eastbound and westbound left-turn lane
- Construct two eastbound and westbound through lanes (**Scenario A only**)
- Construct an eastbound and westbound right-turn lane
- Construct a northbound and southbound left-turn lane (**Scenario A only**)
- Construct northbound and southbound right-turn lanes

- **Travel Demand Management** (TDM) In addition to adjacent roadway geometric improvements, other strategies are available to reduce the amount of traffic that a development/redevelopment generates, thus affecting the way the adjacent roadway operates. The following proposed actions are provided as a guide toward TDM strategy implementation:
  - Support and Promote Bicycling and Walking as Alternatives
  - Support Transit as an Alternative
  - Support and Promote Car and Vanpooling
  - Provision of Information on Transportation Alternatives
  - Vehicular Traffic Movement & Access Restriction
  - Participate with Regional TDM Organizations
  - Monitor Action Implementation and Goal Achievement

22. Vehicle-Related Air Emissions. Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *EAW Guidelines* about whether a detailed air quality analysis is needed.

AUAR Guidelines: The guidance provided in EAW Guidelines should also be followed for an AUAR. Mitigation proposed to eliminate any potential problems may be presented under item 21 and merely referenced here.

Note to AUAR Update Reviewers: The full Vehicle-Related Air Emissions analysis is located in Appendix E.

Future CO concentrations are analyzed based on forecast peak hour traffic volumes, optimized signal timing, and existing intersection geometrics. Analyses were performed for the year 2030.

Table 22.1 presents the worst case CO concentrations at the modeled intersections. The wind direction column indicates the wind direction that resulted in the worst-case conditions for that

analysis location and time. The 1-hour and 8-hour average modeling results are below the State standards for all conditions modeled; therefore, no mitigation is recommended.

Table 22.1 Future Modeled Carbon Monoxide Concentrations (in parts per million or ppm)

	1-Hour Average	8-Hour Average	Wind Direction
County Road C at Fairview Avenue			
Modeled CO Concentration	1.7	1.2	
Background CO Concentration	5.4	3.6	
Total Predicted CO Concentration	**7.1**	**4.8**	**80**
County Road C at Snelling Avenue			
Modeled CO Concentration	2.1	1.5	
Background CO Concentration	5.4	3.6	
Total Predicted CO Concentration	**7.5**	**5.1**	**190**
State Standards	**30.0**	**9.0**	

Predicted CO concentrations at the analyzed intersections will be below state standards after. Because these intersections are the two worst case intersections in terms of level of service and total delay, CO concentrations at other intersections in the study area would likely be lower than those predicted at the analyzed intersections.

23. Stationary Source Air Emissions. Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

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

New buildings proposed for Twin Lakes will likely be heated by natural gas mechanical systems. Projected emissions from such systems will include small amounts of carbon dioxide, nitrous oxides, and very small amounts of other byproducts. All emissions are expected to be far below thresholds for new source permitting. Effects on air quality from the development of the AUAR area are expected to be negligible. All tenants will be required to obtain any required air emission permits.

24. Dust, Air and Noise Impacts. Will the project generate odors, noise or dust during construction or during operation?
☒ Yes ☐ No
If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

AUAR Guidelines: Dust, odors, and 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 dust control or construction noise ordinances in effect. If the area will include or adjoin major noise sources, a noise analysis is needed to determined 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 21.

Note to AUAR Update Reviewers: The full Vehicle-Related Noise Impact analysis is located in Appendix E.

A noise analysis was conducted at three locations where existing residential land uses would experience the most significant increases in traffic. Receptor locations, where traffic was monitored and analyzed were as follows:

Receptor 1: Fairview North of County Road C2
Receptor 2: Fairview South of County Road C
Receptor 3: Cleveland North of County Road C2

Existing (year 2006) and year 2030 build condition daytime and nighttime traffic noise levels are shown in Tables 24.1 and 24.2, respectively. Noise levels currently exceed State daytime and nighttime noise standards at all three modeled receptor locations (existing year 2006). Traffic noise levels will increase by one to three dBA from existing (year 2006) to year 2030 Scenario A build conditions. The observed increases are the result of higher traffic volumes under this future development scenario.

The largest increase in traffic noise was observed at Receptor 1 under year 2030 Scenario A build conditions. Receptor 1 was estimated to have a 3 dBA (nighttime L_{10}) and 4 dBA (nighttime L_{50}) increase from existing to build conditions. A 3 dBA change is barely perceptible to the human ear; a 5 dBA change is noticeable.[5] Please recall that the nighttime peak hour traffic is generally from 6:00 a.m. to 7:00 a.m., just prior to the morning rush hour.

Year 2030 build conditions analyses assume a similar heavy truck percentage as the existing models. However, under the future redevelopment scenario, land uses in the Twin Lakes AUAR area include more residential and office/business uses than exist today. These types of land uses typically generate less heavy truck traffic, and as a result, the heavy truck percentage on the adjacent roadways will likely be lower than what was modeled. Therefore, it is likely that future

5 Minnesota Pollution Control. 1999. *A Guide to Noise Control in Minnesota.*

traffic noise levels will be unchanged from existing conditions and thus the analysis results present the worst-case potential noise scenario.

Table 24.1 Year 2006 Traffic Noise Analysis – Daytime

Receptor	Existing (Year 2006)		Year 2030 Build Scenario A		Difference between Year 2030 Build Scenario A and Year 2006 Existing	
	L_{10}	L_{50}	L_{10}	L_{50}	L_{10}	L_{50}
R1	68	60	69	61	1	1
R2	70	63	71	64	1	1
R3	71	64	73	67	2	3
State Standards	65	60	65	60	-	-

Table 24.2 Year 2006 Traffic Noise Analysis – Nighttime

Receptor	Existing (Year 2006)		Year 2030 Build Scenario A		Difference between Year 2030 Build Scenario A and Year 2006 Existing	
	L_{10}	L_{50}	L_{10}	L_{50}	L_{10}	L_{50}
R1	63	53	66	57	3	4
R2	65	57	65	57	0	0
R3	67	58	69	61	2	3
State Standards	55	50	55	50	-	-

Minnesota Statute 116.07, Subd. 2a. states that municipal and county roads are exempt from state noise standards, except for those roadways where full control of access has been acquired and for roads in the cities of Minneapolis and St. Paul. The Twin Lakes AUAR adjacent roadways (e.g., Fairview Avenue, Cleveland Avenue) are City or County roads without full control of access (e.g., direct driveway connections) and are exempt from State noise standards per Minnesota Statute. Therefore, no traffic noise mitigation is proposed.

25. Sensitive Resources. Are any of the following resources on or in proximity to the site:
a. archeological, historical, or architectural resources? ☐ Yes ☒ No

AUAR Guidelines: For an AUAR, contact with the State Historic Preservation Office is required to determine whether there area 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 Historical Society's State Historic Preservation Office (SHPO) reviewed the AUAR area for archeological, historical and architectural resources. According to a letter received from SHPO, dated April 6, 2001 (SHPO #2001-1624), they do not believe that an archaeological survey of the Twin Lakes area is necessary (Refer to Appendix F). However, they noted the presence of a number of buildings within the AUAR area and recommended that photographs and construction dates be submitted for any buildings over 50 years old for an initial assessment. According to SHPO, the submittal of such information was not required as part of the AUAR process, but would be required prior to any new construction

activities.

b. prime or unique farmlands?
☐ Yes ☒ No

AUAR Guidelines: 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.

c. designated parks, recreation areas, or trails?
☒ Yes ☐ No

AUAR Guidelines: If development of the AUAR will interfere or change the use of any existing such resource, 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 City parks within and adjacent to the AUAR area, Langton Lake and Oasis Pond, provide an amenity for attracting redevelopment to the area. They provide both a visual amenity and recreational opportunities, which will greatly increase the viability of the area as an asset to the community. Another feature in the eastern half of the study area is Ramsey County Ditch #4, a drainage way that winds from south of County Road C, north to Oasis Park, and from Oasis Pond into Little Lake Johanna.

The park and trail system in the City has been enhanced by connecting the major uses with a bicycle and trail system around Langton Lake and along the County Road C trail corridor, through the parks, and (in the future) along the ditch and other interior areas, which will create a unified recreational system in the Twin Lakes area. The new Twin Lakes Parkway will also provide trail connections to Langton Lake from newly developed parcels. The character and standards governing the development of this park and trail system are outlined in a separate document: Roseville's Pathway Master Plan, Design and Guidelines.

A small portion of the officially mapped Twin Lakes Parkway will impact the southeastern corner of Langton Lake Park that contains a moderate quality lowland hardwood forest (see Figure 10.2). Mitigation for this portion of the park could include restoring an equivalent portion of the AUAR area to lowland hardwood forest or providing funding for implementing selected recommendations for Langton Lake Park in the Roseville Park Natural Resource Management Plan, prepared by the City in 2002. This plan contains specific lake management recommendations for Langton Lake and a natural resource management plan for uplands and wetlands in Langton Lake Park.

The Langton Lake Park Master Plan was officially adopted by the City Council in 1986. It is noted that the Master Plan is not included in Roseville's Comprehensive Plan. The Master Plan depicts planned/programmed improvements to the park, long range acquisition areas, and new/modified access points. According to the Master Plan, the proposed Senior Co-op project is located within a parcel that includes two new proposed new access roads to Langton Lake Park. The access point from Cleveland Avenue is noted as being the "main entry" into the park and is partially located within the Senior Co-op property and partially

located within the existing boundaries of Langton Lake Park. The other access point is an extension of Ridge Road south of Brenner Avenue. The Senior Co-op project will provide access to Langton Lake Park; however, the alignment and character of the access has not been determined.

d. scenic views and vistas?
☐ Yes ☒ **No**

AUAR Guidelines Any impacts on such resources 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 (page 20).

e. other unique resources?
☐ Yes ☒ **No**

If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

26. Visual Impacts. Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks?
☐ Yes ☒ No
If yes, explain.

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

No non-routine visual impacts are anticipated.

27. Compatibility with Plans. Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?
☒Yes ☐ No
If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

AUAR Guidelines: The AUAR must include a statement of certification from the RGU that its comprehensive plan complies with the requirements set out at 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, 19, 22, 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.

The Roseville Comprehensive Plan complies with the requirements set out in MN Rules 4410.3610, subp. 1, which requires that the adopted comprehensive plan include a land use plan, public facilities plan, transportation plan, sanitary sewer plan, and an implementation program.

Current Comprehensive Plan

All development scenarios do not conflict with the land use designations and policies of the City's current Comprehensive Plan. The Comprehensive Plan currently designates the AUAR area as "BP-Business Park" (see Figure 6.2). BP-Business Park is defined in the Comprehensive Plan as "a geographically identifiable area which contains a consistent architectural mix of office, office-laboratory, office-showroom-warehousing, bio-technical, biomedical, high-tech software and hardware production uses with support services such as limited retail, health, fitness, lodging and multifamily residential. Multimodal transportation is an important element for the transportation of goods, services, and employees. The corresponding zoning is B-6 Mixed Use Business Park and PUD – Mix of Uses Planned Unit Development."

The Comprehensive Plan reflects the 2001 Twin Lakes Business Park Master Plan. The Master Plan specifically states: "[this] new master plan amendment of 2001 will designate the areas as BP – Business Park." The 2001 Master Plan also includes four future land use maps ("Options 2, 3 and 4" and the "Twin Lakes AUAR Future Land Use Scenario") and several pages of text describing land use scenarios and goals. The intent of the 2001 Master Plan was to provide for a flexible mix of business park uses. For reference, the 2001 Master Plan is posted on the City's website: www.ci.roseville.mn.us.

The proposed scenarios are also consistent with the City of Roseville's redevelopment and reinvestment planning for the area and represents an effort to revitalize the existing business area and improve the access, circulation, and aesthetic quality of development within the district. It is anticipated that any proposed development would also integrate the area's natural resources into a redevelopment plan and preserve them as an attractive quality and focal point for the overall design of the district.

Note that two parcels within Subarea III are designated "Business Park" in the Comprehensive Plan; however, these two parcels are included in Langton Lake Park and provide access to the park and parking facilities. Consideration should be given to designating these areas as "Park" consistent with the land use designation for the majority of Langton Lake Park in future comprehensive plan updates. No development is contemplated for these two park parcels.

Zoning

Existing zoning for the AUAR area includes a variety of industrial, business, park, and residential districts, which reflect existing land use (Figure 28.1). The future zoning for the AUAR area will be Planned Unit Development with an underlying zoning of B-6, Mixed Use Business Park District. The B-6 Business Park District is designed to provide a high quality office, clinic, hotel, and research complex with multiple stories.

Section 1005.07A of the Zoning Code states: A "Mixed Use Business Park" is a redevelopment area, in which the environmental impacts of the business park have been analyzed through an environmental impact statement or similar. The impacts are then mitigated within the requirements a Planned Unit Development as defined in Section 1008 of the Roseville City Code. All parcels shall have well-planned roads, utilities, ponding and communication systems. Parcels within a "Mixed Use Business Park" shall have access to an internal parkway and/or external

County roads as well as convenient access to the Interstate Highway System. Emphasis shall be placed on creating a unique, safe and high quality work and play environment by installation of extraordinary, architecturally distinct buildings, parkways, transit and transportation services, site planning, landscaping, parks, pedestrian pathways, and lighting.

Permitted Uses, after city approval of a mixed use master plan and completion of a Planned Unit Development within a portion (or all) of the Mixed Use Business Park:

- Office, business and professional.
- Medical and dental clinics and laboratories.
- Hotel and motel.
- Hospital.
- Research, design and development.
- Bank and financial institutions.
- Health clubs
- Restaurants
- Retail sales
- Day care centers
- Parking to accommodate uses in a contiguous mixed use business district
- Multi-family housing.

The proposed uses within all Scenarios are consistent with the aforementioned permitted uses.

28. Impact on Infrastructure and Public Services. Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project?
☒Yes ☐ No

If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; Refer to *EAW Guidelines* for details.)

AUAR Guidance: This item should first of all summarize information on physical infrastructure presented under other items (such as 6, 18, 19, and 22). Other major infrastructure or public services not covered under other items should be discussed as well -- this includes major social services such as schools, police, fire, etc. As noted above and in the "EAW Guidelines," the RGU must be careful to include project-associated infrastructure as an explicit part of the AUAR review if it is to be exempt from project-specific review in the future.

The majority of required infrastructure for the Twin Lakes Business Park is currently in place with the exception of the Twin Lakes Parkway and interior sanitary sewer, water main and storm sewer extensions west of Fairview Avenue. Several recommended transportation improvements are presented in AUAR Item 21 – Traffic. Major infrastructure improvements are not necessary to redevelop parcels located east of Fairview Avenue, however minor utility relocations and curb cuts in Terrace Drive may be required in some areas.

The full redevelopment of interior parcels located west of Fairview Avenue will require the construction of Twin Lakes Parkway. Twin Lakes Parkway is proposed to begin at the intersection of Cleveland Avenue and the northbound I-35W entrance/exit ramps and run east to the intersection of Fairview Avenue and Terrace Drive. The parkway is proposed to include two

16-foot wide through lanes with left turn lanes and a center median throughout. It is anticipated that pedestrian facilities (e.g., sidewalks or pathways) will be constructed as part of the parkway development.

Sanitary sewer facilities are proposed to be constructed along Mount Ridge Road to serve interior parcels in the development.

Water main facilities may be constructed along Mount Ridge Road easement and Twin Lakes Parkway to serve interior parcels in the development and provide additional loops within the City water main grid.

Storm sewer facilities include catch basins for the proposed roadway with trunk sewer running to existing storm water treatment ponds. Additional trunk sewer facilities will be constructed to provide connections between proposed parcels and existing storm water treatment ponds.

The City's police and fire department will track growth factors such as population growth, service calls, and community expectations to plan for the needs of the AUAR area.
No adverse impacts to schools are anticipated as area schools are not over capacity.

29. Cumulative Impacts. Minnesota Rule part 4410.1700, subpart 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form).

AUAR Guidelines: This item does not require a response for an AUAR with respect to cumulative impacts of potential developments within the AUAR boundaries, since the entire AUAR process is intended to deal with cumulative impacts from related developments within the AUAR area; it is presumed that the responses to all items on the EAW form encompass the impacts from all anticipated developments within the AUAR area

However, the questions of this item should be answered with respect to the cumulative impacts of development within the AUAR boundaries compared with past, present, and reasonably foreseeable future projects outside of the AUAR area, where such cumulative impacts may be potentially significant. (As stated on the EAW form, these cumulative impact descriptions may be provided as part of the responses to other appropriate EAW items, or in response to this item).

Past development of the AUAR area has resulted in significant impacts to soil and water resources. The pollution caused by past development occurred prior to the adoption and enforcement of many common environmental rules and regulations. For example, this has resulted in unmitigated storm water runoff impacting Langton Lake and the other water resources within and adjacent to the AUAR area. The cumulative impact of existing pollution on soil and water resources will persist until redevelopment activities occur that must adhere to adopted plans, rules and regulations, including remedial activities for existing pollution.

Like this AUAR, the 2001 Twin Lakes Master Plan contains strategies to address the cumulative impacts of redevelopment the within the AUAR area including, but not limited to environmental matters, land use compatibility, design guidelines, and requiring redevelopment in phases with a number of parcels at one time. This Master Plan is referenced in the AUAR mitigation. This Master Plan is also incorporated in the City's Comprehensive Plan, which provides plans, policies, and programs to address the cumulative impact of development within the City of Roseville.

30. Other Potential Environmental Impacts. If the project may cause any adverse environmental impacts which were not addressed by items 1 to 28, identify them here, along with any proposed mitigation.

AUAR Guidelines: If applicable, this item should be answered as requested by the EAW form.

No other adverse environmental impacts have been identified in the AUAR area.

31. Summary Of Issues (This section need not be completed if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document which must accompany the EAW.) List any impacts and issues identified above that may require further investigation before the project is commenced. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

AUAR Guidelines: The RGU may answer this question as asked by the form, or instead may choose to provide an Executive Summary to the document that basically covers the same information. Either way, the major emphasis should be on potentially significant impacts, the differences in impacts between major development scenarios, and the proposed mitigation.

In 1997 the City completed an EAW for the redevelopment of the business park and the construction of the new Twin Lakes Parkway. The City declared no negative impact from the redevelopment or the construction of the parkway. The City ordered a substitute form of environmental review for the Business Park redevelopment plan, the 2001 AUAR. In accordance to MN Rules, AUARs must be updated every five years unless all development within the AUAR area has been given final approval by the RGU. Before the City can issue the necessary permits for any projects within the AUAR area that require environmental review, the City must update the 2001 Twin Lakes Business Park AUAR. As a result, future projects in the AUAR study area may not require environmental review, if they are consistent with the AUAR update assumptions and mitigation measures are implemented, as required for an AUAR.

The Master Plan for the Twin Lakes Business Park includes the development or redevelopment of 46 parcels within a 275-acre area and may include new and/or renovated building area in multi-story offices, one- to two-level high-tech flex space, hospital/medical use, service industries and multi-family housing. The plan would be implemented in phases over the next 20 years.

The AUAR development scenarios are not in conflict with the land use designations and policies of the City's current Comprehensive Plan. The existing Comprehensive Plan Future Land Use Map for the City currently designates the area as BP-Business Park.

Under the current Comprehensive Plan, the entire AUAR Area is designated Business Park with mixed uses and states that Roseville will continue to diversify and increase the tax base, clean the land, and create high paying or head of household jobs. The Scenarios are also consistent with the Zoning Code for the City of Roseville, in which new redevelopments become part of a PUD with underlying business park zoning of the B-6 zone, and with the Business and Industrial Policy, which states that the City should "place a high priority and encourage the redevelopment of additional industrial property to provide an inventory of improved sites for expanding firms. The demand for industrial land in the City far exceeds what is available at any given time. The City will continue its current industrial land redevelopment and pollution clean-up efforts.

A quantitative comparison of the three scenarios is presented in Table 31.2. Scenario A represents the "worst case" alternative included in the 2001 Twin Lakes Business Park Master Plan. Compared to Scenarios B and C, Scenario A presents the greatest intensity/density of development, which is reflected in the estimated demands for water, predicted wastewater flows and in the number of trips generated by this scenario. The development type and intensity/density included in Scenarios B and C were determined as the result of a traffic sensitivity test that balanced land use with reasonable/feasible improvements to the transportation system. Scenario B and C are somewhat similar in the intensity/density of development, but differ in the type of development – Scenario B includes more residential and service mix use and Scenario C includes more office use. Overall, the estimated demands for water, predicted wastewater flows and the number of trips generated by Scenario B are greater than those in Scenario C.

Table 31.1 Quantitative Comparison of Scenarios

Attribute	Scenario A	Scenario B	Scenario C
Office (sq. f.t)	2,330,505	1,440,154	1,590,000
Residential (units)	919	1,282	735
Service Mix (sq. ft.)[6]	618,319	508,000	390,000
Hospital (sq. ft.)	446,583	-	-
Estimated Daily Water Demand (Mgd)	0.694	0.618	0.460
Predicted Wastewater Flow (Mgal/yr)	230	205	153
Average Daily Trips	73,276	47,001	43,888
Peak P.M. Trips In	2,491	1,841	1,515
Peak P.M. Trips Out	4,709	2,962	3,219

Cumulative Impacts

Past development of the AUAR area has resulted in significant impacts to soil and water resources. The pollution caused by past development occurred prior to many common environmental rules and regulations being adopted and enforced. For example, this has resulted in unmitigated stormwater runoff impacting Langton Lake and the other water resources within

6 Service mix was analyzed from a retail land use perspective.

and adjacent to the AUAR area. The cumulative impact of existing pollution on soil and water resources will persist until redevelopment activities occur that must adhere to adopted plans, rules and regulations, including but not limited to remedial activities for existing pollution and the installation of storm water management systems.

Traffic Impacts

- Under existing p.m. peak hour conditions, all key intersections operate at an acceptable overall LOS D or better with existing traffic controls and geometric layout, except for the intersection of County Road C/Snelling Avenue. This intersection currently operates at an undesirable LOS F.
- In order to improve County Road C/Snelling Avenue intersection operations to LOS D, the following geometric improvements are recommended:
    - Construct an additional north and southbound through lane along Snelling Avenue
    - Construct an additional eastbound and westbound left-turn lane(dual left-turn lanes)
- The intersection improvements identified at County Road C/Snelling Avenue under existing conditions are included in the year 2030 build analysis. Results of the analysis indicate that all key intersections are expected to operate poorly (LOS F) under year 2030 Scenario A build conditions. Twelve out of 14 key intersections are expected to operate poorly (LOS F) under year 2030 Scenario B and C build conditions. As stated each scenario will operate poorly without additional mitigation.
- The analysis results shown in Table 21.1 represent the LOS operations at each of the key intersections with reasonable/feasible recommended improvements. It is evident that under year 2030 Scenario A build conditions, four intersections continue to operate at undesirable LOS E or worse. This is due to the limitations placed on the recommended improvements (reasonable/feasible versus unconstrained improvements).
- Specific recommended improvements to the transportation system are detailed in AUAR Item 21, the Mitigation Plan, and Appendix E.
- In addition to adjacent roadway geometric improvements, other strategies are available to reduce the amount of traffic that a development/redevelopment generates, such as Travel Demand Management (TDM), which could affect the way the adjacent roadway operates. The following proposed actions are provided as a guide toward TDM strategy implementation:
    - Support and promote bicycling and walking as alternatives
    - Support transit as an alternative
    - Support and promote car and vanpooling
    - Provision of information on transportation alternatives
    - Provision of advanced communication technologies
    - Vehicular traffic movement & access restriction
    - Participate with regional TDM organizations
    - Monitor action implementation and goal achievement

Water Quality: Surface Water Runoff

A water quality analysis was conducted to estimate the existing and post-redevelopment loads to total phosphorus (TP) and total suspended solids (TSS), as well as run off volume for the subwatersheds within the AUAR area. Because the entire AUAR area is being considered as a whole rather than a series of smaller projects, it significantly exceeds the area threshold that the City has adopted in its Comprehensive Stormwater Management Plan (SWMP) to require a high level of stormwater treatment. The minimum treatment standard that the City would apply is a 60% reduction in TP and a 90% reduction in TSS from the future redevelopment condition. This performance standard could be met through construction of detention basins to meet NURP criteria. It should be noted that the City and/or Rice Creek Watershed District may require other treatment approaches to replace or complement detention basins (e.g., infiltration). Application of other best management practices will likely depend on site-specific factors, such as soil conditions, that are not known at the time of preparation of this AUAR. However, the performance standard outlined above for TP and TSS reductions will be met, regardless of the combination of stormwater treatment approaches used. If infiltration Best Management Practice's (BMP's) are applied, decreases in stormwater runoff volume for the post-redevelopment condition can be expected, with the magnitude of these decreases dependent on the sizing of the BMP. Those impacts are not accounted for in this analysis.

Langton Lake. One of the primary stormwater-related issues is the protection of Langton Lake (MnDNR ID No. 62-0049). Langton Lake has a total watershed area of approximately 212 acres, about 75 acres of which are included in the AUAR area. As presented above, the stormwater treatment that will be required as part of future redevelopment projects is expected to decrease phosphorus loading to Langton Lake from within the AUAR area by almost 40%. Water quality data and anecdotal evidence for Langton Lake suggests that water quality in the lake has improved since the 1970's and 1980's (Roseville Parks Natural Resources Management Plan, 2002). Although no lake response modeling was required for Langton Lake as part of this AUAR analysis, it is likely that a 40% reduction in phosphorus loading from the AUAR area will at least preserve the existing in-lake water quality and may improve it.

The Langton Lake is not on Metropolitan Council's "priority lakes" list or the State's impaired waters ("303d") list. Further, based on recent water quality data collected through the Citizen Assisted Monitoring Program coordinated by the Metropolitan Council, it appears that current water quality is likely good enough that it would not be listed for impairment due to nutrient enrichment.

Land Cover/Wildlife Impacts

The diversity and population of wildlife species in an area is directly related to the composition, quality, size and connectivity of the natural communities, including woodlands, grasslands and wetlands. The AUAR area is in a part of Roseville that has been fully developed for more than 30 years.

Non-Native/Altered. The nonnative plant dominated areas within the AUAR area generally support habitat for urban-adapted wildlife, such as passerine birds, crows, gray squirrels, rabbits, and raccoons. Conversion of portions of the low quality nonnative/altered habitat areas found in Subareas I, and III are anticipated to cause wildlife to disperse to nearby habitat. Because these wildlife species have the ability to readily adapt to changing land cover conditions, it is anticipated that they will move to and compete for surrounding habitats.

Native. Forest areas comprise the native upland vegetation within the AUAR area and are found within Subareas I and III (Figures 5.3 and 10.1). The quality of this native cover varies and has the potential to support a variety of wildlife species, including deer, squirrel, raccoon, beaver, cottontail rabbit, and a variety of passerine birds by providing seasonal food and shelter.

The low quality oak forest area that is located in the northernmost portion of Subarea III (Figure 6.3) has a moderate wildlife value. The northern portion of this forest (located north of Langton Lake Park is anticipated for development, with the resulting loss of a segment of low quality oak forest and altered/nonnative deciduous forest, lowering the wildlife value for the northwest corner of the AUAR area.

There are four oak forest segments that occur in the AUAR area, on the west side of Langton Lake Park. These are moderate quality oak forest areas with the highest wildlife value of the terrestrial wildlife habitats within the AUAR area. Three oak forest areas occur in Subarea I, while one occurs in Subarea III. These four oak forest areas are anticipated for conversion to more developed land cover under a "worst case" scenario.

Aquatic Resources. The wetland/open water areas located throughout the AUAR area are known to be used by wildlife species adapted to human activity and/or human-modified landscapes, including species of waterfowl, such as mallard ducks, and Canada geese, as well as shorebirds, such as great blue heron and common egret. Some of the smaller wetlands may also be utilized on a seasonal basis by species such as American toad and migrating groups of warblers. The potential impact to wetlands is further addressed in AUAR Item 12 – Physical Impacts to Water Resources.

One wetland used as a stormwater treatment feature is anticipated to be partially impacted by construction of Twin Lakes Parkway through Subarea I (Figure 10.2). This area currently provides modest habitat value for common species of wildlife in the area, including mallard ducks and common shorebirds, such as great blue herons.

The impact to existing forest cover types shall be mitigated through future dedication of open space within these oak forest areas or replacing these areas, increasing the overall buffer and wildlife habitat value for Langton Lake Park.

In light of these theoretical impacts under a "worst case" scenario, as shown on Figure 10.2, mitigative restoration efforts should be made to improve the quality of remaining woodland areas within and immediately adjacent to the AUAR area. Restoring the remaining woodland and maintaining connectivity between woodland areas, particularly those surrounding Langton Lake will help to minimize impacts to wildlife. Restoration efforts should include cutting and treating of nonnative species, such as European buckthorn and Siberian elm, planting native species, and conducting other management activities.

Mitigation for lost wildlife habitat within the AUAR area could include restoration of important oak forest areas within Langton Lake Park through implementation of the 2002 Roseville Parks Natural Resource Management Plan. Activities outlined in the Langton Lake Park Management Plan include cutting and treating European buckthorn and other invasive, nonnative vegetation, planting of native herbaceous species and maintenance activities such as prescribed burning. Such a restoration effort would increase the overall wildlife value for the AUAR area and its immediate surroundings.

Other mitigative/restoration opportunities include using native plants as the major component of landscaped settings, including native trees, shrubs, grasses, and flowers. Although not a direct replacement for wildlife habitat that may be lost during the redevelopment process, this approach can mimic some aspects of natural habitats, provide important food and shelter, and maintain greater connectivity for wildlife between otherwise isolated native habitat patches.

Certification by RGU. *In an AUAR document, no certifications as listed at the end of the EAW form are necessary. (The RGU is legally responsible for the accuracy and completeness of the document and for properly distributing it nonetheless.)*

Mitigation Plan. *AUAR Guidelines: The final AUAR document must include an explicit mitigation plan. At the RGU's option, a draft plan may be included in the draft AUAR document; of course, whether or not there is a separate item for a draft mitigation plan, the proposed mitigation must be addressed through the document.*

It must be understood that the mitigation plan in the final document takes on the nature of a commitment by the RGU 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. Otherwise, the AUAR may not be adequate and/or specific projects may lose their exemption from individual review. The RGU's final action on the AUAR must specifically adopt the mitigation plan; therefore, the plan has a "political" as well as a technical dimension.

This Mitigation Plan provides reviewers, regulators and prospective tenants or purchasers of land with an understanding of the actions necessary to protect the environment and limit potential impacts by proposed development projects. The mitigation strategies included in the 2001 AUAR have been updated.

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 area. Although mitigation strategies are discussed throughout the AUAR document, this plan was formally adopted by the RGU on October 15, 2007 as its action plan to prevent potentially significant environmental impacts.

Any proposed specific project within the AUAR area remains subject to applicable local zoning, subdivision, or other official controls. Specific projects that are consistent with the assumptions of the adopted AUAR and that comply with the mitigation plan within the AUAR are exempt from further environmental review pursuant to Minnesota Rules Section 4410.3610 Subp. 5 E.

The primary mechanism for mitigation of environmental impacts is the effective use of ordinances, rules, and regulations. The plan neither modifies the regulatory agencies' responsibilities for implementing their respective regulatory programs nor creates additional regulatory requirements.

Based on the analysis in the AUAR update , the City proposes the following Mitigation Plan to address potential adverse environmental impacts due to development in the Twin Lakes Business Park AUAR area.

1) All necessary permits and approvals will be obtained from the appropriate agencies for any work or construction within the Twin Lakes Business Park. The following list of permits have been identified as potentially being required for future development projects:

UNIT OF GOVERNMENT	TYPE OF APPLICATION*	STATUS
Federal Government		
FAA	Determination of Helipad Routes	Future
Army Corps of Engineers	Section 404 Permit	Future
	Letter of No Wetland Jurisdiction	Future
State		
MPCA	NPDES/SDS General Permit	Future
	Sanitary Sewer Extensions and/or Changes Permit	Future
	Voluntary Investigation Clean-Up Program (VIC)	Future
	Petroleum Brownfields Program	Future
	Section 401 Water Quality Certificate or Waiver	Future
MN Department of Health	Water Main Extensions and/or Changes Permit	Future
	Sanitary Sewer Extension Permit Approval	Future
	Well Location and Construction Approval	Future
MN Environmental Quality Board	Environmental Review	Pending
MN Department of Natural Resources	Public Waters Work Permit	Future
	General Permit 97-005 for Temporary Water Appropriations (need if more than 10,000 gpd of water is appropriated	Future
	Storm Sewer Discharge Permit	Future
MN Department of Transportation	Drainage Permit	Future
	Use of or work within MnDOT right-of-way	Future
Regional		
Rice Creek Watershed District	Erosion and Sediment Control Permit	Future
	Stormwater Management Plan Approval	Future
	Wetland Delineation Boundary Confirmation	Future
	Certificate of Wetland Exemption	Future
	Drainage Authority Review and Approval	Future
Metropolitan Council	Sanitary Sewer Service Connection Approval	Future
Ramsey County	Final Plat Approval	Future
	County Road Access Permits	Future
Local		
City of Roseville		
	AUAR Update	Pending
	Rezoning	Future
	Preliminary & Final Plat	Future
	Stormwater Management Plan Approval	Future
	Erosion Control Permit	Future
	Traffic Impact Analysis	Future
	Grading Permit	Future
	Building Permits	Future

* All required permits and approvals will be obtained. Any necessary permits or approvals that are not listed in the table above were unintentionally omitted, and some listed may not be necessary

2) All City ordinances and policies will be followed in the review and approval of development projects within the Twin Lakes Business Park.

3) In particular, the City will follow its current Comprehensive Surface Water Management Plan, ordinances, policies, and best management practices related to stormwater runoff and ponding, which encourage more pervious surfaces, alternatives to mowed turf, introduction of native vegetation and other innovative techniques to reduce runoff.

4) The City will require a detailed Planned Unit Development (PUD) approval for each project developed within Twin Lakes, which is a separate zoning process that is adopted after hearings and passage of an ordinance.

5) The City will work with Metropolitan Council Transit Operations, local businesses, and area residents to encourage improved transit service, increased transit ridership, and travel demand management programs in the Twin Lakes area and vicinity to reduce the number of vehicles on area roadways.

6) The City will encourage the development of a network of sidewalks, trails, pedestrian amenities, parks and open space in the Twin Lakes area to provide greenway/wildlife corridors and to encourage more pedestrian trips and fewer vehicles trips in the area.

7) Any land dedication required as part of the City's park dedication requirements provide opportunities for conserving existing native land cover types, creating greenway/wildlife corridors through the AUAR area, and/or buffering Langton Lake Park. Cash in lieu of dedication should be used to purchase land located in the aforementioned areas and/or used to restore native, altered, or non-native cover types within the AUAR area or within Langton Lake Park to native cover types. It is noted that detailed natural resource management recommendations for Langton Lake Park are provided in the Roseville Parks Natural Resource Management Plan (2002).

8) The City will require that projects converting native cover types to an altered cover type to mitigate the conversion by restoring native cover types within the AUAR area or in Langton Lake Park. This mitigation strategy can be implemented in conjunction with the land dedication or cash in lieu of dedication strategies listed above in Mitigation Strategy 7.

9) The City will continue to follow the 2001 Twin Lakes Business Park Master Plan to mitigate the cumulative impacts of development within the AUAR area including, but not limited to, the ten broad planning principles listed below:

    - Create a buffer to protect and enhance the public enjoyment of Langton Lake
    - Protect the residential neighborhoods with less intrusive land uses
    - Create a livable environment with a mix of uses
    - Create compatibility between uses and building designs
    - Minimize the impact of commercial traffic onto residential streets; reduce congestion at main intersections
    - Clean up soil and groundwater pollution

- Provide a range of quality jobs
- Diversify the tax base
- Provide a flexible land use plan
- Located use in areas where they can best take advantage of necessary market forces

10) Project proposers will need to address, as appropriate, findings from Phase I and II Environmental Site Assessments (ESAs), including the preparation and implementation of Response Action Plans (RAP) and/or Development Response Action Plans (DRAP) pursuant to local, state, and federal regulations.

11) The City will require project proposers to remediate, as appropriate, soil and groundwater contamination for the intended redevelopment use pursuant to Minnesota and federal law.

12) The City will work with MPCA to require that materials dumped within the AUAR area, hazardous materials, petroleum products, and/or asbestos be managed appropriately in accordance with MPCA guidelines.

13) The City will work with the MPCA, EPA, and project proposers to implement the recommendations from the Supplemental Groundwater Evaluation Report (August 2004), including but not limited to:

    - Additional environmental investigation should be considered at the properties where the trichloroethylene (TCE) concentrations exceed the Health Risk Limit (HRL). If a source is found on one or more of these properties, additional subsurface investigation is recommended to define the lateral extent of the TCE contamination.
    - Future redevelopment should consider the presence of TCE in the glacial aquifer. Site specific investigations should be conducted in a way that will identify potential source(s), magnitude, and extent to TCE in the AUAR area
    - Based on the presence of diesel range organics (DRO) in the glacial aquifer and throughout the AUAR area, environmental investigation with regard to petroleum contamination should be preformed throughout the AUAR area.
    - Prior to undertaking environmental assessments and investigations on individual parcels within the AUAR area, the findings and conclusions of the Supplemental Groundwater Evaluation Report (August 2004) should be considered. By doing so, future investigations can be streamlined to facilitate and expedite redevelopment.

14) The City will require that project proposers submit photographs and note the construction dates for any buildings over 50 years old, and submit them to the State Historic Preservation Office for an initial assessment.

15) The City will require a traffic impact analysis for all development projects within the AUAR area. The traffic impact analysis will assist the City and other road authorizes in determining the appropriate mitigation measures that are required to reasonably mitigate impacts of a specific development proposal. If the City determines that a specific proposed project causes impacts that exceed the thresholds that the mitigation strategies where meant to address (see Mitigation Strategy 16), then the development intensity/density of such a project may need to be reduced.

16) The City, in cooperation with Ramsey County and the Minnesota Department of Transportation, will monitor traffic volumes and movements in the Twin Lakes area in order to reevaluate impacts of development. Specific recommended improvements to the transportation system include the following (Please note that the recommended improvements listed below, unless noted specifically for Scenario A, should be applied all scenarios at full development):

16.A. County Road C at Cleveland Avenue

- Construct a dedicated westbound right-turn lane (with turn lane storage)
- Construct an additional southbound left-turn lane (dual left-turn lanes) (**Scenario A only**)
- Construct a southbound right-turn lane (with turn lane storage) (**Scenario A only**)
- Construct a northbound right-turn lane (**Scenario A only**)
- Extend the existing eastbound left-turn lane (**Scenario A only**)

16.B County Road C at Fairview Avenue

- Construct right-turn lanes for the eastbound, westbound and southbound approaches (**Scenario A only**)

16.C County Road C at Snelling Avenue

- Construct an additional north and southbound through lane along Snelling Avenue (6-lane facility) **(assumed for existing conditions)**
- Construct an additional eastbound and westbound left-turn lane (dual left-turn lanes) **(assumed for existing conditions)**
- Construct a westbound right-turn lane (**Scenario A only**)

16.D Snelling Avenue at County Road C2

- Construct an additional north and southbound through lane along Snelling Avenue (6-lane facility) **(assumed for existing conditions)**
- Construct an additional eastbound left-turn lane (dual left-turn lanes)
- Extend the existing westbound left-turn lane
- Construct a westbound right-turn lane

16.E Snelling Avenue at Lydia Avenue

- Construct an additional north and southbound through lane along Snelling Avenue (6-lane facility) **(assumed for existing conditions)**
- Construct an additional eastbound left-turn lane (dual left-turn lanes)

16.F Cleveland Avenue at I-35W Northbound Ramps

- Construct an additional northbound left-turn lane (dual left-turn lanes)
- Construct a northbound right-turn lane
- Extend existing southbound left-turn lane
- Construct an additional eastbound left-turn lane (dual left-turn lanes) (**Scenario A only**)
- Construct two eastbound through lanes
- Construct a westbound left-turn lane
- Construct two westbound through lanes
- Construct a westbound right-turn lane (**Scenario A only**)

16.G Cleveland Avenue at County Road C2

- Install traffic signal
- Construct a westbound right-turn lane
- Construct a northbound right-turn lane

16.H Cleveland Avenue at County Road D

- Construct two northbound left-turn lanes (dual left-turn lanes) (**Scenario A only**)
- Construct an eastbound left-turn lane
- Construct an eastbound right-turn lane (**Scenario A only**)

16.I County Road D at I-35W Northbound Ramps

- Construct a westbound right-turn lane
- Extend the existing northbound right-turn lane

16.J County Road D at Fairview Avenue

- Eliminate the northwest approach (New Brighton Road) to create a 4-legged intersection
- Convert County Road D to a three-lane section between Cleveland Avenue and Fairview Avenue with a continuous center left-turn lane
- Install traffic signal
- Construct a northbound left-turn lane
- Construct a southbound right-turn lane

16.K Fairview Avenue at Lydia Avenue

- Install traffic signal
- Construct a northbound right-turn lane
- Construct a southbound left-turn lane
- Construct a westbound right-turn lane

16.L Fairview Avenue at Terrace Avenue

- Install traffic signal
- Construct an eastbound and westbound left-turn lanes
- Construct two eastbound and westbound through lanes (**Scenario A only**)
- Construct an eastbound and westbound right-turn lane
- Construct a northbound and southbound left-turn lane (**Scenario A only**)
- Construct a northbound and southbound right-turn lanes

16.M In addition to adjacent roadway geometric improvements, other strategies are available to reduce the amount of traffic that a development/redevelopment generates [Travel Demand Management (TDM)], thus affecting the way the adjacent roadway operates. The following proposed actions are provided as a guide toward TDM strategy implementation:

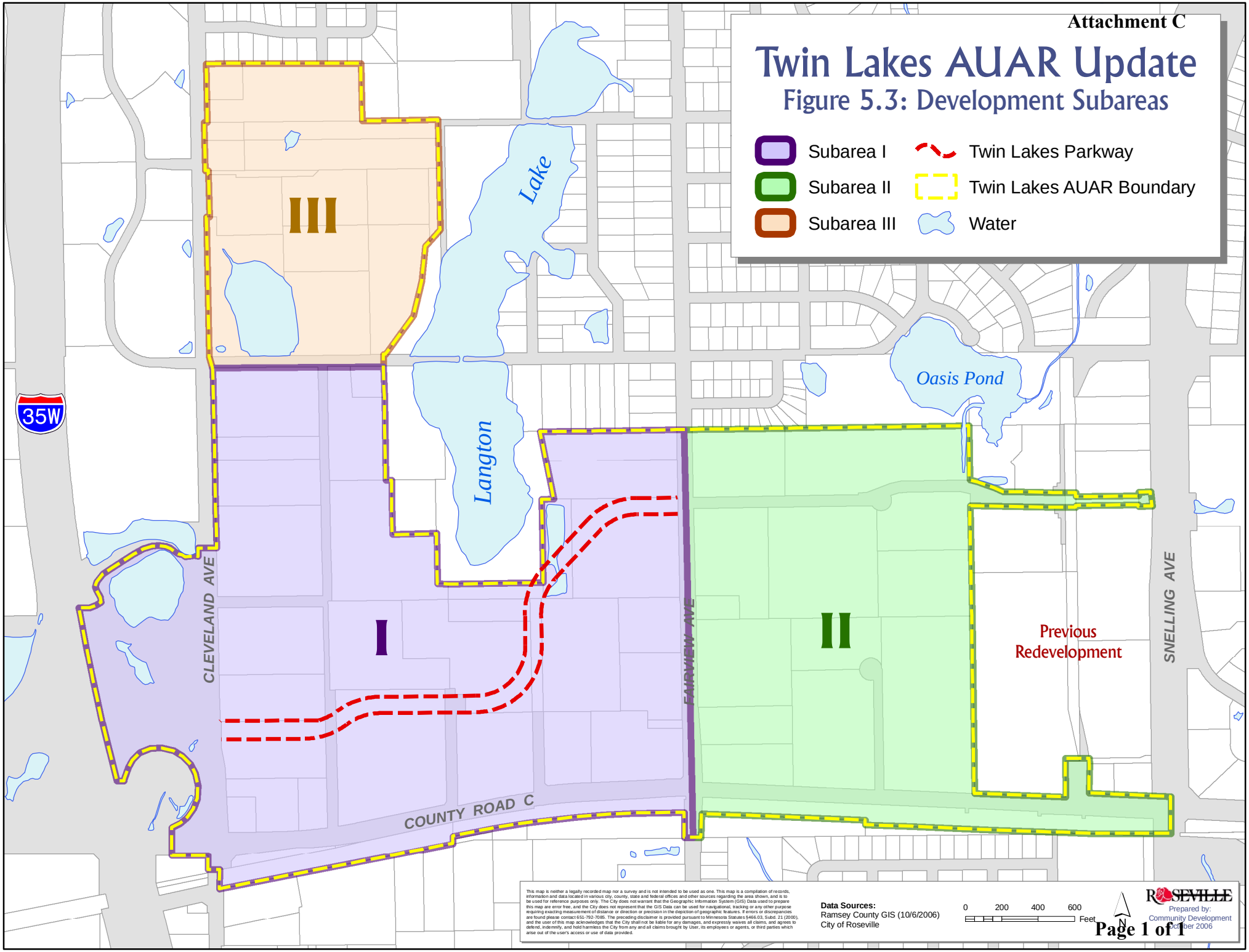
- Support and Promote Bicycling and Walking as Alternatives
- Support Transit as an Alternative
- Support and Promote Car and Vanpooling
- Provision of Information on Transportation Alternatives
- Vehicular Traffic Movement & Access Restriction
- Participate with Regional TDM Organizations

- Monitor Action Implementation and Goal Achievement

The City of Roseville looks forward to working with the various agencies and individuals to address any further comments on these responses or objections to the Mitigation Plan.

Twin Lakes AUAR Update

Figure 5.3: Development Subareas



This map is neither a legally recorded map nor a survey and is not intended to be used as one. This map is a compilation of records, information and data located in various city, county, state and federal offices and other sources regarding the area shown, and is to be used for reference purposes only. The City does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and the City does not represent that the GIS Data can be used for navigational, tracking or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. If errors or discrepancies are found please contact 651-792-7085. The preceding disclaimer is provided pursuant to Minnesota Statutes §466.03, Subd. 21 (2000), and the user of this map acknowledges that the City shall not be liable for any damages, and expressly waives all claims, and agrees to defend, indemnify, and hold harmless the City from any and all claims brought by User, its employees or agents, or third parties which arise out of the user's access or use of data provided.

Data Sources:
Ramsey County GIS (10/6/2006)
City of Roseville

0 200 400 600 Feet

N

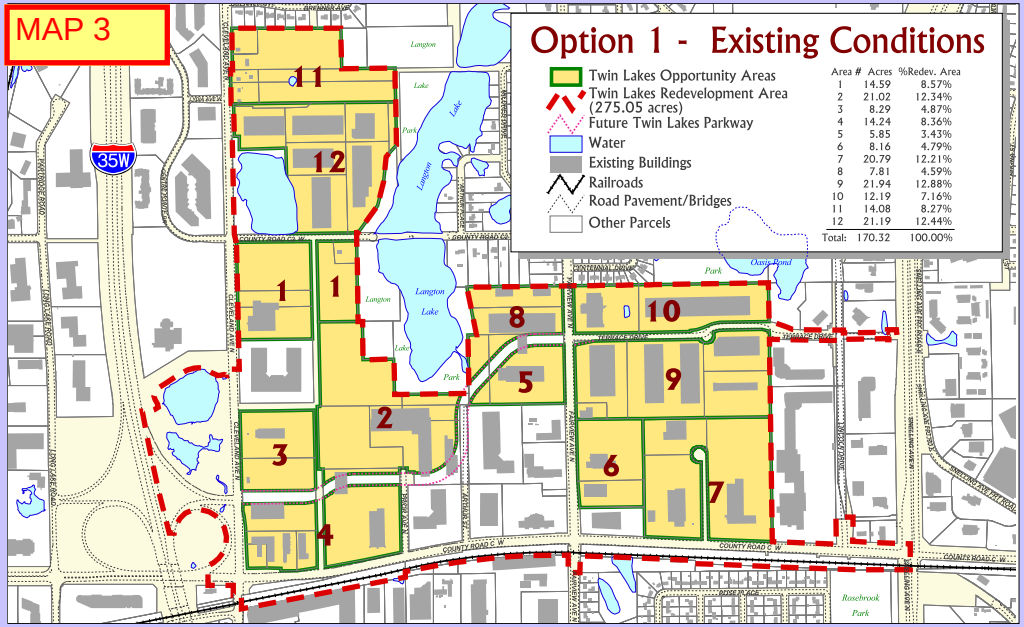
ROSEVILLE
Prepared by:
Community Development
October 2006

MAP 3

Option 1 - Existing Conditions

- Twin Lakes Opportunity Areas
- Twin Lakes Redevelopment Area (275.05 acres)
- Future Twin Lakes Parkway
- Water
- Existing Buildings
- Railroads
- Road Pavement/Bridges
- Other Parcels

Area #	Acres	%Redev. Area
1	14.59	8.57%
2	21.02	12.34%
3	8.29	4.87%
4	14.24	8.36%
5	5.85	3.43%
6	8.16	4.79%
7	20.79	12.21%
8	7.81	4.59%
9	21.94	12.88%
10	12.19	7.16%
11	14.08	8.27%
12	21.19	12.44%
Total:	170.32	100.00%

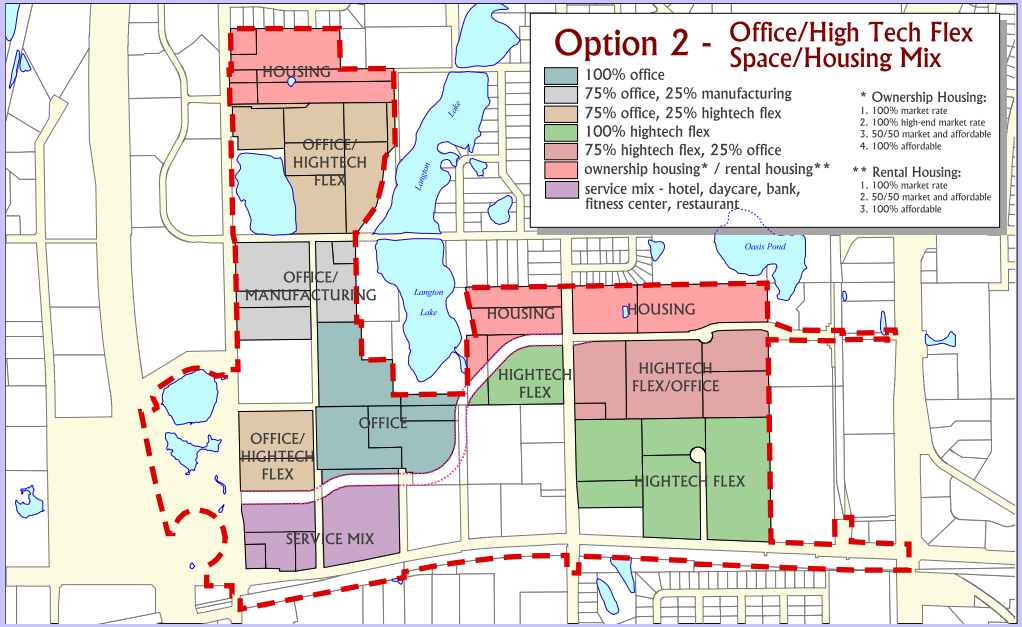


Option 2 - Office/High Tech Flex Space/Housing Mix

- 100% office
- 75% office, 25% manufacturing
- 75% office, 25% hightech flex
- 100% hightech flex
- 75% hightech flex, 25% office
- ownership housing* / rental housing**
- service mix - hotel, daycare, bank, fitness center, restaurant

* Ownership Housing:
1. 100% market rate
2. 100% high-end market rate
3. 50/50 market and affordable
4. 100% affordable

** Rental Housing:
1. 100% market rate
2. 50/50 market and affordable
3. 100% affordable

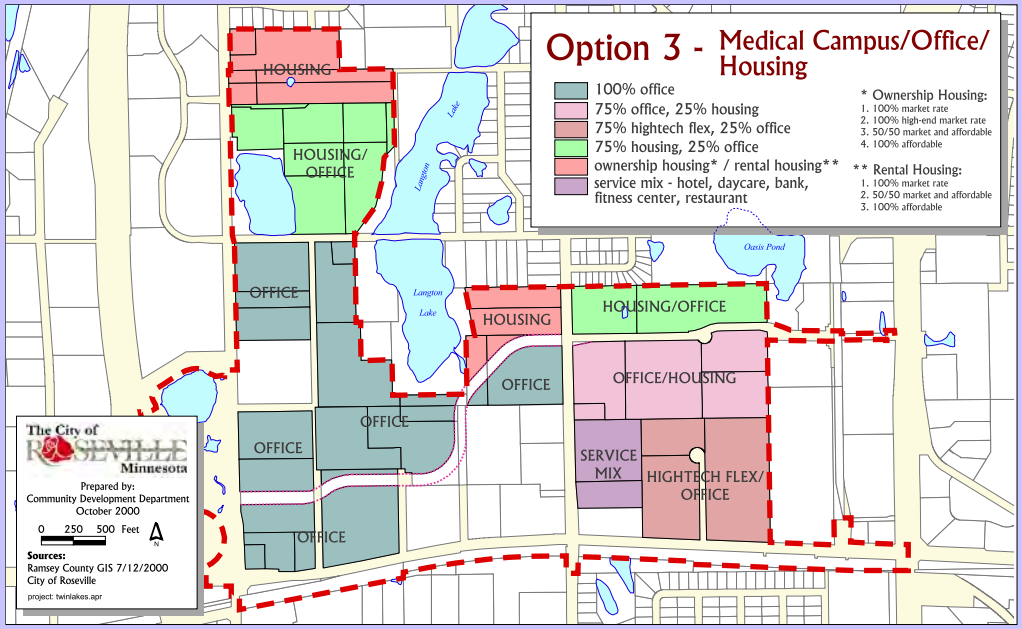


Option 3 - Medical Campus/Office/ Housing

- 100% office
- 75% office, 25% housing
- 75% hightech flex, 25% office
- 75% housing, 25% office
- ownership housing* / rental housing**
- service mix - hotel, daycare, bank, fitness center, restaurant

* Ownership Housing:
1. 100% market rate
2. 100% high-end market rate
3. 50/50 market and affordable
4. 100% affordable

** Rental Housing:
1. 100% market rate
2. 50/50 market and affordable
3. 100% affordable

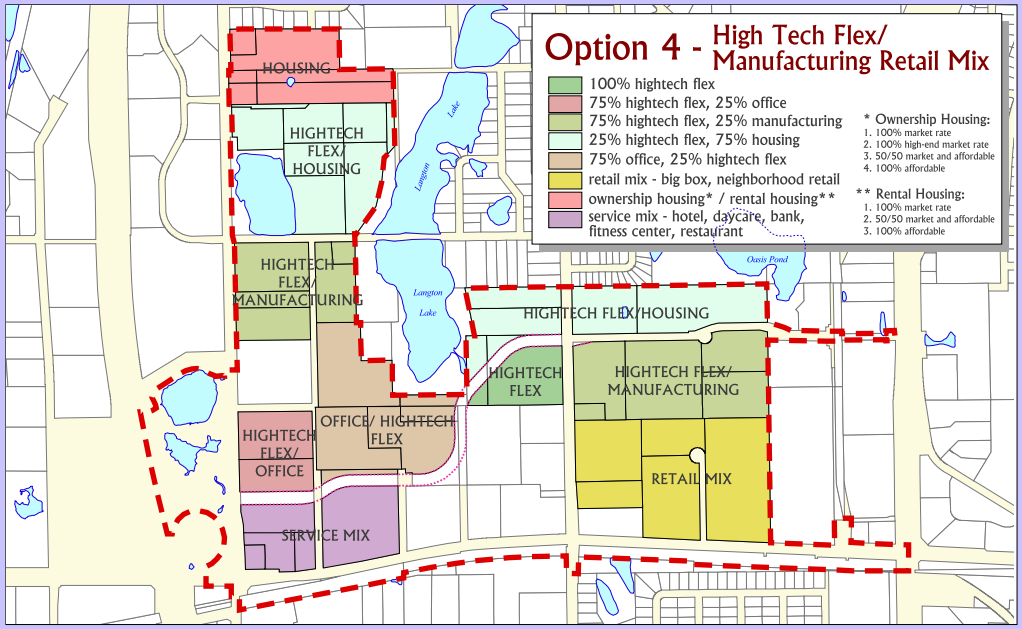


Option 4 - High Tech Flex/ Manufacturing Retail Mix

- 100% hightech flex
- 75% hightech flex, 25% office
- 75% hightech flex, 25% manufacturing
- 25% hightech flex, 75% housing
- 75% office, 25% hightech flex
- retail mix - big box, neighborhood retail
- ownership housing* / rental housing**
- service mix - hotel, daycare, bank, fitness center, restaurant

* Ownership Housing:
1. 100% market rate
2. 100% high-end market rate
3. 50/50 market and affordable
4. 100% affordable

** Rental Housing:
1. 100% market rate
2. 50/50 market and affordable
3. 100% affordable



MAP 6

Twin Lakes AUAR
Future Land Use Scenario
Approved June 26, 2001

	Acres	%Redev. Area
HI TECH FLEX-OFFICE / SHOWROOM	40.97	24.06%
HOUSING / OFFICE	51.11	30.02%
MULTI-LEVEL OFFICE	48.24	28.33%
OFFICE-HOSPITAL-MEDICAL	15.22	8.94%
SERVICE MIX (Hotel, daycare, fitness, bank. restaurant mix)	14.72	8.65%
Total:	**170.27**	**100.00%**

Twin Lakes Redevelopment Area (275.05 acres)
Future Twin Lakes Parkway
Water
Other Parcels

HOUSING/OFFICE
MULTI-LEVEL OFFICE
HOUSING/OFFICE
MULTI-LEVEL OFFICE
Previous Redevelopment
MULTI-LEVEL OFFICE
MEDICAL OFFICE
SERVICE MIX
HOUSING/OFFICE
HOUSING/OFFICE
MULTI-LEVEL OFFICE
HI-TECH/FLEX
Previous Redevelopment
Previous Redevelopment

Lake
Langton
Langton Lake
Oasis Pond

35W
CENTRE POINTE
BUSINESS PARK
COUNTY ROAD C2 W
CLEVELAND AVENUE
FAIRVIEW AVENUE
SNELLING AVENUE
COUNTY ROAD C W

ROSEVILLE

Prepared by:
Community Development Department
June 2001

0 250 500 Feet

Sources:
Ramsey County GIS 2/28/2001
City of Roseville GIS

project: twin lakes auar march 2001.apr

EXTRACT OF MINUTES OF MEETING OF THE CITY COUNCIL OF THE CITY OF ROSEVILLE

Pursuant to due call and notice thereof, a regular meeting of the City Council of the City of Roseville, County of Ramsey, Minnesota, was held on the 21st day of May 2012 at 6:00 p.m.

The following Members were present: _____;
and _____ were absent.

Council Member _____ introduced the following resolution and moved its adoption:

RESOLUTION NO. ____
A RESOLUTION ENUNCIATING THE EXEMPTION OF THE PROPOSED WAL-MART DEVELOPMENT AT COUNTY ROAD C AND CLEVELAND AVENUE FROM THE CITIZENS' PETITION FOR PREPARATION OF AN ENVIRONMENTAL ASSESSMENT WORKSHEET

WHEREAS, a citizens' petition for an Environmental Assessment Worksheet (EAW) for the proposed Wal-Mart development at County Road C and Cleveland Avenue was submitted to the Minnesota Environmental Quality Board; and

WHEREAS, the Roseville City Council is the responsible governmental unit for deciding whether an EAW is needed as a result of said citizens' petition; and

WHEREAS, the Roseville City Council has reviewed the proposed Wal-Mart development, the updated Twin Lakes Alternative Urban Areawide Review (AUAR), the Minnesota Administrative Rules pertaining to environmental review, and the citizens' petition, and has made the following findings:

a. The Twin Lakes AUAR was properly established and updated, and continues to be a valid environmental review instrument.

b. The proposed Wal-Mart development, along with all of its associated infrastructure improvements, lies within the geographic area analyzed by the Twin Lakes AUAR.

c. The proposed 160,000 square feet of retail floor area comprised by the proposed development is within the "worst case" assumptions for development of Block 4, as analyzed in Scenario A of the Twin Lakes AUAR.

d. The proposed 160,000 square feet of retail floor area comprised by the proposed development is below the threshold for mandatory EAW or EIS review under MN Rules 4410.4300 and 4410.4400, respectively.

e. Under Minnesota Rule 4410.3610, proposed commercial projects and associated infrastructure that fall within the geographic and analytic limits of a valid AUAR, that comply with the AUAR's plan for mitigation, and that do not exceed the threshold for mandatory preparation of an EAW are exempt from EAW requirements.

NOW THEREFORE BE IT RESOLVED, by the Roseville City Council, that the proposed Wal-Mart development is exempt from the EAW requested in the citizens' petition.

The motion for the adoption of the foregoing resolution was duly seconded by Council Member ____ and upon vote being taken thereon, the following voted in favor: _____; and _____ voted against.

WHEREUPON said resolution was declared duly passed and adopted.

STATE OF MINNESOTA)
) ss
COUNTY OF RAMSEY)

I, the undersigned, being the duly qualified City Manager of the City of Roseville, County of Ramsey, State of Minnesota, do hereby certify that I have carefully compared the attached and foregoing extract of minutes of a regular meeting of said City Council held on the 21st day of May 2012 with the original thereof on file in my office.

WITNESS MY HAND officially as such Manager this 21st day of May 2012.

_____
William J. Malinen, City Manager

(SEAL)