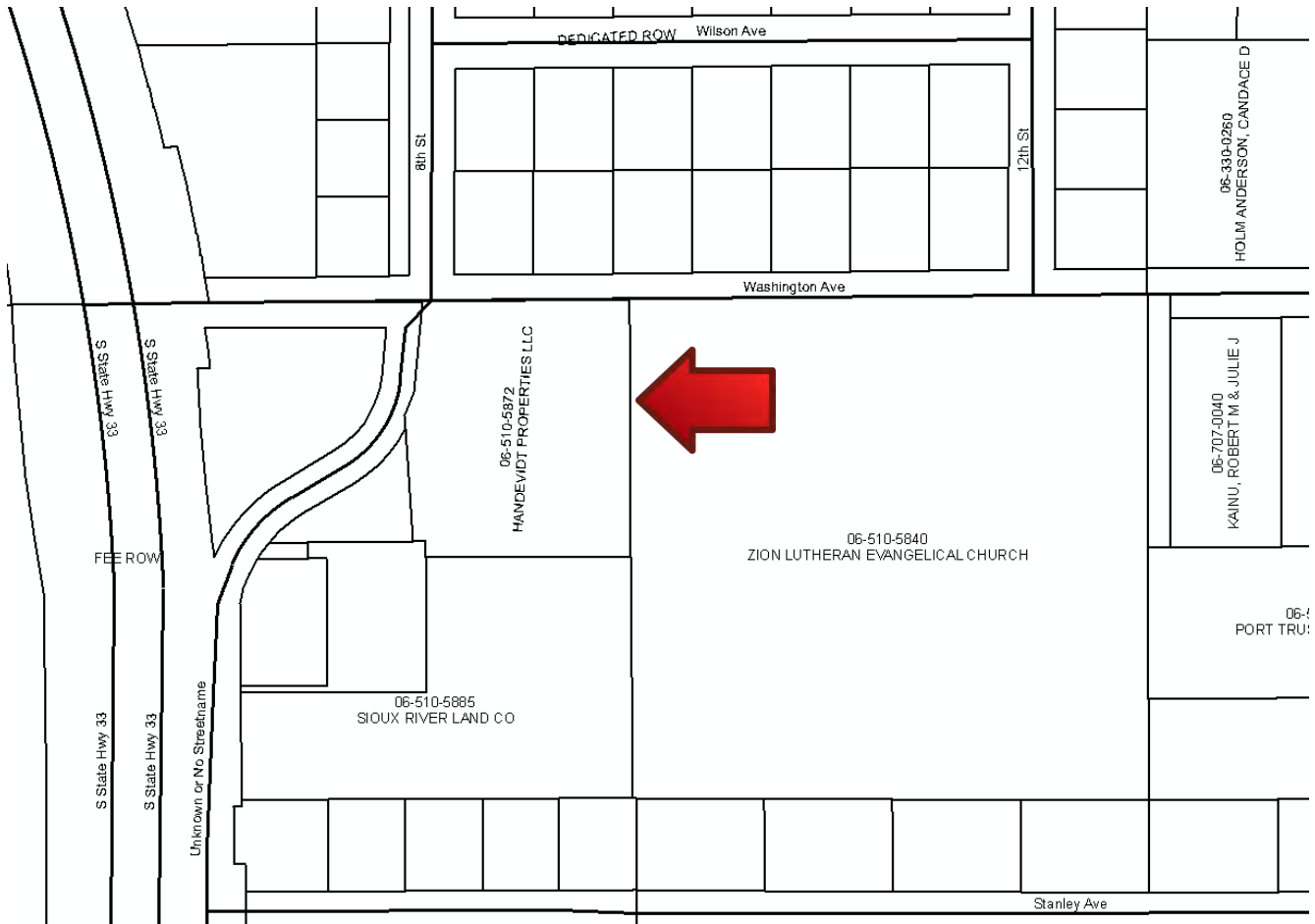


LOCATION MAP

KWIK TRIP



No Scale

Draft Planning Commission Minutes

Zoning Case 16-01: Land Use Guide Plan Amendment, Rezoning and Site Plan

Chairperson Berglund reviewed the public hearing procedures and format and opened the public hearing for Zoning Case 16-01, Land Use Guide Plan Amendment, Rezoning and Site Plan. He asked Mr. Cottingham to provide an overview of the application. Mr. Cottingham noted that this is a public hearing with a legal notice published in the Pine Journal on January 28, 2016 and property owners within 350 feet were sent notice of the meeting. Kwik Trip is proposing a land use guide plan amendment and rezoning for a 35 foot strip of land on the east side of their site from Single Family Residential to Regional (Highway) Commercial and also a site plan for a gas station, convenience store and car wash on the entire site. The convenience store and car wash are located in the center rear portion of the lot with the gas pump island located between the store and Washington Avenue and a diesel island located between the store and Holmes Drive. He noted that Mr. Scott Teigen, CFO for Kwik Trip was present to answer any questions that the Commission or public may have.

Chairman Berglund opened the public hearing and asked Mr. Teigen if he would like to address the Commission.

Mr. Scott Teigen, Kwik Trip noted the city had requested them to do a traffic study to see what impacts the proposed change might have on the surrounding roads. The study did show there would be an increase in traffic but not a large enough increase that changes to the intersection were warranted when they would open their business. He did note according the traffic study the intersection with Hwy 33 would reach a level of service of F by 2036 if a signal was not installed. His company would be willing to put \$100,000 towards the signal if it were to be installed prior to the intersection meeting warrants for the signal. He reference this store is setup for groceries with gas and it isn't a truck stop, there might be some semi traffic but should not be a lot.

Dan Unulock, 1001 15th Street, wondered if Kwik Trip was aware of the changes to Highway 33. With the relocation of Tall Pine Lane intersecting with Highway 33 that could be a great location if they were willing to wait for this to happen.

Eugene Preiner, 1001 Washington Avenue, was concerned with the increased traffic from Kwik Trip. He also noted that the church parks on the shoulder of the road and that makes it difficult with the traffic.

Bob Grossman, 910 Wilson Avenue, had concerns with the noise from the PA system at the pump islands. He felt that additional traffic control should be installed on Washington Avenue at both the Frontage Road and Highway 33.

Jeff Rock, 1312 Washington Avenue, he wondered where safety is involved, he has reports of traffic accidents, the intersections are dangerous, and the city has no control over the road speed. He is concerned with the noise impacts on the neighborhood. He also thinks the future Tall Pine Lane intersection might be a better location.

Alan Birman, 701 Washington Avenue, he too is concerned with the safety at the intersection with Highway 33 but this is currently there. This would definitely be a nice addition to the community and the area. He did not believe that noise was an issue with the store on North Road with homes closer to that site than this one.

Judd Selland, Taco John's, agreed with Mr. Birman and signals at Highway 33 are a good idea.

Dick Singpiel, 505 12th Street, felt safety is an important issue regardless of Kwik Trip. He felt things should be weighed as positives and negatives. In the case of Kwik Trip he felt there were more negatives for the area than positives. This will create additional traffic on Washington Avenue and does Cloquet really need another gas station.

Mary Soyring 820 Taylor Avenue, she lives two blocks north of the site and is concerned with sewer from the new store and the backups the area has had in the past. She is concerned with the Lemon Tree, the congestion on 8th Street and the area. She does like having them in the community. She is also concerned with the lights from cars as they are leaving the site.

Patrick Began, 914 8th Street, he crosses Washington Avenue every day and is concerned with the additional traffic this will add to the area and the safety of the roads with the additional traffic.

Chairman Berglund asked if anyone else wished to speak and since nobody wished to he closed the public hearing.

Mr. Teigen addressed the Commission regarding the different questions that were raised. The lighting of the site meet the city standards with the lumens from the lights being kept on the site, the P.A. system would be turned off between 10 pm. and 7 am. and would not be on during church. They would be more than happy to work with the neighbors across Washington Avenue to provide screening on their side of the street. Fuel tankers would typically come every day to the site with groceries being delivered three to four times each week.

Commissioner Sanders inquired about the area around Tall Pine Lane and Highway 33.

Mr. Teigen stated they had looked at the Lund property when they were first looking for sites and it was determined to be too small for their needs.

Commissioner Haubner inquired where the parking stalls for the store were located.

Mr. Teigen noted there were 20 stalls around the store and 22 under the gasoline canopies.

Commissioner Sanders was concerned with the truck movement around the site and didn't believe they could enter and exit the site without encroaching on other lanes of traffic. He was also concerned with the storm water runoff onto Holmes Drive from the new entrance and wondered if additional catch basins should be added to handle the runoff.

Commissioner Wilkinson noted that the things planned for the Highway 33 corridor might not happen for a number of years. This makes it difficult to ask someone to wait until other areas open up for development.

Mr. Teigen noted that they are a permitted use in this district. They would like to see the intersection with Highway 33 signalized sooner than later and are willing to pay up to half of the cost of the signals with a cap at \$125,000.

Mr. Birman noted that there are semi-trucks in the area daily making deliveries to the automobile dealer and Cloquet Motor Sports.

Commissioner Sanders felt the site plan did not meet the requirements of the site plan review as spelled out in Section 17.2.14, Subd. 4. He believed the site drainage and the truck circulation did not meet the minimum standards.

There being no further discussion Chairman Berglund called for a motion noting there were three different actions the Commission was asked to deal with for this application.

Motion: Commissioner Johnson made a motion to adopt Resolution No. 16-01 Comp Recommending Approval of the Comprehensive Plan Amendment (Land Use Plan) from “Low Density Residential” to “Highway Commercial”, Commissioner Bosto seconded. (Roll Call, Motion was approved 6-0).

Motion: Commissioner Johnson made a motion to adopt Resolution No. 16-01 Rezone Recommending Approval of the Rezoning from “R1 – Single Family Residential” to “RC – Regional (Highway) Commercial”, Commissioner Wilkinson seconded. (Roll Call, Motion was approved 6-0).

Motion: Commissioner Sanders made a motion to deny Resolution No. 16-01 Site Plan Recommending Approval of a Site Plan in the RC – Regional (Highway) Commercial District for Kwik Trip, Motion failed for lack of second.

Motion: Commissioner Wilkinson made a motion to adopt Resolution No. 16-01 Site Plan Recommending Approval of a Site Plan in the RC – Regional (Highway) Commercial District for Kwik Trip, Commissioner Bosto seconded. (Roll Call, Motion failed 3-3 Haubner, Johnson and Sanders opposed).

Mr. Cottingham noted that if the Commission is going to deny a request they need to provide reasons for the denial. He believed that Commissioner Sanders had stated his reasons but had not heard anything from the other two members.

Commissioners Johnson and Haubner stated they were concerned with the drainage onto Holmes Drive.

Mr. Cottingham stated that this could be handled as a condition of approval without the need to deny the application.

Motion: Commissioner Johnson made a motion to reconsider Resolution No. 16-01 Site Plan Recommending Approval of a Site Plan in the RC – Regional (Highway) Commercial District for Kwik Trip adding Condition No. 13 “Drainage from the Driveway onto Holmes Drive needed to be collected before reaching Holmes Drive, Commissioner Bosto seconded. (Roll Call, Motion was approved 5-1 Sanders opposed).

Commissioner Sanders stated he had concerns with safety and the semi’s not staying in their lanes while making turning movements.

Mr. Cottingham noted these recommendations would be forwarded to the City Council at their meeting on Wednesday, March 2, 2016 at 7:00 pm.

Comprehensive Plan

Low Density Residential

Township. Unlike the rural residential development to the north, the Otter Creek subdivision is outside Cloquet's Drinking Water Supply Management Area (refer to Chapter 5: Utilities and Community Facilities for additional information). Therefore, the Otter Creek Subdivision is a unique subdivision that the City does not anticipate serving with sewer and water before 2027.

Low-Density Residential

The Comprehensive Plan guides most of the area within the anticipated 2027 public sewer and water service boundary for low-density residential use. Acceptable land uses in this area include single-family detached residences, duplexes, twinhomes, religious institutions, parks, essential services, and

Adopted by the City Council: August 21, 2007

3-13

other public and semi-public uses that can be sensitively integrated into a low-density residential neighborhood. Low-density residential uses should have a density of one to five dwelling units per acre.

The Comprehensive Plan guides a significant amount of existing agricultural or rural residential land for future low-density residential use. However, as the City prepares detailed plans to provide public sewer and water to these existing rural areas of the city, the City may find that it is not feasible to serve certain existing rural development with public sewer and water. In those cases, the City could possibly amend this Comprehensive Plan and guide those areas for suburban residential use rather than for future low-density residential use.

Moderate-Density to High-Density Residential

The Comprehensive Plan continues to guide existing townhomes, mobile home parks, condominiums, and apartments for moderate-density to high-density residential use. The Plan does not specifically guide additional parcels for moderate to high-density residential use. Rather, it promotes sensitive integration of these uses into the city center, planned mixed residential, and the

Comprehensive Plan

Highway Commercial

Highway 33), and a market analysis to determine viable uses for the area.

Highway Commercial

The Comprehensive Plan guides two primary areas for highway commercial use: 1) an area along State Highway 33 south of the St. Louis River, and 2) an area along Highway 33 north of the St. Louis River. The Comprehensive Plan also guides existing scattered highway commercial use on Cloquet Avenue, Washington Avenue, and Big Lake Road for continued highway commercial use. The following provides an overview of the two primary areas for highway commercial use.

Highway Commercial South of the St. Louis River. Most existing highway commercial use in Cloquet is along Highway 33 south of the St. Louis River. This area includes a large discount department store, a grocery store/shopping center, a variety of restaurants and retail shops, motels, a car dealership, and a movie theater. The Comprehensive Plan supports and integrates the recommendations of Cloquet's 1998 Community Revitalization Plan to improve the existing highway commercial uses in this area. Those recommendations include improving vehicular and pedestrian circulation, integrating the natural landscape into the built environment, redeveloping distressed areas and areas with conflicting uses, and applying design guidelines or standards to existing and proposed development.

Specific recommendations for this area include the following:

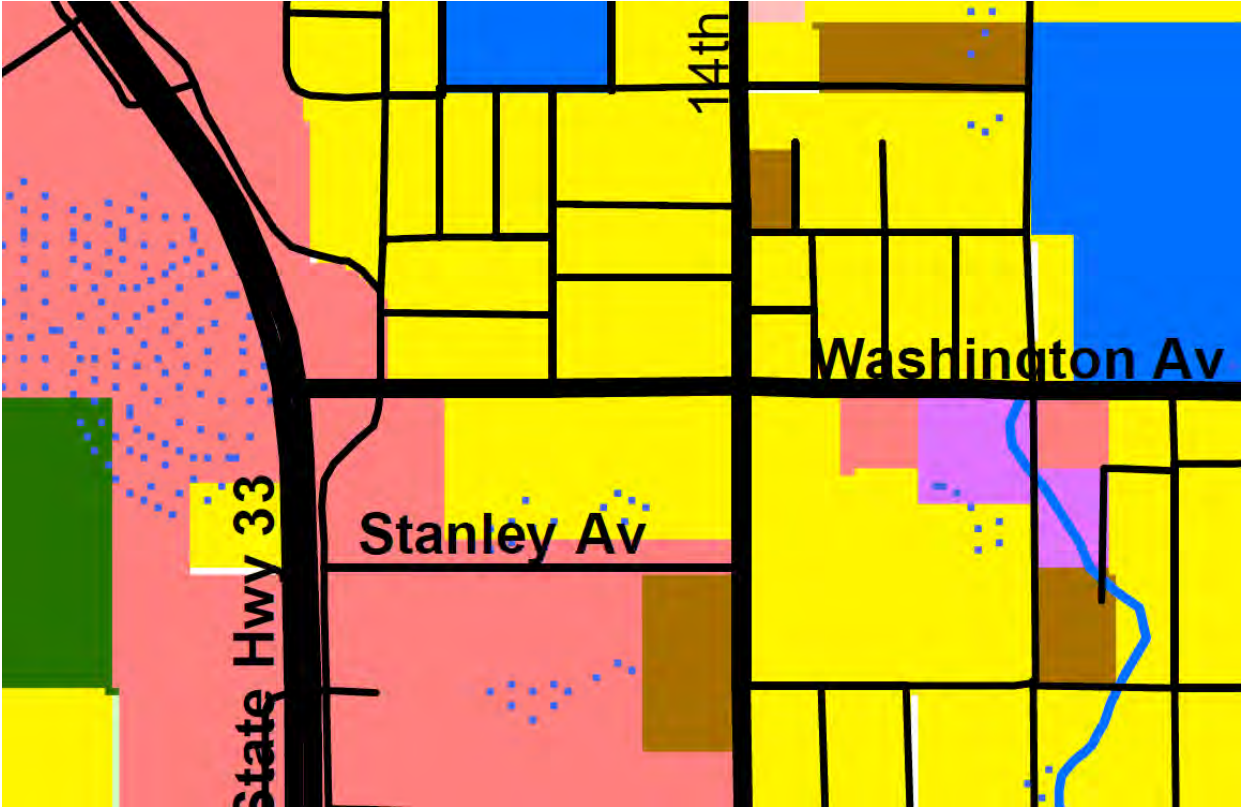
- Work with developers and landowners to study the feasibility of relocating the existing concrete block plant and Minnesota Department of Natural Resources facility to more suitable locations in the city. Explore opportunities for commercial redevelopment of the sites.
- Work with the Minnesota Department of Transportation to improve vehicular and pedestrian circulation in the area, particularly at the intersection of Doddridge Avenue and State Highway 33.

Highway Commercial North of the St. Louis River. The Sunnyside area near the intersection of State Highway 33 and North Road (North Cloquet Road) contains several existing highway commercial uses. The Comprehensive Plan supports and integrates the recommendations of Cloquet's 1998 Community Revitalization Plan to improve the existing highway commercial uses in this area. In addition, the Comprehensive Plan guides a largely undeveloped area on the west side of State Highway 33 north of the existing Sunnyside development for future highway commercial use. The City, in coordination with the Minnesota Department of Transportation, affected property owners, and other interested parties, should consider developing a conceptual master plan for this area that addresses access issues, future roads (that may include a "backage" road that would run parallel to Highway 33), and a market analysis to determine viable uses for the area.

The Comprehensive Plan guides a roughly 1,200-foot deep area on the west side of Highway 33 for future highway commercial use that could accommodate "big box" highway commercial use if desired and feasible. Other smaller highway commercial uses could be integrated around a big box anchor.

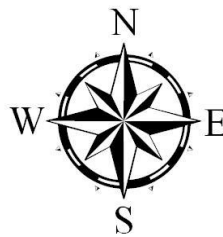
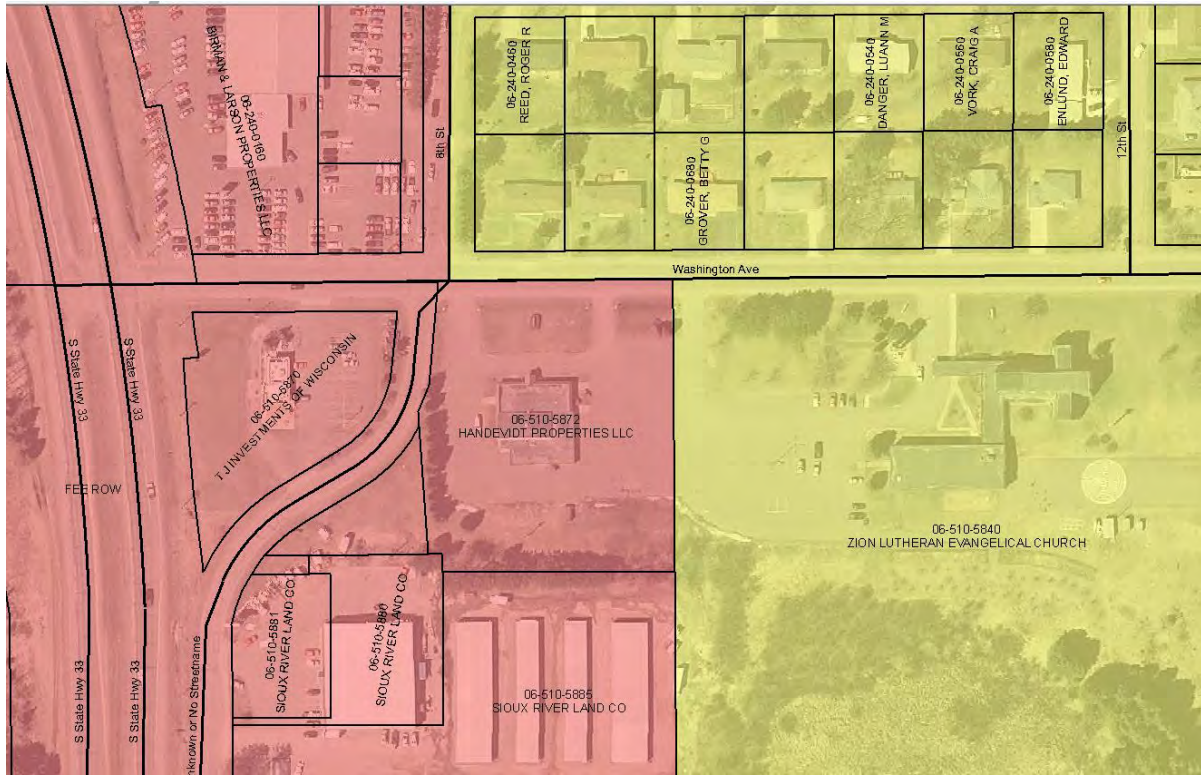
Comprehensive Plan

Land Use Plan

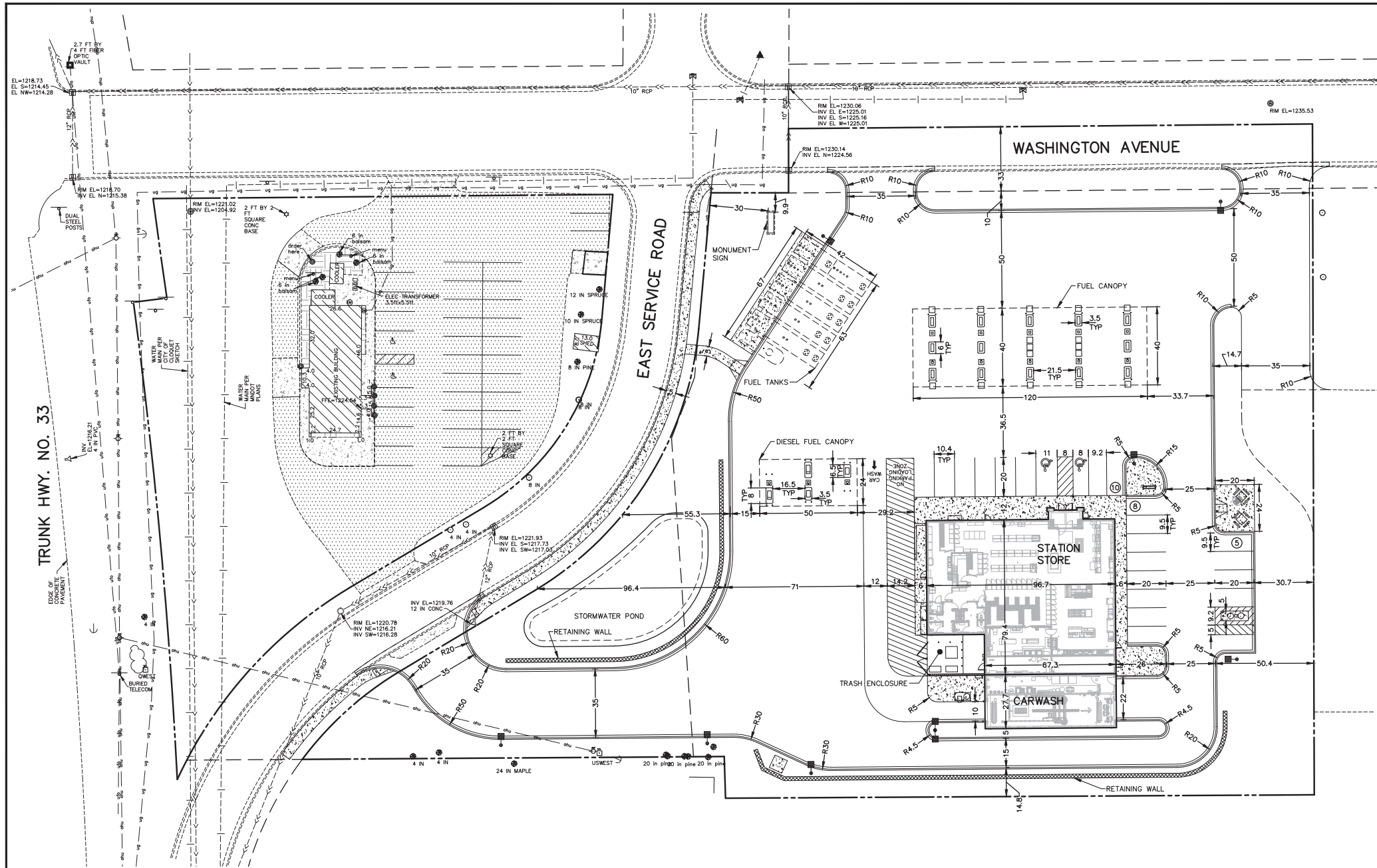


No Scale

Zoning Map



No Scale



PLAN LEGEND

EXISTING	PROPOSED
CURB	---
BITUMINOUS	----
CONCRETE WALK	----
PROPERTY LINE	----
EASEMENT LINE	----
STORM SEWER	---
SANITARY SEWER	---
WATER MAIN	---
UNDERGROUND GAS	---
UNDERGROUND ELECTRIC	---
UNDERGROUND TELEPHONE	---
UNDERGROUND FIBEROPTICS	---
UNDERGROUND TELEVISION	---
OVERHEAD UTILITIES	---
OVERHEAD ELECTRIC	---
MANHOLE	○
HYDRANT	⊗
GATE VALVE	⊗
POWER POLE	⊗
GUY WIRE	---
LIGHT POLE	⊗
HAND HOLE	⊗
TELEPHONE BOX	⊗
GUARD POST	⊗
SIGN	⊗

- SITE PLAN NOTES**
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - CONCRETE CURB AND GUTTER SHALL BE B612 UNLESS OTHERWISE NOTED.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO THE START OF SITE WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF DISCREPANCIES OR VARIATIONS FROM THE PLAN.
 - UNLESS OTHERWISE SHOWN ON THIS DRAWING, CONTRACTOR SHALL PROVIDE CONTROL JOINTS, CONSTRUCTION JOINT AND EXPANSION JOINTS IN SLAB ON GRADE, SIDEWALKS AND DRIVES PER THE FOLLOWING REQUIREMENTS:
 - CONTROL JOINT MAX. SPACING: WALKS-8' O.C. ALL OTHERS-10' O.C.
 - SAW CUT CONTROL JOINTS MINIMUM 1/4" CONCRETE THICKNESS.
 - EXPANSION JOINT MAX. SPACING: WALKS-24' O.C. *ALL OTHERS-40' O.C.
- *ALL POINTS WHERE A CHANGE IN PAVEMENT THICKNESS OCCURS SHALL HAVE AN EXPANSION JOINT.
- DOVELL ALL EXPANSION JOINTS: 24" O.C. MAX.
- CONCRETE SEALER SHALL BE TK-26UV.

SITE DATA

ZONING:	RC-REGIONAL COMMERCIAL
PARCEL AREA:	122,708 SF
NET AREA (LESS ROW):	113,847 SF
HARD SURFACE AREA:	
STATION STORE:	7,156 SF 6%
CARWASH:	1,863 SF 2%
PAVEMENT:	74,404 SF 65%
TOTAL:	83,423 SF 73%
PERVIOUS SURFACE AREA:	30,424 SF 27%
BUILDING HEIGHTS:	
STATION STORE:	24.0 FT
CARWASH:	14.0 FT
FUEL CANOPIES:	15.5 FT

PARKING SUMMARY

STANDARD STALLS	21
HANDICAP STALLS	2
FUEL CANOPY STALLS	20
DIESEL CANOPY STALLS	2
TOTAL STALLS	45

BENCHMARKS

1. TOP NUT OF HYDRANT LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF WASHINGTON AVENUE AND 8TH STREET. ELEVATION: 1232.18 (NAVD 88)

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 FAX (608) 781-8960

Carlson McCain

ENVIRONMENTAL ENGINEERING SURVEYING
 3890 Pheasant Ridge Dr, #100, Blaine, MN 55449
 Phone: 763-489-7900 Fax: 763-489-7959

I hereby certify that this plan, specification or 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.

Name: Joseph T. Radach, P.E.
 Signature: [Signature]
 Date: 01/08/16 License #: 45889

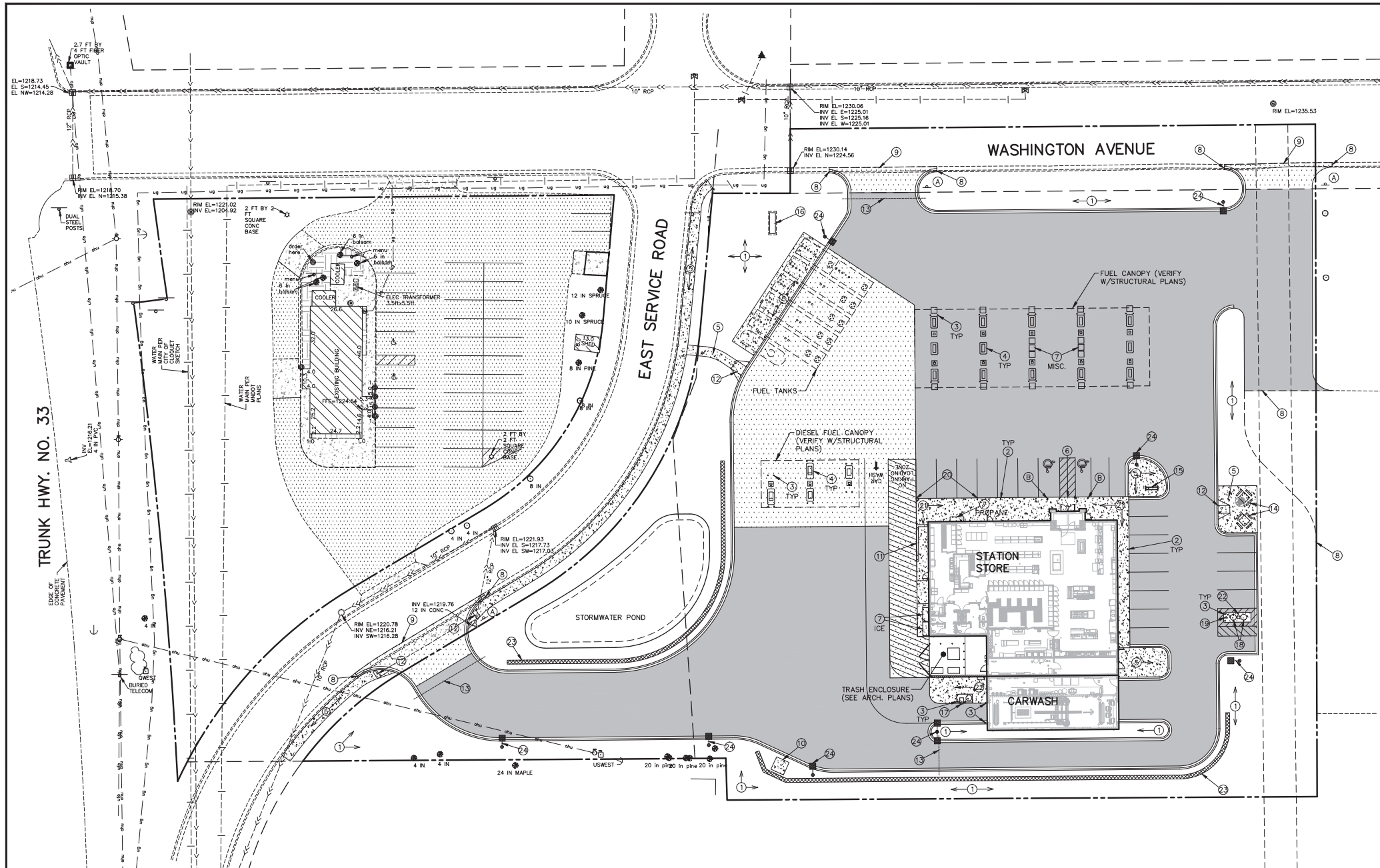
SITE PLAN (LAYOUT)

CONVENIENCE STORE #144 WITH SIDE DIESEL

WASHINGTON AVENUE CLOQUET, MINNESOTA

#	DATE	DESCRIPTION

DRAWN BY: JTR
 SCALE: GRAPHIC
 PROJ. NO.: 5919-00
 DATE: 2016-01-08
 SHEET: 144 SP2



PLAN LEGEND

EXISTING	PROPOSED
CURB	
BITUMINOUS	
CONCRETE PAVEMENT	LIGHT DUTY 52,515 SF HEAVY DUTY 14,045 SF
CONCRETE WALK	
PROPERTY LINE	
EASEMENT LINE	
STORM SEWER	
SANITARY SEWER	
WATER MAIN	
UNDERGROUND GAS	
UNDERGROUND ELECTRIC	
UNDERGROUND TELEPHONE	
UNDERGROUND FIBEROPTICS	
UNDERGROUND TELEVISION	
OVERHEAD UTILITIES	
OVERHEAD ELECTRIC	
MANHOLE	
HYDRANT	
GATE VALVE	
POWER POLE	
GUY WIRE	
LIGHT POLE	
HAND HOLE	
TELEPHONE BOX	
GUARD POST	
SIGN	

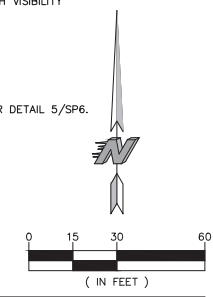
- SITE PLAN KEYNOTES**
- LANDSCAPE AREA. SEE SHEET L1.
 - 30" HEIGHT, 6" DIAMETER CONCRETE FILLED PIPE BOLLARD. SEE DETAIL 6/SP6.
 - 36" HEIGHT, 6" DIAMETER CONCRETE FILLED PIPE BOLLARD. SEE DETAIL 7/SP6.
 - CONCRETE ISLAND WITH 6" EXPOSURE WITH FUEL DISPENSER. DISPENSER PER OWNER.
 - 4" CONCRETE WALK.
 - 2'x3' CAST IRON TRUNCATED DOME INSERT.
 - OUTDOOR MERCHANDISING.
 - MATCH EXISTING CURB & GUTTER/SIDEWALK/PAVEMENT.
 - DRIVEWAY ENTRANCE WITH CONCRETE VALLEY GUTTER. SIMILAR TO DETAIL 11/SP6.
 - TRANSFORMER LOCATION.
 - TOTE SCREENING WALL. SEE ARCHITECTURAL PLANS.
 - PEDESTRIAN CURB RAMP. SEE SHEET SP8.
 - PVC IRRIGATION SLEEVE UNDER PAVEMENT. VERIFY WITH IRRIGATION PLAN FOR EXACT SIZE AND LOCATION BEFORE INSTALLATION.
 - PICNIC TABLES TO BE PROVIDED BY OWNER.
 - BIKE RACK PER OWNER.
 - MONUMENT SIGN.
 - CARWASH KEYPAD PER OWNER. PROVIDE TRASH CONTAINER PER OWNER.
 - AUTO VACUUM PER OWNER ON CONCRETE ISLAND WITH 6" EXPOSURE. PROVIDE TRASH CONTAINER PER OWNER.
 - "FREE AIR" COMPRESSOR PER OWNER. PROVIDE SIGNAGE PER OWNER.
 - PAINT FACE OF CURB TRANSITION WITH HIGH VISIBILITY YELLOW PAINT.
 - 6" INTEGRAL CONCRETE WALK/CURB.
 - CONCRETE CURB ISLAND.
 - RETAINING WALL
 - SITE AREA LIGHT WITH CONCRETE BASE PER DETAIL 5/SP6.

SIGNAGE & STRIPING NOTES

- Ⓐ STOP SIGN: R1-1 (30"x30")
- Ⓑ HANDICAP PVC BOLLARD SLEEVE PER OWNER. SEE DETAIL 8/SP7.

SIGN SCHEDULE (PER MMUTCD)

- ALL SIGNS SHALL BE PLACED 18" MINIMUM BEHIND CURB UNLESS OTHERWISE NOTED.
 - SIGNAGE SHALL INCLUDE SIGN, POST, HARDWARE, CONCRETE FOOTING AND STEEL CASING (IF REQUIRED).
 - PARKING LOT STRIPING SHALL BE 4" HIGH VISIBILITY SOLID YELLOW PAINT.
 - PAVEMENT HATCHING, LANE MARKINGS AND TEXT SHALL BE 4" HIGH VISIBILITY PAINT.
- COLORS: HANDICAP - BLUE
ALL OTHERS - YELLOW
- HANDICAP PARKING PROVIDED PER ADA CODE.



BENCHMARKS

- TOP NUT OF HYDRANT LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF WASHINGTON AVENUE AND 8TH STREET. ELEVATION: 1232.18 (NAVD 88)

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Carlson McCain
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3890 Pheasant Ridge Dr., #100, Blaine, MN 55449
Phone: 763-489-7900 Fax: 763-489-7959

I hereby certify that this plan, specification or 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.

Name: Joseph J. March, P.E.
Signature: _____
Date: 07/08/16 License #: 45889

PRELIMINARY

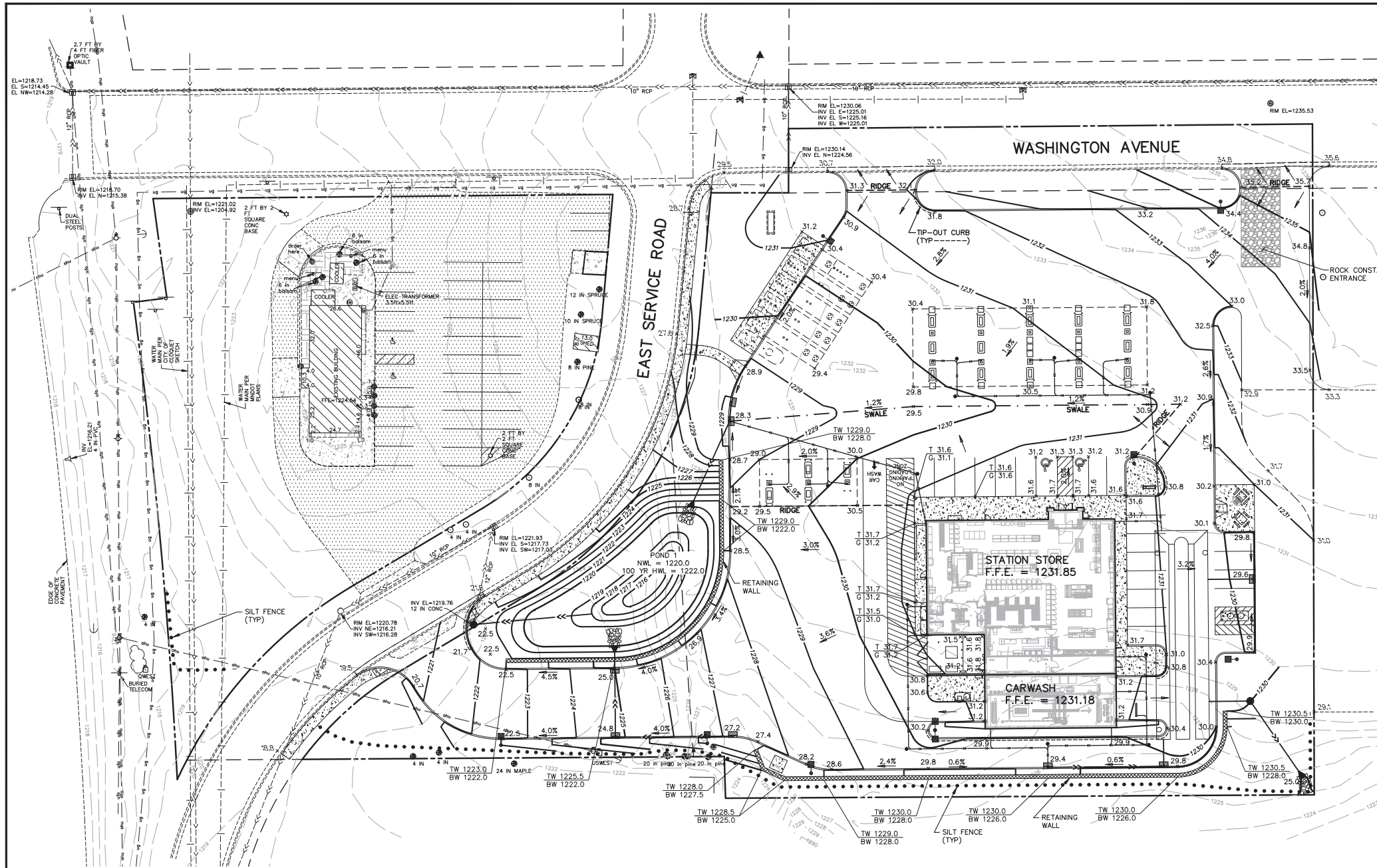
SITE PLAN (KEYNOTE)

CONVENIENCE STORE #144 WITH SIDE DIESEL

WASHINGTON AVENUE CLOQUET, MINNESOTA

#	DATE	DESCRIPTION

DRAWN BY: JTR
SCALE: GRAPHIC
PROJ. NO.: 5919-00
DATE: 2016-01-08
SHEET: 144 SP2.1

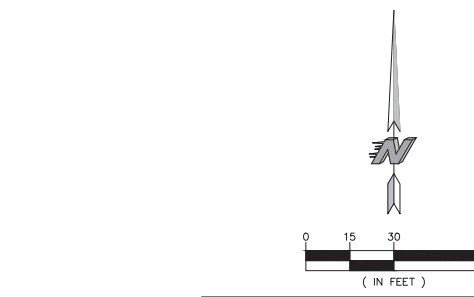


PLAN LEGEND

EXISTING	PROPOSED
CURB	---
BITUMINOUS	---
CONCRETE WALK	---
PROPERTY LINE	---
EASEMENT LINE	---
STORM SEWER	---
SANITARY SEWER	---
WATER MAIN	---
UNDERGROUND GAS	---
UNDERGROUND ELECTRIC	---
UNDERGROUND TELEPHONE	---
UNDERGROUND FIBEROPTICS	---
UNDERGROUND TELEVISION	---
OVERHEAD UTILITIES	---
OVERHEAD ELECTRIC	---
MANHOLE	○
HYDRANT	⊗
GATE VALVE	⊗
POWER POLE	⊗
GUY WIRE	⊗
LIGHT POLE	⊗
HAND HOLE	⊗
TELEPHONE BOX	⊗
GUARD POST	⊗
SIGN	⊗
5' CONTOUR	---1040---
1' CONTOUR	---1039---
SPOT ELEVATION (CURB ELEVATIONS ARE TO GUTTER LINE)	00.0 x
SILT FENCE
TOP OF ISLAND ELEVATION	TOI=19.26

- GOVERNING SPECIFICATIONS**
- THE LATEST EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION".
 - THE LATEST EDITION OF THE CITY OF CLOQUET STANDARD DETAILS AND SPECIFICATIONS.
 - THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD).
 - THE LATEST EDITION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM) STANDARD SPECIFICATIONS.

- GRADING NOTES**
- SILT FENCE AND EXISTING CATCH BASIN INLET PROTECTION SHALL BE INSTALLED PRIOR TO GRADING CONSTRUCTION, AND SHALL BE MAINTAINED UNTIL SITE HAS BEEN STABILIZED.
 - CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO THE START OF GRADING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF DISCREPANCIES OR VARIATIONS FROM THE PLAN.
 - CONTRACTOR SHALL STRIP, STOCKPILE AND RESPREAD SUFFICIENT TOPSOIL TO PROVIDE A MINIMUM OF 4" OF TOPSOIL OVER ALL DISTURBED AREAS THAT WILL BE SODDED, SEEDED OR LANDSCAPED.



BENCHMARKS

- TOP NUT OF HYDRANT LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF WASHINGTON AVENUE AND 8TH STREET. ELEVATION: 1232.18 (NAVD 88)

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Signature: *J. Radach*
Date: 01/08/16 License #: 45889

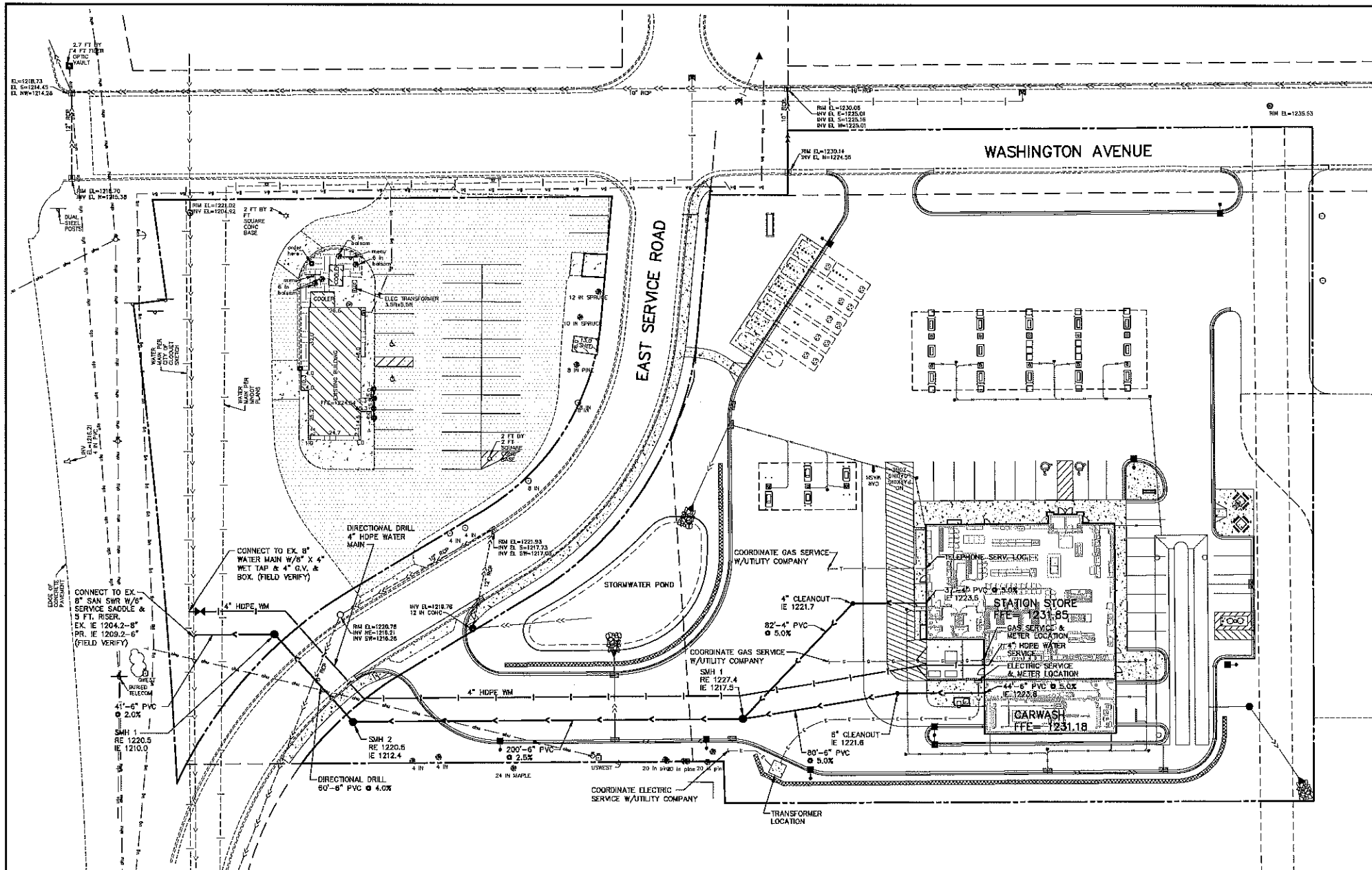
GRADING & EROSION CONTROL PLAN

CONVENIENCE STORE #144 WITH SIDE DIESEL

WASHINGTON AVENUE
CLOQUET, MINNESOTA

#	DATE	DESCRIPTION

DRAWN BY: JTR
SCALE: GRAPHIC
PROJ. NO.: 5919-00
DATE: 2016-01-08
SHEET: 144 SP3



GENERAL:

1. **Obtain Specifications:** The latest editions of the Minnesota Department of Transportation "Standard Specifications for Construction", the City Engineers Association of Minnesota (CEAM) Standard Specifications, the City of Cloquet Standard Specifications and the Minnesota Plumbing Code.
2. **Comply with the work safety practices** specified by the Occupational Safety and Health Administration (OSHA). Comply with all applicable local, state, and federal safety regulations. OSHA penalties may be levied against anyone who violates these regulations. Construction safety is solely the responsibility of the Contractor, who is also solely responsible for the means, methods, and sequencing of the construction operations.
3. **Perform all utility work in accordance with State and City requirements.**
4. **Contact the City of Cloquet Public Works Department for inspection of all utility work.**
5. **Contact to existing sanitary sewer MIs by connecting.** Contact to existing storm sewer MIs by either connecting or bypassing. Meet all City standards and specifications for the connection. Record all connections after installation. Use water stop gaskets in order to provide watertight seals when penetrating a structure wall with a pipe. Take measures before beginning construction to ensure that service connections do not cut into maintenance access structure joints or pipe down joints.
6. **Perform trench excavations for all utilities in accordance with the requirements of OSHA 29 CFR, Part 1926, Subpart P, "Excavations and Shoring."** (www.osha-slc.gov)
7. **Coordinate building utility connection locations at 5 ft. out from the proposed building with the Interior Planning Contractor prior to construction.** Verify water and sewer service locations and stations with the Mechanical Designer prior to construction.
8. **The locations of existing utilities shown on this plan are from record information and field as-built data.** The Engineer does not guarantee that all existing utilities are shown as shown, and the locations indicated on the plan. It is the Contractor's responsibility to verify the vertical and horizontal location of all existing utilities (including water service lines and appurtenances). Notify the Engineer of any discrepancies.
9. **Contact utility companies for locations of all public and private utilities within the work area prior to beginning construction.** Contact BIA for locations of existing utilities at least 72 hours from including water/gas or hydro/gas before beginning any construction. Obtain latest number and mark with non-corrosive material of the various utilities at the site. Provide the Owner with the latest number information.
10. **Follow to verify the location of existing underground facilities of a sufficient number of locations in order to assure that no conflict with the proposed work exists and that sufficient clearance is available.**
11. **Where existing gas, electric, cable, or telephone utilities conflict with the work, coordinate the abandonment, relocation, offset, or support of the existing utilities with the appropriate utility companies.** Coordinate gas meter and gas line installation, electric meter and electric service installation, cable service and telephone service relocation with the local utility companies.
12. **Remove for and secure suitable disposal areas off-site.** Dispose of all excess soil, waste material, debris, and all materials not designated for salvage. Waste material and debris include tires, stumps, logs, concrete, masonry, asphalt, curbs, or other waste material from the construction operation. Obtain the right to any waste used for disposal of suitable or surplus material either shown or not shown on the plan. All work in disposing of waste material shall be considered independent of the work. All disposal must conform to applicable local, state, and federal regulations. Obtain necessary permits as a part of the Owner.

WATER DISTRIBUTION SYSTEM:

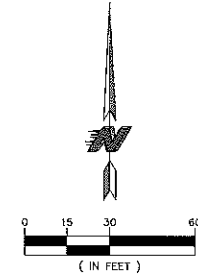
1. **Excavation of Water and Sewer:** Provide a minimum horizontal separation of 10 feet between all water and sewer lines. Provide a minimum separation of 10 inches of air clear space between water and sewer lines.
2. **Minimums:** Minimum 7.5 feet of cover over the top of the water lines to the finished grade. Verify elevation of proposed and existing water lines at all utility crossings. Install the water lines at greater depths in order to clear storm sewer, sanitary sewer, or other utilities as required. Include cover to lower water lines in the base bid.
3. **Disturbance:** Disturb all completed waterlines in accordance with AWWA Standard C901-05 and the City specifications. Water lines shall be marked prior to excavation, except when marked in situ.
4. **Testing:** Pressure test and perform bacteriological tests on all water lines under the supervision of the City Public Works Department. Notify the City at least 24 working hours prior to any testing. Pressure the entire line to 100 psi (100 psi) gauge pressure (measured at the point of least elevation) by means of a pump connected to the pipe in a satisfactory manner. Maintain the test pressure for a minimum of 2 hours. Do not add water to the waterline in order to maintain the required pressure during the watermain pressure testing. The test section of pipe is acceptable with a pressure drop of 7 psi (1 psi) or less. Electrical conductivity testing shall be performed as directed by the City.
5. **Use AWWA C100/A20.11 Fiberglass Glass 60 Double End Pipe (DEP)** with push-on joints for all waterlines unless otherwise noted. All watermain fittings shall meet the requirements of AWWA C303, latest edition. Bells and nuts shall be "Con-Lon" mating AWWA C111, latest edition.
6. **Where allowed by the municipality, use Polypropylene Chloride Pipe (PVC) conforming to AWWA C900 for 4-inch to 12-inch diameter pipe in lieu of DEP.** The pipe shall be pressure tested with a DR ratio of 18 and conforming with the outside diameter dimensions of cast iron pipe. All materials shall meet the specifications and approvals of the Underwriters Laboratories Factory Mutual and the National Sanitation Foundation standards.
7. **Use mechanical joint restraint devices for joint restraint on all watermain bends having a vertical or horizontal deflection of 22-1/2 degrees or greater, all valves, elbows, tees, crosses, plugs, all hydrant valves, and all hydrants in accordance with City requirements.** Use "Series 1100 Repeating" manufactured by DWA, Inc., Ltd., unless otherwise noted. Installed in accordance with the manufacturer's recommendations for restraint on Ductile Iron Pipe.
8. **All air valve locations which require a 12" or smaller valve, install gate valves which are of the compression resistant tested (CRT) type.** Gate valves shall conform to AWWA C510. Install cast iron valve boxes conforming to ASTM A88 at each valve location. Valve boxes shall be the heavy-duty type with 3/4" x 1/4" bolts and the word "water" on the top. Use 7/8" x 3/16" x 4-1/2" deep lid, or approved equal. Valve boxes shall have at least 6" of adjustment above and below finished grade.
9. **Copper service pipe shall be Type K, annealed copper water tubing, soft annealed temper and conform to the requirements of ASTM B88.** If high density polyethylene (HDPE) water service will be used in lieu of copper, it shall conform to ASTM D2737, for "Ductile" Water Service Tubing, PE 3408-200 psi, SDR 7 (DEP), as manufactured by Sabel Industries complying with ASTM D2774.
10. **BRACER WIRE:** Tracer wire for all non-metallic pipe shall be No. 8 AWG gauge, single or multiple strand plastic coated copper wire. Wire splices shall be made with a mechanical water proof connector such as "M-808" or approved equal. Tracer wire shall be fastened to the hydrant with Hydrant Tracer Wire Brackets as manufactured by Sabel Industries or approved equal.

SANITARY SEWER:

1. **Pipe:** Use vitriol-core, SDR-35, ASTM D3034 (or approved equal) Polypropylene Chloride (PVC) pipe for all designated PVC sanitary sewer service unless otherwise noted. Pipe for service shall meet the requirements of ASTM D2466 for Schedule 40. Joints for all sanitary sewer shall be gasketed, bell-and-spigot, push-on joints with rubber gaskets meeting the requirements of ASTM D3212, except for service lateral pipe connections to pipes, lines, vaults, manholes, or fittings which shall have solvent-cemented joints meeting the requirements of ASTM D2466 and ASTM D2312. Lay all PVC pipe on a continuous granular bed. Installation must comply with ASTM D2312.
2. **Spacing:** Install cleanouts on all sanitary sewer services. The distance between cleanouts in horizontal piping shall not exceed 100 feet for pipes 4-inch and over in size. Cleanouts shall be of the same nominal size as the pipe they serve. Include frost stems and concrete frame and pipe support. Install a meter base frame and valve (Fleming R-1844-A, or approved equal) over all cleanouts, unless otherwise noted.
3. **Testing:** Pressure test all sanitary sewer lines per the City requirements. Test all sanitary sewer lines for infiltration after the sewer has been installed and before has been in place for at least 30 days. No pipe shall exceed a deflection of 0.5% if the test pipe, meet necessary requirements and notes.
4. **Unless otherwise indicated, use reinforced, precast, concrete maintenance holes conforming to ASTM C478, furnished with precast boxes.** Sanitary sewer maintenance holes shall be supplied with pre-formed inserts and flexible neoprene floor connections for all lateral lines 3/4" and larger (18-inch) in diameter or less, unless otherwise indicated. Joints for all precast maintenance hole sections shall have combined, rubber "O"-ring gaskets in accordance with ASTM C922. The inside bore diameter shall not be less than 48 inches.
5. **Install flexible water-tight brass/dimethyl seals on all sanitary sewer maintenance holes.** Use either Manufactured Maintenance Hole Frame/Dimethyl Seals or Elastomeric Waterproofing Frame/Dimethyl Seals.
6. **Use the Henshaw Flangeless Cast Iron-1233 casting on all sanitary sewer maintenance holes unless otherwise noted.** Covers shall bear the "Sanitary Sewer" label.

PLAN LEGEND

EXISTING	PROPOSED
CURB	---
BITUMINOUS	---
CONCRETE WALK	---
PROPERTY LINE	---
EASEMENT LINE	---
STORM SEWER	---
SANITARY SEWER	---
WATER MAIN	---
UNDERGROUND GAS	---
UNDERGROUND ELECTRIC	---
UNDERGROUND TELEPHONE	---
UNDERGROUND FIBEROPTICS	---
UNDERGROUND TELEVISION	---
OVERHEAD UTILITIES	---
OVERHEAD ELECTRIC	---
MANHOLE	---
HYDRANT	---
GATE VALVE	---
POWER POLE	---
GUY WIRE	---
LIGHT POLE	---
HAND HOLE	---
TELEPHONE BOX	---
GUARD POST	---
SIGN	---



BENCHMARKS

1. TOP NUT OF HYDRANT LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF WASHINGTON AVENUE AND 8TH STREET.
ELEVATION: 1232.18 (NAVD 88)



KWIK TRIP STORES

KWIK STAR STORES

KWIK TRIP, Inc.
P.O. BOX 2107
1626 OAK STREET
LA CROSSE, WI 54602-2107
PH. (608) 781-8988
FAX (608) 781-8960

Carlson McCain
ENVIRONMENTAL • ENGINEERING • SURVEYING
3890 Pleasant Ridge Dr., #100, Blaine, MN 55449
Phone: 763-489-7000 Fax: 763-489-7959

I hereby certify that this plan, specification or 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.

Name: Joseph T. Radach, P.E.
Signature: [Signature]
Date: 01/08/16 License #: 45889

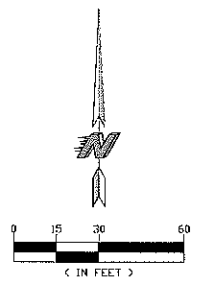
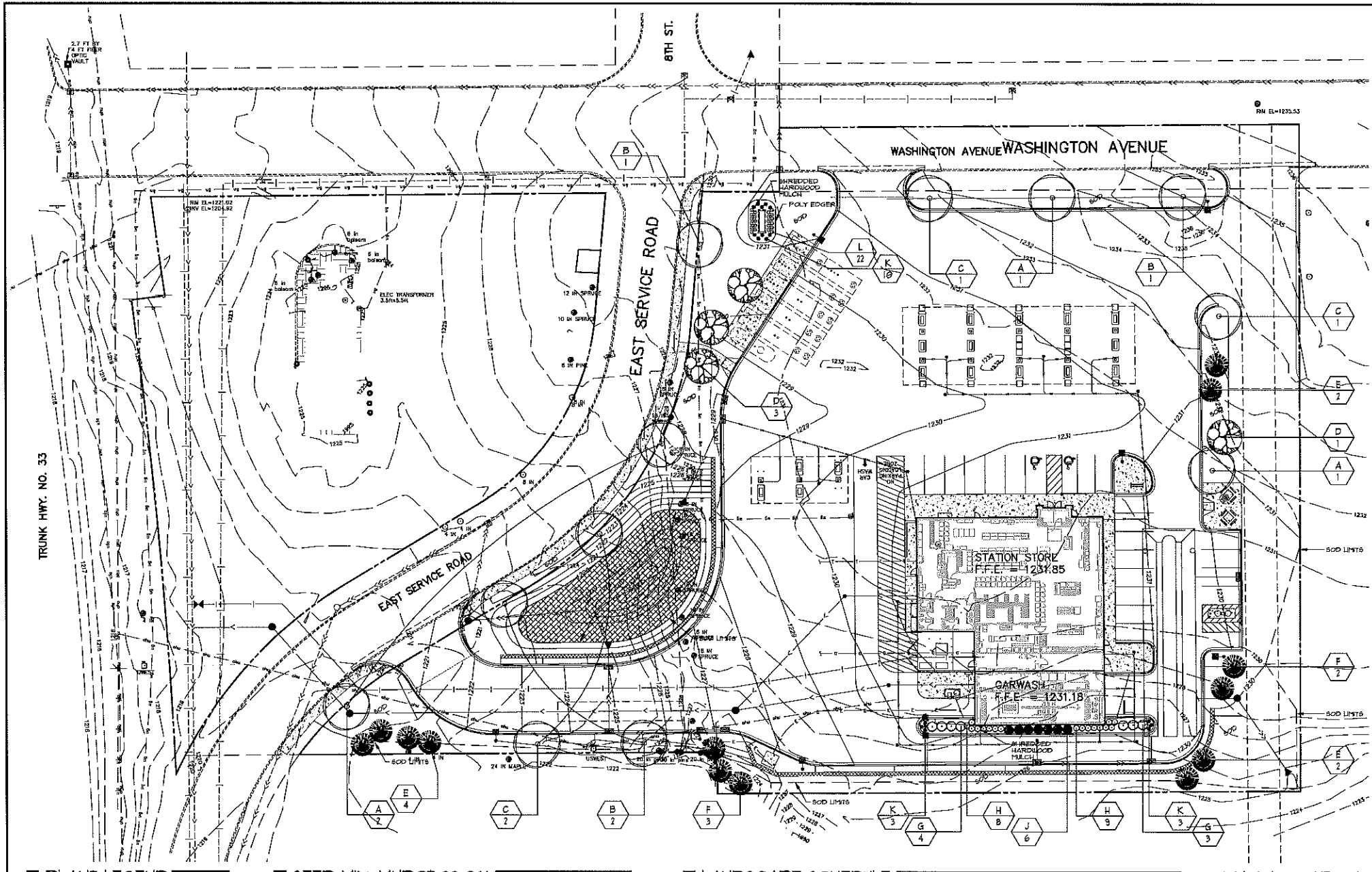
UTILITY PLAN

CONVENIENCE STORE #144 WITH SIDE DIESEL

WASHINGTON AVENUE
CLOQUET, MINNESOTA

#	DATE	DESCRIPTION

DRAWN BY: JTR
SCALE: GRAPHIC
PROJ. NO.: 5919-00
DATE: 2016-01-08
SHEET: 144 SP4



KWIK TRIP STORES

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 Phone: 763-469-7969 Fax: 763-469-7959

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly-licensed landscape architect under the laws of the State of Minnesota.

Name: _____
 Signature: _____
 Date: 1/11/16 License #: 00647

LANDSCAPE PLAN

CONVENIENCE STORE #144
 WITH SIDE DIESEL

WASHINGTON AVENUE
 CLOQUET, MINNESOTA

#	DATE	DESCRIPTION

DRAWN BY: SDB
 SCALE: GRAPHIC
 PROJ. NO.: 6919-00
 DATE: 2016-01-11
 SHEET: 144 L1

PLANT LEGEND

- OVERSTORY TREE
2.5" CAL
- ORNAMENTAL TREE
1.5" CAL
- CONIFEROUS TREE
6" HT
- SHRUB / GROUNDCOVER
12", 24" 3/6" HT.
- ▨ SEED MIX
MNDOT 33-261
- - - SOD/SEED LIMITS

SEED MIX: MNDOT 33-261

Common Name	Scientific Name	Rate (lb/ton)	Rate (kg/ha)	% of Mix (by weight)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	2.00	2.24	5.72%	7.35
fringed broms	<i>Bromus ciliatus</i>	2.00	2.24	5.72%	8.10
virginia wild rye	<i>Elymus virginicus</i>	1.00	1.12	2.86%	3.21
low bluestem	<i>Poa polystrachia</i>	1.00	1.12	2.86%	29.70
slender wheatgrass	<i>Elymus trachycarpus</i>	1.00	1.12	2.86%	2.63
switchgrass	<i>Panicum virgatum</i>	0.30	0.34	0.87%	1.33
panicum capillare	<i>Panicum capillare</i>	0.30	0.34	0.87%	0.81
indian grass	<i>Sorghastrum nutans</i>	0.12	0.13	0.35%	0.53
bluejoint	<i>Calamagrostis canadensis</i>	0.05	0.07	0.19%	0.40
grass Subtotal		8.50	9.53	24.29%	87.70
soft-foliated pines	<i>Carex stipitata</i>	0.25	0.28	0.71%	3.10
dark green bulrush	<i>Scirpus atrovirens</i>	0.10	0.11	0.29%	0.70
wetgrass	<i>Scirpus caryocarpus</i>	0.05	0.07	0.19%	0.30
Beds & Rushes Subtotal		0.40	0.46	1.19%	4.10
golden alexanders	<i>Zizia aurea</i>	0.50	0.56	1.43%	73.90
autumn anemone	<i>Hibiscus autumnalis</i>	0.13	0.15	0.39%	5.97
marsh milkweed	<i>Asclepias incarnata</i>	0.11	0.12	0.32%	0.20
toady bogwinkle	<i>Dielyria ternata</i>	0.11	0.12	0.32%	0.20
Canada anemone	<i>Anemone canadensis</i>	0.07	0.08	0.21%	0.20
obedient plant	<i>Physalis virginiana</i>	0.07	0.08	0.21%	0.20
tall cornflower	<i>Helianthus scaberrimus</i>	0.07	0.08	0.21%	0.20
New England aster	<i>Aster novae-angliae</i>	0.07	0.08	0.21%	1.60
bel-fogged aster	<i>Doellingeria umbellata</i>	0.05	0.07	0.17%	0.50
spotted Joe-pye weed	<i>Eurochloa maculatum</i>	0.05	0.07	0.19%	2.10
blue vervain	<i>Verbena hastata</i>	0.05	0.06	0.16%	1.85
Forbs Subtotal		1.00	1.12	2.85%	15.13
Oaks		25.00	28.03	71.43%	11.14
Cover Crop Subtotal		25.00	28.03	71.43%	11.14
Total		35.00	39.23	100.00%	160.85

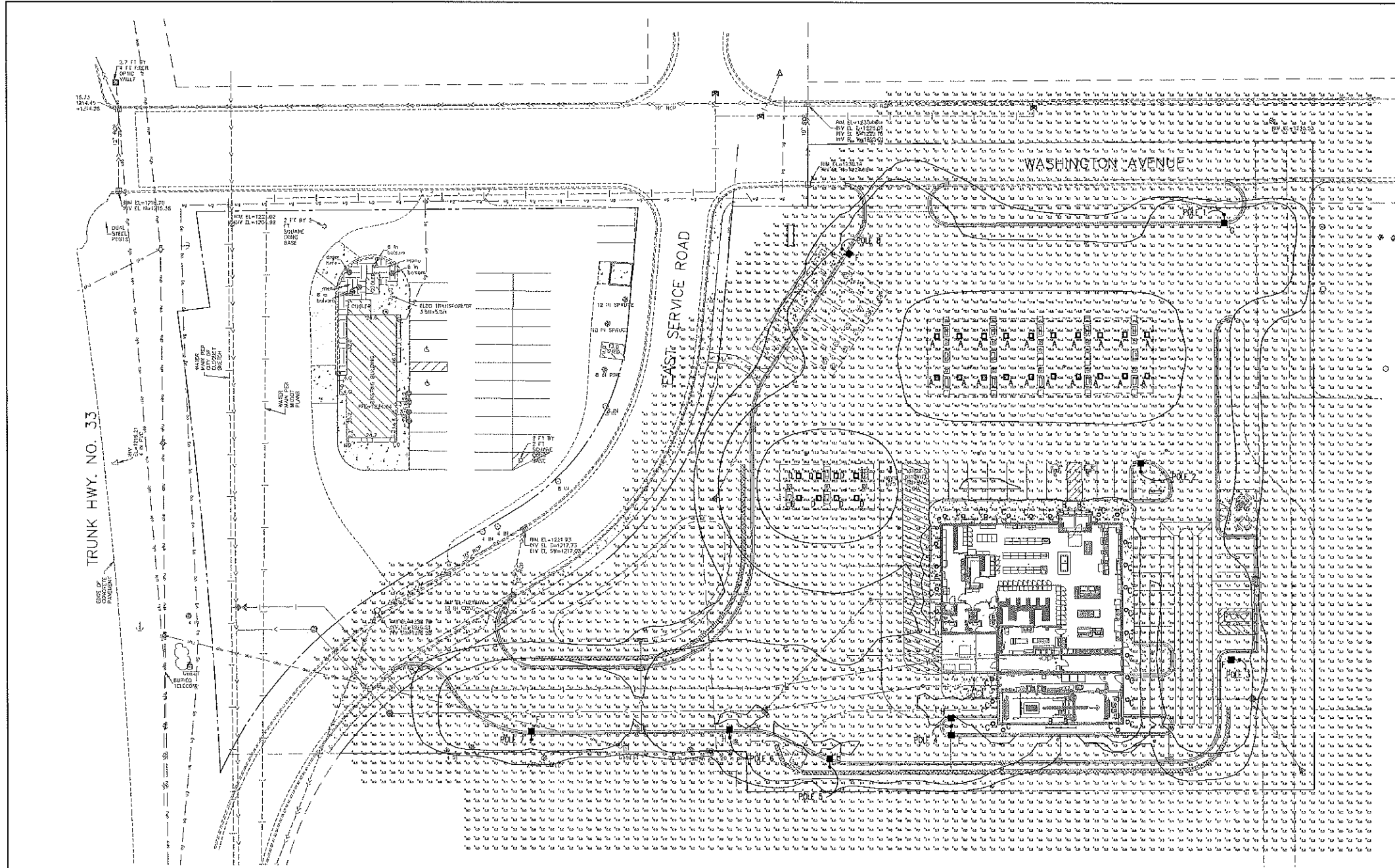
Purpose: Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch borders.
 Planting Area: Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces, MNDOT Districts 2, 3, 4, Metro, 6, 7 & 8.

LANDSCAPE SCHEDULE:

CODE	QTY	COMMON NAME/LATIN	SIZE	ROOT	REMARKS
A	4	AUTUMN SPIRE MAPLE	2.5"	B/B	STRAIGHT LEADER AND FULL CROWN
B	4	ACER RUBRUM 'AUTUMN SPIRE'	2.5"	B/B	STRAIGHT LEADER AND FULL CROWN
C	4	DAKOTA PINNACLE BIRCH	2.5"	B/B	STRAIGHT LEADER AND FULL CROWN
D	4	BETULA PLATYPHYLLA 'FARGO'	2.5"	B/B	STRAIGHT LEADER AND FULL CROWN
E	4	SWAMP WHITE OAK	2.5"	B/B	STRAIGHT LEADER AND FULL CROWN
F	4	QUERCUS BICOLOR	2.5"	B/B	STRAIGHT LEADER AND FULL CROWN
G	4	ROYAL RANDROPS CRABAPPLE	1.5"	B/B	STRAIGHT LEADER AND FULL CROWN
H	4	MALUS X 'ROYAL RANDROPS'	1.5"	B/B	STRAIGHT LEADER AND FULL CROWN
I	4	BLACK HILLS SPRUCE	6"	B/B	FULL FORM TO GRADE
J	4	PICEA GLAUCÁ DENDA	6"	B/B	FULL FORM TO GRADE
K	4	SCOTCH PINE	6"	B/B	FULL FORM TO GRADE
L	4	FINUS SYLVESTRIS	6"	B/B	FULL FORM TO GRADE
M	1	GROW LOW FRAGRANT BUMAC	3"	CONT.	PLANT 3" O.C. SPACE EVENLY
N	11	RUBUS AROMATICUS 'GROW LOW'	3"	CONT.	PLANT 3" O.C. SPACE EVENLY
O	11	BIRCH LEAF SPRUCE	3"	CONT.	PLANT 3" O.C. SPACE EVENLY
P	6	STRAEVA BETULIFOLIA 'TOR'	3"	CONT.	PLANT 3" O.C. SPACE EVENLY
Q	6	HANEY JUNPER	3"	CONT.	PLANT 3" O.C. SPACE EVENLY
R	6	JANPERUS CHINENSIS 'HANEY'	3"	CONT.	PLANT 3" O.C. SPACE EVENLY
S	16	KARL FOERSTER FEATHER REED GRASS	3"	POT	STRAIGHT LEADER AND FULL CROWN
T	16	CALAMAGROSTIS X ACUTIFOLIA 'KARL FOERSTER'	3"	POT	STRAIGHT LEADER AND FULL CROWN
U	22	STELLA D'ORO DAYLILY	3"	POT	STRAIGHT LEADER AND FULL CROWN
V	22	HEMEROCALLIS 'STELLA D'ORO'	3"	POT	STRAIGHT LEADER AND FULL CROWN

QUANTITIES SHOWN IN THE PLANTING SCHEDULE ARE FOR THE CONTRACTOR'S CONVENIENCE. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THE PLAN.

- LANDSCAPE NOTES**
- GENERAL:
- IRRIGATION SHALL BE PROVIDED FOR ALL SOD AND LANDSCAPE AREAS.
 - SOD AND IRRIGATE ALL DISTURBED AREAS UNLESS OTHERWISE NOTED.
 - ROCK MULCH = 1-1/2" DRESSER TRAP ROCK WHERE NOTED.
 - HEAVY COMMERCIAL GRADE POLY EDGER SHALL BE USED AROUND THE PERIMETER OF LANDSCAPE BEDS NOTED ON PLAN.
 - REFER TO DETAIL SHEET L2 FOR GENERAL NOTES, PLANTING SPECIFICATIONS, PLANTING NOTES, IRRIGATION NOTES, AND PLANTING DETAILS.
 - REFER TO GRADING PLAN FOR GRADES AND EROSION CONTROL.
 - REMOVE ANY BURLAP, TWINE, ROPES AND/OR WIRING FROM THE TOP AND SIDES OF ROOTBALL FOR ALL BALLED AND BURLAPPED PLANTS.
 - REMOVE CONTAINERS AND CUT CIRCLING ROOTS IF PLANTS ARE CONTAINER GROWN.
 - ALL PLANTINGS SHALL RECEIVE FERTILIZER AS FOLLOWS: 0-20-20 GRANULAR FERTILIZER APPLIED AT THE TIME OF PLANTING AT A RATE OF 12 OZ PER 2.5 CALIPER INCHES OF TREE AND 6 OZ PER SHRUB.
- LANDSCAPE QUANTITIES**
- SHREDDED HARDWOOD MULCH (545 SF) @ 3" DEPTH = 5.1 CY
 - SEED = 3,193 SF
 - SOD 2,819 SF
 - POLY EDGER = 64 LF



FIXTURE QUANTITIES

- A - 20
- B - 4
- C - 26
- D - 8
- E - 1
- F - 1
- G - 1
- H - 1
- J - 1

PROVIDE A TOTAL OF (8) 15' POLES

CALCULATION STATISTICS

AVERAGE: 3.1fc
 MAXIMUM: 59.8fc
 MINIMUM: 0.0fc

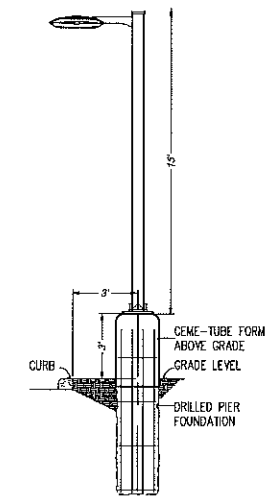
FIXTURE SYMBOLS:

- A & D RECESSED LED LIGHT MOUNTED UNDER CANOPY
- B LED STRIP LIGHT
- C RECESSED LED DOWNLIGHT
- POLE MOUNTED LED FIXTURE
E, F, G, H & J

FIXTURE TYPES:

- A - CREE LIGHTING: CAN-304-SL-RS-06-E-UL-W1-700
MOUNTING HEIGHT - 16'-0"
- B - LED STRIP LIGHT
LITHONIA - ZLI-196-L9840
MOUNTING HEIGHT: SEE ARCHITECTURAL ELEVATIONS
- C - RECESSED LED DOWNLIGHT
GOHAM EVO-41/29-BAR-120-TRW
- D - CREE LIGHTING: CAN-228-SL-RM-06-0-UL-BK-700
MOUNTING HEIGHT - 16'-0"
- E - CREE LIGHTING: ARE-EDG-2M-DA-04-E-UL-WH-350
POLE MOUNTED AT A TOTAL HEIGHT OF 18'-0"
- F - CREE LIGHTING: ARE-EDG-3MB-DA-12-E-UL-WH-350
POLE MOUNTED AT A TOTAL HEIGHT OF 18'-0"
- G - CREE LIGHTING: ARE-EDG-4MB-DA-08-E-UL-WH-350
POLE MOUNTED AT A TOTAL HEIGHT OF 18'-0"
- H - CREE LIGHTING: ARE-EDG-4MB-DA-12-E-UL-WH-350
POLE MOUNTED AT A TOTAL HEIGHT OF 18'-0"
- J - CREE LIGHTING: ARE-EDG-5M-DA-12-E-UL-WH-350
POLE MOUNTED AT A TOTAL HEIGHT OF 18'-0"

PHOTOMETRIC SITE PLAN
 SCALE: 1" = 30'-0"



LOT LIGHT ELEVATION DETAIL
 NOT TO SCALE

C19001
CZARNECKI ENGINEERING INCORPORATED
 1121 MARLIN COURT, SUITE B - WAUKESHA, WI 53190
 VOIC: (262) 343-2020 FAX: (262) 343-2023
 WEB PAGE: www.czemg.com

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 3990 Pheasant Ridge Dr., #100, Blaine, MN 55449
 Phone: 763-489-7900 Fax: 763-489-7959

I hereby certify that this plan, specification or 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.

Name: Gregory J. Zachy, P.E.
 Signature:
 DATE: 10/20/15 License #: 45889

PHOTOMETRIC SITE PLAN

CONVENIENCE STORE #144 WITH SIDE DIESEL

WASHINGTON AVENUE
 CLOQUET, MINNESOTA

#	DATE	DESCRIPTION

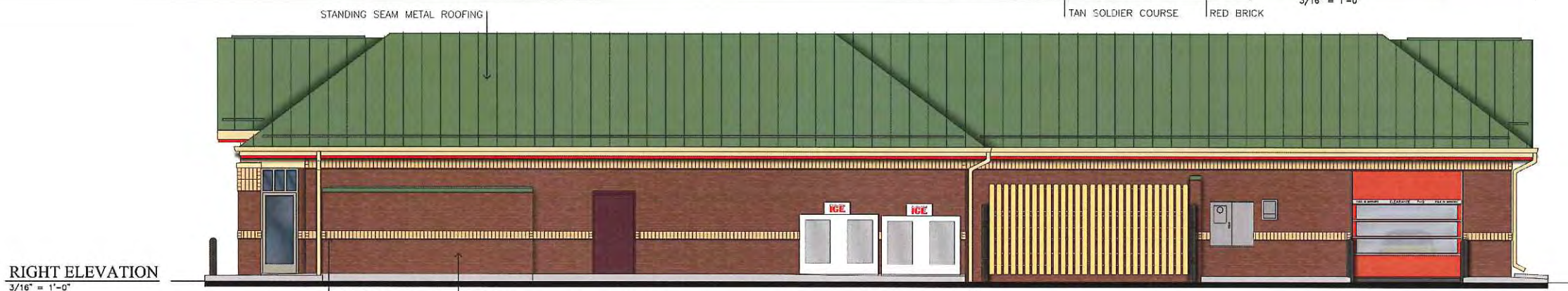
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 SCALE: GRAPHIC
 PROJ. NO.: 5919-00
 DATE: 2016-01-08
 SHEET: E1



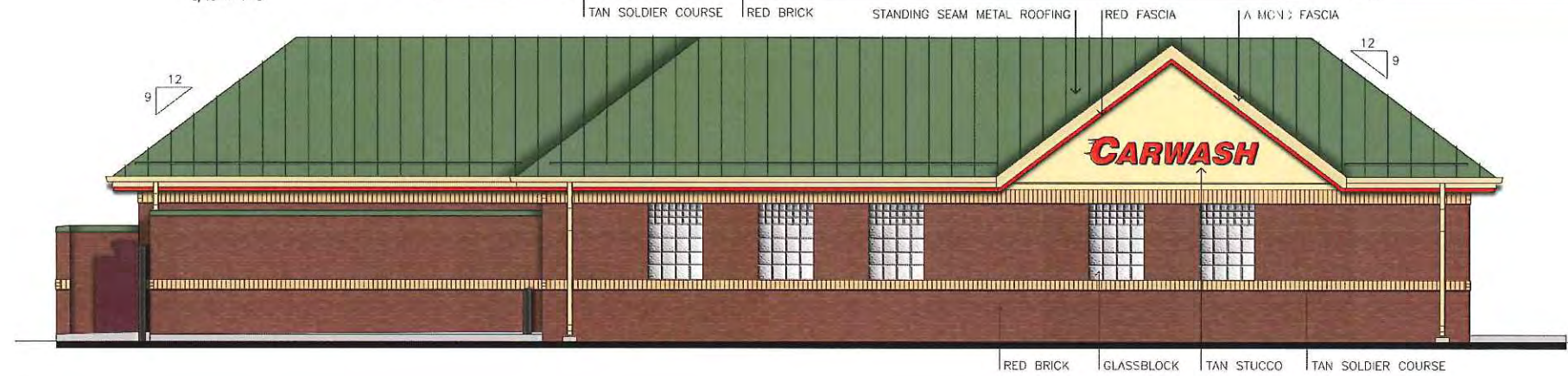
RED BRICK | TAN SOLDIER COURSE | TAN STUCCO | STANDING SEAM METAL ROOFING | **FRONT ELEVATION**
1/8" = 1'-0"



STANDING SEAM METAL ROOFING | TAN SOLDIER COURSE | RED BRICK | **LEFT ELEVATION**
3/16" = 1'-0"



RIGHT ELEVATION
3/16" = 1'-0"



RED BRICK | GLASSBLOCK | TAN STUCCO | TAN SOLDIER COURSE | STANDING SEAM METAL ROOFING | RED FASCIA | ALMOND FASCIA | **BACK ELEVATION**
3/16" = 1'-0"



LH COMBO
PROTOTYPE



Building a Better World
for All of Us®

MEMORANDUM

TO: Brad Fry
KWIK TRIP Inc.

FROM: Thomas A. Sohrweide, PE, PTOE
Chad M. Jorgenson, EIT

DATE: November 2, 2015

RE: Kwik Trip Traffic Impact Study
SEH No. KWIKT 134413

This technical memorandum provides findings related to a traffic impact analysis performed to evaluate the proposed Kwik Trip gasoline and convenience store in the City of Cloquet, MN.

This study includes analysis of the impact of this development on the following intersections:

- MN TH 33 and CSAH 16 (Washington Avenue)
- CSAH 16 and 8th Street/TH 33 Frontage Road
- Future intersection of CSAH 16 and Kwik Trip Driveway #A1
- Future intersection of CSAH 16 and Kwik Trip Driveway #A2
- Future intersection of TH 33 Frontage Road and Kwik Trip Driveway #A3

The development site is shown in the attached Figure 1.

Data Collection

Existing traffic turning movement counts were collected for the AM and PM peak hours at the intersection of CSAH 16 and 8th Street/TH 33 Frontage Road and an AM peak hour turning movement count was conducted for the intersection of TH 33 & CSAH 16 on October 1, 2015. The PM peak hour count for this intersection was collected on September 15, 2015 as part of the TH 33 corridor study. The AM and PM peak hours for these intersections were found to be 7:30 AM - 8:30 AM and 4:15 PM – 5:15 PM. The existing traffic turning movements are shown in the attached Figure 2.

Existing Conditions

The existing geometrics and traffic control for the study intersections are as follows:

- MN TH 33 and CSAH 16
 - Un-signalized T-intersection with stop control for westbound CSAH 16
 - Two through lanes northbound and southbound with a southbound left turn lane and northbound right turn lane
 - A left and right turn lane for westbound CSAH 16
- CSAH 16 and 8th Street/TH 33 Frontage Road
 - Northbound and southbound stop control on 8th Street/TH 33 Frontage Road
 - Single lane approach for all approaches

TH 33 has a speed limit of 45 mph while CSAH 16 has a speed limit of 30 mph.

Traffic Forecasting, Trip Generation and Distribution

Traffic forecasting, trip generation and distribution was completed for six study scenarios. The proposed Kwik Trip lot will be redeveloped to replace the funeral home with a Kwik Trip gas station as shown in Table 1.

**Table 1
 Proposed Kwik Trip Gas Station Plan**

Location	Land Use	Unit	Quantity	Completion Year
SE of CSAH 16 and TH 33 East Frontage Road	Gas Station with Convenience Market and Car Wash	Fueling positions	20 gas 2 diesel	2016

The study scenarios to be analyzed in this study are as follows:

S1: 2016 No Development:

- Existing conditions as of 2015
- Assuming no redevelopment in the study area.

S2: 2016 Development

- S1, plus
- Assuming completion of redevelopment in the study area

S3: 2036 No Development:

- S1,
- Only experience background growth in the study area

S4: 2036 Development

- S3,
- Assuming completion of redevelopment in the study area

S5: 2036 No Development with Mitigations

- S3,
- With Mitigations

S6: 2036 Development with Mitigations

- S4,
- With Mitigations

The daily traffic forecasts for major roadway segments in the study area under no development conditions were developed based on the historical Average Daily Traffic (ADT) volumes and they were consistent with the TH 33 corridor study. Based on the analysis, an annual background growth rate of 2% was assumed for TH 33, 1% for CSAH 16 and 0.75% for 8th Street/TH 33 East Frontage Road. The background growth factors were applied to existing turning movements to develop peak hour turning movement forecasts under no development conditions. Some adjustments were made to account for different growth rates at different approaches. Figure 3 illustrates the turning movement forecasts for 2016 no redevelopment scenario.

Trip generation was completed using the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 9th Edition. The current proposal for the Kwik Trip site includes 22 fueling positions. Trips were generated assuming a Gas Station with Convenience Market and Car Wash use from the ITE Trip Generation Manual. Table 2A, 2B and 2C respectively summarize the trip generation calculations for AM peak hour, PM peak hour, and daily trips.

Table 3 summarizes assumed directional distributions for the new trips and their uses via three accesses. The turning movement traffic forecasts under development condition were estimated by combining the new trips using the study intersections and the turning movements under no development conditions. Figure 4 illustrates the turning movement forecasts for 2016 development scenario. Figure 5 illustrates the turning movement forecasts for 2036 no development scenario. Figure 6 illustrates the turning movement forecasts for 2036 development scenario.

Table 2A
Trip Generation for Planned Land Use in the study area (AM Peak)

Location	Land Use	ITE Code	Quantity	Units	Rate	% in	%out	Trips	In	Out
Southeast Quadrant of CSAH 16 and TH 33 Frontage Rd East	Twik Trip Gas Station with Car Wash	946	22	positions	13.32	51%	49%	293	149	144
	Total				100%		for assignment	293	149	144

Table 2B
Trip Generation for Planned Land Use in the study area (PM Peak)

Location	Land Use	ITE Code	Quantity	Units	Rate	% in	%out	Trips	In	Out
Southeast Quadrant of CSAH 16 and TH 33 Frontage Rd East	Twik Trip Gas Station with Car Wash	946	22	positions	14.52	50%	50%	319	160	159
	Total				100%		for assignment	319	160	159

Table 2C
Trip Generation for Planned Land Use in the study area (Daily)

Location	Land Use	ITE Code	Quantity	Units	Rate	% in	%out	Trips	In	Out
Southeast Quadrant of CSAH 16 and TH 33 Frontage Rd East	Twik Trip Gas Station with Car Wash	946	22	positions	152.84	50%	50%	3,362	1,681	1,681
	Total				100%		for assignment	3,362	1,681	1,681

Table 3
Directional Distributions of the New Trips using Study Intersection

Direction To/From	Trips-In	Trips-Out	Trips-In via Access			Trips-Out via Access		
			A1	A2	A3	A1	A2	A3
TH 33 North	10%	30%	70%	20%	10%	50%	50%	0%
TH 33 South	30%	10%	70%	20%	10%	50%	50%	0%
Frontage Rd North	10%	10%	80%	10%	10%	50%	50%	0%
Frontage Rd South	25%	25%	0%	0%	100%	0%	0%	100%
CSAH 16 East	25%	25%	20%	80%	0%	20%	80%	0%
Total	100%	100%						

Operational Analysis

Synchro/SimTraffic was used in the analysis with the reporting of SimTraffic results for an average of five runs. Under existing conditions the synchro model was calibrated to match delays and queue lengths that were observed in the field during the data collection period. This included adding the traffic signal immediately to the south at the intersection of TH 33/Gillette Road to produce the platooning of vehicles at the intersection of TH 33/CSAH 16. Also observed in the field was westbound vehicles making two-stage left turns at the intersection of TH 33/CSAH 16. SimTraffic does not model two stage left turns and therefore the gap acceptance factors in SimTraffic were adjusted to reflect a two-stage left turn. The turning movement traffic volumes for each of the analyzed scenarios is shown in the attached in Figures 2-6.

Existing Condition

All intersections operate at a LOS A in both peak hours as shown in the attached Table A1. The worst movements at any intersection operate at a LOS E for the westbound left turn vehicles at TH 33/CSAH 16 and all average and maximum queue lengths are contained within the storage lengths available.

2016 No Build Condition

The 2016 No Build Condition includes only forecasted background traffic. All intersections operate at a LOS A in both peak hours as shown in the attached Table A2. The worst movement is the westbound left turn at TH 33/CSAH 16 operating at a LOS E in the AM peak hour and LOS F in the PM peak hour. All average and maximum queue lengths are contained within the storage lengths available.

2016 Build Condition

The 2016 Build Condition includes forecasted background traffic and trips generated from Kwik Trip. All intersections operate at a LOS A in both peak hours as shown in the attached Table A3. The worst movement is the westbound left turn at TH 33/CSAH 16 operating at a LOS F in the AM peak hour and LOS F in the PM peak hour and all average and maximum queue lengths are contained within the storage lengths available.

2036 No Build Condition

The 2036 No Build Condition includes only forecasted background traffic. All intersections operate at a LOS C or better in both peak hours as shown in the attached Table A4. The worst movements at any intersection operate at a LOS F. In the PM peak hour, queueing issues develop due to the westbound approach at TH 33/CSAH 16 backing up past the intersection of CSAH 16/8th Street/TH 33 Frontage Road causing the northbound and southbound approaches of 8th Street/TH 33 Frontage Road to incur significant delay.

2036 Build Condition

The 2036 Build Condition includes forecasted background traffic and trips generated from the Kwik Trip. Intersections in both the AM and PM peak hour experience poor operations as shown in the attached Table A5. The worst movements at any intersection operate at a LOS F due to the queuing issues that develop from the westbound traffic at the intersection of TH 33/CSAH 16 in both the AM and PM peak hours.

2036 No Build Mitigations Condition

The 2036 No Build Condition with Mitigations includes only forecasted background traffic. A future signal warrant analysis was conducted for the intersection of TH 33/CSAH 16 using the existing turning movement count data, the forecasted ADT's for TH 33 and CSAH 16, and MnDOT's *Hourly Distribution of Traffic by vehicle Type 1998-2014* Table.

MnDOT generally does not include right turn traffic volumes in signal warrant analysis. However, in certain circumstances such as high right turning volume, MnDOT allows for the inclusion of 50% of the minor street right turning traffic in the analysis. Based upon this MnDOT guidance the right-turning volume exceeds 70% of its potential capacity for the PM peak hour and therefore 50% of the right-turning volume was added back into the analysis.

Based on the 2036 No Build forecast traffic demands a traffic signal is warranted due to the volume threshold being met for 15 hours out of a minimum required 8 hours.

With the addition of the traffic signal at the intersection of TH 33/CSAH 16, intersections in both the AM and PM peak hour operate at a LOS B or better in both peak hours as shown in the attached Table A5. All average and maximum queue lengths are contained within the storage lengths available.

2036 Build Mitigations Condition

The 2036 Build Condition includes forecasted background traffic and trips generated from the Kwik Trip. All intersections operate at a LOS B or better in both peak hours as shown in the attached Table A6.

Site Plan Review

The site plan is very typical for this type of use and therefore will function well with familiarity for its users. Having access onto two roadways is beneficial and does not create any traffic operational problems.

Generally, a driveway near an intersection, such as the CSAH 16 westerly driveway, is not desirable. However, our analysis did not show any traffic operational problems with this and it is needed to best accommodate truck traffic to and from the diesel pumps.

We recommend that consideration be given to aligning the TH 33 frontage road site driveway with the existing driveway on the opposite side.

Findings and Conclusion

The traffic volumes from the proposed Kwik Trip site do not create unacceptable traffic operations. All proposed driveway locations for the Kwik Trip operate acceptably in the 2016 year of opening conditions and in 2036 with the addition of a traffic signal.

Consideration should be given to the aligning the TH 33 frontage road site driveway with the existing driveway on the opposite side.

CMJ

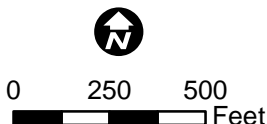
Attachments:

Figures 1-6

Tables A1-A6



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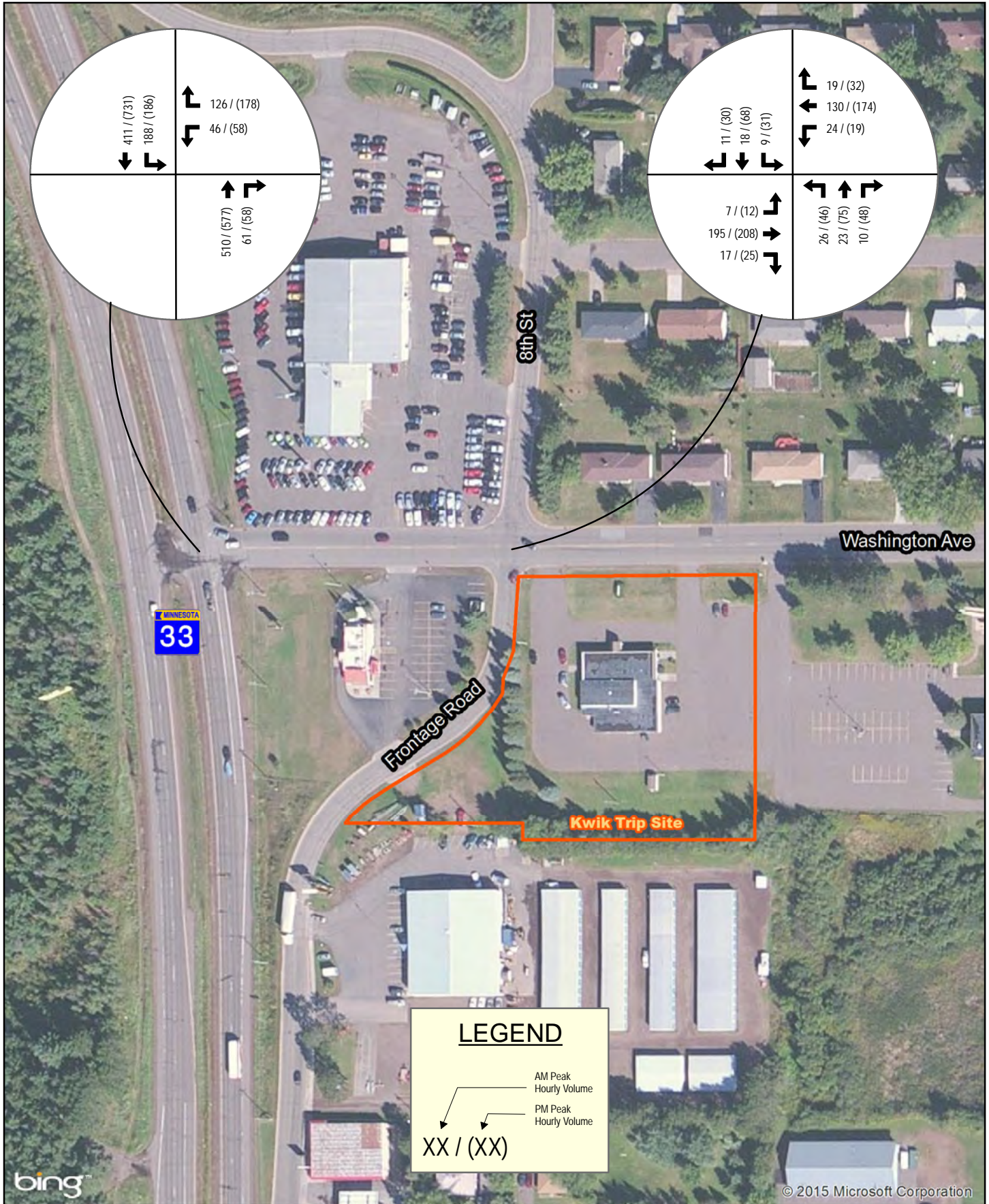
Project: KWIKT 134413
 Print Date: 10/20/2015

Map by: mstuernagel
 Projection: Olmstead County
 Coordinates
 Source: MnDOT, ESRI

SITE LOCATION MAP
 KWIK TRIP STUDY
 Cloquet, MN

Figure
 1

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LEGEND

AM Peak
Hourly Volume

PM Peak
Hourly Volume

XX / (XX)

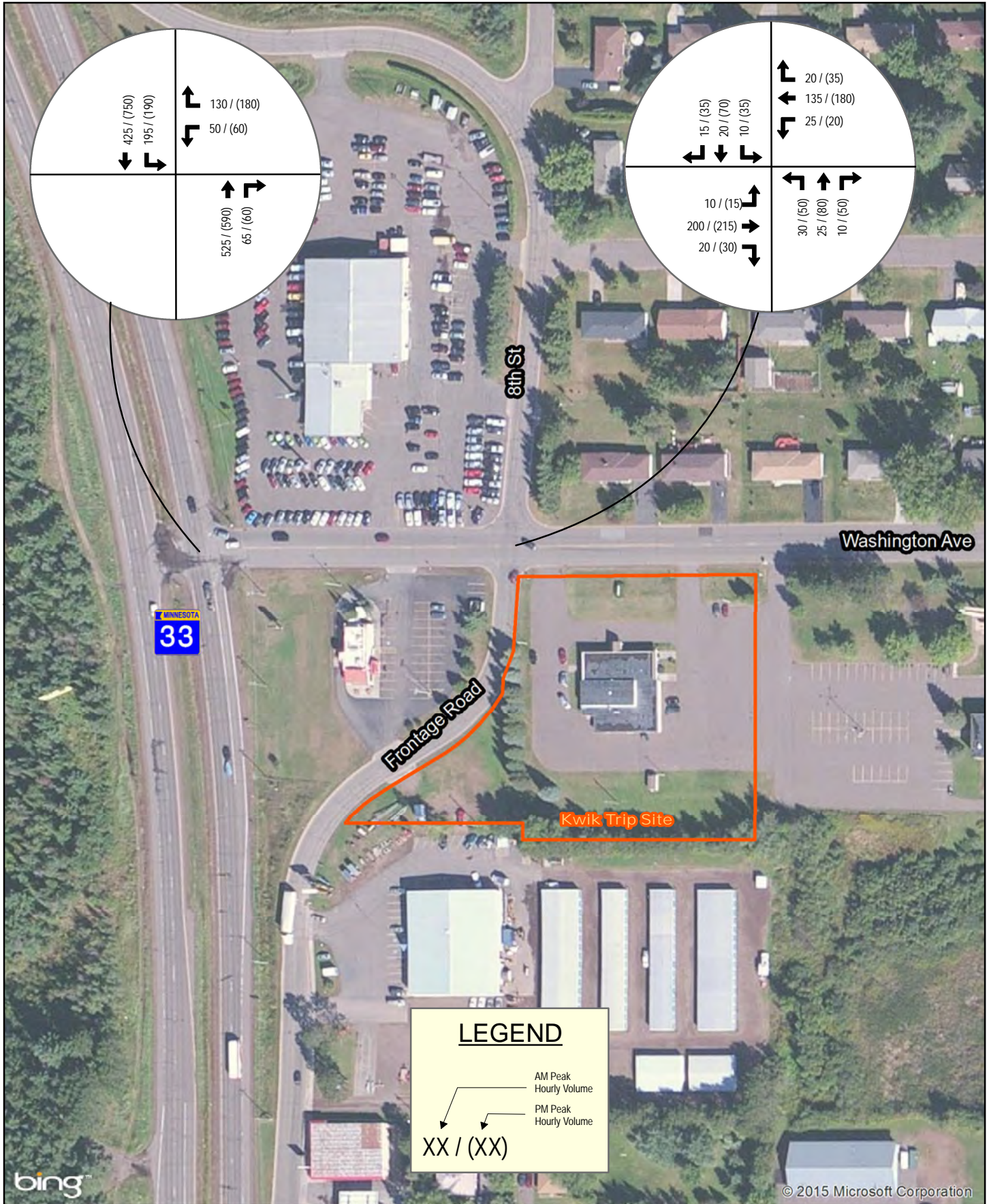
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	 0 75 150 Feet	Project: KWIKT 134413 Print Date: 10/20/2015	<i>EXISTING TURN MOVEMENT VOLUMES</i> KWIK TRIP STUDY Cloquet, MN	Figure 2
		Map by: mstuernagel Projection: Olmstead County Coordinates Source: MnDOT, ESRI		

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LEGEND

AM Peak Hourly Volume
 PM Peak Hourly Volume

XX / (XX)

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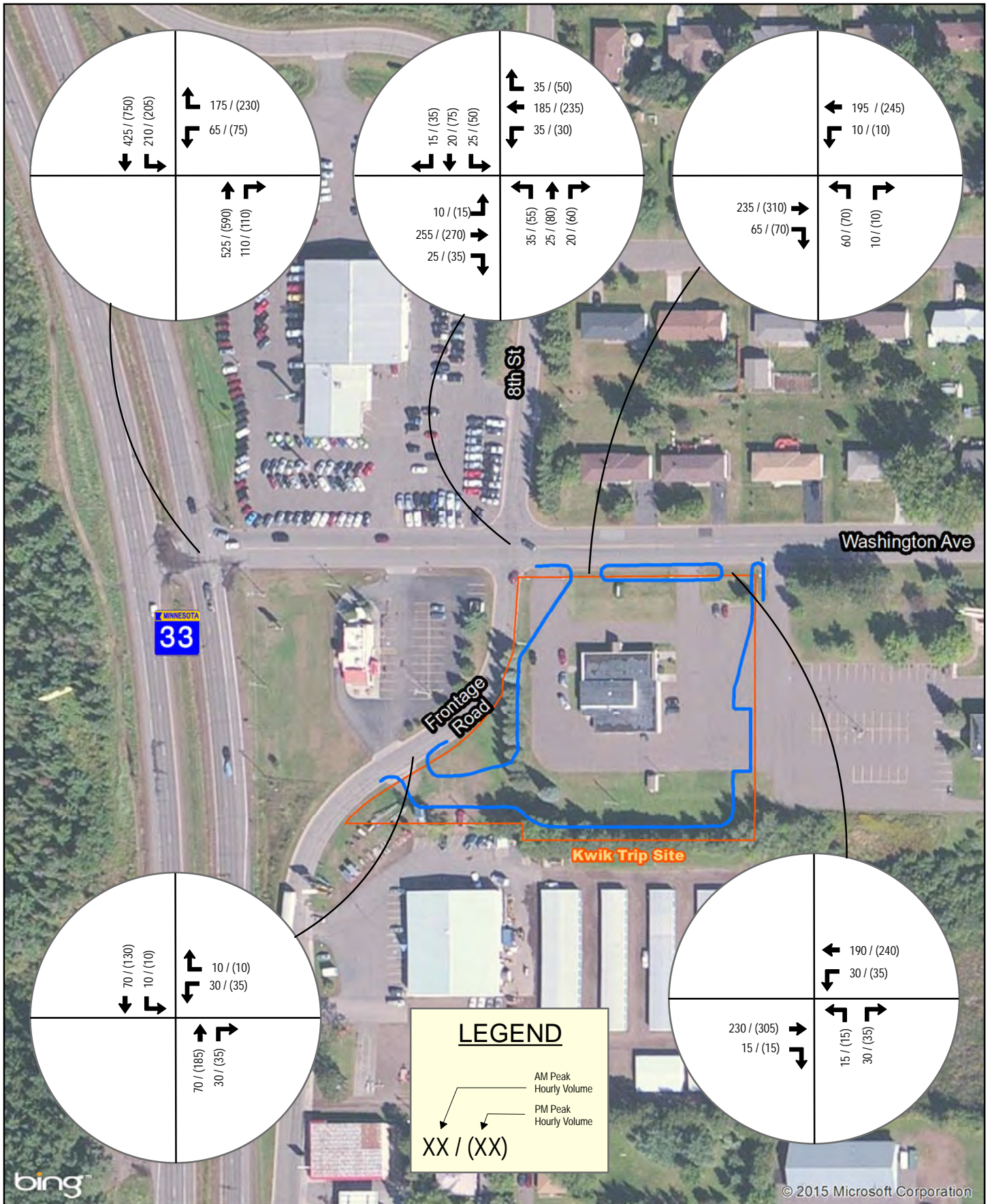
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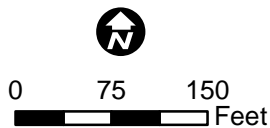
	 0 75 150 Feet	Project: KWKIT 134413 Print Date: 10/20/2015	<i>2016 NO BUILD TURN MOVEMENT VOLUMES</i> KWIK TRIP STUDY Cloquet, MN	Figure 3
		Map by: mstuernagel Projection: Olmstead County Coordinates Source: MnDOT, ESRI		

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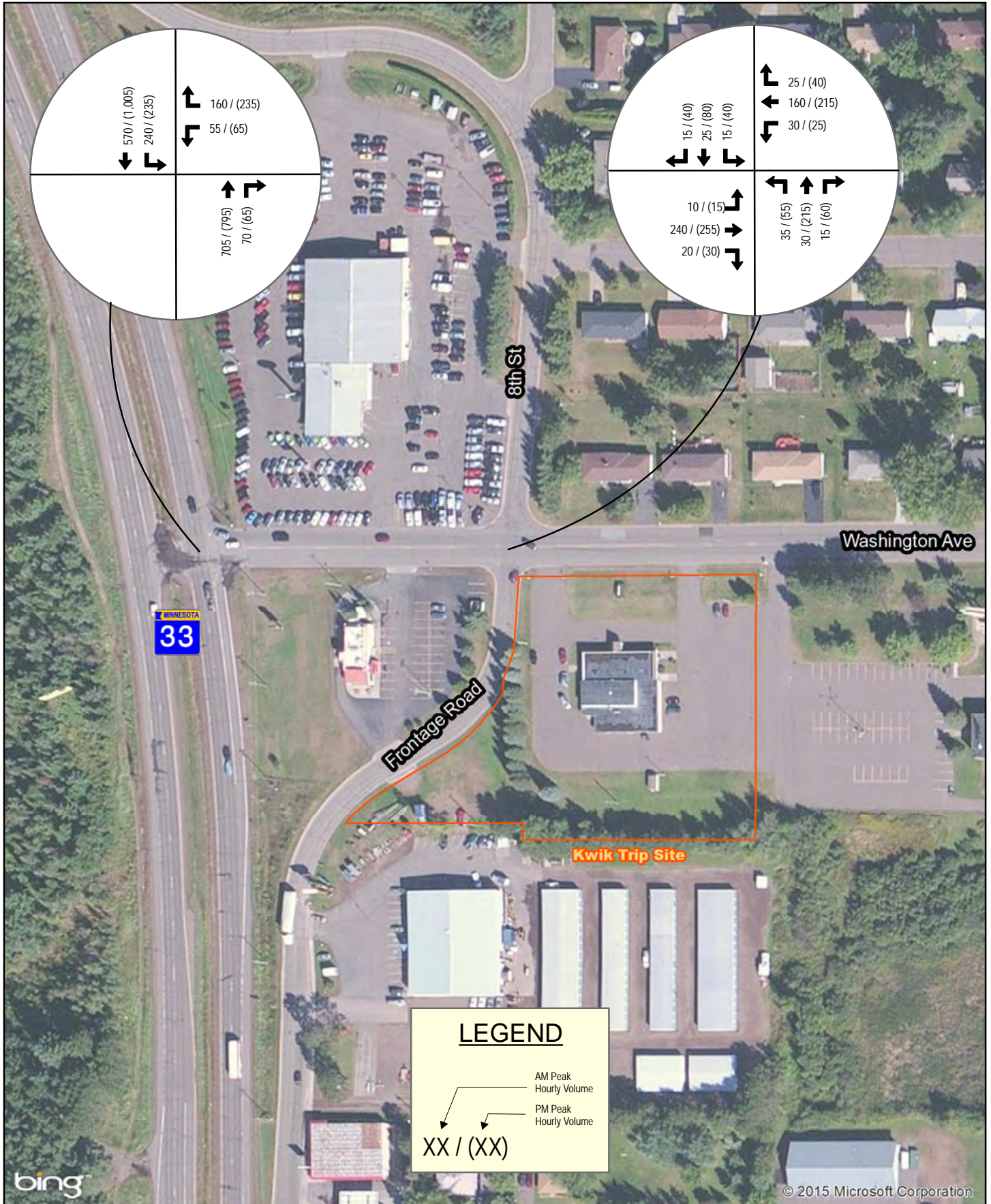
Map by: mstuernagel
 Projection: Olmstead County
 Coordinates
 Source: MnDOT, ESRI

2016 BUILD TURN MOVEMENT VOLUMES

KWIK TRIP STUDY
Cloquet, MN

Figure
4

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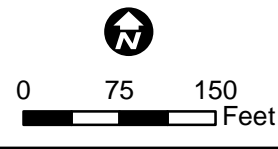
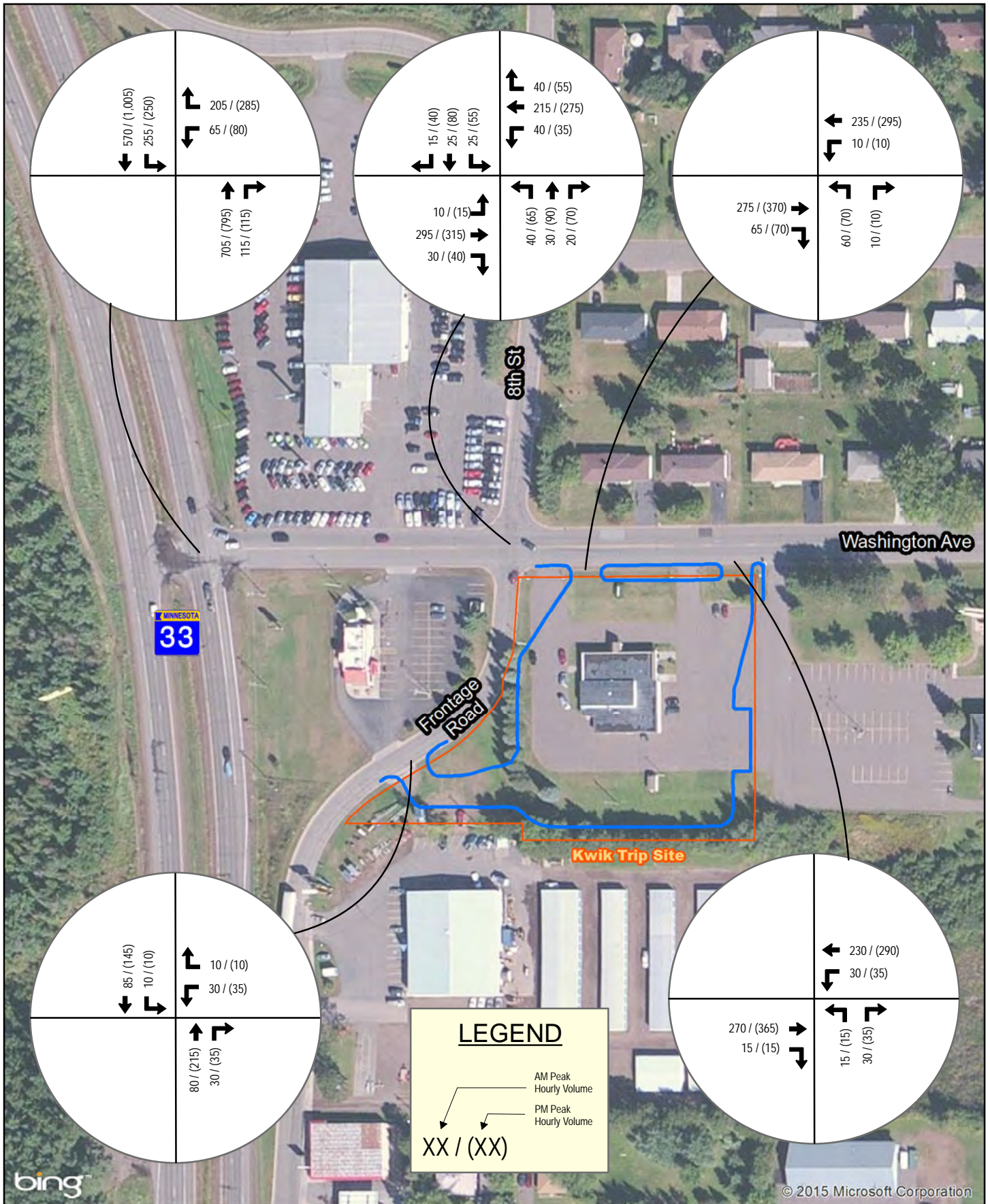
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	 0 75 150 Feet	Project: KWKIT 134413 Print Date: 10/20/2015	2036 NO BUILD TURN MOVEMENT VOLUMES KWKI TRIP STUDY Cloquet, MN	Figure 5
		Map by: mstuearnagel Projection: Olmstead County Coordinates Source: MnDOT, ESRI		

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Project: KWK134413
 Print Date: 10/20/2015

Map by: mstuernagel
 Projection: Olmstead County
 Coordinates
 Source: MnDOT, ESRI

2036 BUILD TURN MOVEMENT VOLUMES

KWIK TRIP STUDY
Cloquet, MN

Figure 6

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Table A1
Scenario 1: Existing Conditions
2015
Cloquet, MN

Intersection		Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection			Queuing Information (feet)								
																		Left Turn			Through			Right Turn		
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage	Avg.	Max	Link Length	Avg.	Max	Storage	Avg.	Max	
AM Peak Hour	TH 33 at CSAH 16	NB	0	510	61	571	0.0	A	2.2	A	2.1	A	2.2	A	5.1	A	0			1078			300	1	27	
		SB	188	411	0	599	10.4	B	2.5	A	0.0	A	5.0	A			300	48	108	1078			0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		WB	46	0	126	172	46.7	E	0.4	A	4.2	A	15.7	C			390	34	92	390			200	25	66	
	CSAH 16 at TH 33 Frontage Road	NB	26	23	10	59	5.8	A	6.6	A	3.6	A	5.7	A	1.6	A	0			242	27	60	0			
		SB	9	18	11	38	6.4	A	7.1	A	2.5	A	5.7	A			0			400	21	51	0			
		EB	7	195	17	219	2.6	A	0.8	A	0.5	A	0.8	A			0			282	1	28	0			
		WB	24	130	19	173	1.8	A	0.2	A	0.0	A	0.4	A			0			100	5	30	0			
	CSAH 16 at Entrance 1	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.2	A	0			100			0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		EB	0	214	0	214	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0			
		WB	0	173	0	173	0.0	A	0.4	A	0.0	A	0.4	A			0			103	2	35	0			
	CSAH 16 at Entrance 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	0			100			0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		EB	0	214	0	214	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0			
		WB	0	173	0	173	0.0	A	0.1	A	0.0	A	0.1	A			0			500			0			
	CSAH 16 at Entrance 3	NB	0	59	0	59	0.0	A	0.0	A	0.0	A	0.0	A	0.5	A	0			500			0			
		SB	0	59	0	59	0.0	A	1.0	A	0.0	A	1.0	A			0			300			0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100			0			
PM Peak Hour	TH 33 at CSAH 16	NB	0	577	58	635	0.0	A	2.8	A	2.9	A	2.8	A	5.5	A	0			1078		4	300	3	29	
		SB	186	731	0	917	10.8	B	3.5	A	0.0	A	5.0	A			300	48	122	1078			0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		WB	58	0	178	236	49.7	E	0.6	A	5.0	A	14.4	B			390	38	109	390			200	31	87	
	CSAH 16 at TH 33 Frontage Road	NB	46	75	48	169	8.0	A	8.7	A	4.8	A	7.3	A	3.3	A	0			242	46	116	0			
		SB	31	68	30	129	8.4	A	9.0	A	5.1	A	7.9	A			0			400	40	94	0			
		EB	12	208	25	245	3.2	A	1.0	A	0.6	A	1.0	A			0			282	3	47	0			
		WB	19	174	32	225	1.9	A	0.3	A	0.1	A	0.4	A			0			100	4	30	0			
	CSAH 16 at Entrance 1	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.4	A	0			100			0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		EB	0	287	0	287	0.0	A	0.3	A	0.0	A	0.3	A			0			100			0			
		WB	0	225	0	225	0.0	A	0.5	A	0.0	A	0.5	A			0			103	2	35	0			
	CSAH 16 at Entrance 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	0			100			0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		EB	0	287	0	287	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0			
		WB	0	225	0	225	0.0	A	0.2	A	0.0	A	0.2	A			0			500			0			
	CSAH 16 at Entrance 3	NB	0	169	0	169	0.0	A	0.1	A	0.0	A	0.1	A	0.7	A	0			500			0			
		SB	0	112	0	112	0.0	A	1.5	A	0.0	A	1.5	A			0			300			0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100			0			

Table A2
Scenario 2: No Build
2016
Cloquet, MN

Intersection		Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection			Queuing Information (feet)									
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Left Turn			Through			Right Turn				
																	Storage	Avg.	Max	Link Length	Avg.	Max	Storage	Avg.	Max		
AM Peak Hour	TH 33 at CSAH 16	NB	0	525	65	590	0.0	A	2.3	A	1.9	A	2.3	A	5.1	A	0			1078			4	300	2	31	
		SB	195	425	0	620	10.3	B	2.5	A	0.0	A	5.0	A			300	52	118	1078							
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0							
		WB	50	0	130	180	47.7	E	0.5	A	4.4	A	14.4	B			390	32	94	390				200	27	71	
	CSAH 16 at TH 33 Frontage Road	NB	30	25	10	65	5.8	A	6.9	A	3.5	A	5.8	A	1.6	A	0			242	27	52	0				
		SB	10	20	15	45	6.3	A	7.8	A	3.3	A	6.2	A			0			400	22	58	0				
		EB	10	200	20	230	2.8	A	0.8	A	0.5	A	0.8	A			0			282	1	28	0				
		WB	25	135	20	180	1.6	A	0.2	A	0.0	A	0.3	A			0			100	4	30	0				
	CSAH 16 at Entrance 1	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.3	A	0			100			0				
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0				
		EB	0	220	0	220	0.0	A	0.2	A	0.0	A	0.2	A			0			100			6	0			
		WB	0	180	0	180	0.0	A	0.4	A	0.0	A	0.4	A			0			103	1	25	0				
	CSAH 16 at Entrance 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	0			100			0				
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0				
		EB	0	220	0	220	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0				
		WB	0	180	0	180	0.0	A	0.1	A	0.0	A	0.1	A			0			500			0				
CSAH 16 at Entrance 3	NB	0	65	0	65	0.0	A	0.0	A	0.0	A	0.0	A	0.5	A	0			500			0					
	SB	0	65	0	65	0.0	A	1.0	A	0.0	A	1.0	A			0			300			0					
	EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0					
	WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100			0					
PM Peak Hour	TH 33 at CSAH 16	NB	0	590	60	650	0.0	A	2.9	A	2.6	A	2.9	A	5.9	A	0			1078			300	2	28		
		SB	190	750	0	940	11.5	B	3.7	A	0.0	A	5.3	A			300	50	104	1078			0				
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0				
		WB	60	0	180	240	53.8	F	0.6	A	4.7	A	15.2	C			390	43	137	390			200	32	76		
	CSAH 16 at TH 33 Frontage Road	NB	50	80	50	180	8.2	A	9.6	A	5.6	A	8.1	A	3.6	A	0			242	49	100	0				
		SB	35	70	35	140	9.1	A	9.7	A	4.7	A	8.3	A			0			400	42	86	0				
		EB	15	215	30	260	2.8	A	1.1	A	0.6	A	1.1	A			0			282	5	39	0				
		WB	20	180	35	235	1.5	A	0.3	A	0.1	A	0.4	A			0			100	3	26	0				
	CSAH 16 at Entrance 1	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.4	A	0			100			0				
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0				
		EB	0	300	0	300	0.0	A	0.3	A	0.0	A	0.3	A			0			100			6	0			
		WB	0	235	0	235	0.0	A	0.5	A	0.0	A	0.5	A			0			103	1	25	0				
	CSAH 16 at Entrance 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	0			100			0				
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0				
		EB	0	300	0	300	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0				
		WB	0	235	0	235	0.0	A	0.2	A	0.0	A	0.2	A			0			500			0				
CSAH 16 at Entrance 3	NB	0	180	0	180	0.0	A	0.2	A	0.0	A	0.2	A	0.7	A	0			500			0					
	SB	0	120	0	120	0.0	A	1.5	A	0.0	A	1.5	A			0			300			0					
	EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0					
	WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100			0					

Table A3
Scenario 3: Build
2016
Cloquet, MN

Intersection		Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection			Queuing Information (feet)								
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Left Turn			Through			Right Turn			
																Storage	Avg.	Max	Link Length	Avg.	Max	Storage	Avg.	Max		
AM Peak Hour	TH 33 at CSAH 16	NB	0	525	110	635	0.0	A	2.4	A	2.2	A	2.4	A	6.3	A	0			1078			300	6	42	
		SB	210	425	0	635	12.3	B	2.7	A	0.0	A	5.9	A			300	55	139	1078			0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		WB	65	0	175	240	57.9	F	0.0	A	5.0	A	18.5	C			390	45	140	390			200	33	99	
	CSAH 16 at TH 33 Frontage Road	NB	35	25	20	80	6.9	A	7.5	A	4.8	A	6.5	A	1.9	A	0			242	29	62	0			
		SB	25	20	15	60	8.1	A	8.0	A	3.5	A	6.8	A			0			400	23	65	0			
		EB	10	255	25	290	2.7	A	1.1	A	0.6	A	1.1	A			0			282	2	34	0			
		WB	35	185	35	255	2.2	A	0.5	A	0.3	A	0.7	A			0			100	10	30	0			
	CSAH 16 at Entrance 1	NB	60	0	10	70	7.9	A	0.0	A	4.4	A	7.4	A	1.4	A	0			100	32	62	0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		EB	0	235	65	300	0.0	A	0.4	A	0.2	A	0.4	A			0			100			12	0		
		WB	10	195	0	205	2.9	A	0.7	A	0.0	A	0.8	A			0			103	6	44	0			
	CSAH 16 at Entrance 2	NB	15	0	30	45	6.7	A	0.0	A	3.3	A	4.3	A	0.9	A	0			100	24	50	0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		EB	0	230	15	245	0.0	A	0.3	A	0.1	A	0.3	A			0			100			6	0		
		WB	30	190	0	220	2.5	A	0.6	A	0.0	A	0.9	A			0			500	5	56	0			
	CSAH 16 at Entrance 3	NB	0	70	30	100	0.0	A	0.3	A	0.1	A	0.2	A	1.3	A	0			500			0			
		SB	10	70	0	80	2.1	A	0.8	A	0.0	A	1.0	A			0			300	1	12	0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		WB	30	0	10	40	4.8	A	0.0	A	2.6	A	4.3	A			0			100	26	57	0			
PM Peak Hour	TH 33 at CSAH 16	NB	0	590	110	700	0.0	A	3.0	A	2.8	A	3.0	A	7.3	A	0			1078			300	4	48	
		SB	205	750	0	955	12.2	B	3.8	A	0.0	A	5.5	A			300	53	114	1078			0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		WB	75	0	230	305	83.4	F	0.0	A	6.1	A	22.2	C			390	63	188	390			200	43	137	
	CSAH 16 at TH 33 Frontage Road	NB	55	80	60	195	11.5	B	10.5	B	7.3	A	9.9	A	4.1	A	0			242	51	105	0			
		SB	50	75	35	160	11.0	B	11.0	B	6.5	A	10.0	B			0			400	48	94	0			
		EB	15	270	35	320	2.8	A	1.2	A	0.6	A	1.2	A			0			282	4	49	0			
		WB	30	235	50	315	2.0	A	0.7	A	0.3	A	0.8	A			0			100	11	40	0			
	CSAH 16 at Entrance 1	NB	70	0	10	80	9.7	A	0.0	A	5.6	A	9.2	A	1.7	A	0			100	32	62	0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		EB	0	310	70	380	0.0	A	0.6	A	0.2	A	0.5	A			0			100			12	0		
		WB	10	245	0	255	3.0	A	0.9	A	0.0	A	1.0	A			0			103	6	44	0			
	CSAH 16 at Entrance 2	NB	15	0	35	50	7.4	A	0.0	A	3.8	A	4.8	A	1.0	A	0			100	24	50	0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		EB	0	305	15	320	0.0	A	0.4	A	0.1	A	0.4	A			0			100			6	0		
		WB	35	240	0	275	2.9	A	0.6	A	0.0	A	0.9	A			0			500	5	56	0			
	CSAH 16 at Entrance 3	NB	0	185	35	220	0.0	A	0.5	A	0.3	A	0.5	A	1.4	A	0			500			0			
		SB	10	130	0	140	3.2	A	1.4	A	0.0	A	1.5	A			0			300	2	31	0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
		WB	35	0	10	45	5.8	A	0.0	A	3.1	A	5.3	A			0			100	24	57	0			

Table A4
Scenario 4: No Build
2036
Cloquet, MN

															Queuing Information (feet)										
Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection			Left Turn			Through			Right Turn		
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage	Avg.	Max	Link Length	Avg.	Max	Storage	Avg.	Max	
AM Peak Hour	TH 33 at CSAH 16	NB	0	705	70	775	0.0	A	2.7	A	2.1	A	2.6	A	9.3	A	0			1078			300	2	26
		SB	240	570	0	810	18.7	C	3.2	A	0.0	A	7.8	A			300	74	213	1078			0		
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		WB	55	0	160	215	151.1	F	0.0	A	7.4	A	37.8	E			390	70	185	390			200	45	154
	CSAH 16 at TH 33 Frontage Road	NB	35	30	15	80	6.5	A	7.6	A	3.9	A	6.4	A	1.9	A	0			242	31	59	0		
		SB	15	25	15	55	8.7	A	7.7	A	3.3	A	6.8	A			0			400	24	58	0		
		EB	10	240	20	270	2.4	A	0.9	A	0.6	A	0.9	A			0			282	1	14	0		
		WB	30	160	25	215	1.8	A	0.5	A	0.1	A	0.6	A			0			100	8	34	0		
	CSAH 16 at Entrance 1	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.5	A	0			100			0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	270	0	270	0.0	A	0.2	A	0.0	A	0.2	A			0			100			0		
		WB	0	215	0	215	0.0	A	0.9	A	0.0	A	0.9	A			0			103	3	40	0		
	CSAH 16 at Entrance 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	0			100			0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	270	0	270	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0		
		WB	0	215	0	215	0.0	A	0.2	A	0.0	A	0.2	A			0			500	1	10	0		
CSAH 16 at Entrance 3	NB	0	80	0	80	0.0	A	0.1	A	0.0	A	0.1	A	0.5	A	0			500			0			
	SB	0	75	0	75	0.0	A	0.9	A	0.0	A	0.9	A			0			300			0			
	EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
	WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100			0			
PM Peak Hour	TH 33 at CSAH 16	NB	0	795	65	860	0.0	A	3.7	A	3.3	A	3.7	A	13.2	B	0			1078		6	300	4	38
		SB	235	1005	0	1,240	16.0	C	4.7	A	0.0	A	6.8	A			300	68	146	1078			0		
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		WB	65	0	235	300	302.1	F	0.0	A	16.4	C	67.8	F			390	162	297	390			200	97	225
	CSAH 16 at TH 33 Frontage Road	NB	55	215	60	330	35.7	E	39.0	E	26.8	D	36.2	E	19.8	C	0			242	129	238	0		
		SB	40	80	40	160	60.0	F	51.2	F	60.6	F	55.9	F			0			400	101	287	0		
		EB	15	255	30	300	3.1	A	1.3	A	0.9	A	1.3	A			0			282	5	43	0		
		WB	25	215	40	280	2.3	A	3.6	A	0.3	A	3.0	A			0			100	16	42	0		
	CSAH 16 at Entrance 1	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	4.5	A	0			100			0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	355	0	355	0.0	A	0.4	A	0.0	A	0.4	A			0			100			0		
		WB	0	280	0	280	0.0	A	10.0	B	0.0	A	10.0	B			0			103	3	40	0		
	CSAH 16 at Entrance 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	10.1	B	0			100			0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	355	0	355	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0		
		WB	0	280	0	280	0.0	A	23.3	C	0.0	A	23.3	C			0			500	1	10	0		
CSAH 16 at Entrance 3	NB	0	205	0	205	0.0	A	21.5	C	0.0	A	21.5	C	13.4	B	0			500	36	313	0			
	SB	0	135	0	135	0.0	A	1.5	A	0.0	A	1.5	A			0			300			0			
	EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
	WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100			0			

Table A5
Scenario 5: Build
2036
Cloquet, MN

Intersection		Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection			Queuing Information (feet)								
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Left Turn			Through			Right Turn			
																Storage	Avg.	Max	Link Length	Avg.	Max	Storage	Avg.	Max		
AM Peak Hour	TH 33 at CSAH 16	NB	0	705	115	820	0.0	A	2.8	A	2.6	A	2.8	A	13.4	B	0			1078		4	300	6	38	
		SB	255	570	0	825	22.5	C	3.2	A	0.0	A	9.0	A			300	86	218	1078		6	0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0		6	0			
		WB	65	0	205	270	219.3	F	0.0	A	14.3	B	58.1	F			390	115	290	390			200	83	225	
	CSAH 16 at TH 33 Frontage Road	NB	40	30	20	90	33.5	D	23.8	C	41.4	E	31.0	D	5.6	A	0			242	48	135	0			
		SB	25	25	15	65	10.8	B	13.2	B	7.3	A	11.1	B			0			400	30	87	0			
		EB	10	295	30	335	3.2	A	1.2	A	0.7	A	1.2	A			0			282	2	32	0			
		WB	40	215	40	295	2.2	A	1.9	A	0.3	A	1.7	A			0			100	15	46	0			
	CSAH 16 at Entrance 1	NB	60	0	10	70	49.7	E	0.0	A	28.2	D	45.9	E	6.8	A	0			100	51	194	0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100	2	25	0			
		EB	0	275	65	340	0.0	A	0.5	A	0.1	A	0.4	A			0			103	17	99	0			
		WB	10	235	0	245	10.7	B	4.6	A	0.0	A	4.9	A			0			100	27	69	0			
	CSAH 16 at Entrance 2	NB	15	0	30	45	20.9	C	0.0	A	4.6	A	10.8	B	5.7	A	0			100	27	69	0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100	5	5	0			
		EB	0	270	15	285	0.0	A	0.4	A	0.1	A	0.4	A			0			500	31	241	0			
		WB	30	230	0	260	18.3	C	10.2	B	0.0	A	11.0	B			0			100	24	51	0			
	CSAH 16 at Entrance 3	NB	0	80	30	110	0.0	A	6.2	A	6.5	A	6.3	A	4.0	A	0			500	5	44	0			
		SB	10	85	0	95	2.1	A	0.9	A	0.0	A	1.0	A			0			300	1	18	0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0		0	0			
		WB	30	0	10	40	4.7	A	0.0	A	5.9	A	5.1	A			0			100	24	51	0			
PM Peak Hour	TH 33 at CSAH 16	NB	0	795	115	910	0.0	A	3.7	A	3.6	A	3.7	A	19.1	C	0			1078		6	300	6	50	
		SB	250	1005	0	1,255	19.7	C	4.7	A	0.0	A	7.8	A			300	81	214	1078		0				
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0		0	0			
		WB	80	0	285	365	493.4	F	0.0	A	36.3	E	110.9	F			390	258	305	390		200	163	225		
	CSAH 16 at TH 33 Frontage Road	NB	65	90	70	225	270.2	F	210.6	F	218.9	F	231.4	F	76.1	F	0			242	213	250	0			
		SB	55	80	40	175	361.9	F	362.7	F	374.7	F	365.3	F			0			400	340	444	0			
		EB	15	315	40	370	4.5	A	1.5	A	0.8	A	1.5	A			0			282	5	70	0			
		WB	35	275	55	365	3.2	A	10.1	B	1.7	A	8.1	A			0			100	32	66	0			
	CSAH 16 at Entrance 1	NB	70	0	10	80	507.7	F	0.0	A	672.4	F	530.8	F	53.1	F	0			100	51	194	0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0		0	0			
		EB	0	370	70	440	0.0	A	0.6	A	0.2	A	0.5	A			0			100	2	25	0			
		WB	10	295	0	305	30.5	D	33.8	D	0.0	A	33.7	D			0			103	17	99	0			
	CSAH 16 at Entrance 2	NB	15	0	35	50	330.1	F	0.0	A	155.1	F	205.1	F	56.1	F	0			100	27	69	0			
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0		0	0			
		EB	0	365	15	380	0.0	A	0.5	A	0.2	A	0.5	A			0			100	5	5	0			
		WB	35	290	0	325	98.6	F	96.4	F	0.0	A	96.6	F			0			500	31	241	0			
	CSAH 16 at Entrance 3	NB	0	215	35	250	0.0	A	334.3	F	245.1	F	323.2	F	174.9	F	0			500	350	514	0			
		SB	10	145	0	155	3.2	A	1.2	A	0.0	A	1.3	A			0			300	1	19	0			
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0		0	0			
		WB	35	0	10	45	213.9	F	0.0	A	508.8	F	257.3	F			0			100	90	225	0			

Table A6
Scenario 6: No Build Mitigations
2036
Cloquet, MN

															Queuing Information (feet)										
Intersection	Approach	Demand Volumes				Delay (s/veh)				LOS By Approach		LOS By Intersection		Left Turn			Through			Right Turn					
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage	Avg.	Max	Link Length	Avg.	Max	Storage	Avg.	Max	
AM Peak Hour	TH 33 at CSAH 16 (Signal)	NB	0	705	70	775	0.0	A	12.1	B	5.0	A	11.5	B	9.5	A	0			1078	76	182	300	20	53
		SB	240	570	0	810	12.7	B	5.5	A	0.0	A	7.6	A			300	60	123	1078	31	83	0		
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		WB	55	0	160	215	14.9	B	0.0	A	7.1	A	8.5	A			390	23	63	390			200	36	113
	CSAH 16 at TH 33 Frontage Road	NB	35	30	15	80	6.8	A	7.0	A	4.1	A	6.3	A	1.9	A	0			242	32	67	0		
		SB	15	25	15	55	6.4	A	8.0	A	3.6	A	6.6	A			0			400	23	61	0		
		EB	10	240	20	270	2.6	A	1.0	A	0.8	A	1.0	A			0			282	2	26	0		
		WB	30	160	25	215	1.8	A	0.2	A	0.1	A	0.4	A			0			100	6	28	0		
	CSAH 16 at Entrance 1	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.3	A	0			100			0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	270	0	270	0.0	A	0.2	A	0.0	A	0.2	A			0			100			0		
		WB	0	215	0	215	0.0	A	0.5	A	0.0	A	0.5	A			0			103	2	30	0		
	CSAH 16 at Entrance 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	0			100			0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	270	0	270	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0		
		WB	0	215	0	215	0.0	A	0.2	A	0.0	A	0.2	A			0			500			0		
CSAH 16 at Entrance 3	NB	0	80	0	80	0.0	A	0.0	A	0.0	A	0.0	A	0.5	A	0			500			0			
	SB	0	75	0	75	0.0	A	1.0	A	0.0	A	1.0	A			0			300			0			
	EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
	WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100			0			
PM Peak Hour	TH 33 at CSAH 16 (Signal)	NB	0	795	65	860	0.0	A	15.7	B	6.5	A	15.0	B	11.7	B	0			1078	101	188	300	22	65
		SB	235	1005	0	1,240	15.4	B	8.9	A	0.0	A	10.1	B			300	64	129	1078	63	149	0		
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		WB	65	0	235	300	15.4	B	0.0	A	7.4	A	8.6	A			390	27	79	390			200	50	115
	CSAH 16 at TH 33 Frontage Road	NB	55	215	60	330	12.9	B	14.3	B	10.1	B	13.2	B	5.8	A	0			242	89	174	0		
		SB	40	80	40	160	11.7	B	10.3	B	6.4	A	9.6	A			0			400	47	114	0		
		EB	15	255	30	300	3.3	A	1.3	A	0.8	A	1.3	A			0			282	5	39	0		
		WB	25	215	40	280	2.4	A	0.4	A	0.1	A	0.5	A			0			100	8	44	0		
	CSAH 16 at Entrance 1	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.5	A	0			100			0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	355	0	355	0.0	A	0.3	A	0.0	A	0.3	A			0			100			0		
		WB	0	280	0	280	0.0	A	0.7	A	0.0	A	0.7	A			0			103	2	30	0		
	CSAH 16 at Entrance 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	0			100			0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	355	0	355	0.0	A	0.1	A	0.0	A	0.1	A			0			100			0		
		WB	0	280	0	280	0.0	A	0.2	A	0.0	A	0.2	A			0			500			0		
CSAH 16 at Entrance 3	NB	0	205	0	205	0.0	A	0.2	A	0.0	A	0.2	A	0.7	A	0			500			0			
	SB	0	135	0	135	0.0	A	1.5	A	0.0	A	1.5	A			0			300			0			
	EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
	WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			100			0			

Table A7
Scenario 7: Build Mitigation
2036
Cloquet, MN

															Queuing Information (feet)										
Intersection	Approach	Demand Volumes				Delay (s/veh)				LOS By Approach		LOS By Intersection			Left Turn			Through			Right Turn				
		L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage	Avg.	Max	Link Length	Avg.	Max	Storage	Avg.	Max	
AM Peak Hour	TH 33 at CSAH 16 (Signal)	NB	0	705	115	820	0.0	A	14.8	B	5.8	A	13.5	B	11.0	B	0			1078	86	220	300	32	84
		SB	255	570	0	825	15.5	B	6.5	A	0.0	A	9.3	A			300	76	152	1078	42	96	0		
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		WB	65	0	205	270	15.2	B	0.0	A	7.3	A	8.6	A			390	26	66	390			200	45	120
	CSAH 16 at TH 33 Frontage Road	NB	40	30	20	90	7.3	A	8.4	A	6.0	A	7.4	A	2.4	A	0			242	33	66	0		
		SB	25	25	15	65	10.8	B	10.2	B	3.9	A	9.0	A			0			400	31	73	0		
		EB	10	295	30	335	3.8	A	1.4	A	0.8	A	1.4	A			0			282	4	37	0		
		WB	40	215	40	295	2.2	A	0.5	A	0.3	A	0.7	A			0			100	10	36	0		
	CSAH 16 at Entrance 1	NB	60	0	10	70	11.5	B	0.0	A	6.1	A	10.6	B	1.8	A	0			100	33	79	0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	275	65	340	0.0	A	0.6	A	0.2	A	0.5	A			0			100	2	32	0		
		WB	10	235	0	245	2.3	A	0.8	A	0.0	A	0.9	A			0			103	7	61	0		
	CSAH 16 at Entrance 2	NB	15	0	30	45	6.6	A	0.0	A	3.3	A	4.3	A	0.8	A	0			100	24	52	0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	270	15	285	0.0	A	0.4	A	0.1	A	0.4	A			0			100			0		
		WB	30	230	0	260	2.8	A	0.5	A	0.0	A	0.7	A			0			500	5	61	0		
CSAH 16 at Entrance 3	NB	0	80	30	110	0.0	A	0.3	A	0.2	A	0.3	A	1.2	A	0			500			0			
	SB	10	85	0	95	2.2	A	0.9	A	0.0	A	1.0	A			0			300	1	29	0			
	EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
	WB	30	0	10	40	5.0	A	0.0	A	2.5	A	4.4	A			0			100	22	51	0			
PM Peak Hour	TH 33 at CSAH 16 (Signal)	NB	0	795	115	910	0.0	A	16.5	B	6.7	A	15.2	B	11.9	B	0			1078	101	188	300	32	76
		SB	250	1005	0	1,255	15.8	B	9.2	A	0.0	A	10.5	B			300	68	134	1078	68	130	0		
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		WB	80	0	285	365	15.5	B	0.0	A	8.0	A	8.8	A			390	31	77	390			200	60	146
	CSAH 16 at TH 33 Frontage Road	NB	65	90	70	225	14.6	B	14.0	B	10.9	B	13.2	B	5.0	A	0			242	66	153	0		
		SB	55	80	40	175	13.0	B	13.6	B	8.0	A	12.1	B			0			400	52	106	0		
		EB	15	315	40	370	3.8	A	1.6	A	0.9	A	1.6	A			0			282	9	60	0		
		WB	35	275	55	365	3.1	A	0.6	A	0.3	A	0.8	A			0			100	14	47	0		
	CSAH 16 at Entrance 1	NB	70	0	10	80	11.4	B	0.0	A	5.8	A	10.8	B	1.7	A	0			100	33	79	0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	370	70	440	0.0	A	0.6	A	0.2	A	0.5	A			0			100	2	32	0		
		WB	10	295	0	305	2.9	A	0.9	A	0.0	A	1.0	A			0			103	7	61	0		
	CSAH 16 at Entrance 2	NB	15	0	35	50	7.9	A	0.0	A	3.8	A	5.0	A	1.0	A	0			100	24	52	0		
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0		
		EB	0	365	15	380	0.0	A	0.4	A	0.2	A	0.4	A			0			100			0		
		WB	35	290	0	325	3.3	A	0.7	A	0.0	A	1.0	A			0			500	5	61	0		
CSAH 16 at Entrance 3	NB	0	215	35	250	0.0	A	0.7	A	0.3	A	0.6	A	1.5	A	0			500			0			
	SB	10	145	0	155	3.3	A	1.5	A	0.0	A	1.6	A			0			300	2	25	0			
	EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0			0			
	WB	35	0	10	45	6.1	A	0.0	A	3.2	A	5.4	A			0			100	27	62	0			

Al Cottingham

From: dan unulock <danunulock@yahoo.com>
Sent: Friday, January 22, 2016 11:36 AM
To: Al Cottingham
Subject: Kwik Trip comment

Concerning another Kwik Trip on Washington Ave. Perhaps the company should be informed of plans for possibly new configurations of the Hwy 33 South corridor. For example, extending Tall Pine Lane out to Hwy 33. This might be a better intersection/location they would be interested in considering, if they would be willing to hold off for a couple of years. As for the proposed location on Washington Ave., I think it would create more congestion, noise pollution, and light pollution for the residents across the street, not only on Washington Ave., but also the residents behind them on Wilson Ave. It would probably be impractical to construct a barrier as was done at the Sunnyside location.

Thanks for your efforts,

Dan Unulock
1001 15th Street
Cloquet, MN
879-7866

LETTER: Do we really need another Kwik Trip?

Posted on Jan 25, 2016 at 8:13 a.m.

Email

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To the Editor:

I question the decision to place another Kwik Trip on Washington Avenue in Cloquet, Minn. It is already hard to get onto Washington from the frontage road behind the Taco John's. There is already a problem and many accidents there as well as by the freeway and Highway 33, then to add another problem off Washington doesn't make sense. Washington Avenue is a busy road with Taco John's and the car dealership on the corner as well as the church. We already have two of these stations in Cloquet. How will this affect our smaller businesses? Do we really need another Kwik Trip in Cloquet? Then, of course, there is the school proposal on the other end of Washington Avenue. How much more traffic will there be and where do we consider the safety of our residents?

ADVERTISEMENT

Tom Lindevig, Cloquet

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