

City of Lake Elmo

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NOTICE OF MEETING

The City of Lake Elmo
Planning Commission will conduct a meeting on
Monday, December 8, 2008, at 7:00 p.m.

AGENDA

1. Pledge of Allegiance
2. Approve Agenda
3. Approve Minutes
 - a. September 8, 2008
 - b. November 10, 2008
4. Public Hearing
 - a. Storm Water and Erosion and Sediment Control Ordinance
5. Staff Updates – verbal
 - a. Wireless Telecommunication Tower Permit; 9057 Lake Jane Trl N (T-Mobile)
 - b. Village Area AUAR
6. City Council Updates
 - a. December 1
 - i. Wireless Telecommunication Tower Permit; 3303 Langly Ct N (AT&T) – approved
 - ii. Zoning Text Amendment – approved
 - iii. Interim Use Permit; 11530 Hudson Blvd. - tabled
7. Adjourn

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**City of Lake Elmo
Planning Commission Meeting
Minutes of November 10, 2008**

Chairman Ptacek called to order the meeting of the Lake Elmo Planning Commission at 7:00 p.m. COMMISSIONERS PRESENT: Anderson, Deziel, Fliflet, Hall, McGinnis, Pearson, Ptacek, and Van Zandt. STAFF PRESENT: Planning Director Klatt and Planner Matzek.

Agenda

M/S/P, Van Zandt/Hall, to approve the agenda as presented. Vote: 8:0.

Minutes - September 8, 2008

Commissioner Anderson identified that the last sentence under City Council Updates was not complete.

Commissioner Deziel asked that information pertaining to the discussion of the potential for Upper 33rd Street to be extended in the future should be included in the minutes.

M/S/P, Ptacek/Anderson, to table the minutes until the next meeting. Vote: 8:0.

Public Hearing: Wireless Telecommunication Tower Permit – AT&T

Planner Matzek provided a brief description of the application to add an antenna array and accessory building at 3303 Langly Court North. The antenna array would be co-located on the existing water tower. The applicant is proposing to plant ten trees for screening purposes.

Commissioner Fliflet asked if this would be the fourth accessory building on the site.

Ken Nielson, representative of AT&T

Mr. Nielson stated that there are currently two providers on the water tower and no ground equipment is visible as it is contained in accessory buildings.

THE CHAIRMAN OPENED THE PUBLIC HEARING 7:12 P.M.

Justin Smith; 3291

Mr. Smith said he lives adjacent to the site and is supportive of the application.

THE CHAIRMAN CLOSED THE PUBLIC HEARING AT 7:13 P.M.

Commissioner Deziel asked if the water tower was going to be taken out of commission or removed.

Planner Matzek stated that the water tower currently does not comply with regulations as it is open to multiple aquifers and provides the possibility of cross contamination.

However, no decisions have been made on whether to retrofit the tower or to take it out of commission completely.

Planning Director Klatt said that the lease agreement that is being work on does have provisions outlined to address that situation.

M/S/P, Van Zandt/McGinnis, move to recommend approval. Vote: 8:0.

Public Hearing: Wireless Telecommunication Tower Permit – T-Mobile

Planning Director Klatt introduced the permit application requesting to construct a new 125 foot monopole wireless communications tower and associated accessory building at 9057 Lake Jane Trail North. He identified the code requirements and outlined what can and can not be requested of the applicant with regards to alteration of the proposed structure.

Commissioner Deziel asked if the lease agreement identifies liability for the fall area.

Planning Director Klatt stated that while the applicant has submitted fall zone information, it is not specific until the material has been ordered. He believes the setback may factor in a fall zone and that the engineer would review this with a building permit application.

RECESS FOR 3 MINUTES at 7:49 P.M.

Kelly Swenseth, *T-Mobile representative*

Ms. Swenseth identified the type of structure proposed and showed images of what the visual differences would be with the proposed monopole. She also showed coverage maps.

Commissioner Deziel identified that increased coverage would be located in the city park where outside reception is already available.

Ms. Swenseth stated that people use cell phones in parks for emergency services and coverage in residential areas north of Lake Jane would also increase.

Thierry Colson, *Senior Radio Frequency Engineer for T-Mobile*

Mr. Colson said placing an antenna on the city's water tower on Ideal Avenue would not provide the coverage around the lake. If the structure were 75 feet tall, the service would not reach the north side of the lake and something additional would be needed later to the north.

Chairman Ptacek said he does not think it is feasible to locate the tower to the south at the fire station as the city has a permit from the MPCA to be there which could be revoked. He asked why the excel towers on 59th street were not utilized.

Ms. Swenseth said it is not feasible to put antennas on wooden poles and there is already coverage in that area.

Commissioner Fliflet asked how far a tower's coverage extends.

Mr. Colson said it depends on the height and terrain. The proposed antenna array also functions on a low power system because it is a two-way system. The phone needs to be able to talk to the station and they are unable to boost the phone.

THE CHAIRMAN OPENED THE PUBLIC HEARING AT 8:19 P.M.

Jim Blackford, 9765 45th St N

Mr. Blackford asked if there would be a light on the tower and where existing towers are located. He stated that there was no reason why they could not put the antenna elsewhere. He stated that a large portion of the proposed coverage area was unbuildable including Sunfish Lake Park, which was recently placed in the land trust. He said it was a solution looking for a problem.

Mr. Colson stated that there was no light on the tower and that antennas in Lake Elmo were on existing water towers in the downtown area and in the Cimarron neighborhood.

Judith Blackford, 9765 45th St N

Mrs. Blackford said that Sunfish Lake Park was just put in the land trust and stipulated that cell towers could not be located within the park. She said 40 acres that would be covered by the new tower is owned by them and covered with woods. She said they have cell phones and received good coverage. She said at some point there needs to be a balance of corporate need.

Neil Krueger, 4452 Lake Elmo Ave N

Mr. Krueger said he has been approached to put a tower on his land and it would have been lucrative, but it is important to look at what is best for the city of Lake Elmo. The biggest impact is visual and the pictures shown by the applicant are deceiving as they were taken from low spots to show the best case. He said that towers do not fit the rural character Lake Elmo is trying to design. The applicant should look at existing structures near 36. The proposed tower is almost twice the height of most trees in the area.

Steve Diedrichs, 4235 Ivy Ct

Mr. Diedrichs said that he lives across the street from the proposed site. He said this tower is not appropriate for residential areas.

THE CHAIRMAN CLOSED THE PUBLIC HEARING AT 8:27 P.M.

Chairman Ptacek identified two letters in the packet regarding this item and Commissioner Pelletier's letter was read into the minutes.

Chairman Ptacek asked Planning Director Klatt if the commission could recommend denial and suggest the applicant look at other locations.

Planning Director Klatt said that the 1996 Federal Telecommunications Act restricts how far a city can regulate wireless communications towers. The city does not get to decide if it is a good or bad site for the applicant. The city must follow the city code. The staff report does provide some basis for a denial if the commission feels those are applicable.

Commissioner Pearson stated that T-Mobile is in the business of selling service, not putting up towers, which is more expensive for the applicants than co-locating on a tower.

M/S/P, Hall/McGinnis, move to recommend approval of the application with an alteration to the first condition. Vote: 5:2:1. Commissioner Van Zandt voted against the application as he is not convinced it is in the correct location. Commissioner Fliflet voted against the application as she is not convinced of the need as no one from the public came to speak in favor of the application. Commission Deziel abstained as it is a permitted use, but he could not vote for it.

Public Hearing: Zoning Text Amendment

Planning Director Klatt identified the text amendments that would be needed to accommodate the requested change by the applicant to allow a bus/truck terminal on a property zoned HD-A-BP as an interim use. Staff is recommending approval of the application.

Tim Freeman, *FF&E - applicant representative*

Mr. Freeman stated that the school bus had been a good business previously without receiving complaints. He stated that trucks and trailers have a bad reputation, but will have a lower impact than the previous use as they will enter from the freeway and will not be driving through the city. By allowing this use, they would not give up the options in the future as it is an interim use. He said it would be approximately 10 to 20 trucks a day with no loading or unloading of freight at the site.

Commissioner McGinnis asked if the ordinance would allow the area to expand.

Planning Director Klatt said the site is already near the maximum, so they could only expand another 0.2 acres.

Commission Fliflet said she would prefer the interim use permit be reviewed annually.

THE CHAIRMAN OPENED THE PUBLIC HEARING AT 9:19 P.M.

A letter from Mr. Lange was read into the minutes regarding a natural gas line and his concern for safety.

Mr. Freeman said there are easements to the west, but not on the property.

Chairman Ptacek read an email that had been submitted by Susan Dunn in opposition to the proposed zoning amendment.

Steve Diedrichs, 4235 Ivy Ct

Mr. Diedrichs asked how that use could be regulated in some areas and not in others.

Planning Director Klatt said uses are dependent on the zoning district.

THE CHAIRMAN CLOSED THE PUBLIC HEARING AT 9:23 P.M.

Commissioner Deziel said this property was originally under a conditional use permit as the property owner had a land moving company. The city stretched the ordinance to assist him which is why the language was so specific. He has concerns about the existing landscaping as many of the trees have died and were not replaced. There was a desire at that time to not have a truck terminal which is why that specific language was added.

Planning Director Klatt stated that the code currently allows up to 400 trips per day by code and the applicant is proposing approximately 200.

Chairman Ptacek asked if the frontage road was going to be turned over to the city for maintenance.

Planning Director Klatt stated he did not know, but could find out.

M/S/P, McGinnis/Van Zandt, move to recommend approval of the zoning text amendment. Vote: 6:2. Chairman Ptacek and Commissioner Deziel voted against.

Public Hearing: Interim Use Permit

Planning Director Klatt said this application can not go forward without approval of the zoning text amendment just discussed. The applicant is requesting an Interim Use Permit for a bus/truck terminal at 11530 Hudson Boulevard North.

THE CHAIRMAN OPENED THE PUBLIC HEARING AT 9:55 P.M.

No one spoke.

THE CHAIRMAN CLOSED THE PUBLIC HEARING AT 9:55 P.M.

Commissioner Fliflet said she would like to see the permit reviewed annually.

M/S/P, Fliflet/McGinnis, move to recommend approval of the interim use permit (IUP) to establish a bus and truck terminal with an additional condition that the IUP be reviewed annually. Vote: 7:1. Chairman Ptacek voted against.

Village Area AUAR Update

Planning Director Klatt said the village panel has met twice to review a draft copy of the AUAR. Throughout process the city will continue to collect comments on the document. Copies are available for review.

Chairman Ptacek said it is not a decision making document, but provides impacts from various scenarios.

City Council Updates

Planning Director Klatt said that the variance for 11002 Upper 33rd Street North, the application for Mary O'Brien to build a home further from the road right-of-way than existing accessory buildings, and the conditional use permit for 8925 Highway 5 for a beauty salon were all approved by council. The city has requested an extension for the deadline to submit the comprehensive plan to the Metropolitan Council. The accessory structure ordinance was tabled until January.

Adjourned at 10:11 p.m.

Respectfully submitted,



Kelli Matzek
Planner

APPROVED AS PRESENTED; 2-9-09

**City of Lake Elmo
Planning Commission Meeting
Minutes of December 8, 2008**

Chairman Ptacek called to order the meeting of the Lake Elmo Planning Commission at 7:00 p.m. COMMISSIONERS PRESENT: Deziel, Fliflet, Hall, McGinnis, Pearson, Pelletier, Ptacek, and Van Zandt. Absent: Anderson, Roth, and Helwig. STAFF PRESENT: Assistant Engineer Stempski, Planning Director Klatt, and Planner Matzek.

Agenda

M/S/P, Van Zandt/Hall, move to approve as presented. Vote: 8:0.

Minutes

September 8, 2008 - M/S/P, Pelletier/Van Zandt, move to approve as presented. Vote: 4:0. 4 abstentions: Fliflet, Hall, McGinnis, and Pearson.

November 10, 2008 - M/S/P, Hall/McGinnis, move to approve as presented. Vote: 7:0. 1 abstention: Pelletier.

Commissioner Deziel requested that the names of who voted against applications be added as has been done previously.

Public Hearing – Storm Water Management and Sediment and Erosion Control Ordinance

Planning Director Klatt introduced the item saying that this is a state mandated requirement that the city must comply with. The document is in draft format and staff is anticipating going back through the ordinance to take out some existing sections of code to condense the information into this one section.

Engineer Stempski identified the purpose and schedule, the existing ordinance, the proposed storm water management ordinance, proposed erosion and sediment control ordinance, next steps, and asked for questions.

Commissioner Deziel asked if the ordinance will need to be regularly updated or will it reference other documents which will be updated.

Engineer Stempski confirmed that the ordinance will reference the Engineering Design Standard Manual which will be updated as needed.

Commissioner Pelletier asked if the aeration of a storm water basin was an issue.

Engineer Stempski said historically they have not been maintained well, but now the city is mandated to do so and he has been working with the Public Works department.

THE CHAIRMAN OPENED THE PUBLIC HEARING AT 7:20 P.M.

No one spoke.

THE CHAIRMAN CLOSED THE PUBLIC HEARING AT 7:21 P.M.

Commissioner Fliflet asked how much of the ordinance is best practice and just copied from other sample text.

Engineer Stempski said the MPCA provides sample guidelines and although the framework was taken from other cities, it was personalized with engineering design standards for Lake Elmo.

Commissioner Van Zandt asked if a neighboring community approved a project that then created a water issue in Lake Elmo, would that be addressed by the cities or the watershed district.

Engineer Stempski said that dependent on the size of the project, the watershed district may be the appropriate agency.

M/S/P, Deziel/Van Zandt, move to recommend approval. Vote: 8:0.

Staff Updates

Wireless Telecommunication Tower Permit; 9057 Lake Jane Trl N

Planning Director Klatt said the City Council did not take action at the last meeting, but chose to table the item to discuss it again at a future meeting. [Referenced later in the minutes.]

Village Area AUAR

Planning Director Klatt said the City Council decided to move forward with the official 30 day public review of the draft Village Area AUAR, which will end on December 31st.

City Council Updates

Planning Director Klatt said the City Council approved the Wireless Telecommunication Tower Permit to add an antenna array to the water tower at 3303 Langly Court for AT&T.

Planning Director Klatt said the City Council held a workshop on December 2nd to discuss the tower permit application for 9057 Lake Jane Trail. A series of questions were posed at the meeting and staff was directed to provide some suggested language text. A moratorium was put in place for Wireless Telecommunication Towers.

Jim Blackford, 9765 45th St N

Mr. Blackford said he thought the planning commission should be involved in the discussion of the location and design of the proposed T-Mobile cell tower. He asked the commission to send a resolution to the council saying they should do what is needed – to put in place a moratorium.

APPROVED AS PRESENTED; 2-9-09

Planning Director Klatt said that based on legal advice received, the city can not retroactively put a moratorium on an active application, but can put a moratorium on future applications while the ordinance is reviewed and revised. He expects at the next meeting other suitable locations and height will be discussed.

Commissioner Deziel said that the city can pass what they would like and get sued.

Commissioner Pearson stated that the code says the city should keep a list of sites for towers and asked if there was such a map at city hall. He said the rights of property owners should be kept in mind.

Planning Director Klatt said the zoning text amendment was approved and the Interim Use Permit application for Terry Emerson at 11530 Hudson Boulevard was tabled.

Nadine Obermueller, 8696 42nd Street

Ms. Obermueller said she wants to debunk the belief that the city and the commission do not have much to say about the T-Mobile cell tower application. She said they should not fear lawsuits.

Commissioner Fliflet said she is unhappy with how long vacancies have taken to be filled on the Planning Commission and asked if there were applications waiting.

Planning Director Klatt said he will find that information.

M/S/P, Ptacek/Van Zandt, move to direct staff to provide information for terms and eligibility as well as let commissioners know by December 31st if they will no longer be on the commission. Vote: 8:0.

Planning Director Klatt said there will be an informal open house to discuss the concerns with the existing sign regulations and to receive feedback from interested parties before a draft ordinance is written.

Commissioner Fliflet said the commission should have had an attorney and a city administrator at the meeting to ask questions about what options they had for reviewing the T-Mobile cell tower application.

Adjourned at 8:06 p.m.

Respectfully submitted,



Kelli Matzek
Planner

Planning Commission

Date: 12/8/08

Public Hearing

Item: 4a

ITEM: Storm Water and Erosion and Sediment Control Ordinance Amendments

SUBMITTED BY: Kyle Klatt, Planning Director

REVIEWED BY: Kelli Matzek, City Planner
Ryan Stempski, Assistant Engineer

SUMMARY AND ACTION REQUESTED:

The Planning Commission is being asked to review a proposed amendment to the City Code that would add a new section to the land use chapter pertaining to storm water and erosion and sediment control. The primary purpose of this amendment is to help the City remain compliant with specific permitting requirements under the Minnesota Pollution Control Agency, but will also help the City better organize all of the ordinance requirements related to storm water and erosion control into one section. As noted by the City Engineer in the attached supporting letter, the proposed ordinance will not have a significant effect on builders, developers, and property owners since most of the requirements included in the ordinance are already in place through the local watershed districts or are common engineering standards that are presently required as part of the site plan review process.

Although the proposed ordinance will not amend the Zoning Ordinance, a public hearing has been scheduled for this Planning Commission meeting in order to give any interested parties a chance to comment and ask questions about the City's storm water and erosion control requirements.

Should the Planning Commission recommend moving forward with the proposed regulations, there are sections in the current code that could be eliminated or revised to reference the new standards. These additional amendments to the City Code will be prepared for adoption sometime in the near future. Moving ahead with the new ordinance in advance of the more detailed changes will allow the City to comply with its MPCA deadlines.

ADDITIONAL INFORMATION:

The City Engineer will be in attendance at the Planning Commission meeting to review the proposed ordinance and answer questions about this document.

RECOMMENDATION:

Staff is recommending that the Planning Commission recommend approval of the proposed Storm Water and Erosion and Sediment Control Ordinance.

ATTACHMENTS:

1. Letter from City Engineer
2. Storm Water and Erosion and Sediment Control Ordinance

ORDER OF BUSINESS:

- Introduction Kyle Klatt, Planning Director
- Report Ryan Stempki, Assistant Engineer
- Questions from the Commission Chair & Commission Members
- Open the Public Hearing Chair
- Close the Public Hearing Chair
- Call for a motion Chair Facilitates
- Discussion of Commission on the motion Chair Facilitates
- Action by the Planning Commission Chair & Commission Members



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MEMORANDUM

To:	Kyle Klatt, Planning Director	Reference:	Storm Water and Erosion and
Copies To:	Kelli Matzek, Planner		Sediment Control Ordinance Updates
			City of Lake Elmo, Minnesota
From:	Ryan W. Stempski, P.E.	Proj. No.:	14078.001
Date:	December 4, 2008	Routing:	

This memo is a summary of the requirement and schedule to update the Storm Water and Erosion and Sediment Control Ordinance for the City of Lake Elmo.

In compliance with the Clean Water Act, the Minnesota Pollution Control Agency (MPCA) has issued a permit to the City of Lake Elmo establishing the conditions for discharging storm water to the waters of the state under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit Program. The City of Lake Elmo was issued coverage of this permit on July 15, 2008. The permit requires that a storm water and erosion and sediment control ordinance be implemented within six months of MPCA issuance of coverage. Therefore, to ensure compliance to the NPDES/SDS Permit, we recommend the attached ordinance update be incorporated to the City's Code of Ordinances prior to January 15, 2009.

The Lake Elmo Code of Ordinances does currently reference storm water and erosion and sediment control requirements in various sections. Some storm water management language is outdated and needs to be updated with more recent storm water management methodologies. This is addressed in the updated ordinance by requiring compliance with the most recent watershed district rules and City Engineering Design Standards.

The erosion and sediment control requirements are currently incomplete and inconsistent on land disturbing activities. The updated ordinance will require specific plan requirements to ensure the city is minimizing impacts from construction site erosion. It also clearly defines the enforcement process to ensure these controls are adequately maintained and function as intended.

Additionally, these requirements will now be consolidated into one location to allow for easier reference and enforcement. We recommend the previous storm water and erosion and sediment control language be updated and referenced to this one location. All applicable definitions will be incorporated into Chapter 11 of the Lake Elmo Code of Ordinances.

Applicants will not drastically be impacted by the updates. Developers already must comply with the rules and regulations of the watershed districts. We currently request that residents and builders provide erosion controls with their permit applications. The updates will clarify the applicability, plan review procedures, standards, inspection and maintenance, and financial procedures and enforcement.

These updates to the Lake Elmo Code of Ordinances will meet the storm water and erosion and sediment control ordinance requirement of the NPDES/SDS Permit. The content will now be consistent and enforceable by City Code. We are on schedule to implement the ordinance by January 15, 2009 to meet the deadline of this requirement. Upon adoption of these updates, the City would identify completion of this requirement in the 2009 Annual Update provided to the MPCA.

CHAPTER X

STORM WATER AND EROSION AND SEDIMENT CONTROL ORDINANCE

Sections:

- X.01 Statutory Authorization
- X.02 Findings
- X.03 Purpose
- X.04 Applicability
- X.05 Definitions
- X.06 Incorporations by Reference
- X.07 Plan Review Procedure
- X.08 Performance and Design Standards
- X.09 Inspections and Maintenance
- X.10 Storm Water Utility
- X.11 Financial Procedures and Enforcement Actions

X.01 STATUTORY AUTHORIZATION

This ordinance is adopted pursuant to the authorization and policies contained in Minnesota Statutes Chapters 103B, 105, and 462 and Minnesota Rules Chapters 8410 and 8420. This ordinance is intended to meet the current construction site erosion and sediment control and post-construction storm water management regulatory requirements for construction activity and small construction activity (National Pollution Discharge Elimination Permit [NPDES]) as defined in 40 CFR pt. 122.26(b)(14)(x) and (b)(15), respectively.

X.02 FINDINGS

The City of Lake Elmo (City) finds that uncontrolled storm water runoff and construction site erosion from land development and land disturbing activity can have significant adverse impacts upon local and regional water resources diminishing the quality of public health, safety, public and private property, and natural resources of the City. Specifically, uncontrolled construction site erosion and storm water runoff can:

- Threaten public health, safety, property, and general welfare by increasing runoff volume peak flood flows, and overburdening storm sewers, drainage ways, and other storm drainage systems;
- Diminish the capacity of lakes and streams to support fish, aquatic life, recreational, and water supply uses by increasing pollutant loadings of total sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens, and other urban pollutants;
- Degrade physical stream habitat by increasing stream bank erosion, increasing stream bed scour, diminishing groundwater recharge, diminishing stream base flows, and increasing

stream temperatures;

- Undermine floodplain management efforts by increasing the incidence and levels of flooding;
- Alter wetland communities by changing wetland hydrology and increasing pollutant loading; and
- Generate airborne particulate concentrations that are health threatening or may cause other damage to property or the environment.

X.03 PURPOSE

The general purpose of this ordinance is to set forth regulatory requirements for land development and land disturbing activities aimed at minimizing threats to public health, safety, public and private property and natural resources within the City from construction site erosion and post-construction storm water runoff. Specific purposes are to establish performance standards that will:

- Protect life and property from dangers associated with flooding;
- Protect public and private property and the natural resources from damage resulting from runoff and construction site erosion;
- Promote land development that minimizes the generation of storm water runoff volumes and peak rates and maximizes pervious areas for storm water treatment;
- Promote regional storm water management by watershed;
- Provide a single, consistent set of performance standards that apply to all developments;
- Protect water quality from nutrients, heavy metals, bacteria, pathogens, debris, thermal stress, and other urban pollutants;
- Promote no increase in temperature of storm water post-construction in order to protect cold water resources;
- Promote infiltration and groundwater recharge;
- Protect functional values of all types of natural water bodies (e.g., rivers, streams, wetlands, lakes, seasonal ponds); and
- Sustain or enhance biodiversity (native plant and animal habitat) and support riparian ecosystems.

X.04 APPLICABILITY

A. Storm Water Management

A Storm Water Management Plan including a Storm Water Pollution Prevention Plan (SWPPP) shall be required for all proposed land development activity, which meets any or all of the following:

1. Any land development activity that may ultimately disturb 1.0 acre or greater of land, including smaller individual sites that are part of a common plan of development that may be constructed at different times; and/or
2. A subdivision plat; and/or
3. Any land development activity, regardless of size, that the City determines is likely to cause an adverse impact to an environmentally sensitive area or other property.

A SWPPP shall be required providing the measures to be taken to control or manage runoff and erosion from such land disturbance both during construction and after final stabilization of the site. No building permit, subdivision approval, or permit to allow land disturbing activities shall be issued until approval of this SWPPP. All SWPPPs shall be consistent with NPDES permit requirements, and the filing or approval requirements of other regulatory agencies.

B. Erosion and Sediment Control

An Erosion and Sediment Control Plan shall be required for all proposed land disturbing activity, unless otherwise exempted in this ordinance, which meets any or all of the following:

1. Meets the permit requirements of an Excavation and Grading Permit per Section 151.017 of the Lake Elmo Code of Ordinances; or
2. New dwelling permits; and/or
3. Site Plan Reviews; and/or
4. Involves the laying, repairing, replacing, or enlarging of an underground utility, pipe or other facility, or the disturbance of road ditch, grass swale or other open channel for a distance of 300 feet or more; and/or
5. Is a land disturbing activity, regardless of size, that the City determines is likely to cause an adverse impact to an environmentally sensitive area or other property, or may violate any other erosion and sediment control standard set forth in this Ordinance.

X.05 DEFINITIONS

For the purposes of this chapter, all terms, phrases, words, and their derivatives shall have the meanings as stated in Chapter 11 of the Lake Elmo Code of Ordinances. The word "shall" is always mandatory and not merely directive.

X.06 INCORPORATION BY REFERENCE

The following are incorporated into this chapter by reference:

- The Lake Elmo Surface Water Management Plan.
- The Lake Elmo Storm Water Utility Policy.
- The Lake Elmo Engineering Design Standards.

All storm water mitigation and management technologies shall be consistent with the most current versions of the State of Minnesota's publication entitled "Storm water Manual", the Minnesota Pollution Control Agency's publication entitled "Protecting Water Quality in Urban Areas", and the Minnesota Department of Transportation's publication entitled "Drainage Manual."

X.07 PLAN REVIEW PROCEDURE

- A. Plan Review** - The applicant shall not commence any construction activity subject to this ordinance until plan approval has been authorized by the City. A complete review of the plan application shall be done within fourteen (14) business days of receipt of a complete plan from the applicant. The City will work with the necessary state, county, and local agencies to complete the review.
- B. Plan Authorization** - If the City determines that the Storm Water Management and/or Erosion and Sediment Control Plan(s) meet the requirements of this ordinance, the City shall issue a plan approval valid for a specified period of time that authorizes the land disturbance activity contingent on the implementation and completion of this plan.
- C. Plan Denial** - If the City determines that the plan(s) do not meet the requirements of this ordinance, the City shall not issue plan approval for the land disturbance activity. This plan must be resubmitted for approval before the land disturbance activity begins. All land use and building permits shall be suspended until the developer has an authorized permit.
- D. Modification of Plan** - The applicant must amend the plan as necessary to include additional requirements such as additional or modified BMPs designed to correct problems identified or address situations whenever:
1. A change in design, construction, operation, maintenance, weather, or seasonal conditions that has a significant effect on the discharge or pollutants to surface waters or underground waters; and/or

2. Inspections or investigations indicate the plans are not effective in eliminating or significantly minimizing the discharge or pollutants to surface waters or underground waters or that the discharges are causing water quality degradation; and/or
3. The plan is not achieving the general objectives of minimizing pollutants in storm water discharges associated with construction activity; and/or
4. The plan is not consistent with the terms and conditions of this ordinance.

E. Variance Requests - The City may grant a variance on a case-by-case basis. The content of a variance is specified in Section 154.017 of the Lake Elmo City Code of Ordinances.

X.08 PERFORMANCE AND DESIGN STANDARDS

A. Storm Water Management Plan. All plans shall be consistent with the most recent version of the (NPDES) Permit requirements, the Lake Elmo Engineering Design Standards, and the filing or approval requirements of relevant Watershed Districts (Brown's Creek, South Washington, and/or Valley Branch), Washington County, Minnesota Department of Natural Resources, U.S. Army Corps of Engineers, or other regulatory agencies.

1. **Storm Water Criteria** - Site plans for new development of any kind will be assessed for storm water quantity control and storm water quality management. The general policy on storm water runoff rates is to reduce the impacts of development by maintaining existing conditions and hydrological conditions in the following ways:
 - a. Decrease runoff volume.
 - b. Decrease erosion and sedimentation.
 - c. Decrease flow frequency, duration, and peak runoff rates.
 - d. Increase infiltration (groundwater recharge).
 - e. Maintain existing flow patterns.
 - f. Reduce time to peak flows by increasing the time of concentration to and through storm sewers.
 - g. Storage of storm water runoff on-site.
 - h. Avoid channel erosion.

B. Erosion and Sediment Control Plan - All Plans shall be consistent with the most recent version of the NPDES Permit. Requirements for the Plan include:

- Plan submission requirements must be consistent with the Excavation and Grading Permit per Section 151.017 (G) of the Lake Elmo Code of Ordinances.

- A sequence of construction of the development site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, phasing of clearing or grading, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.
- All erosion and sediment control measures necessary to meet the objectives of this local regulation and state and federal regulations throughout all phases of construction and after completion of development of the site. Depending upon the complexity of the project, the drafting of intermediate plans may be required at the close of each season.
- Seeding mixtures and rates, types of sod, method of seedbed preparation, expected seeding dates, type and rate of lime and fertilizer application, and kind and quantity of mulching for both temporary and permanent vegetative control measures.

1. Erosion and Sediment Control Criteria

- a. Minimize disturbance of natural soil cover and vegetation.
- b. Minimize, in area and duration, exposed soil and unstable soil conditions.
- c. Protect Soil stockpiles which shall be inactive for a period of seven (7) or more days, must be stabilized or covered at the end of each workday and shall include perimeter sediment control.
- d. Protect receiving water bodies, wetlands and storm sewer inlets.
- e. Protect adjacent properties from sediment deposition.
- f. Minimize off-site sediment transport on trucks and equipment.
- g. Minimize work in and adjacent to waterbodies and wetlands.
- h. Maintain stable slopes.
- i. Avoid steep slopes and the need for high cuts and fills (no slopes greater than 3:1, except as approved by the city engineer).
- j. Minimize disturbance to the surrounding soils, root systems and trunks of trees adjacent to site activity that are intended to be left standing.
- k. Minimize the compaction of site soils.
- l. Designate a concrete washout area if applicable.
- m. All waste and unused building materials shall be properly disposed of offsite and not allowed to be carried by runoff into a receiving channel or storm sewer system.

C. Erosion and Sediment Control Performance Standards

1. Construction activity requirements for erosion and sediment control are provided in the NPDES Permit. They include SWPPP which generally include, erosion prevention practices, sediment control practices, dewatering and basin draining, and final stabilization.
2. In addition, streets shall be cleaned and swept within 24 hours whenever tracking of sediment occurs and before sites are left idle for weekends and/or holidays.

D. Drainage-Related Easements

- If a storm water management plan involves direction of some or all runoff off of the site, it shall be the responsibility of the applicant to obtain from adjacent property owners any necessary easements or other property interests concerning flowage of water.
- Easements are required for all ponding areas to the basin's 100-year storm high water level elevation.
- Easements are required for all outlet swales and ditches, and for overland overflow routes located downstream of basins located on site.
- If the storm sewer is to be installed less than 10 feet deep within private property, the easement shall be a minimum of 20 feet wide. If the storm sewer is 10 feet or greater, the easement shall be twice as wide as the depth.
- Easements necessary for maintenance vehicle access are required for all of the above where not directly available on a public road.

E. Special Waters and Impaired Waters Requirements

1. All projects discharging to special or impaired waters must meet the minimum requirements of the NPDES Permit to discharge storm water associated with construction activity.

X.09 INSPECTIONS AND MAINTENANCE

- A. Inspections and Enforcement** - The Applicant is responsible for inspections and record keeping in accordance with the NPDES Permit requirements. The City shall conduct inspections on a regular basis to ensure that both storm water and erosion and sediment control measures are properly installed and maintained prior to construction, during construction, and at the completion of the project. In all cases the inspectors will attempt to work with the applicant or developer to maintain proper storm water management.

In cases where cooperation is withheld, construction stop work orders shall be issued by the City, until storm water and erosion and sediment control measures meet the requirements of this ordinance. An inspection must follow before work can commence. A charge as defined in the City's fee schedule will be assessed for any inspections by the City.

1. **Construction stop order** - The City may issue construction stop orders until storm water and erosion and sediment control measures meet specifications. A second inspection must then be scheduled and passed before the final inspection will be done.
2. **Perimeter breach** - If storm water and/or erosion and sediment control measures malfunction and breach the perimeter of the site, enter streets, other public areas, or waterbodies, the applicant shall immediately develop a cleanup and restoration plan, obtain the right-of-way from the adjoining property owner, and implement the cleanup and restoration plan within 48 hours of obtaining permission. If in the discretion of the City, the applicant does not repair the damage caused by the storm water runoff the City can do the remedial work required and charge the cost to the applicant.
3. **Actions to ensure compliance** - The City can take the following action in the event of a failure by applicant to meet the terms of this ordinance:
 - a. Withhold inspections or issuance of certificates or approvals.
 - b. Revoke any permit issued by the City to the applicant.
 - c. Conduct remedial or corrective action on the development site or adjacent site affected by the failure.
 - d. Charge applicant for all costs associated with correcting the failure or remediating damage from the failure. If payment is not made within thirty (30) days, payment will be made from the applicant's financial securities.
 - e. Bring other actions against the applicant to recover costs of remediation or meeting the terms of this ordinance.
 - f. Any person, firm or corporation failing to comply with or violating any of these regulations, shall be prosecuted by law. Each day that a separate violation exists shall constitute a separate offense.

B. Post Construction Inspection and Maintenance of Storm water Facilities.

1. **Private Storm water Facilities** - No private storm water facility may be approved unless a maintenance plan is provided that defines who will conduct maintenance, the type of maintenance, and the maintenance intervals. All private storm water facilities shall be inspected annually and maintained in proper condition consistent with the performance standards for which they were originally designed.
 - a. **Facility Access** - It shall be the responsibility of the applicant to obtain any necessary easements or other property interests to allow access to the facilities for inspection or maintenance for both the responsible party and the City.
 - b. **Removal of settled materials** - All settled materials from ponds, sumps, grit chambers, and other devices, including settled solids, shall be removed and properly disposed of.

- c. Inspection - All private storm water facilities must submit a record grading plan of the facility and must provide documentation to the City of an inspection at least once every five years thereafter. Private facilities are subject to City inspection at any time to ensure compliance.

2. Public Storm Water Facilities

- a. Acceptance of Publicly Owned Facilities - Before work under the permit is deemed complete, the permittee must submit as-builts and a maintenance plan demonstrating at the time of final stabilization that the storm water facilities conform to design specifications. A final inspection shall be required before the City accepts ownership of the storm water facilities.
- b. Inventory of Storm water Facilities - Upon adoption of this ordinance, the City shall inventory and maintain a database for all public storm water facilities within the City requiring maintenance to ensure compliance with this ordinance.
- c. Maintenance - The City shall perform maintenance of publicly owned storm water facilities within the City as provided for in the local surface water management plan.

X.10 STORM WATER UTILITY

Please refer to Chapter 53 in the Lake Elmo Code of Ordinances.

X.11 FINANCIAL PROCEDURES AND ENFORCEMENT ACTIONS

- A. Financial Securities** - The applicant shall provide security for the performance of the work described and delineated on the approved permit and related remedial work in amount established in the City's fee schedule. The form of the securities shall be one or a combination of the following:
1. **Cash Deposit** - The first \$3,000 of the financial security for erosion and sediment control shall be cash deposit to the City.
 2. **Securing deposit** - Deposit, either with the City, a responsible escrow agent, or trust company, at the option of the City, either,
 - a. An irrevocable letter of credit of the kind approved for securing deposits of public money or other instruments of credit from one or more financial institutions;
 - b. Cash in U.S. currency; or
 - c. Other forms and securities as approved by the City.

This security shall save the City free and harmless from all suits or claims for damages resulting from the negligent grading, removal, placement or storage of rock, sand, gravel, soil or other material within the City.

B. Action Against the Financial Security - The City may access the financial security for remediation actions if any of the conditions listed below exist. The City shall use the security to finance remedial work undertaken by the City, or a private contractor under contract to the City, to reimburse the City for all direct costs incurred in the process of redial work including, but not limited to, staff time and attorney's fees.

1. **Abandonment** - The developer ceases land disturbing activities and/or filling and abandons the work site prior to completion of the grading plan.
2. **Failure to implement the SWPPP, Storm Water Plan, or Erosion and Sediment Control Plan** - The developer fails to conform to the Storm Water Plan, Erosion and Sediment Control Plan and/or the SWPPP as approved by the City.
3. **Failure to perform** - The techniques utilities under the SWPPP fail within one year of installation.
4. **Failure to reimburse City** - The developer fails to reimburse the City for corrective action.

C. Enforcement - The City shall be responsible for enforcing this ordinance.

1. **Penalties** - Any person, firm or corporation failing to comply with or violating any of these regulations, shall be deemed guilty and prosecuted by law. All land use and building permits shall be suspended until the applicant has corrected the violation. Each day that a separate violation exists shall constitute a separate offense.

D. Right of Entry and Inspection

1. **Powers** - The issuance of a permit constitutes a right-of-entry for the City or its contractor to enter upon the construction site. The applicant shall allow the City and their authorized representatives, upon presentation of credentials to:
 - a. Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations or surveys.
 - b. Bring such equipment upon the permitted site as is necessary to conduct such surveys and investigations.
 - c. Examine and copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of the permitted site.
 - d. Inspect the storm water pollution control measures.
 - e. Sample and monitor any items or activities pertaining to storm water pollution control measures.
 - f. Correcting deficiencies in storm water and erosion and sediment control measures.

E. **Severability** - The provisions of this ordinance are severable, and if any provisions of this ordinance, or application of any provision of this ordinance to any circumstance, are held invalid, the application of such provision to other circumstances, and the remainder of this ordinance must not be affected thereby.

DRAFT



City of Lake Elmo

651/777-5510

3800 Laverne Avenue North / Lake Elmo, MN 55042

Attached are documents received by city staff prior to 12/9/2008 meeting. The images were provided by FMHC on behalf of T-Mobile.

1. T-Mobile's answers to questions from Council workshop
2. Email to city staff
3. Zoning Drawings showing a 110' canister-mount monopole
4. Zoning Drawings showing a 110' flush-mount monopole
5. Photo simulations showing the 110' flush-mount monopole from two different views

**QUESTIONS
REGARDING LAKE JANE TOWER SITE**

1. Does your FCC license apply to PCS, B-Block, C4-Block? Yes, we can provide exact frequencies if the city desires.
2. Does your FCC license apply to AWS R3-E; FCC grant? Yes, we can provide exact frequencies if the city desires.
3. Does the Lake Jane site deployment depend upon negotiations for other providers co-locating on the tower? No. It has been our experience that jurisdictions request towers to be built for multiple users to minimize the number of towers in an area.
4. Has a Nation Wide Programmatic Agreement of tower location and historic preservation study been completed? Yes, we can provide a copy of our NEPA and SHPO documents.
5. Is any landscaping proposed for the area south and east of the tower site closer to the southeast property lines of the Olinger property? We are open to any reasonable landscaping plan proposed by the city to minimize view of the ground equipment.
6. Are the proposed 4 foot high trees and existing buffers sufficient to screen ground structures from Jamaica Ave.? See answer to #5.
7. Assuming that the City's current regulations do not require co-location:
 - A. What is the minimum height of a tower on the Lake Jane site that would allow you to provide the requested services? Approximately 110'
 - B. Can a stealth tower on the Lake Jane site serve your purpose? We would be willing to use a 'cluster mount' that is smaller than the proposed platform with rails. This would place the antennas nearly flush with the pole giving it a more slender appearance.
8. What is the height above average terrain? Not sure what specific info this question is seeking.
9. What are the average tree height measurements in relation to the tower base within the immediate surrounding area to warrant the additional height? Approximately 75-80' feet. There are a number of mature trees on the property.
10. Have you explored the possibility of a stealth tower? See answer to 7.B. – we can use a cluster mount that minimizes the antennas appearance.
11. Have you considered some type of camouflage for the proposed tower? Monopole towers are considered the most aesthetically pleasing of the 3 main tower types – monopoles, self-support lattice towers, and guyed wire towers – because all of the associated wiring

- can be hidden on the inside of the pole and only the antennas are exposed. MNDOT uses similar designs for lighting on highways.
12. What type of monopole is being proposed? A 125' monopole that has a zinc-oxide coating that protects it from rusting and gives it a gray color.
 13. Will there be climbing pegs, flange bolts and slip joints on the proposed tower? Yes, the climbing pegs are about 5" each. The flange bolts and slip joint design is the standard design type.
 14. Are the cable lines going to be inside or outside of the pole? Inside the pole.
 15. How many additional Lake Jane area customers will be served or have improved service as a result of the construction of this pole? Per T-Mobile's privacy policy, we do not disclose specific customer data. We have approximately 950,000 customers in the Minnesota and Western Wisconsin market area.
 16. Will the new tower have both the older voice system and the newer 3G network? It will have GSM (standard voice technology) and UMTS (high speed data capabilities).
 17. Do you have any documentation supporting your decision to choose this specific site rather than other sites in this area? See our CUP application and supporting documents.
 18. Did you investigate other parcels within this area for tower sites? What were the results of the investigation or conversations with other private property owners whose land might also satisfy your purpose? The Olinger Property is in the ideal location to fit into our existing network. The other location that was considered was the fire department property, but after preliminary discussions between Gary Buster of FMHC and the city, the feedback we received was the city was not willing to enter into a long term lease for a site there.
 19. Can you co-locate on the City water tower and provide the services that are requested in the area that you wish to serve around Lake Jane? No.
 20. Would you be willing to place a crane on the site at the proposed height for one or two days? Yes.
 21. How many complaints have you received about the quality of the service in the Lake Jane area? Per T-Mobile's privacy policy we do not disclose specific customer data. In general, we are seeking to provide improved coverage to the City of Lake Elmo. 84% of Americans have wireless devices and that number is continuing to grow. Moreover, over 290,000 emergency 911 calls are made with wireless devices, improving public safety.
 22. If the proposed tower is constructed, will you need to construct additional towers in the City of Lake Elmo, and if so, how many? Wireless network design is based on a number of factors, population density and commercial real estate development are two important factors. As the City of Lake Elmo grows, it is expected that T-Mobile, along with other wireless carriers, will want to expand their wireless coverage.

23. Are there any things that you can do to soften the visual impact of the tower on the Lake Jane and Sunfish Lake park areas? See answer to 7.B.
24. Have you explored the possibility of cutting down some of the trees on the Lake Jane site in order to facilitate a lower tower? It has been our experience that cutting down trees is not well-received by planning staff or residents. It only makes the tower more visible from more directions.
25. Is it possible for you to construct two smaller towers in the Lake Jane area instead of one larger tower and still provide the services that are being requested? No. Hypothetically, if we were to propose two smaller towers, you would have two new groups of residents against the two new towers.
26. Will you be placing a generator on this site, and if so, where will it be located? No. We have a battery back-up system in case of power failure to the site. If the city would like one placed on site we can do so.
27. What will be the capacity of this particular tower; how many additional users or services will accommodate before another tower is required? The tower is designed for multiple users. It would depend upon the future carriers loading (# and type of antennas, plus coax lines) that would determine the total number of carriers that could go on the proposed tower.
28. Will there be walk ways on top of the tower around the antenna arrays? The proposed antenna mount is man-rated for someone to stand upon to service the antennas, but there is not a walk way around the top of the tower.
29. What types of antennas are being imposed? PCS panel antennas. They are gray in color.

Kelli Matzek

From: Kyle Klatt
Sent: Tuesday, December 09, 2008 4:30 PM
To: Kelli Matzek
Subject: FW: A1N0672 Lake Elmo: Revised Zoning Drawings
Attachments: A1N0672 Zoning Drawings #2 Rev1 12-9-08.pdf; A1N0672 Lake Elmo Zoning Drawings FLUSH-MOUNT rev4 12-9-08.pdf; A1N0672-photosim-R3-120908.pdf

From: Kelly Swenseth [mailto:kswenseth@fmhc.com]
Sent: Tuesday, December 09, 2008 4:06 PM
To: Kyle Klatt
Cc: pconlin@fmhc.com
Subject: A1N0672 Lake Elmo: Revised Zoning Drawings

Kyle,

Attached are the revised site plans for tonight's meeting. They are as follows:

1. Zoning Drawings showing a 110' canister-mount monopole
2. Zoning Drawings showing a 110' flush-mount monopole
3. Photo simulations showing the 110' flush-mount monopole from two different views

There are pros and cons to the canister-mount monopole. The pro being that the antennas are completely enclosed and it appears to be one continuous pole as a "stealth design". The cons being that the monopole is the same diameter from bottom to top, no tapering of the pole towards the top. A three canister monopole will most likely be four feet in diameter. Additionally, in order for T-Mobile to achieve the service to the coverage objective, T-Mobile would need to utilize the top two canisters. Therefore this monopole would only be available for one additional carrier. The canister also limits any down-tilt of the antennas or modification of the sector angles, meaning that it is not possible to set direction of the antenna panels for the specific needs of the site and may be a less attractive location for a second carrier to collocate at this site.

The pros of the flush-mount monopole are that T-Mobile is better able to manipulate the direction and tilt of the antennas, the monopole will be a smaller diameter that will taper towards the top and it is a more attractive site for collocation.

Any last minute questions, let me know.

Thank you,

Kelly

Kelly Jane Swenseth

FMHC Corporation

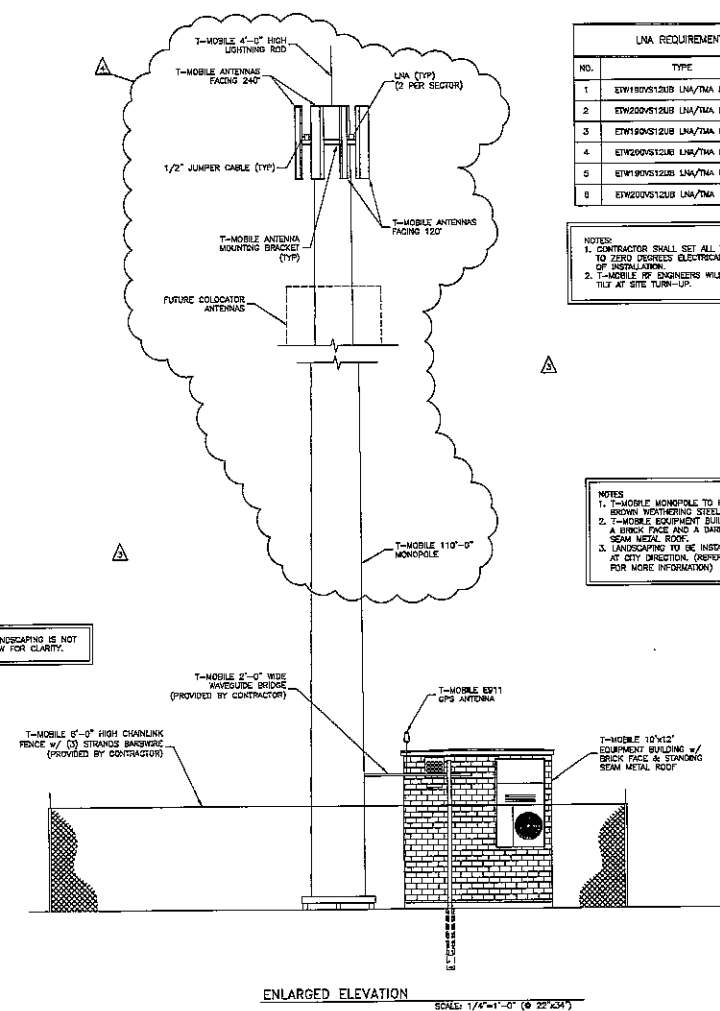
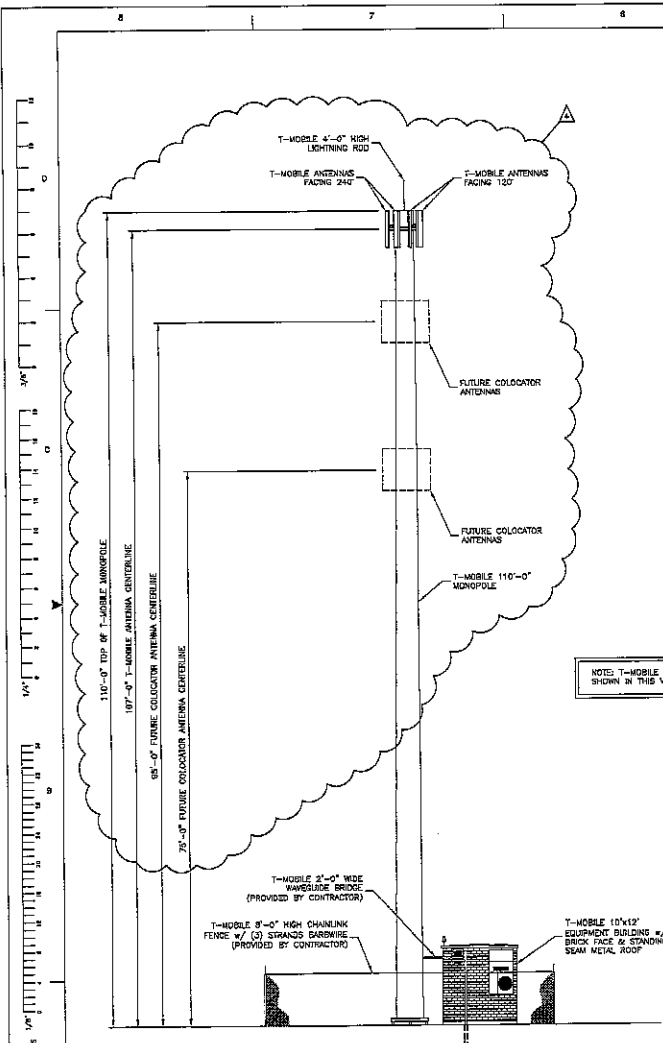
2901 Metro Drive, Suite 225

Bloomington, MN 55425

Office: 952-831-1043

Cellular: 218-791-0382

kswenseth@fmhc.com



LNA REQUIREMENTS		
NO.	TYPE	SECTOR (DEGREES)
1	ETW180VS12UB LNA/TMA PER SECTOR	0
2	ETW200VS12UB LNA/TMA PER SECTOR	0
3	ETW180VS12UB LNA/TMA PER SECTOR	120
4	ETW200VS12UB LNA/TMA PER SECTOR	120
5	ETW180VS12UB LNA/TMA PER SECTOR	240
6	ETW200VS12UB LNA/TMA PER SECTOR	240

NOTES:
 1. CONTRACTOR SHALL SET ALL T-MOBILE ANTENNAS TO ZERO DEGREES ELECTRICAL DOWNTILT AT TIME OF INSTALLATION.
 2. T-MOBILE RF ENGINEERS WILL THEN SET TO PROPER TILT AT SITE TURN-UP.

NOTES:
 1. T-MOBILE MONOPOLES TO HAVE A COR-TEN BROWN WEATHERING STEEL FINISH.
 2. T-MOBILE EQUIPMENT BUILDING SHALL HAVE A BRICK FACE AND A DARK COLORED STANDING SEAM METAL ROOF.
 3. LANDSCAPING TO BE INSTALLED BY CONTRACTOR AT CITY DISCRETION (REFER TO DWG. A1N672-C3 FOR MORE INFORMATION)

ANTENNA AND COAXIAL CABLE REQUIREMENTS							
NO.	TYPE	SECTOR (DEGREES)	DOWNTILT	CONNECTION	COAX. CABLE		
					LENGTH	DIAM.	COLOR CODE
A1	TMDX-6516-R24	0	0	R1	150'	7/8"	RED
				R3	150'	7/8"	TRIPLE RED
				R4	150'	7/8"	QUAD RED
				R2	150'	7/8"	DOUBLE RED
A2	TMS-6516-R24	0	0	R5	150'	7/8"	(5) RED/GRAY
				R8	150'	7/8"	(6) RED/GRAY
				Y1	150'	7/8"	YELLOW
				Y3	150'	7/8"	TRIPLE YELLOW
B1	TMDX-6516-R24	120	0	Y4	150'	7/8"	QUAD YELLOW
				Y2	150'	7/8"	DOUBLE YELLOW
				Y5	150'	7/8"	(9) YELLOW/GRAY
				Y6	150'	7/8"	(4) YELLOW/GRAY
C1	TMDX-6516-R24	240	0	B1	150'	7/8"	BLUE
				B3	150'	7/8"	TRIPLE BLUE
				B4	150'	7/8"	QUAD BLUE
				B2	150'	7/8"	DOUBLE BLUE
C2	TMS-6516-R24	240	0	B5	150'	7/8"	(8) BLUE/GRAY
				B6	150'	7/8"	(6) BLUE/GRAY

* FOR MORE INFORMATION REFER TO STANDARD DRAWING ESS.

NOTE: T-MOBILE COAX CABLE SHALL BE AIA CSXK CABLE.

NOTES:

- ANTENNA CABLE LENGTHS HAVE BEEN DETERMINED BASED ON THESE PLANS. CABLE LENGTHS LISTED ARE APPROXIMATE AND ARE NOT INTENDED TO BE USED FOR FABRICATION. DUE TO FIELD CONDITIONS ACTUAL ANTENNA CABLE LENGTHS REQUIRED MAY VARY FROM LENGTHS TABULATED.
- ALL ANTENNA/COAX CABLES TO BE COLOR CODED AT THREE (3) LOCATIONS USING 1/2" WIRE PVC ELECTRICAL TAPE.
 - A. TOP OF TOWER (ANTENNA LEVEL)
 - B. BASE OF TOWER
 - C. AT ITS CABINET CONNECTION POINT
- ANTENNA/COAX CABLES SHALL UTILIZE GROUNDING KITS GROUNDED AT THREE (3) POINTS OF TOWER AS FOLLOWS.
 - A. TOP OF TOWER (ANTENNA LEVEL) ONE END MECHANICALLY CONNECTED TO TOWER.
 - B. BOTTOM OF TOWER, ONE END MECHANICALLY CONNECTED TO GROUND BAR.
 - C. AT ITS CABINET CONNECTION POINT.
- ANTENNA SECTIONS SHALL BE MEASURED WITH TRUE NORTH AS SHOWN ON THE SITE PLAN. MAGNETIC NORTH IS 2.5° EAST OF TRUE NORTH.

E911 ANTENNA REQUIREMENTS				
NO.	TYPE	SECTOR (DEGREES)	LENGTH	COAXIAL CABLE DIA. COLOR CODE
1	GPS L3 (86532A)	-	20'	1/4"

DOWNTILT CONTROL REQUIREMENTS				
NO.	TYPE	SECTOR (DEGREES)	LENGTH	COAXIAL CABLE DIA. COLOR CODE
1	ATCS-801 SERIES	0	180'	1/4"

SOUTH ELEVATION
 SCALE: 1/8"=1'-0" @ 22'x24"

ENLARGED ELEVATION
 SCALE: 1/4"=1'-0" @ 22'x24"

REV	DATE	REVISION DESCRIPTION	DESIGNER	APPROVED	SP	PK	QP	INSTALL	REFERENCE DRAWINGS
1	7/24/08	ISSUED FOR PROPOSAL	JM						
2	8/18/08	UPDATED SURVEY DATA	RM						
3	9/24/08	ADDED LANDSCAPING PLAN	DM						
4	12/1/08	MODIFIED TOWER HEIGHT	DM						



NOTICE: THIS DRAWING HAS NOT BEEN PUBLISHED AND IS THE SOLE PROPERTY OF T-MOBILE - MINNEAPOLIS MARKET AND IS LOANED TO THE BORROWER FOR THEIR CONFIDENTIAL USE ONLY, AND IN CONSIDERATION OF AND AGREED TO RETURN IT UPON REQUEST AND AGREES THAT IT WILL NOT BE REPRODUCED, COPIED, LOAN OR OTHERWISE DISPOSED OF SEPARATELY OR IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN WHICH IT IS FURNISHED.

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.

Signature: _____ Title: _____ Michael Madhey
 Date: _____ Reg. No.: 17852

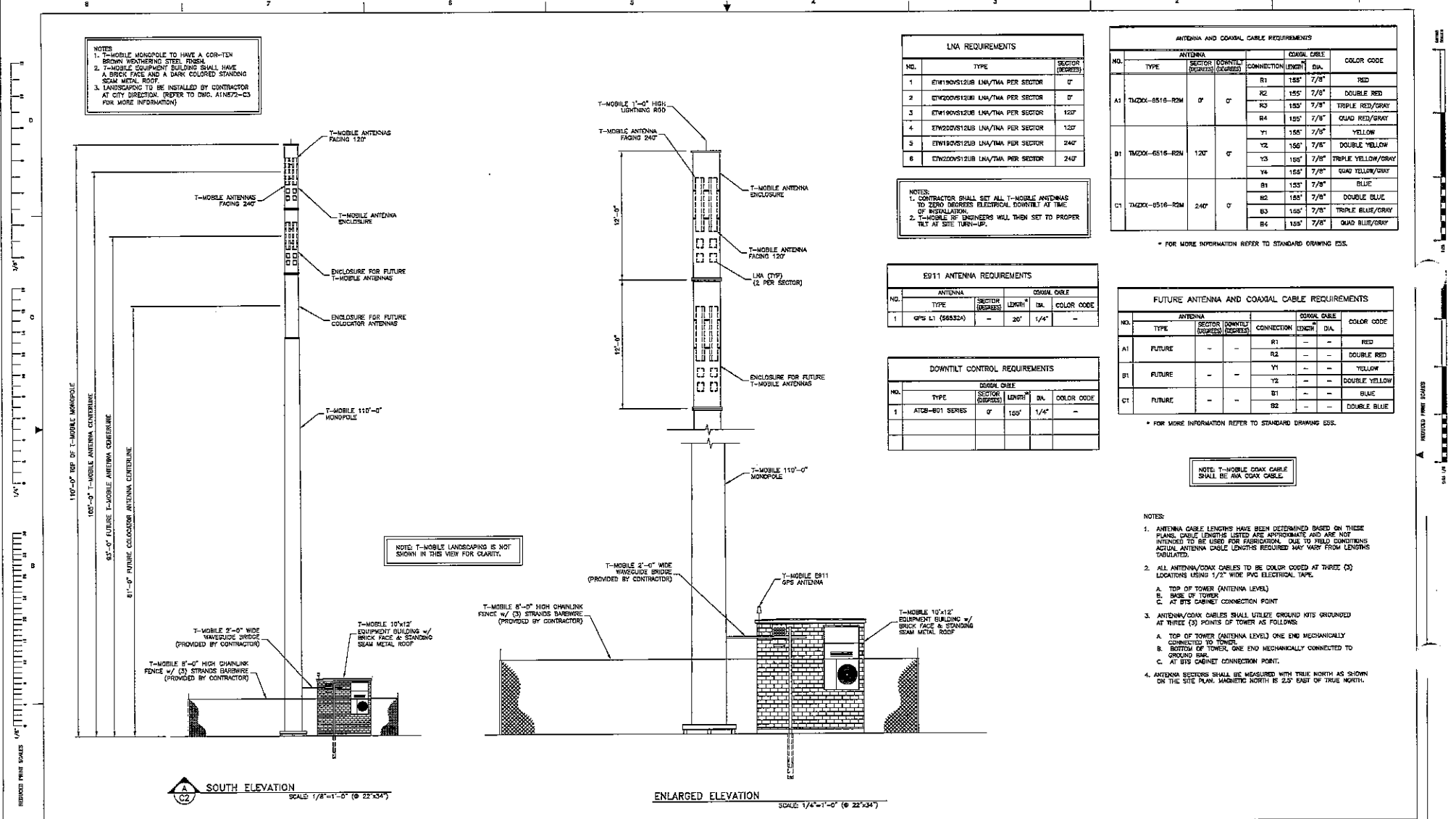
PROJECT NO. _____
 DESIGNED BY: J. GUSTAFSON DATE: 7/30/08
 CHECKED BY: C. MILLER DATE: 8/1/08
 APPROVED BY: _____ DATE: _____
 CLIENT APPROVAL: _____ DATE: _____

LAKE ELMO - OLINGER PROPERTY
A1N672
ANTENNA INFO. & TOWER ELEVATION

9057 LAKE JANE TRAIL NORTH
 LAKE ELMO, MINNESOTA

SCALE: AS NOTED DRAWING NUMBER: **A1N672-A1** REV: **4**

NOTES:
 1. T-MOBILE MONOPOLE TO HAVE A COR-TEN BROWN WEATHERING STEEL FINISH.
 2. T-MOBILE EQUIPMENT BUILDING SHALL HAVE A BRICK FACE AND A DARK COLORED STANDING SEAM METAL ROOF.
 3. LANDSCAPING TO BE INSTALLED BY CONTRACTOR AT CITY DISCRETION. REFER TO DWG. A1N672-C3 FOR MORE INFORMATION.



LNA REQUIREMENTS

NO.	TYPE	SECTOR (DEGREES)	COAXIAL CABLE
1	ETW190VS12UB LNA/TMA PER SECTOR	0°	
2	ETW200VS12UB LNA/TMA PER SECTOR	0°	
3	ETW190VS12UB LNA/TMA PER SECTOR	120°	
4	ETW200VS12UB LNA/TMA PER SECTOR	120°	
5	ETW190VS12UB LNA/TMA PER SECTOR	240°	
6	ETW200VS12UB LNA/TMA PER SECTOR	240°	

NOTES:
 1. CONTRACTOR SHALL SET ALL T-MOBILE ANTENNAS TO ZERO DEGREES ELECTRICAL DOWNTILT AT TIME OF INSTALLATION.
 2. T-MOBILE ENGINEERS WILL THEN SET TO PROPER TILT AT SITE TURN-UP.

E911 ANTENNA REQUIREMENTS

NO.	ANTENNA TYPE	SECTOR (DEGREES)	LENGTH	DIAMETER	COLOR CODE
1	GPS L1 (56832A)	-	20'	1/4"	-

DOWNTILT CONTROL REQUIREMENTS

NO.	TYPE	SECTOR (DEGREES)	LENGTH	DIAMETER	COLOR CODE
1	ATC8-B01 SERIES	0°	165'	1/4"	-

ANTENNA AND COAXIAL CABLE REQUIREMENTS

NO.	TYPE	ANTENNA SECTOR (DEGREES)	DOWNTILT (DEGREES)	CONNECTION	COAXIAL CABLE		COLOR CODE
					LENGTH	DIAMETER	
A1	TM200-6516-R2M	0°	0°	R1	185'	7/8"	RED
				R2	155'	7/8"	DOUBLE RED
				R3	135'	7/8"	TRIPLE RED/GRAY
				R4	125'	7/8"	QUAD RED/GRAY
B1	TM200-6516-R2M	120°	0°	Y1	155'	7/8"	YELLOW
				Y2	150'	7/8"	DOUBLE YELLOW
				Y3	155'	7/8"	TRIPLE YELLOW/GRAY
				Y4	155'	7/8"	QUAD YELLOW/GRAY
C1	TM200-6516-R2M	240°	0°	B1	155'	7/8"	BLUE
				B2	155'	7/8"	DOUBLE BLUE
				B3	155'	7/8"	TRIPLE BLUE/GRAY
				B4	155'	7/8"	QUAD BLUE/GRAY

* FOR MORE INFORMATION REFER TO STANDARD DRAWING E55.

FUTURE ANTENNA AND COAXIAL CABLE REQUIREMENTS

NO.	TYPE	ANTENNA SECTOR (DEGREES)	DOWNTILT (DEGREES)	CONNECTION	COAXIAL CABLE		COLOR CODE
					LENGTH	DIAMETER	
A1	FUTURE	-	-	R1	-	-	RED
				R2	-	-	DOUBLE RED
B1	FUTURE	-	-	Y1	-	-	YELLOW
				Y2	-	-	DOUBLE YELLOW
C1	FUTURE	-	-	B1	-	-	BLUE
				B2	-	-	DOUBLE BLUE

* FOR MORE INFORMATION REFER TO STANDARD DRAWING E55.

NOTE: T-MOBILE COAX CABLE SHALL BE AIA COAX CABLE.

- NOTES:
- ANTENNA CABLE LENGTHS HAVE BEEN DETERMINED BASED ON THESE PLANS. CABLE LENGTHS LISTED ARE APPROXIMATE AND ARE NOT INTENDED TO BE USED FOR FABRICATION. DUE TO FIELD CONDITIONS ACTUAL ANTENNA CABLE LENGTHS REQUIRED MAY VARY FROM LENGTHS TABULATED.
 - ALL ANTENNA/COAX CABLES TO BE COLOR CODED AT THREE (3) LOCATIONS USING 1/2" WIDE PAC ELECTRICAL TAPE.
 - A. TOP OF TOWER (ANTENNA LEVEL)
 - B. BASE OF TOWER
 - C. AT BTS CABINET CONNECTION POINT
 - ANTENNA/COAX CABLES SHALL UTILIZE GROUND KITS GROUNDED AT THREE (3) POINTS OF TOWER AS FOLLOWS.
 - A. TOP OF TOWER (ANTENNA LEVEL) ONE END MECHANICALLY CONNECTED TO TOWER.
 - B. BOTTOM OF TOWER, ONE END MECHANICALLY CONNECTED TO GROUND BAR.
 - C. AT BTS CABINET CONNECTION POINT.
 - ANTENNA SECTORS SHALL BE MEASURED WITH TRIPLE NORTH AS SHOWN ON THE SITE PLAN. MAGNETIC NORTH IS 2.5° EAST OF TRUE NORTH.

SOUTH ELEVATION
 SCALE: 1/8"=1'-0" (© 22x34")

ENLARGED ELEVATION
 SCALE: 1/4"=1'-0" (© 22x34")

REV	DATE	REVISION DESCRIPTION	DESIGNER	APPROVED	RF	FM	OP	INSTALL	REFERENCE DRAWINGS
1	12/8/05	ISSUED FOR PROPOSAL							



NOTE: THIS DRAWING HAS NOT BEEN PUBLISHED AND IS THE SOLE PROPERTY OF T-MOBILE - MINNEAPOLIS MARKET AND IS LOANED TO THE BORROWER FOR THEIR CONSIDERED, USE ONLY AND IN CONSIDERATION OF THE LOAN OF THIS DRAWING, THE BORROWER PROMISES AND AGREES TO RETURN IT UPON REQUEST AND AGREES THAT IT WILL NOT BE REPRODUCED, COPIED, LENT OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY, NOR USED FOR ANY PURPOSE OTHER THAN THAT WHICH IT IS FURNISHED.

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.

Signature: _____ Title: _____
 Name: MICHAEL HADLEY
 Date: _____ No. 62: 17852

PROJECT NO.		LAKE ELMO - OLINGER PROPERTY A1N672	
DESIGNED BY	DATE	ANTENNA INFO. & TOWER ELEVATION	
R. RUDY	12/9/05		
CHECKED BY	DATE	9057 LAKE JANE TRAIL NORTH LAKE ELMO, MINNESOTA	
APPROVED BY	DATE	SCALE	DRAWING NUMBER
		AS NOTED	A1N672-A1
ELMO APPROVAL	DATE	REV	1



View Type: Original Photograph
Site Address: 9057 Lake Jane Trail North
City: Lake Elmo **State:** MN
Site Number: A1N0672
View Description: Looking south at location of proposed 110' monopole tower from north side of Lake Jane about 2900' away. Page 1 of 4



Disclaimer: This picture is an artist's rendition of the completed site layout prior to construction. The completed construction may vary in layout, dimension, and color from the above picture.

View Type: Simulated Photograph
Site Address: 9057 Lake Jane Trail North
City: Lake Elmo **State:** MN
Site Number: A1N0672
View Description: Looking south at location of proposed 110' monopole tower from north side of Lake Jane about 2900' away. Page 2 of 4



View Type: Original Photograph
Site Address: 9057 Lake Jane Trail North
City: Lake Elmo **State:** MN
Site Number: A1N0672
View Description: Looking west at location of proposed 110' monopole tower from Sunfish Park about 1200' away. Page 3 of 4



Disclaimer: This picture is an artist's rendition of the completed site layout prior to construction. The completed construction may vary in layout, dimension, and color from the above picture.

View Type: Simulated Photograph
Site Address: 9057 Lake Jane Trail North
City: Lake Elmo **State:** MN
Site Number: A1N0672
View Description: Looking west at location of proposed 110' monopole tower from Sunfish Park about 1200' away. Page 4 of 4