



DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
11511 MAIN ST., P.O. BOX 90012
BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: T-Mobile

LOCATION OF PROPOSAL: Bellevue Christian Church, 10808 SE 28th Street

DESCRIPTION OF PROPOSAL: Proposal to build a new wireless communication facility (WCF) in a residential zoning district on private property. The facility will include a new 135-foot tall "stealth" monopole and associated mechanical equipment will be placed in an equipment shelter near the base of the pole. The WCF will be accessed via a new pervious grass paver maintenance driveway that runs along the northern property line of the site.

FILE NUMBERS: 10-117198-LB

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

- There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on _____.
- This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on March 17, 2011.
- This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on _____. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5 p.m. on _____.

This DNS may be withdrawn at any time if the proposal is modified so that it is likely to have significant adverse environmental impacts; if there is significant new information indicating, or on, a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project); or if the DNS was procured by misrepresentation or lack of material disclosure.

Cassie V. Hellingand
Environmental Coordinator

3/1/2011
Date

OTHERS TO RECEIVE THIS DOCUMENT:

State Department of Fish and Wildlife
State Department of Ecology,
Army Corps of Engineers
Attorney General
Muckleshoot Indian Tribe



**City of Bellevue
Development Services Department
Land Use Division Staff Report**

Proposal Name: T-Mobile – Bellevue Christian Church

Proposal Address: 10808 SE 28th Street

Proposal Description: Construct a new wireless communications facility consisting of a 135-foot tall “stealth” monopole and associated equipment shelter building on church property within a single family land use district.

File Number: 10-117198-LB

Planner: Sally Nichols, Associate Planner

Applicant: T-Mobile
Gary Abrahams

Recommendations Included: Conditional Use Permit (Process I, Land Use Code 20.30B)

State Environmental Policy Act Threshold Determination: **Determination of Non-Significance (DNS)**

Carol V. Helland

Carol V. Helland, Environmental Coordinator
Development Services Department

Director's Recommendation: **Approval with Conditions**
Mike Brennan, Director
Development Services Department

By: *Carol V. Helland*
Carol V. Helland, Land Use Director

Application Date:	June 30, 2010
Notice of Application:	July 15, 2010
Public Meetings:	August 4, 2010 and January 6, 2011
Re-Notice (of Application)	December 2, 2010
Recommendation Publication Date:	March 3, 2011
Public Hearing:	March 24, 2011

For information on how to appeal the project, visit the Permit Center at City Hall or call (425) 452-6864. Appeal of the decision must be received in the City Clerk's office by 5 p.m. on the date noted for the appeal deadline.

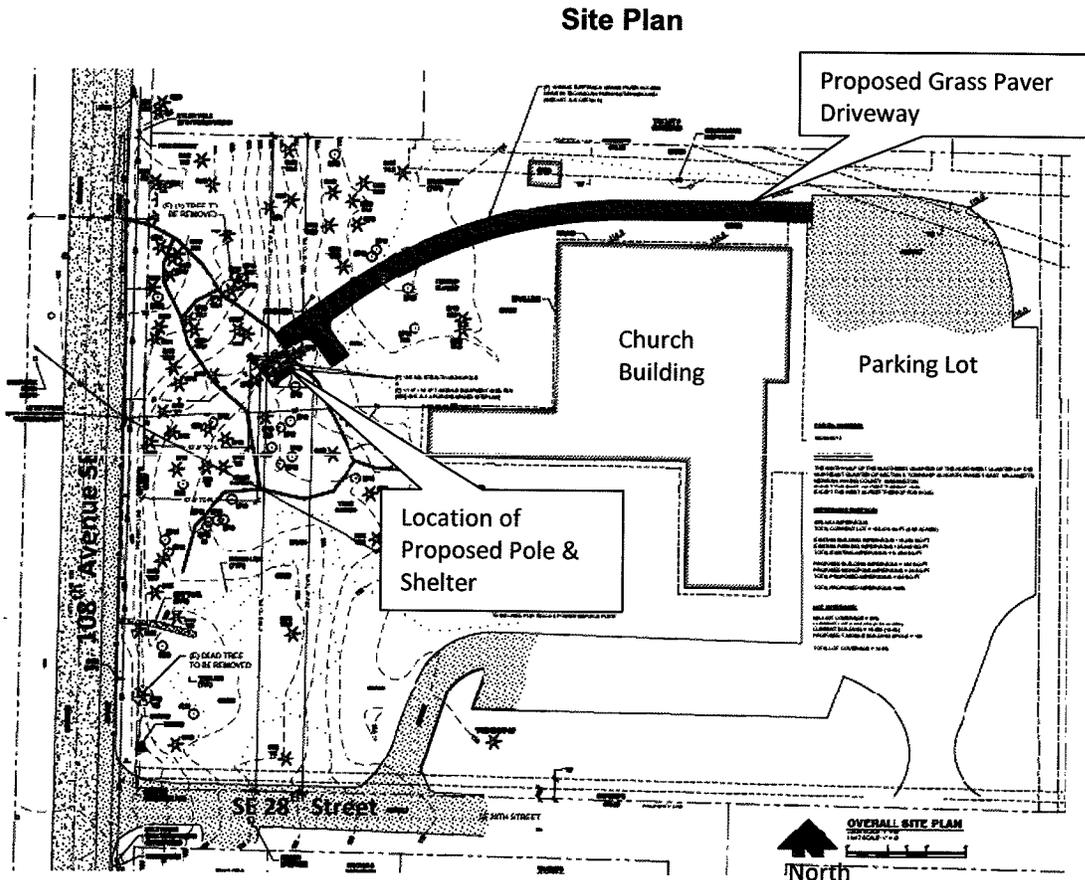
I. REQUEST AND REVIEW PROCESS

A. Request

T-Mobile is requesting Conditional Use Permit (CUP) approval to construct a new wireless communications facility (WCF) that consists of a new monopole and associated equipment shelter and maintenance driveway. The purpose of this land use approval request is to increase the capacity and coverage of T-Mobile's wireless service to single family residences located in a coverage gap within its system north of I-90, along the west side of Bellevue Way. This area includes the Enatai neighborhood and Beaux Arts Village, which is not part of the City of Bellevue. The coverage gap includes both in-building and outdoor coverage. The site plan provided below shows the property location adjacent to 108th Avenue SE.

B. Review Process

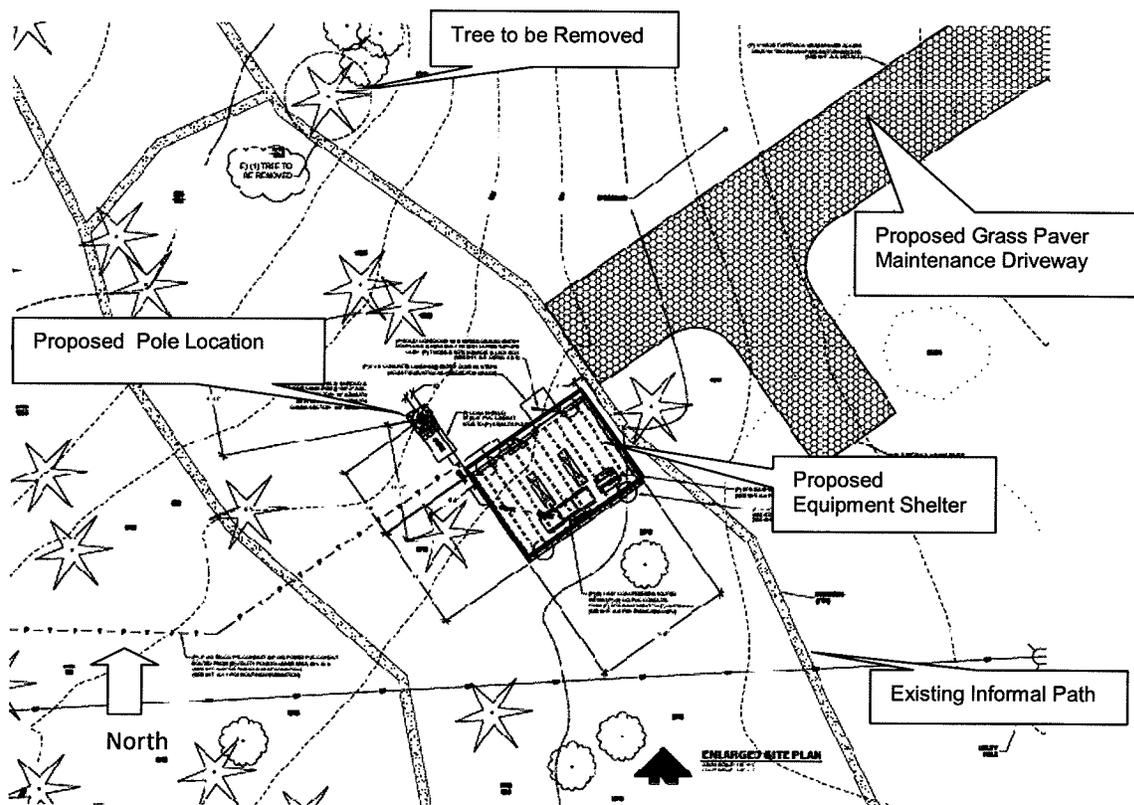
The proposed WCF location is on private property that is owned by the Bellevue Christian Church, within a single family residential land use district. Per Land Use Code (LUC) Section 20.20.195.C.1.c., a Conditional Use Permit is required for this proposal because it involves a new, freestanding WCF support structure (the new monopole) in a residential land use district.



II. PROPOSAL DESCRIPTION

The proposal contains three main elements: a monopole, and equipment shelter and a maintenance driveway. The location of these elements is shown on the enlarge site plan. Details of each element are then discussed below.

Enlarged Site Plan

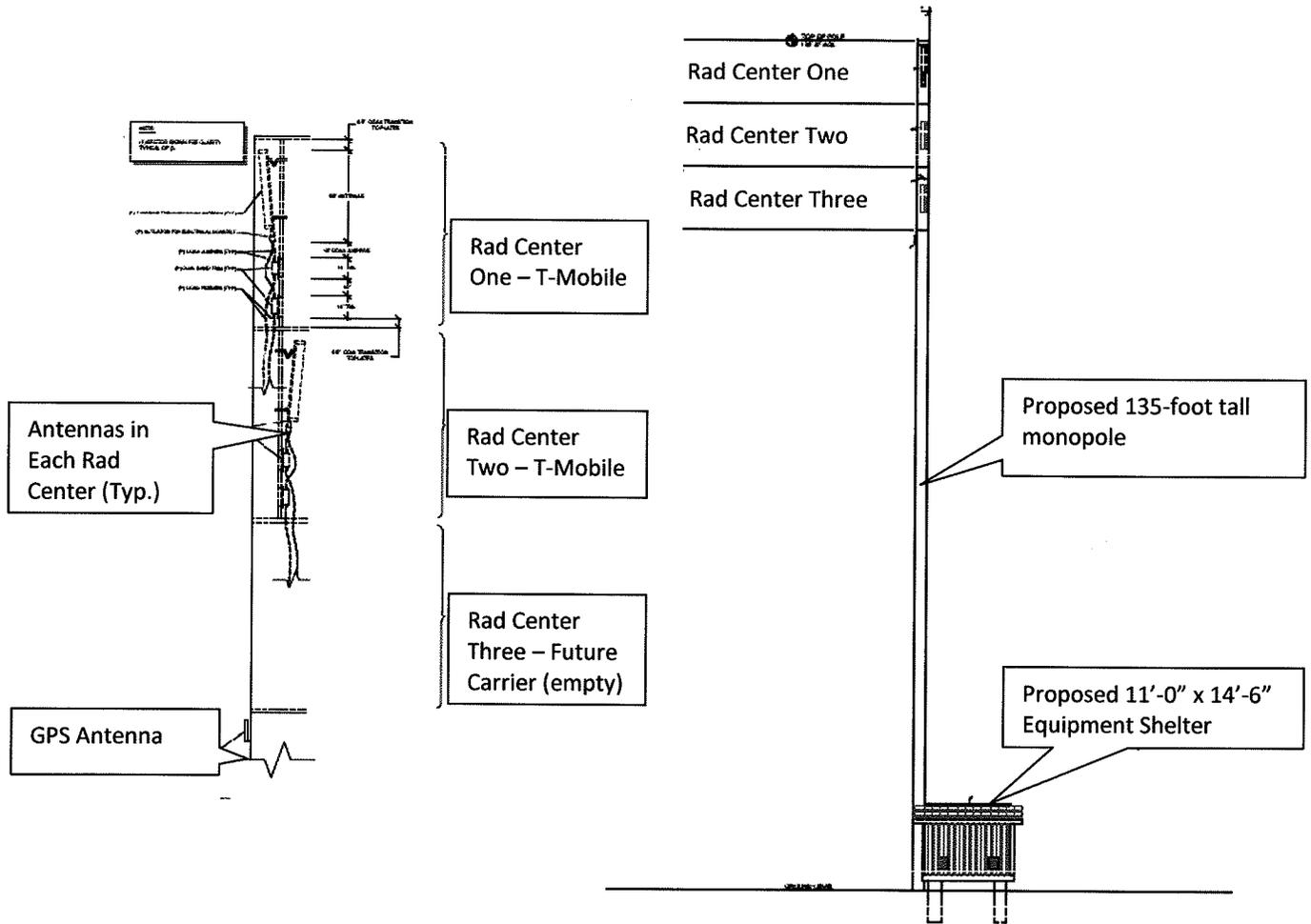


A. Monopole:

T-Mobile proposes to construct a 135-foot tall “stealth” monopole that will be 28-inches in diameter. The “stealth” design results in a sleek pole where all antennas and conduit will be contained within canisters so that they will not be visible. This proposal will have three, ten foot tall canisters located on the top portion of the pole. Each canister contains one rad center and there are three antennas per rad center. T-Mobile will use the top two rad centers and space in the third, lowest rad center will be available for co-location and installation of antennas - possibly by another carrier. T-Mobile will initially deploy only the three antennas in the top canister. One small GPS/E-911 antenna that is approximately 12-inches long and seven-inches in diameter will be located on the exterior of the new pole near the top. The pole will be

Painted dark green to blend into the surrounding background of evergreen trees and native understory vegetation. Antenna details and the pole elevation are shown below.

Monopole Design



Detail of Canister with Antennas

Elevation of Pole and Equipment Shelter

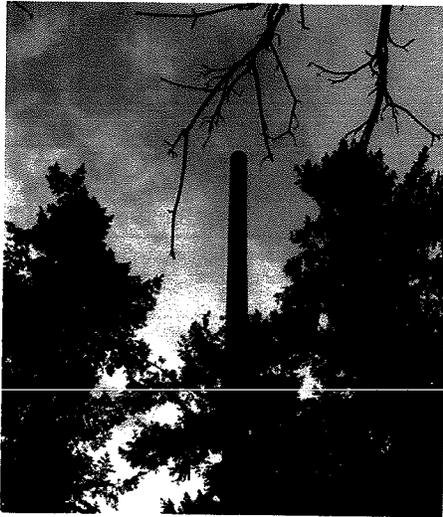
B. Equipment Shelter:

The equipment for this WCF will be enclosed within a new shelter building located near the base of the pole. The shelter will be approximately 160 square feet (11'-0" by 14'-6") and 13-foot tall. The building will have a pitched roof with a dark, non-reflective roofing material and hardie panel vertical siding that will be painted a dark earth tone brown to blend in with the existing native vegetation that surrounds the proposal site. In addition, the building

will be located on concrete piers to minimize the impact to the property and disturbance to the existing grade. All conduit from the pole to the cabinets within the shelter will run underground and will be constructed using directional boring versus an open trench to minimize tree root disturbance.

**Photos of an Existing “Stealth” Monopole in Bellevue at
15 140th Avenue NE**

Typical Base of “Stealth”
Monopole



Typical Top Profile of “Stealth” Monopole

C. Maintenance Driveway and Landscaping:

Driveway: A ten-foot wide maintenance driveway constructed of pervious grass pavers will be installed to provide access for maintenance vehicles. The driveway will be accessed off the eastern parking lot of the church and will run along the northern side of the church building to the pole and equipment location. The pervious grass pavers will be virtually invisible and look like lawn. It is anticipated that the driveway will be used approximately once per month to allow truck access for general maintenance of the WCF.

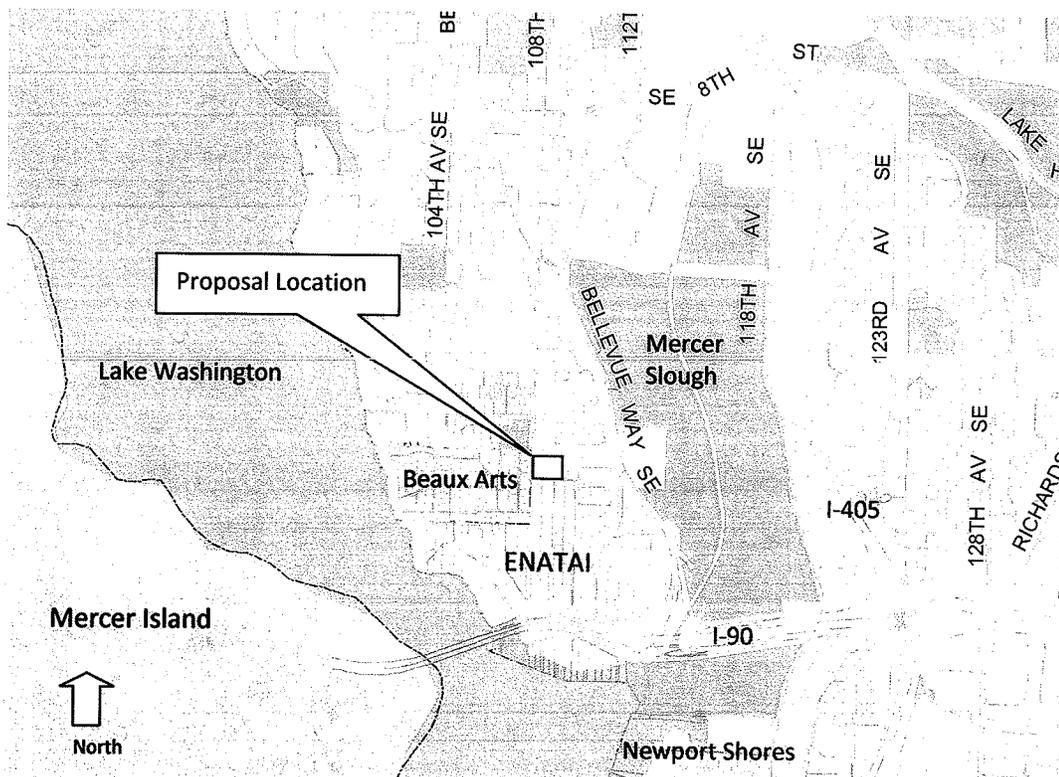
Landscaping: One Douglas fir tree will be removed near the proposed pole location to accommodate the construction crane and a second ornamental pine, which is in extremely poor health, will be removed at the request of the church (refer to the discussion regarding tree removal in III.B of this report). Additional landscaping around the pole and equipment structure with native confers, shrubs, and groundcover will not only provide visual screening, but will also enhance the existing native vegetation found on site. An installation and maintenance security device will be required prior to approval of any associated building permits to ensure the long-term viability of any vegetation associated with this project.

III. SITE DESCRIPTION AND ZONING/CONTEXT

A. Site

The proposal site is owned and used by the Bellevue Christian Church in the Enatai neighborhood. The property is bordered by 108th Avenue SE to the west, SE 25th Street to the south, three single family homes to the east and three single family homes to the north. See vicinity maps below. The church building itself lies near the middle of the site. Directly to the west, across 108th Avenue SE, lies Beaux Arts Village; a residential community

Vicinity Map of Enatai Neighborhood

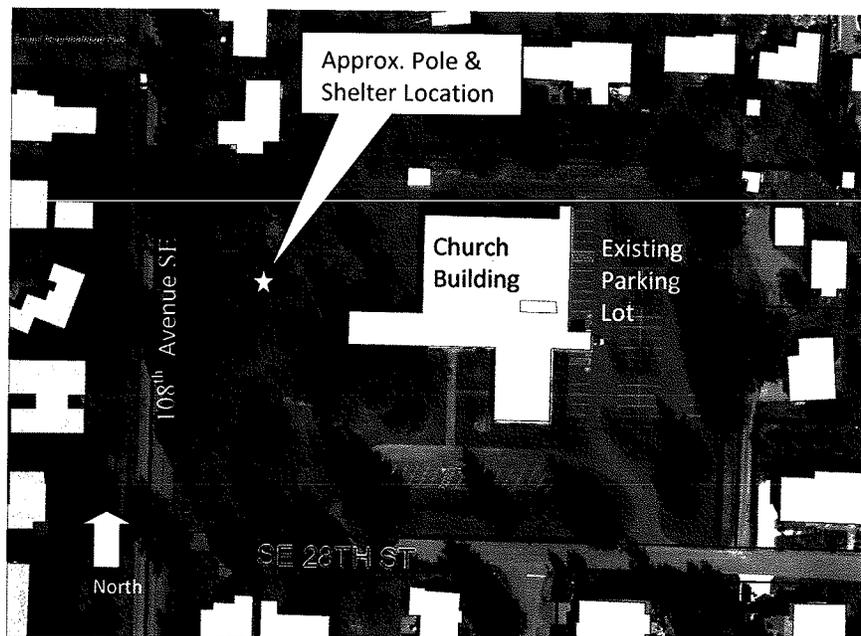


that is not in the City of Bellevue. The greater Enatai neighborhood lies in a unique location within the city in that it is bordered by water and/or wetlands on three sides: the Mercer Slough to the east, I-90 and Lake Washington to the south, Lake Washington to the west, and west Bellevue to the north.

Vicinity Aerial Photo



Site Aerial Photo

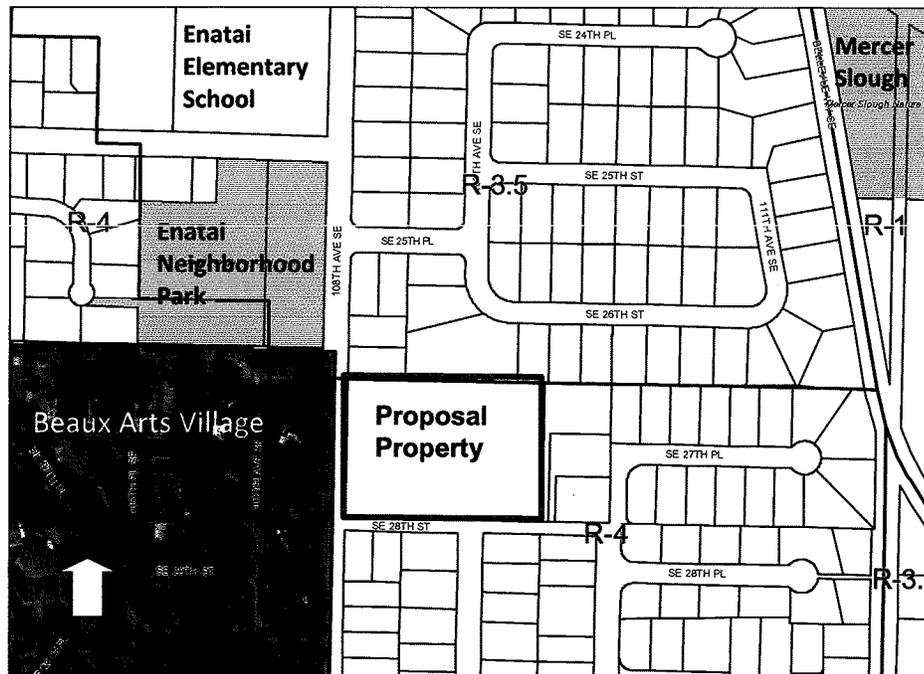


The eastern half of the proposal site (church property) is developed with the church building and two parking lots. The majority of the western half of the site contains open space that is a combination of open lawn in the southwest corner and a more natural area in the northwest corner consisting of native vegetation, including an understory of shrubs and blackberries, mature conifers and smaller deciduous trees. The proposed location of the WCF is in this northwestern quadrant. The proposal site is also approximately 660-feet from an existing eagle's nest in Beaux Arts Village. Refer to Section IV.B below for a discussion of impact evaluation of the proposal relative to the nest.

B. Zoning/Context

The neighborhood directly adjacent to the proposal site to the east and south is zoned R-4, Single Family Residential. The neighborhood to the north is zoned R-3.5, Single Family Residential. These land use districts are comprised primarily of single family homes, but it also includes the Enatai Neighborhood Park and Enatai Elementary School to the northwest. Directly to the west, across 108th Avenue SE, is the single family neighborhood of Beaux Arts Village, which is not part of the City of Bellevue. The Enatai neighborhood and proposal site is characterized by dense stands of tall, mature evergreen trees and topography that slopes down to an elevation near sea level in the Mercer Slough to the east and Lake Washington to the west. The highest elevation on the proposal property is approximately 160 feet and the highest elevation in the greater Enatai neighborhood is approximately 178 feet (to the west of the proposal site).

Zoning Map



IV. ENVIRONMENTAL IMPACTS OF THE PROPOSAL

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The SEPA Checklist is available for public viewing in the project file at City Hall. The City codes and requirements, including the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes adequately mitigate expected environmental impacts associated with this proposal. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

A. Earth and Water

There will be minimal soil disturbance or new impervious surface as a result of this proposal. Areas of disturbance will be limited to areas directly adjacent to the equipment shelter and the new pole and to the maintenance driveway. The equipment shelter will be placed on concrete piers to minimize soil disturbance and impacts to adjacent tree roots. In addition, by placing the shelter above ground, the new building will minimally impact existing water infiltration and groundwater flow. The piers themselves will only contribute approximately 20 square feet of new impervious surface. The area graded for the new maintenance driveway will be "paved" with a pervious, grass unit paving system that consists of thin-walled honeycomb plastic cells. The cells will receive amended planting soil and will be seeded with turf grass. Areas around the shelter and the pole will receive additional native plantings to enhance the existing water carrying capacity of the native soils as shown on the landscape plan. The entire project will add only approximately 25 square feet of new, permanent impervious surface. All areas of temporary disturbance, either associated with construction or future maintenance, will be replanted with native trees, shrubs, groundcover and/or lawn. **Refer to Condition of Approval regarding disturbance and restoration in Section IX of this report.**

The location of the new monopole on the project site is relatively level and erosion is not expected from construction activities, and placement of the shelter on piers will allow existing groundwater flow patterns to remain essentially unchanged. However, sedimentation and erosion control techniques will be required per the Clearing and Grading permit.

The proposal site lies within a designated wellhead buffer for a well in the Town of Beaux Arts Village. As directed by the Washington State Department of Health, Office of Drinking Water (ODW), the applicant has identified any possible sources of groundwater contamination and this information has been sent to Beaux Arts Village in a letter from the City of Bellevue, dated September 3, 2010. This letter is available for public viewing in the project file at City Hall. To avoid impacts to water resources, any pesticide, herbicide and/or insecticide associated with this proposal should be prohibited unless

the applicant does the following: 1) submits documentation that the use of pesticides, herbicides and/or insecticides has been reviewed and approved by a consulting arborist, 2) submits information regarding how any pesticides, herbicides and/or insecticides will be used in accordance with the City of Bellevue's "Environmental Best Management Practices", and 3) sends notification of the potential use of pesticides, herbicides and/or insecticides to the water department in Beaux Arts Village. **Refer to Condition of Approval regarding pesticides, herbicides and insecticides in Section IX of this report.**

B. Animals

The proposal site lies approximately 660 feet northeast from an identified active eagle's nest in the Town of Beaux Arts Village (see aerial photo below). This location is within Zone 2 for eagle management, as determined by the Washington Department of Fish and Wildlife (WDFW). This zone includes projects within a ring of 400 to 800 feet around an identified nest. Potential impacts to the eagle habitat from the proposal would include construction activities during critical nesting periods and the removal of one Douglas fir tree.



Per the performance standards for projects that involve species of local importance (LUC 20.25H.160), this proposal is required to implement the wildlife management plan developed by the WDFW. If the habitat does not include any other critical areas, which is the case with this proposal, compliance with the wildlife management plan constitutes compliance with this section of the code.

The applicant is working with Christopher Anderson at the WDFW, (425) 775-1311, ext. 111. Based on information sent by the applicant, WDFW will review the materials and issue an Eagle Management Plan to the owner of the property (Bellevue Christian Church). T-Mobile proposal information is currently in review by the WDFW. In addition, certain activities within 660 feet eagle nests require consultation and/or permits from the U.S. Fish and Wildlife Service. The applicant is in contact with the USFWS representative, Jim Michaels, (360) 753-7767. It will be a recommendation in this report that the approval of this project be conditioned to require both WDFW and USFSW approval and issuance of a final WDFW Eagle Management Plan. Project development would then be required to comply with conditions contained in these documents. **Refer to Condition of Approval regarding the eagle management plan in Section IX of this report.**

Construction Timing: Timing restrictions regarding construction are not now required by WDFW. However, based on WDFW information, eagles are most sensitive to disturbance between February 1st and May 1st. During this time, eagles are establishing territories and beginning incubation. The chicks typically hatch in mid to late April. Once the chicks have hatched, the adults are less likely to abandon the nest as a result of disturbance. After May, chicks are able to keep themselves warm and feed themselves, so they are more easily able to survive periods when the adult is off the nest due to temporary disturbance. Therefore, it is *recommended* that the construction of this pole take place in the less sensitive months of May 1st through July 1st.

Tree Removal: The applicant has submitted a Tree Risk Assessment and Preservation Plan, prepared by Harmsen and Associates, Inc., dated November 29, 2010. This Assessment was required by WDFW in order to create the site-specific Eagle Management Plan. Two trees are proposed to be removed with this project. The first is a Douglas fir tree to the northwest of the proposed pole location. This tree is characterized by poor structure, low vigor and a broken-out top. The broken-out top means that the top is well below the overall forest canopy and it therefore would not provide eagle habitat. In addition, this tree will be removed in order to accommodate the crane needed to construct the WCF. The second tree is an ornamental pine that is in extremely poor health, located on 108th Avenue SE in the southwest corner of the site. It presents a hazard to the street, utility lines and the existing church sign. The Church has asked T-Mobile to remove this tree at the same time that they remove the Douglas fir. This tree is not in a critical area. The Tree Risk Assessment made the following recommendations, which have both been adopted into the T-Mobile proposal:

- 1) Build the equipment structure on piers rather than a standard footing.

- 2) Install the utilities (power and telephone) underground using a directional bore versus conventional trenching.

C. Plants

The proposal site is nestled within an undeveloped portion of the church property, characterized with tall, mature conifers and maples, and a native shrub understory. The applicant has submitted a landscape plan whereby new native conifers (western red cedars and Douglas firs) and shrubs will be used to screen the equipment structure and base of the pole. The concept of the planting plan is to use an informal planting design to enhance the existing natural area of the church site while also providing screening of the WCF. These plantings will also provide improved habitat for the area. Additionally, the maintenance driveway will be constructed with a pervious, grass paving product and reseeded with lawn. The removal of one Douglas fir and one ornamental pine is discussed in Section IV.B above. All other existing significant trees on site will remain and will require tree protection during construction per the Clearing and Grading permits.

All new plantings will be inspected for a period of not less than one year and establishment of the plantings will be assured under installation and maintenance assurance devices. Any area of disturbance, either during construction or continued maintenance, will be restored with appropriate groundcover. If in the future, T-Mobile's signal is interrupted by tree growth, sensitive pruning of the trees may be allowed through the Land Use Exemption process to restore the signal, based on the direction of a certified arborist. Lastly, any pesticide, herbicide and/or insecticide used in conjunction with the construction of this proposal should be prohibited except as approved by a consulting arborist and Land Use. **Refer to Condition of Approval regarding disturbance and restoration, tree protection, pesticides, herbicides and insecticides, installation and maintenance assurance devices, and tree growth/signal interruption in Section IX of this report.**

D. Noise

The site is within an established single family neighborhood, whose residents are most sensitive to disturbance from noise during evening, late night and weekend hours when they are likely to be at home. Construction is expected to last approximately one month and construction noise will be limited by the City's Noise Ordinance (Chapter 9.18 BCC), which regulates noise related to construction activities and noise level impacts to adjacent properties.

The associated mechanical equipment, including the radio cabinets, will be placed within the equipment shelter. Therefore, the noise from this installation will be limited to one air conditioning exhaust fan mounted on the southern elevation of the shelter, away from the closest homes to the north. The shelter is over 80-feet from the nearest building (the church) and 100-feet from the side elevation of the nearest single-family home to the north.

Refer to Condition of Approval regarding noise and construction hours and equipment shelter noise requirements in Section IX of this report.

V. PUBLIC COMMENT

The T-Mobile application was submitted on June 30, 2010. The surrounding property owners were mailed notice of the proposal in the Weekly Permit Bulletin on July 15, 2010 and a public information sign was installed that same day on 108th Avenue SE on the west side of the church's property. The minimum public comment period established for this application ended on July 29, 2010, although public comment was accepted until the writing of this recommendation. A public meeting was held on August 4, 2010 at City Hall and was attended by the applicant's team, city staff, and two citizens.

Due to a revision of the location of the WCF on the church property in response to citizen comments, the project was re-noticed on December 2, 2010 and a second public meeting was held on January 6, 2011 at City Hall. This meeting was attended by the applicant's team, city staff, and 12 citizens. At the time of this writing, there are 44 parties of record for this project.

The issues raised by the parties of record and the City's response are summarized below:

1. **Issue:** There is an eagle nest near the proposal site.

Response: The impacts of the proposal on the eagle nest have been addressed during the SEPA review. Protection of eagle nests falls under the review of WDFW. The applicant has contacted WDFW and submitted requested information. An Eagle Management Plan will be issued by WDFW. Development and operation of the facility will be required to be undertaken consistent with conditions included in the eagle management plan. **Refer to discussion in Section IV.B above and Condition of Approval regarding the eagle management plan in Section IX of this report.**

2. **Issue:** The proposal site lies within the Town of Beaux Arts Village wellhead buffer.

Response: The applicant has contacted the Office of Drinking Water (ODW). Development and operation of the facility will be required to be undertaken consistent with any requirement imposed by ODW. The impacts of the proposal on the wellhead buffer have been addressed during the SEPA review in Section IV.A above.

3. **Issue:** Why is the height of the pole so tall (135-feet)? This will be the tallest pole in a residential neighborhood in Bellevue. Will it set a precedent for other poles of this height throughout Bellevue? The city should request an independent review per LUC 20.20.195.D.7.

Response: Refer to discussion in Section VII.E below regarding the pole height. Note that each WCF proposal is reviewed based on the unique conditions found at each specific site. The fact that this pole will be 135-feet tall does not

give tacit approval for any other pole of this height. In each case, based on the site conditions, the carrier's engineer must certify that the height requested is the minimum necessary to meet equipment functionality needs. In the case of the Enatai neighborhood, very tall mature conifer trees and topography have necessitated the request for a pole of this height. For discussion of the independent technical review, refer to Section VII.E below in this report.

4. **Issue:** Will any trees be removed as a result of this project?

Response: Two trees are proposed to be removed with this project. Refer to the discussion in Section IV.C above. Any tree removal on the property in the future would only be allowed through the Land Use Exemption process and permit. **Refer to Condition of Approval regarding tree growth and signal interruption in Section IX of this report.**

5. **Issue:** Why does this pole have to be located within this single family neighborhood?

Response: Refer to discussion in Section VII.E.2.a below regarding T-Mobile's choice of preferred location within a single family land use district and the T-Mobile Alternatives Analysis, which is available for public viewing in the project file at City Hall.

6. **Issue:** What is the impact from the radio frequency emissions?

Response: Radio frequency emissions are regulated by the Federal Communication Commission (FCC). Refer to the discussion regarding radio frequency emissions in Section VII.E.5 below.

7. **Issue:** What are the noise impacts from the equipment? Will it create a hum?

Response: Noise from the equipment will be limited to the noise from the air conditioning exhaust fan. Refer to Section IV.D above for the discussion of the noise impacts from this proposal.

8. **Issue:** There is an application for another WCF in the Enatai neighborhood. Can these facilities be located on the same pole?

Response: Although the City supports co-location through its preferred facility design hierarchy (LUC 20.20.195.D.2), the City does not have the authority to require co-location by another carrier on any WCF facility. T-Mobile is proposing to build in a space for another carrier by including a third (lowest) empty canister on the proposal monopole. The height of the proposed pole was determined by T-Mobile's coverage objectives and is not dependent on the provision of any space for future co-location.

9. **Issue:** Cell towers tend to be ugly. What will this tower look like?

Response: This pole will be what is referred to as a "stealth" monopole, whereby none of the antennas will be showing on the outside of the pole and it will be painted dark green to blend into the existing vegetation. **Refer to discussion of the pole design in Section I and Condition of Approval regarding the monopole and shelter colors in Section IX of this report.**

10. Issue: There is a concern regarding privacy and whether the government will install cameras on top of these towers?

Response: This is a private installation and the City has no authority and/or plans to place cameras on the pole.

11. Issue: There is a perception of lack of disclosure on the part of the City regarding this application.

Response: The City has a multi-pronged approach to notifying citizens regarding Conditional Use Permit applications and all three were employed to notify the public regarding this proposal:

1) Two public signs: A double sided sign (a double-sided sign constitutes two signs) was placed on 108th Avenue because most of the traffic in this neighborhood uses this minor arterial.

2) Mailing of the Notice of Application in the Weekly Permit Bulletin: The Weekly Permit Bulletin was mailed on July 15, 2010 to all adjacent property owners within a 500-foot radius of the proposal property. Included in the notice was the information for the required Public Meeting. A second re-notice was sent out to the same property owners and all Parties of Interest on December 2, 2010 to notify parties of changes made to the proposal in response to public comments received and to notify them of a second, courtesy public meeting.

3) Public Meetings: The public meeting was held on August 4, 2010 at City Hall. When the project was re-noticed on December 2, 2010, and a second, courtesy public meeting was notice and subsequently held on January 6, 2011 at City Hall.

4) Newspaper Notice: A notice was placed in the Seattle Times with a link to the Weekly Permit Bulletin on July 15, 2010 and December 2, 2010.

5) Neighborhood Associate Meeting: At the request of the Enatai Neighborhood Association (ENA), staff attended the Enatai Neighborhood Association meeting on December 13, 2010 at Enatai Elementary School. There were 17 citizens in attendance. Staff gave an overview of the proposal, the changes that had been made as a result of public comment, and a review of the Conditional Use Permit review process. Attendees were also reminded of the upcoming second, courtesy public meeting on January 6, 2011.

Lastly, the entire project file has been available for public view during regular business hours at City Hall while the permit has been in review.

12. Issue: Why didn't the city request an independent technical review per LUC 20.20.195.D.7.

Response: The applicant has submitted all information required by the Land Use Code and the submittal information is consistent with materials submitted for similar WCF projects. No irregularities or conflicts were identified by the staff that warranted requesting an independent review.

13. Issue: There is an informal path that cuts through the proposal. Will these paths remain and how will they be affected by the proposed WCF?

Response: The informal paths through the property will not be impacted. The shelter and the pole are located such that the existing paths will remain and will go around the WCF. The equipment shelter building will be fully locked and secured and there is no way for anyone to climb on the pole due to its sleek, smooth design.

14. Issue: Could additional antennas be added to the outside of the pole in the future?

Response: The “stealth” pole design places all antennas in canisters that are inside of the pole. Antennas are not placed outside of the pole. This sleek design is being proposed for this site because it has fewer visual impacts than a pole with exposed antennas. If for any reason, a carrier wanted to place antennas outside of the pole, that carrier would have to apply for an Administrative Amendment to the Conditional Use permit for this project. However, an amendment is approved only if the criteria in LUC 20.30B.175.D are met. It is highly unlikely that, given the visual impacts associated with exposed antennas, a proposal to place antennas *outside* of the pole could meet these criteria.

15. Issue: How is the monopole to be constructed? Could it blow over?

Response: The monopole will have a drilled pier foundation that is approximately 16-feet deep and 5-feet in diameter. The pole has been designed and engineered to withstand major winds and will be required to have a CD permit (WCF antenna permit on private property), which is a construction permit that includes structural review.

16. Issue: The proposal is not consistent with the Comprehensive Plan Policy LU-22: “Protect residential areas from the impacts of non-residential uses of a scale not appropriate to the neighborhood.”

Response: Refer to discussion in Section VII below regarding compatibility with the existing neighborhood and Comprehensive Plan policies that specifically govern review of wireless communication facilities. The wireless-specific policies were adopted by the City Council to be consistent with Policy LU-22.

VI. CHANGES TO THE PROPOSAL AS A RESULT OF CITY REVIEW

A. Location WCF on Proposal Site:

The pole and equipment shelter were moved approximately 100-feet to the north from the originally submitted location to an area with denser existing vegetation. The overall impacts from the project will be lessened, particularly the visual impacts from the surrounding single family homes.

B. Maintenance Driveway:

The maintenance driveway was shifted to run along the northern side of the church building and will be accessed off of the eastern parking lot versus off of SE 28th Street. This will eliminate the visual corridor from SE

28th Street that would have been created by construction of the access point at that location.

VII. APPLICABLE DECISION CRITERIA/FINDINGS AND CONCLUSIONS

Compliance with decision criteria of Land Use Code Section 20.30B.140 is discussed below.

A. The conditional use is consistent with the Comprehensive Plan.

Response: The proposal meets the overall intent of the Utilities Element of the Comprehensive Plan by locating the proposed facility to minimize visual impacts while at the same time meeting coverage and capacity needs of T-Mobile's network, as summarized under Section E below.

The Comprehensive Plan policies listed below from the Utility Element have been considered in support of the City's recommendation regarding this site:

Policy UT-5. *Design, construct, and maintain facilities to minimize their impact on surrounding neighborhoods.*

Policy UT-40. *Require the reasonable screening and/or architecturally compatible integration of all new above-ground utility facilities.*

Policy UT-41. *Protect Bellevue's aesthetic quality and infrastructure investment from unnecessary degradation caused by the construction of telecommunication infrastructure.*

Policy UT-53. *Require all utility equipment support facilities to be aesthetically compatible with the area in which they are placed by using landscape screening and/or architecturally compatible details and integration.*

Significant effort has been made by the applicant to minimize impacts resulting from this proposal, including moving the entire WCF further to the north where it is less visible to the surrounding neighborhood (see Section VI above). Additional efforts include use of a "stealth" monopole design that will place all antennas and coaxial cables entirely within the pole, painting the pole dark green and the equipment shelter dark brown, the use of pervious grass pavers for the maintenance driveway, and provision of landscaping that not only provides screening, but also enhances the overall quality of the existing vegetated areas on the church property.

Policy UT-51. *Prior to seeking city approval for facilities, encourage utilities service providers to solicit community input on the siting of proposed facilities which may have a significant adverse impact on the surrounding community.*

Policy UT-55. *Require the placement of personal wireless communication facilities in a manner that minimizes the adverse impacts on adjacent land uses.*

Policy UT-59. *Recognize that personal wireless communication facilities will be deployed in all areas of the city to provide*

coverage and capacity consistent with the changing use of wireless technology. Minimize the attendant impacts, particularly the visual impacts, of personal wireless communication facility towers, lattice towers and structures by utilizing criteria for the design and location of such facilities that appropriately balance the need for wireless services and the impacts of the necessary facilities.

Through extensive community involvement, which included two public meetings, a meeting with the Enatai Neighborhood Association, and a lengthy comment period, the proposal was revised to lessen the impacts of the WCF on the surrounding neighborhood (see Section VI. above and the proposal's response to WCF requirements in Section VII.E below).

Policy UT-60. Minimize visual impacts of personal wireless communication facilities by encouraging deployment in land use districts in the following preferred and descending order when possible, considering the provider's coverage needs: 1) Nonresidential land use districts, except Transition Areas; 2) Transition Areas; 3) Multifamily (R-20 and R-30) districts; and 4) and Park sites and Residential districts.

The entire coverage area shown in the submitted propagation maps for the WCF consists of residential properties that are important to T-Mobile's coverage objectives. Thus, the location needed to be within a single family land use district. Aesthetic treatments, including the use of a "stealth" monopole, specific paint colors, and landscape screening are proposed to make the facility as visually unobtrusive to adjacent single family homes as possible.

Policy UT-61. Minimize visual impacts of personal wireless communication facilities by encouraging system designs in the following preferred and descending order: 1) attached to public facility structures, building mounted, or integrated with utility poles, light standards, and signal supports; 2) co-located on utility poles, light standards, signal supports; and 3) free standing towers.

Policy UT-63. New freestanding facility towers and structures should only be considered when no feasible alternative exists or when visual intrusion is less than associated with placing the facility on an existing structure or building.

T-Mobile's proposal is consistent with these policies. The Alternative Site Analysis submitted by the applicant identifies the proposed location and design as having the least impact on the immediate neighborhood. While the proposed freestanding monopole is ranked fourth within the hierarchy of preferred system designs for wireless communication facilities (LUC Section 20.20.195.D.2.b), land use staff has found that a new monopole is preferable to co-locating on existing utility poles in the right of way, where the facility would most likely be adjacent and/or directly in front of multiple single family homes. In

addition, the design of a facility on an existing utility pole would necessitate antennas to be hung on the outside of the pole, whereas the “stealth” monopole has a sleek design where all of the antennas will be hidden within the pole.

B. The design is compatible with and responds to the existing or intended character, appearance, quality of development and physical characteristics of the subject property and immediate vicinity.

Response: T-Mobile’s proposed project is located in a residential neighborhood within the City of Bellevue. The proposed project utilizes the physical characteristics of the topography and natural vegetation on the site to minimize impacts to the surrounding area. The following measures are proposed to ensure the design is compatible with the surrounding area:

1. The new pole is located back from the street within an undeveloped portion of the site that has tall mature trees and native understory. The proposed pole is 135-foot tall, and the surrounding trees vary from 80 to 140 feet in height. The pole will be painted dark green to blend in with the trees.
2. The antennas will be placed inside of a canister shroud at the top of the pole, thereby eliminating unsightly antennas and conduit from view.
3. T-Mobile’s radio cabinets will be located within a new equipment shelter building on the Church property. The structure will be painted a dark brown to blend into the background of the surrounding vegetation.
4. Landscaping, including additional native conifers and shrubs, is proposed around all sides of the equipment shelter and new pole. The design of the new plantings is informal, in character with the existing native vegetation found on site. All areas of disturbance that occur as a result of construction will be restored per the submitted landscape plan.

Refer to Condition of Approval regarding monopole and shelter color and landscape installation and maintenance assurance devices in Section IX of this report.

C. The conditional use will be served by adequate public facilities including streets, fire protection, and utilities.

Response: The proposed facility will be served by existing public facilities, and will not require additional facilities or streets. Access to the WCF via a ten-foot wide grass paver driveway will be for maintenance purposes only. The driveway will be accessed off of the church’s eastern parking lot. If this WCF causes interference problems with any of the existing radio systems for the City, this system will be required to immediately shut down until the interference can be removed or corrected. In addition, the facility will not be activated until all work in the project scope is completed. **Refer to Condition of Approval regarding existing radio system and interference and facility activation and completion of work in Section IX of this report.**

D. The conditional use will not be materially detrimental to uses or property in the immediate vicinity of the subject property.

Response: Approval of a Conditional Use will not be materially detrimental to the uses or property in the immediate vicinity of the subject property. The proposed pole and equipment structure will be located within an undeveloped portion of the church property and it will be surrounded by existing tall, mature conifer trees and native understory. Additional measures to reduce the impacts of the facility on the adjacent neighborhood include additional screening with native vegetation, painting the pole and shelter dark green and dark brown respectively to help them recede into the existing vegetation, and placing access to the maintenance driveway off of the church parking lot to avoid any traffic impacts to neighborhood streets.

E. The conditional use complies with the applicable requirements of the Land Use Code.

LUC 20.20.195: The proposal meets all specific Land Use Code requirements applicable to non-exempt wireless communications facilities per LUC 20.20.195.D 1-9, as summarized below.

- 1. Height:** The height limit for structures in this residential land use district is 30 feet. The proposed 135-foot tall pole may be permitted subject to Conditional Use Permit approval, as described in Section I of this report. Antennas are located to ensure that the facility operates safely and delivers clear and reliable service. There currently is a coverage gap within T-Mobile's system north of I-90, along the west side of Bellevue Way. This neighborhood has tall mature trees and significant changes in topography. Therefore, in order to work effectively and provide reliable coverage, the antennas must "see" above the majority of these obstructions as well as factor in future tree growth. Antennas are typically placed 10 to 20-feet above existing trees. The heights of the existing mature trees around the proposed pole location range between 80 and 140-feet, with most being well over 100 feet tall. If, in the future, tree growth causes signal interference, the applicant will not be allowed to top the trees and will be required to get land use approval to perform any sensitive pruning. **Refer to Condition of Approval regarding trees growth and signal interruption in Section IX of this report.**

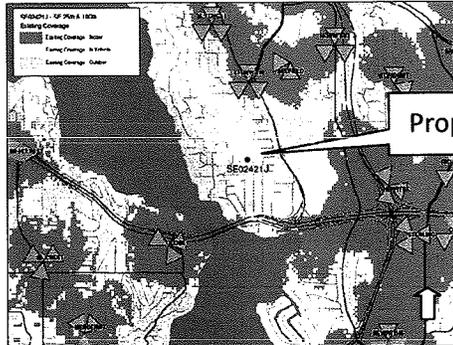
The applicant has submitted a detailed analysis, entitled Supplemental Information Sheet 18A, regarding why the requested height is the minimum necessary for the system and has demonstrated the need by including information regarding the heights of the trees on the proposal property. As outlined in the applicant's submittal materials, the T-Mobile engineers originally proposed a 150-foot tall pole. Due to internal review by T-Mobile, the height was reduced to 135-feet; determined to be the minimum necessary to service the desired coverage area. As required in LUC

20.20.195.D.1, the applicant’s engineer has certified that 135-feet is the minimum necessary in a document entitled “Certification Pursuant to LUC 20.20.195.D for Non-Exempt Wireless Communication Facilities,” dated June 28, 2010. This document is available for public viewing in the project file at City Hall. In addition, the applicant has provided propagation maps that illustrate

T-Mobile Height Comparison Propagation Maps

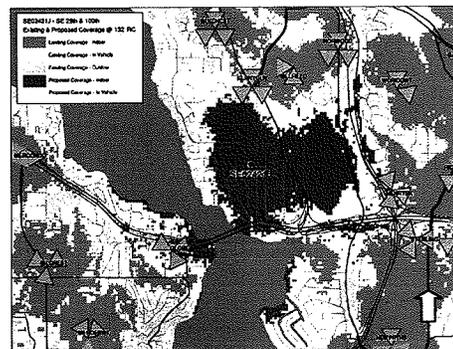
Existing Coverage Map

Dark grey = outdoor coverage only
 Light grey = no reliable indoor/outdoor coverage
 Green = existing reliable coverage

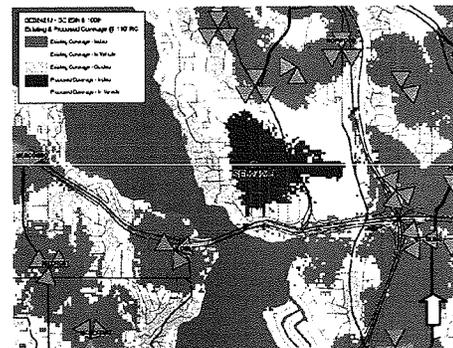


Proposed Pole with 132-foot rad center (135-foot tall pole)

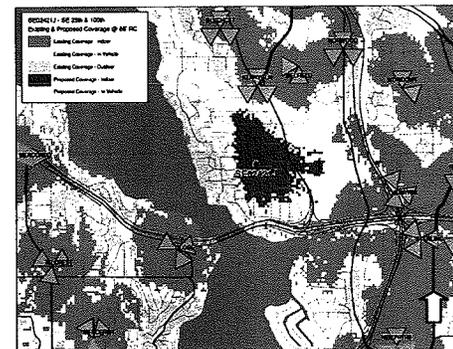
All Maps Below:
 Bright green = proposed reliable indoor coverage
 Bright yellow = proposed reliable outdoor coverage



Proposed Pole with 110-foot rad center



Proposed Pole with 85-foot rad center



the changes in coverage between proposed poles at heights of 135-foot (current proposal), 110-foot and 85-foot. These maps are provided on page 21 above and enlarged versions may be found as Attachment 3 to this report.

The applicant has also provided photo simulations of the proposed pole that illustrate the height of the pole from various points throughout the neighborhood, based on a balloon test that was performed on December 4, 2010 and attended by members of the surrounding neighborhood. These simulations are provided as Attachment 3 to this report.

Lastly, the applicant performed a second drive test in January, 2011 and provided maps demonstrating the difference in coverage between a 110-foot and 135-foot tall pole. The test results are provided as Attachment 4 to this report.

The Supplemental Information Sheet 18A and the engineer's certification are available for public viewing in the project file at City Hall.

2. Wireless Communication Facility Location and Design:

a. Preferred Location:

T-Mobile's site development team was faced with a number of constraints in trying to find a location for a new facility that would fill the identified coverage gap, including radio frequency coverage needs; land use requirements; aesthetic considerations such as minimizing visual impacts; existing tall, mature trees; hilly topography; and construction feasibility.

The submitted Search Ring Map, based on the Propagation Map, identifies the area where a T-Mobile WCF needs to be located in order to meet their coverage and capacity needs. The entire coverage area within the ring is zoned residential and there are no non-residential districts within the search ring from which to provide service. In response to citizen comment, the applicant performed a second drive test in January, 2011 and produced maps and analysis showing the existing levels of service in the search ring polygon to demonstrate the need for expanded reliable T-Mobile coverage.

Lastly, the proposed antenna location is needed to meet FCC requirement for Enhanced 911 (E911) service. Provision of E911 Service is a major component of the demand for additional cell sites and the proposed WCF will provide a more precise triangulation for providing E911 service as required by the FCC. Additional information may be found in the Radio Frequency Engineer Site Analysis report. Thus, the subject proposal needed to be located in a residential land

use district, which is fourth in the preferred location hierarchy per LUC Section 20.20.195.D.2.a.

The applicant's engineer has certified that the proposed location is necessary to meet T-Mobile's coverage and capacity needs for this area. The engineer's certification, the radio frequency engineer site analysis report and the search ring map are available for public viewing in the project file at City Hall. The propagation maps and drive test maps and analysis are Attachments 3 and 4 respectively to this report.

b. Preferred Facility Design:

The proposal design is the least preferred alternative in the city's identified design hierarchy – a new freestanding WCF support structure. However, after a thorough analysis of the impacts of this "stealth" pole, where the antennas and cables will be completely integrated into the pole and the equipment will be housed in a shelter, staff found that the submitted design will have fewer impacts than co-location on an existing utility pole within the public right-of-way within the search ring, where antennas and cables would most likely be exposed and the WCF would be directly in front of multiple single family homes.

c. Minimizing Adverse Impacts:

There are no sites in non-residential land use districts that would provide coverage to T-Mobile's targeted coverage area. Therefore, to minimize impacts, the proposal includes the following:

- 1) A location that minimizes the visual impact of the facility from surrounding properties by tucking the pole and structure into an undeveloped area of a church site a significant distance away from the public streets and surrounding homes, and
- 2) A "stealth" monopole design where the antennas and conduit will be hidden inside of the pole. Additionally, the pole will have a sleek design with a uniform diameter, and will be painted dark green to blend into the vegetated background, and
- 3) A structure to house the WCF equipment that will be painted dark brown to recede into the vegetated background, and
- 4) Additional vegetated screening with native trees and shrubs around the pole base and equipment structure, utilizing an informal design concept that also enhances the existing vegetation, and
- 5) A pervious grass paver maintenance driveway that is accessed off of the private church parking lot and, once established, will look like a lawn.

Refer to Condition of Approval regarding monopole and equipment shelter color, landscape installation and maintenance security device in Section IX of this report.

The applicant has also provided a letter from the radio frequency engineer which states that the facility complies with radio frequency emission guidelines set forth by the Federal Communications Commission (see Section VI.E.5 below).

3. Dispersal Limits:

The criterion of this section does not apply because the proposed facility is on private property. However, at this time, there are no other WCF facilities within 520 feet of the proposal location.

4. Development Standards:

As described in previous sections of this report, all development standards applicable to wireless communications facilities will be met by this proposal as conditioned, including the color of the pole and equipment structure, a design that minimizes the visual intrusion of the facility, design and screening of the WCF equipment shelter, and construction and site restoration techniques that minimize long-term impacts.

Regarding co-location, the new monopole has been designed with one co-location space available below T-Mobile's antennas (rad centers). However, the provision of a space for co-location has no bearing on the 135-foot height that is required to address T-Mobile's identified service area gap.

5. Radio Frequency Emissions:

According to United States' Telecommunication Act of 1996, Section 704, III,(D), "no state or local governmental entity may regulate the placement, construction, or modification of personal wireless service facilities on the basis of environmental effects of radio frequency emission to the extent that such emissions comply with FCC regulations."

The LUC requires that a WCF applicant demonstrate compliance with the FCC regulations. T-Mobile's radio frequency engineer has provided documentation stating that the facility will comply with the radio frequency emission standards adopted by the Federal Communications Commission. This documentation is available for public viewing in the project file at City Hall.

6. Setback Requirements for Freestanding Wireless communication Facilities:

All applicable setback requirements of the Land Use Code have been met and exceeded under this application. The required setbacks are 20-feet from the property line along 108th Avenue SE (front setback), 20-feet from the property line along SE 28th Street (front setback), and 20-feet from the northern property line (rear setback). The new monopole will be approximately 60-feet from the property line along

108th Avenue SE, 215-feet from the property line along SE 28th Street, and 110-feet from the northern property line.

7. Independent Technical Review:

The applicant submitted all required materials to demonstrate compliance with the criteria contained in LUC 20.20.195.D 1. and 2. The submittals were consistent with, and in many cases exceeded, the level of detail provided for similar WCF proposals. No irregularities or conflicts were identified by staff as unrectified by the end of the review process. Independent review for this application was found to be unwarranted.

8. Removal of Abandoned Antennas and Towers:

As conditioned, T-Mobile will be required to comply with this section of the LUC regarding the cessation of operations and the abandonment of the facility. **Refer to Condition of Approval regarding the removal of abandoned antennas and towers in Section IX of this report.**

9. Removal Upon Under-Grounding:

Because this facility is not co-located with a utility system, this section does not apply.

LUC 20.25H.155: The proposal meets all specific Land Use Code requirements applicable to habitat for species of local importance, per LUC 20.25H.155. The recommendation will include conditions regarding compliance with the eagle management plan developed by the WDFW. **Refer to discussion in Section IV.B above and Condition of Approval regarding the eagle management plan in Section IX of this report.**

VIII. RECOMMENDATION

After conducting the various administrative reviews associated with this proposal, including applicable land use consistency, SEPA, and City Code and Standard compliance reviews, the Director of Development Services does hereby **RECOMMEND APPROVAL** of the proposal subject to the following conditions in addition to all design components included in the project proposal:

IX. RECOMMENDED CONDITIONS OF APPROVAL

Staff recommends imposing the following conditions to ensure compliance with the relevant decision criteria and Code requirements. If imposed by the Hearing Examiner, these conditions must be complied with on plans submitted with the construction permit in addition to all design components included in the project proposal:

Applicable Codes, Standards and Ordinances

The applicant shall comply with all applicable Bellevue City Codes, Standards, and Ordinances including but not limited to:

Applicable Codes, Standards & Ordinances Contact Person

Clearing & Grading Code – BCC 23.76	Savina Uzunow, (425) 452-7860
Construction Codes – BCC Title 23	Building Division, (425) 452-6864
Fire Code – BCC 23.11	Adrian Jones, (425) 452-6032
Land Use Code – BCC Title 20	Sally Nichols, (425) 452-2727
Noise Control – BCC 9.18	Sally Nichols, (425) 452-2727
Utility Code – BCC Title 24	Brad Ayers, (425) 452-6054

1. Disturbance and Restoration

In addition to restoration of the site area delineated on the Landscape Plan, the applicant shall fully restore with appropriate and approved groundcover, to the satisfaction of the City of Bellevue, any additional areas disturbed and or damaged during construction or future maintenance of either the WCF or its associated equipment.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: LUC 20.20.195.D.4.c

2. Noise & Construction Hours

Noise related to construction is allowed from 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday. Construction noise is prohibited on all Sundays and WA state holidays. Exceptions to the construction noise hours limitation contained in the Noise Control Code MAY ONLY be granted pursuant to 9.18.020.C. when necessary to accommodate construction which cannot be undertaken during exempt hours. Prolonged exposure to noise created by extended hour construction activity is likely to have a significant impact on construction. In order to minimize detriment on residential uses in the immediate vicinity of the project, the Contractor shall not rely on City issuance of a blanket exemption from the Noise Control Code during the construction period. Allowances for short term work outside of normal construction hours shall be limited and will be reviewed on a case by case basis to verify necessity and ensure appropriate noise mitigation is utilized to protect surrounding uses and properties. Written requests for exemption from the Noise Control Code must be submitted two weeks prior to the scheduled onset of extended hour construction activity. Such requests may be required to include a noise analysis prepared by a noise consultant, including recommendations for achieving the noise limitations of the Noise Ordinance for new residential construction.

The use of best available noise abatement technology consistent with feasibility is required during construction to mitigate construction noise impacts to surrounding uses.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: BCC 9.18.020.C & 9.18.040

3. Noise Requirements for Equipment Shelter

Air conditioning exhaust in the equipment shelter must meet all applicable noise requirements per the noise ordinance, and the maximum permissible sound levels shall not exceed 55dBA at any adjacent property line.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: BCC 9.18

4. Eagle Management Plan and Construction Activity

a) Prior to *any* construction, the applicant must submit documentation that confirms approval and receipt of the Eagle Management Plan from the Washington Department of Fish and Wildlife (WDFW) and approval for the project from the U.S. Fish and Wildlife Service (USFWS). The applicant must comply with all requirements imposed by WDFW, USFWS, and the issued Eagle Management Plan.

b) To prevent disturbance to active nests, it is *recommended* that Construction shall not take place between February 1 – May 1 and July 1 – July 15.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: LUC 20.25H.160

5. Facility Activation/Completion of Work

The facility shall not be activated until all work included in the project scope and shown on the plans and specifications, as conditioned, is completed.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: LUC 20.40.425

6. Removal of Abandoned Sites

The owner of this facility shall provide the Director with copies of any notice of intent to cease operations that is provided to the Federal Communications Commission (FCC). All WCFs and the associated equipment shall be removed by the facility owner within 90 days of the date it ceases to be operational, or if the facility falls into disrepair and is not maintained. Disrepair includes structural features, paint, or general lack of maintenance, which could result in safety or visual impacts.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: LUC 20.20.195.D.8

7. Existing Radio System & Interference

If this telecommunications system causes interference problems with any of the existing radio systems for the City of Bellevue, this system will be required to immediately shut down until the interference can be removed or corrected.

REVIEWER: Adrian Jones, Fire Department
AUTHORITY: FCC 90.672

8. Monopole and Equipment Shelter Color

The monopole and GPS antenna shall be painted dark green and the equipment shelter shall be painted dark brown. *However*, once the pole is installed, the city will review the pole in the field to determine if the base will need to be painted dark brown to better blend into the wooded background. If this is determined to

be necessary, the applicant and the city will determine the limits of the dark brown paint on the pole in the field.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: LUC 20.20.195.D.4.a

9. Tree Protection

To mitigate adverse impacts during construction to trees to be retained, the applicant must comply with the following:

a) Clearing limits shall be established ***outside of the driplines*** for retained trees within the developed portion of the site. Six-foot chain link fencing with driven posts, or an approved alternative, shall be installed at the clearing limits (outside of the driplines) prior to initiation of any clearing and grading.

b) No excavation or clearing shall be performed within drip lines of retained trees except as specifically approved on plans. All such work shall be done by hand to avoid damage to roots and shall be done under the supervision of an arborist approved by the City.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: Bellevue City Code 23.76.060

10. Pesticides, Herbicides and Insecticides:

Prior to any use of pesticides, herbicides, and/or insecticides associated with the proposal, the applicant must receive approval from Land Use by providing the following:

a) Submit information that the use of pesticides, herbicides and/or insecticides has been reviewed and approved by a consulting arborist.

b) Send a letter to the Beaux Arts Water Department at the address below, detailing the pesticides, herbicides, and/or insecticides that will be used, and provide a copy to Land Use.

Beaux Arts Village Water Department
10530 SE 27th Street
Beaux Arts Village, WA 98004

c) Submit information to Land Use regarding which pesticides, herbicides, and/or insecticides will be used and how they will be used, in accordance with the City of Bellevue's "Environmental Best Management Practices."

REVIEWER: Sally Nichols, Land Use
AUTHORITY: Bellevue City Code 23.76.100

11. Landscape Installation Assurance Device

The applicant shall provide a landscape assurance device (assignment of savings or letter of credit) for 150% of the fair market value of labor and materials for any required landscaping not installed at final inspection.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: LUC 20.20.520.F.8 and K.1 and 20.40.490

12. Landscape Maintenance Assurance Device

To ensure plant establishment, the applicant shall provide a separate landscape assurance device that shall cover 20% of the fair market value of labor and materials for the initial landscape installation. This assurance device will cover the landscape maintenance of the project for a period of one year from the date of final inspection.

REVIEWER: Sally Nichols, Land Use
AUTHORITY: LUC 20.20.520.K.1 & 2 and 20.40.490

13. Tree Growth/Signal Interruption

If the signal is interrupted by tree growth over time, only sensitive pruning of the trees shall be allowed, if permitted, through the Land Use Exemption process to restore the signal. The proposed pruning shall be based on the direction of a certified arborist and the health and aesthetic value of the trees shall be maintained. *Tree topping is prohibited.*

REVIEWER: Sally Nichols, Land Use
AUTHORITY: LUC 20.20.195.D and 20.25.H.150

Attachments

1. Project Plans
2. SEPA – Environmental Checklist
3. T-Mobile Propagation Maps
4. T-Mobile Drive Test Maps and Analysis
5. Photo Simulations

T-Mobile – Bellevue Christian Church
10808 SE 25th Street
Project #10-117198-LB

Attachment 1
Project Plans



PROJECT INFORMATION:
**SE 25TH & 100TH/
 BELLEVUE CHRISTIAN
 CHURCH**
 SE0242514
 1000 SE 25TH ST (PER CITY OF BELLEVUE RECORDS)
 1000 SE 25TH ST (PER KING COUNTY RECORDS)
 (SEE SHEET 1000 FOR ADDRESS, TAX MAP, AND RECORDS)

ISSUED FOR:
BUILDING PERMIT

REVISION HISTORY:

NO.	DATE	DESCRIPTION	CHK. APPY.	BY	DATE
1	10/28/11	ADD POWER UNDERGROUND PERMITS INFORMATION	BT	LC	
2	12/02/11	REV. ROOFING NOTE	BT	LC	
3	11/16/11	ADD BELLEVUE PERMITS INFORMATION	BT	LC	
4	11/02/11	ADDED UNDERPINNING & REPAIRS FOR EXISTING FOUNDATION	BT	LC	
5	11/02/11	REV. PERMITS INFORMATION	BT	LC	
6	11/02/11	REV. PERMITS INFORMATION	BT	LC	
7	11/02/11	REV. PERMITS INFORMATION	BT	LC	

PLANS PREPARED BY:

B. J. THOMAS, P.E.
7607 80TH AVE NE
MARYSVILLE, WA 98270
206-851-1106

DRAWN BY: CHC, BY: APPY, BT

LICENSE:	AIL	B#	ME



EQUIPMENT:
 SHELTER & STABILITY MONITOR

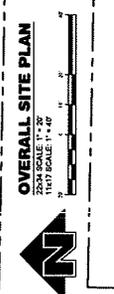
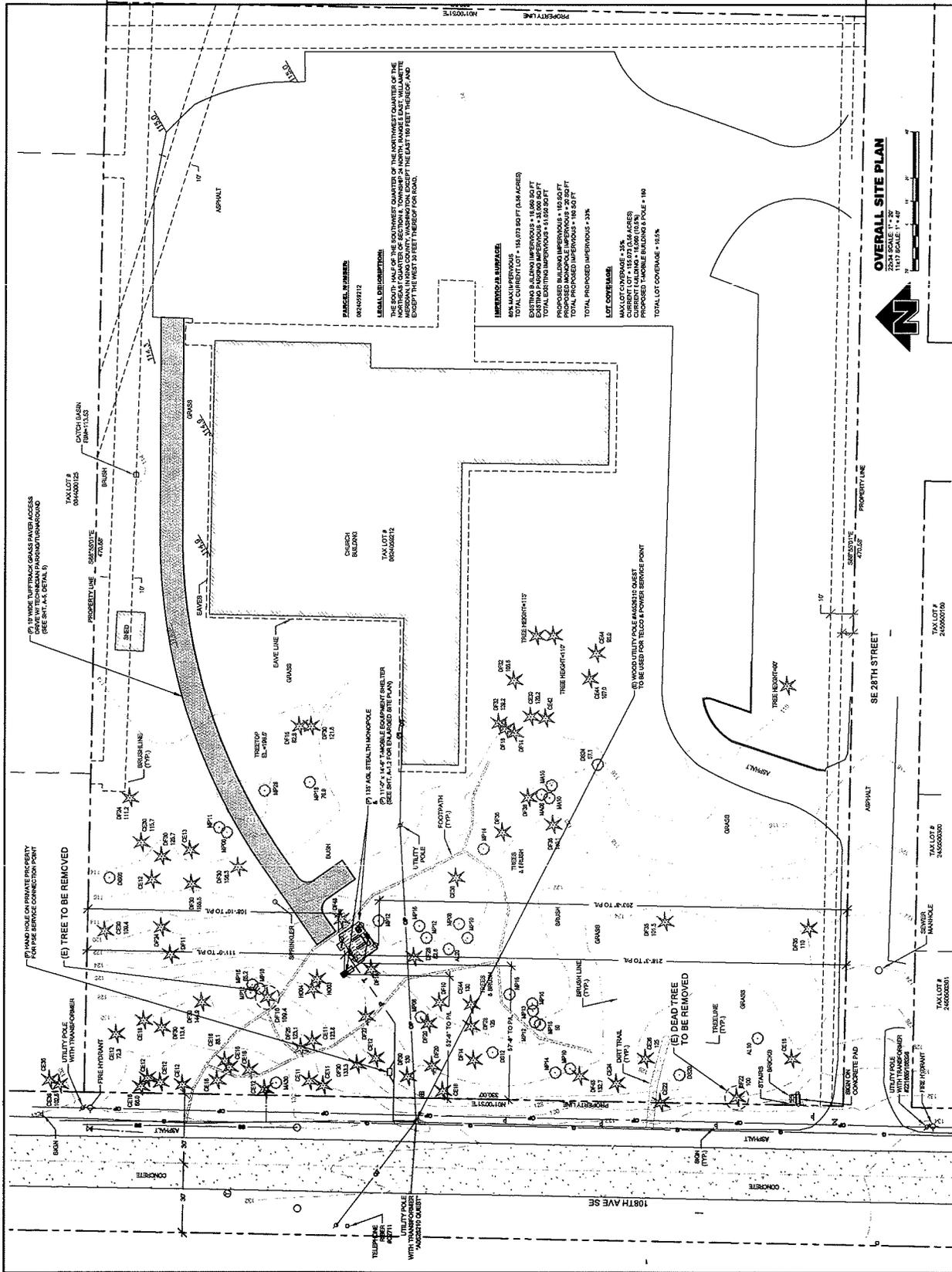
DRAWING INFORMATION:
 TO NOT SCALE DRAWING. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND ADVISE CONSULTANTS OF ANY DISCREPANCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND DISCLOSURE OTHER THAN WHICH IS RELATED TO NAMED CLIENTS IS STRICTLY PROHIBITED.

DRAWING TITLE:

OVERALL SITE PLAN

DRAWING NUMBER:

A-1





PROJECT INFORMATION:
**SE 25TH & 100TH/
 BELLEVUE CHRISTIAN
 CHURCH**
 SE 252434.1
 10043 SE 25TH ST (PER CITY OF BELLEVUE RECORDS)
 10023 SE 25TH ST (PER KING COUNTY RECORDS)
 BELLEVUE, WA 98004

ISSUED FOR:
BUILDING PERMIT

NO.	DATE	DESCRIPTION	CHK. APPV.	BY
1	10/02/11	ADD FOUNDATION FOR PERMITS CONNECTION	BT	LC
2	12/02/11	REV. BORING NOTE	BT	LC
3	11/15/11	REV. FOUNDATION & SERIES ELECTRICAL SHEET	BT	LC
4	11/15/11	ADDED LANDSCAPING & TSP SHEETS	BT	LC
5	11/02/11	REV. PERMITS REDUCTION	BT	LC
6	10/26/11	ISSUED DESIGN REVIEW	BT	LC

PLANS PREPARED BY:
B. J. THOMAS, P.E.
7607 80TH AVE NE
MARYSVILLE, WA 98270
206-851-1106

DRAWN BY: CHIC BY: APPV. BY:
 ALL BJ ME

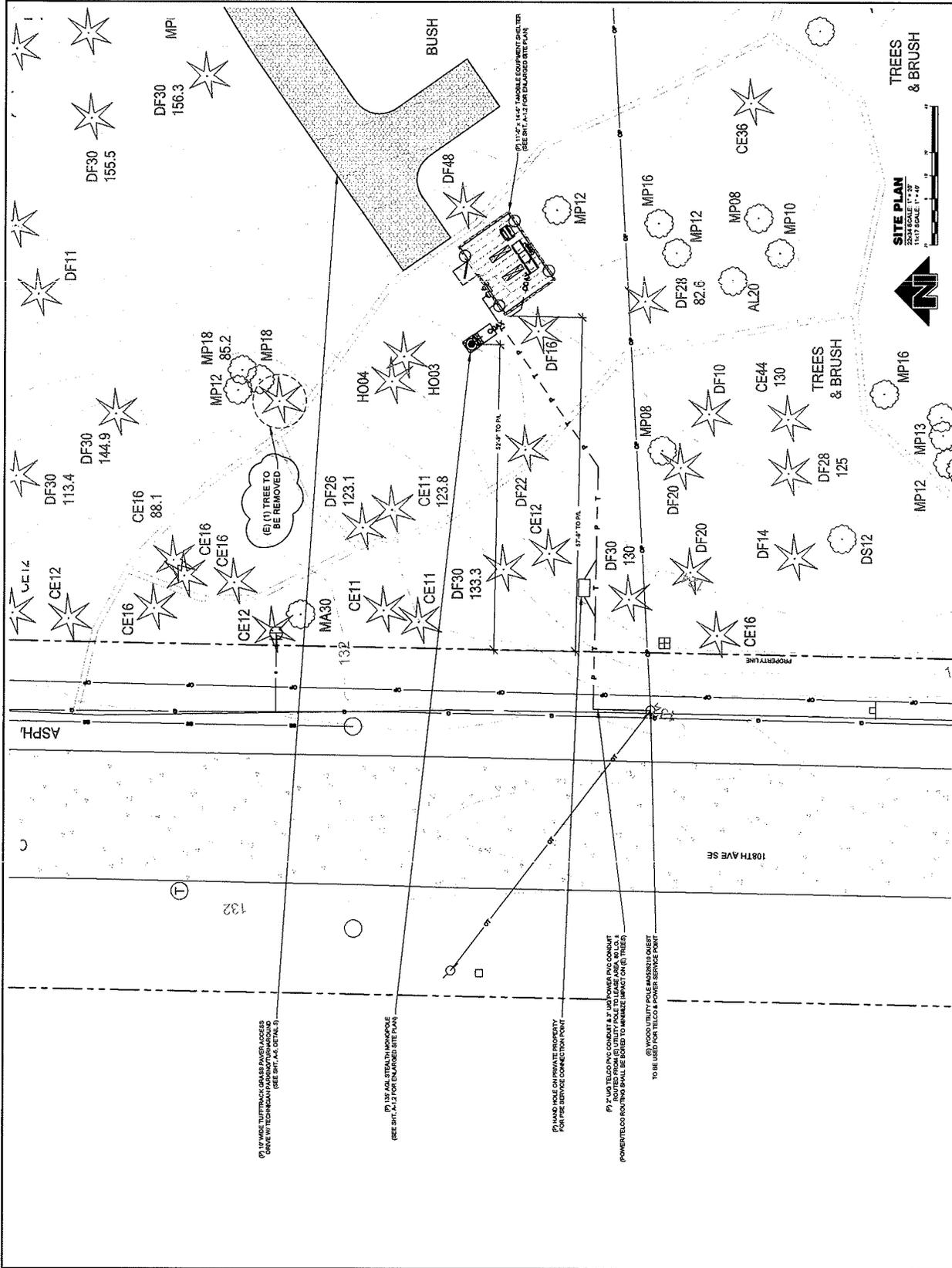


EQUIPMENT:
 SHELTER & HEALTH MONITOR

DRAWING INFORMATION:
 DO NOT SCALE DRAWING. CONTACT DESIGNER FOR ANY QUERY.
 ALL DIMENSIONS AND ADVICE CONSULTANTS OF ANY
 TYPE SHALL BE OBTAINED FROM THE DESIGNER. THE
 INFORMATION CONTAINED IN THIS SET OF
 DRAWINGS IS UNLESS OTHERWISE NOTED, THE PROPERTY OF
 THE DESIGNER. NO PART OF THIS DRAWING OR
 DISCLOSED TO ANY OTHER PARTY WITHOUT THE WRITTEN
 CONSENT OF THE DESIGNER.

DRAWING TITLE:
SITE PLAN

DRAWING NUMBER:
A-1.1





PROJECT INFORMATION:
**SE 25TH & 100TH/
 BELLEVUE CHRISTIAN
 CHURCH**
 SE 029421 J
 10489 SE 25TH ST (PER CITY OF BELLEVUE RECORDS)
 10489 SE 25TH ST (PER KING COUNTY RECORDS)
 BELLEVUE, WA 98006

BUILDING HISTORY:

NO.	DATE	DESCRIPTION	CHK. APPV. BY	DATE
1/A	10/09/11	ADD TOWER AND ANTENNA FOR SHELTER PERMIT POINT	BT	LC
2/A	12/02/15	ITE BORING NOTE	BT	LC
3/A	11/05/16	ADD REV. MASSCOPPER & SHROUD ELECTRICAL SHEET	BT	LC
4/A	11/05/17	ADDED LANDSCAPING & SHELTER PERMIT	BT	LC
5/A	11/06/18	REVISIONS PER REQUIREMENTS	BT	LC
6/A	11/06/19	REV. PER REVISIONS	BT	LC
7/A	10/26/21	ISSUED DESIGN REVIEW	BT	LC

PLANS PREPARED BY:

B. J. THOMAS, P.E.
7607 80TH AVE NE
MARYSVILLE, WA 98270
206-851-1106

DRAWN BY: **CHL BY: APPV. BY:**
 AAL BJ ME



EQUIPMENT:
 SHELTER & STEALTH MONOPOLE

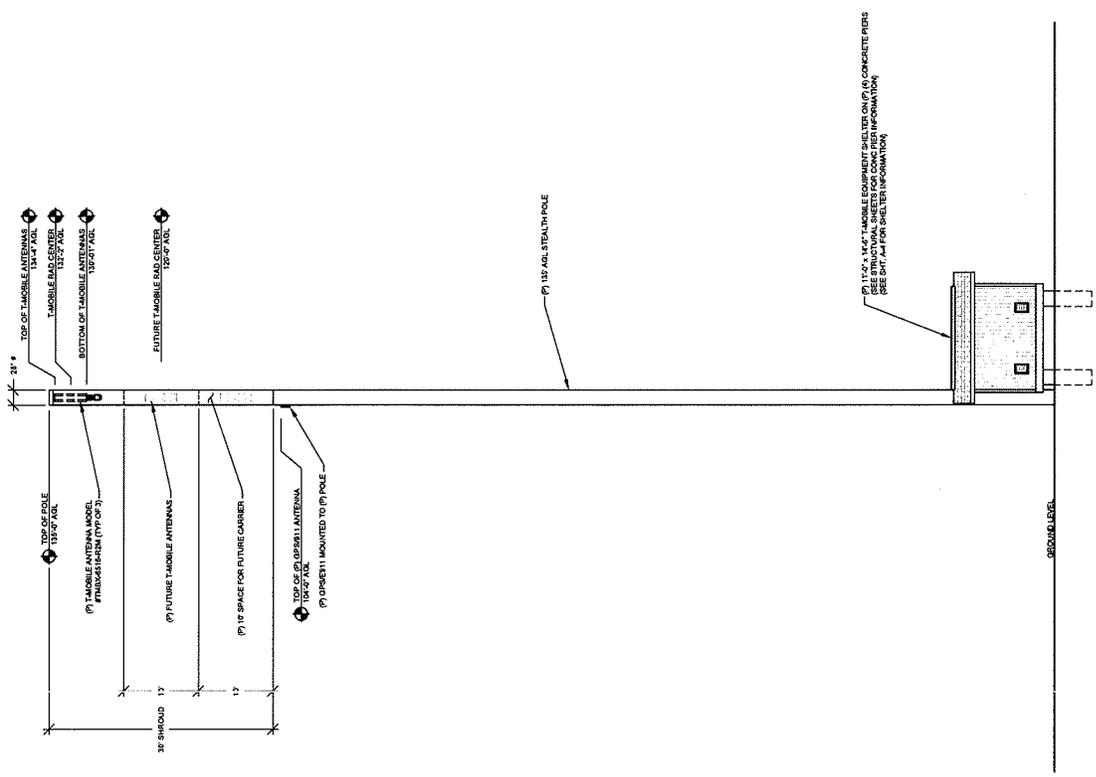
DRAWING INFORMATION:
 DO NOT SCALE DRAWING. CONTRACTOR MUST VERIFY
 ALL DIMENSIONS AND ADVISE CONSULTANT OF ANY
 DISCREPANCIES. ALL DIMENSIONS AND LOCATIONS
 DRAWING ARE SUPERSEDED BY THE LATEST REVISION.
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR
 DISCLOSURE OF ANY DISCREPANCIES IN ANY USE OR
 DISCLOSURE OTHER THAN WHICH IS RELATED TO THE
 CLIENT IS EXPRESSLY PROHIBITED.

DRAWING TITLE:
SITE ELEVATION

DRAWING NUMBER:
A-2

PAINT NOTE:
 THE MONOPOLE SHALL BE FACTORY PAINTED A COLOR
 SIMILAR TO AND NO LIGHTER THAN, SHERWIN
 WILLIAMS JASPER POIL.

SHELTER PAINT NOTE:
 SHELTER TO BE PAINTED AN EARTH TONE BROWN TO
 BLEND IN WITH EXISTING FOULAGE.



1 SOUTH-EAST ELEVATION
 SCALE: NTS



PROJECT INFORMATION:
**SE 25TH & 100TH/
 BELLEVUE CHRISTIAN
 CHURCH**
 SE25249213
 10008 SE 25TH ST (PER CITY OF BELLEVUE RECORDS)
 10008 SE 25TH ST (PER KING COUNTY RECORDS)
 BELLEVUE, WA 98005

BUILDING PERMIT

REVISION HISTORY:

NO.	DATE	DESCRIPTION	CHK. APP. BY	REV.
1	12/19/2011	ADD POWER TOWER POLE FOR FUTURE CONNECTION	BUT	LC
2	12/19/2011	PT BORING NOTE	BUT	LC
3	11/19/2011	NO NETU IMPROVING SHROUD ELEVATION SHEET	BUT	LC
4	11/16/2011	ADDED LANDSCAPING & TREE SHEETS	BUT	LC
5	11/09/2011	REVISED PER	BUT	LC
6	11/09/2011	REVISED PER	BUT	LC
7	10/26/2011	ISSUED DESIGN REVIEW	BUT	LC

PLANS PREPARED BY:

B. J. THOMAS, P.E.
 7607 80TH AVE NE
 MARYSVILLE, WA 98270
 206-851-1106

DRAWN BY: AAL
CHK. BY: BJJ
APPV. BY: ME

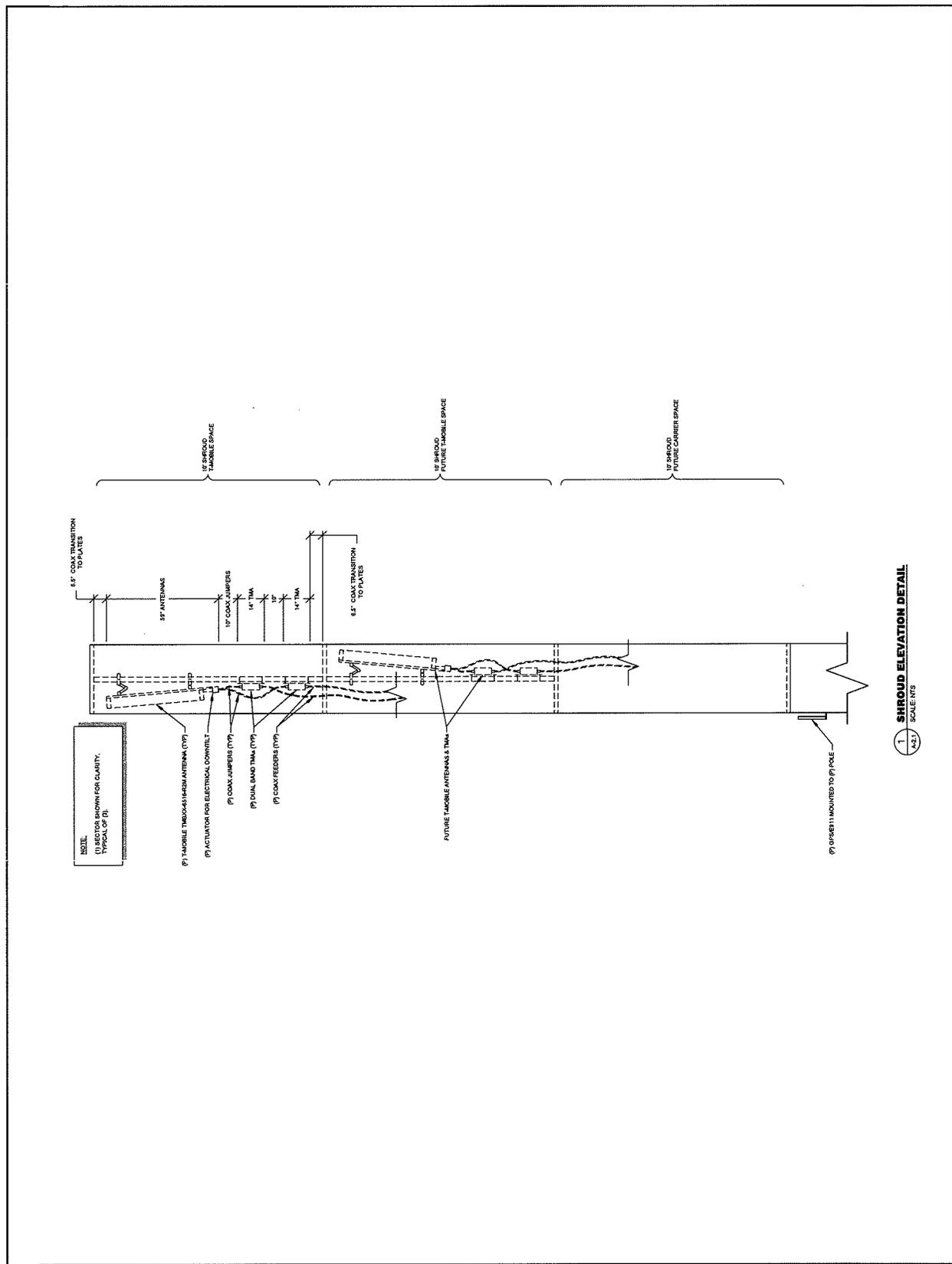


EQUIPMENT:
 SHELTER & STEALTH MONOPOLE

DRAWING INFORMATION:
 DO NOT SCALE DRAWINGS. CONTRACTORS MUST VERIFY ALL DIMENSIONS AND ADVISE CONSULTANTS OF ANY DISCREPANCIES IMMEDIATELY. THIS DRAWING AND SPECIFICATIONS ARE THE LATEST REVISIONS OF THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS. ANY CHANGES OR DISCREPANCIES OR DISCLOSURE OTHER THAN WHICH IS RELATED TO NAMED CLIENT IS STRICTLY PROHIBITED.

DRAWING TITLE:
SITE ELEVATION

DRAWING NUMBER:
A-2.1



NOTE:
 (1) SECTOR SHOWN FOR CLARITY. TYPICAL OF (2).

- (P) TOWER TOWER ANTENNA (TYP)
- (P) ACTUATOR FOR ELECTRICAL DOWNWELL
- (P) COAX JUMPERS (TYP)
- (P) DUAL BAND TMA (TYP)
- (P) COAX FEEDERS (TYP)

FUTURE TOWER ANTENNAS & TMA

(P) 6508211 MOUNTED TO POLE

1 SHROUD ELEVATION DETAIL
 SCALE: NTS
 A-2.1

PROJECT INFORMATION:
**SE 25TH & 100TH/
 BELLEVUE CHURCH**
 10000 SE 25TH ST (PER KING COUNTY RECORDS)
 10000 SE 25TH ST (PER KING COUNTY RECORDS)
 BELLEVUE, WA 98005

ISSUED FOR:
BUILDING PERMIT

REVISION HISTORY:

NO.	DATE	DESCRIPTION	CHK. APPV. BY
1	12/19/11	ADD TOWER AND TOWER FOR PERMITS	BT UC
2	12/20/11	REV. PERMITS	BT UC
3	1/11/12	REV. PERMITS	BT UC
4	1/11/12	REV. PERMITS	BT UC
5	1/11/12	REV. PERMITS	BT UC
6	1/11/12	REV. PERMITS	BT UC
7	1/11/12	REV. PERMITS	BT UC
8	1/11/12	REV. PERMITS	BT UC
9	1/11/12	REV. PERMITS	BT UC
10	1/11/12	REV. PERMITS	BT UC

PLANS PREPARED BY:
B. J. THOMAS, P.E.
 7607 80TH AVE NE
 MARYSVILLE, WA 98270
 206-851-1106

DRAWN BY: AAL
SCALE: AS SHOWN
LICENSE: ME



EQUIPMENT:
 SHELTER & HEALTH MONITOR

DRAWING INFORMATION:
 ALL DIMENSIONS AND TOLERANCES SHALL BE AS SHOWN. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND TOLERANCES BEFORE PROCEEDING WITH CONSTRUCTION. THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS THE PROPERTY OF THE ENGINEER AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER. CLIENT IS STRICTLY PROHIBITED.

DRAWING TITLE:
RF DETAILS
DRAWING NUMBER:
RF-1

ANTENNA AND COAX GENERAL NOTES:

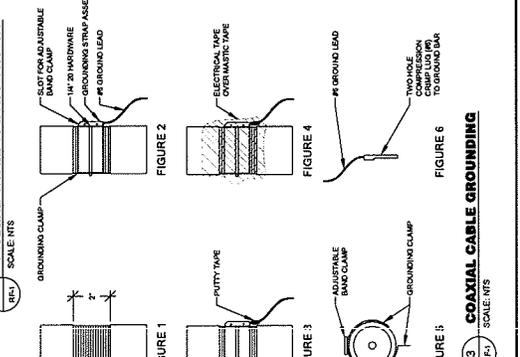
- ALL ANTENNA AND COAXIAL ANTENNA CABLE TO BE FURNISHED BY T-MOBILE AND INSTALLED BY CONTRACTOR.
- COAXIAL CABLES AND ANTENNAS TO BE NUMBERED IN A CLOCKWISE MANNER FROM TRUE NORTH AND COLOR CODED AS FOLLOWS:

SECTOR	ANTENNA ORIENTATION - COLOR CODING
ALPHA SECTOR	A1 : 1 RED (RED BANDS) A2 : 2 RED (RED BANDS)
BETA SECTOR	B1 : 1 GREEN (GREEN BANDS) B2 : 2 GREEN (GREEN BANDS)
GAMMA SECTOR	G1 : 1 YELLOW (YELLOW BANDS) G2 : 2 YELLOW (YELLOW BANDS)

- THE ABOVE COAX COLOR CODING APPLIED TO RECTANGULAR SITES. FOR OVAL SITES, USE THE A1, B1, & C1 COLOR CODES ONLY.
- FOR ALL ANTENNAS, THE COAXIAL CABLE SHALL BE 1" WIDE WEATHER PROOF COATED WIRE WITH THE FOLLOWING CONNECTIONS:
 #1 - AT ANTENNA CONNECTION
 #2 - AT ENTRY TO EQUIPMENT CABINET
- RUN COAXIAL CABLE WITH MINIMUM 12" SLACK & 1" FROM EDGE OF EQUIPMENT CABINET. CROSS WAVE ORIDE BRIDGE (IF APPLICABLE) UP TO TOWER LEAD (IF APPLICABLE) TO GROUND ITS PER COAXIAL CABLE ACCORDING TO ELECTRICAL SPECIFICATIONS. VERIFY NUMBER OF ANTENNAS, CABLE & CABLE DIAMETER WITH PROJECT MANAGER.

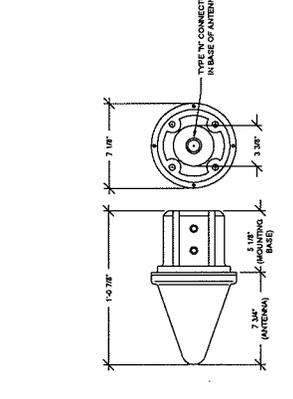
TYPE OF EQUIPMENT	LENGTH OF CABLE RUN	DIAMETER OF CABLE	MIN BENDING RADIUS
ULTRAMINI	3'-0" < L < 10'-0"	1/2" Ø	12" RAD
ULTRAMINI	10'-0" < L < 15'-0"	1/2" Ø	12" RAD
ULTRAMINI	15'-0" < L < 20'-0"	3/8" Ø	12" RAD
ULTRAMINI	20'-0" < L < 25'-0"	3/8" Ø	12" RAD
ULTRAMINI	25'-0" < L < 30'-0"	3/8" Ø	12" RAD
ULTRAMINI	30'-0" < L < 35'-0"	3/8" Ø	12" RAD
ULTRAMINI	35'-0" < L < 40'-0"	3/8" Ø	12" RAD
ULTRAMINI	40'-0" < L < 45'-0"	3/8" Ø	12" RAD
ULTRAMINI	45'-0" < L < 50'-0"	3/8" Ø	12" RAD

COAXIAL CABLE SPECIFICATIONS



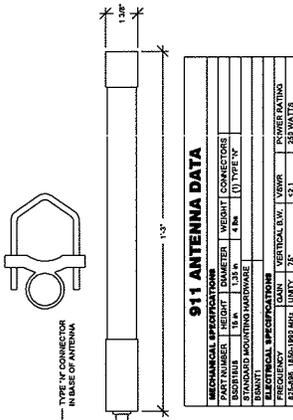
SITE LOADING CHART

ANTENNA	SECTOR	ANTENNA MODEL #	VENDOR	AZIMUTH (TN)	DOWNTILT	RADIATION PATTERN	CABLE LENGTH	COAXIAL CABLE	# OF COAX RUNS
A1	ALPHA	TM80451640M	ANDREW	90°	TBD	132'-2" AOL	152' ±	ANDREW 1/2" Ø	2
A2	ALPHA	TM80451640M	ANDREW	90°	TBD	132'-2" AOL	152' ±	ANDREW 1/2" Ø	2
B1	BETA	TM80451640M	ANDREW	210°	TBD	132'-2" AOL	152' ±	ANDREW 1/2" Ø	2
B2	BETA	TM80451640M	ANDREW	210°	TBD	132'-2" AOL	152' ±	ANDREW 1/2" Ø	2
G1	GAMMA	TM80451640M	ANDREW	330°	TBD	132'-2" AOL	152' ±	ANDREW 1/2" Ø	2
G2	GAMMA	TM80451640M	ANDREW	330°	TBD	132'-2" AOL	152' ±	ANDREW 1/2" Ø	2
GPS	-	6602A	SYMETRIUM	-	-	TBD	12'-0"	ANDREW 1/2" Ø	1
911	-	8002164	COMTECO	-	-	TBD	12'-0"	ANDREW 1/2" Ø	1



GPS ANTENNA DATA

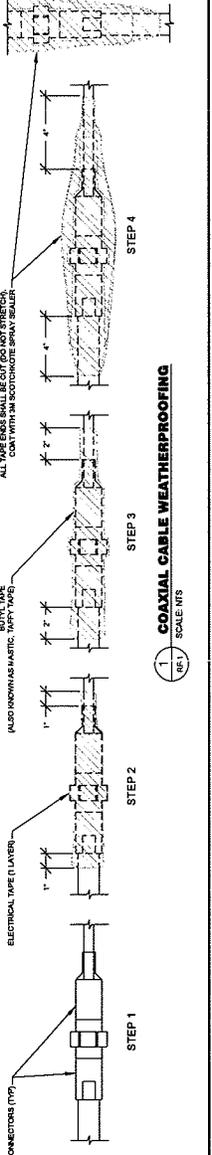
Mechanical Specifications	Part Number	Height	Diameter	Weight
ULTRAMINI	6602A	4.27" (106mm)	3.50" (89mm)	1.8 at 0.07 g
Electrical Specifications	Frequency	Impedance	Power Handling	Connector
ULTRAMINI	155.0 - 155.42MHz	50 OHMS	100W	TYPE 'N'
ULTRAMINI	155.42 - 155.42MHz	50 OHMS	100W	TYPE 'N'



911 ANTENNA DATA

Mechanical Specifications	Part Number	Height	Diameter	Weight
ULTRAMINI	8002164	4.27" (106mm)	3.50" (89mm)	1.8 at 0.07 g
Electrical Specifications	Frequency	Impedance	Power Handling	Connector
ULTRAMINI	155.0 - 155.42MHz	50 OHMS	100W	TYPE 'N'
ULTRAMINI	155.42 - 155.42MHz	50 OHMS	100W	TYPE 'N'

- NOTE:**
- ALL COAXIAL CABLE CONNECTIONS TO BE WEATHER PROOFED.
 - CONTRACTOR TO PROVIDE DRIP LOOPS IN CABLES AND JUMPERS WHERE NECESSARY.
 - TAGGING:
 - ALL COAXIAL CABLES TO BE MARKED WITH COLOR CODED TAPE TO INDICATE THE ANTENNA SECTOR.
 - COLOR CODED ELECTRICAL TAPE SHALL MARK EACH END OF CABLE AND EACH END OF JUMPER AS CLOSE TO EACH END AS POSSIBLE. (NOT TO INTERFERE WITH WEATHERPROOFING).
 - COAXIAL CABLE SPECIFICATIONS REQUIRE CABLE SUPPORT EVERY 2'-0" ON CENTER. CONTRACTOR SHALL VERIFY SUPPORTS AS REQUIRED TO MEET THIS REQUIREMENT.
 - VERTICAL CONNECTIONS SHALL BE TIED FROM THE BOTTOM UP SO OVERLAP MOVES WATER AWAY FROM THE CONNECTIONS.
 - PROBE MUST BE IN PLACE OF TAPE FOR GROUND POLES AND TAPS.



COAXIAL CABLE WEATHERPROOFING

SCALE: NTS

T-Mobile – Bellevue Christian Church
10808 SE 25th Street
Project #10-117198-LB

Attachment 2
SEPA – Environmental Checklist

Sally Nichols
Jan 18, 2011

City of Bellevue Submittal Requirements 27a

ENVIRONMENTAL CHECKLIST

11/13/10-Revised version

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call the Permit Center (425-452-6864) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Assistance for the hearing impaired: Dial 711 (Telecommunications Relay Service).

BACKGROUND INFORMATION

Property Owner: Bellevue Christian Church. ✓

Proponent: T-Mobile USA ✓

Contact Person: Gary Abrahams ✓

(If different from the owner. All questions and correspondence will be directed to the individual listed.)

Address: PO Box 1557, Bothell, WA 98041 ✓

Phone: 206-282-2357 ✓

Received

NOV 22 2010

Permit Processing

Proposal Title: T-Mobile's SE02421J, "SE 25th & 100th/Bellevue Christian Church" ✓

Proposal Location: 10808 SE 28th Street at 108th Avenue SE, Bellevue, WA
(Street address and nearest cross street or intersection) Provide a legal description if available.

Legal per assessors records:

The south half of the southwest quarter of the northwest quarter of the northeast quarter of Section 8, Township 24 North, Range 5 East, Willamette Meridian, in King County Washington. ✓
Except the east 160 feet thereof, and
Except the west 30 feet thereof for road.

Please attach an 8 1/2" x 11" vicinity map that accurately locates the proposal site.

Give an accurate, brief description of the proposal's scope and nature:

1. General description: ✓

T-Mobile proposes to construct an unmanned wireless communication facility ("WCF") in Bellevue, Washington. The proposed project location is at the Bellevue Christian Church at 10808 SE 28th Street, at 108th Avenue SE ("Subject Property"). The proposed project consists of a new stealth monopole that will have a tip height of 135'. It will be located on the west side of the Subject Property, toward the northern portion of the property surrounded by the existing trees.

The monopole will be 28" in diameter, and it will be painted a dark green to blend in with the existing trees. The antennas will be located within a canister at the top of the pole and will not be visible. All conduit for T-Mobile's installation will be located within the monopole. There will be six (6) antennas located in a canister at the top of the monopole, on 2 rad centers. There will be one space in the canister available for a collocator. The radio cabinets will be located within a new equipment shelter building that will be located near the monopole. One (1) GPS/E-911 antenna will be located on the exterior of the new monopole. The equipment building and monopole will be extensively landscaped, appropriate for the already existing treed site. The equipment building will be painted brown to blend in with the trees, and it will be located on piers to minimize impact to the property. A 10' wide grass paver access path will extend from the existing parking lot west towards monopole area. All conduit will run underground from the monopole to the radio cabinets. *(pervious paver)*

T-Mobile has identified a coverage gap in its system in the subject area identified on the Search Ring Map (hereinafter "Search Ring") attached to this application. The proposed site is critical to filling that coverage gap, both in-building and

outdoor coverage. The site is in a residential area, zoned Residential-4, and any non-residentially zoned areas are far outside of the Search Area. The particular pole location at issue was chosen as the best choice to provide coverage to the subject area. The proposed WCF will fill that coverage gap.

- 2. Acreage of site: 3.56 acres. ✓ *Leave area approx. 20'x20' plus maint. driveway*
- 3. Number of dwelling units/buildings to be demolished: 0 ✓
- 4. Number of dwelling units/buildings to be constructed: One (1) – an equipment shelter building ✓
- 5. Square footage of buildings to be demolished: Not applicable. ✓
- 6. Square footage of buildings to be constructed: Equipment shelter building will have 160[±] square feet. ✓
- 7. Quantity of earth movement (in cubic yards): 40 cubic yards +/- (piers for equipment building and foundation for monopole) *plus grading for porous grass paver driveway approx 3,000+ sq. ft.*
- 8. Proposed land use: Wireless Communication Facility ("WCF") *will be restored & seeded w/ lawn*
- 9. Design features, including building height, number of stories and proposed exterior materials:
 The new monopole will be round, ^{28"Ø} 135' in height with the 6 antennas within a canister at the top of the pole. All conduit will be contained within the pole. The equipment shelter building will be painted brown to blend in with the trees. *Pole will be painted dark green.*
- 10. Other

Estimated date of completion of the proposal or timing of phasing: Second quarter, 2011. ✓

Staff Recommendation that construction take place May 1 - July 1 to have least impact on eagle nest 660' away (per WDFW recommendations)

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No. ✓

List any environmental information you know about that has been prepared, or will be prepared, directly related to the proposal.

NIER report from BJ Thomas.

*Tree Risk Assessment & Preservation Plan
Harmann & Assoc. Nov. 29, 2010*

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. List dates applied for and file numbers, if known.

There are no other applications, other than the subject application, pending for this property. ✓

List any government approvals or permits that will be needed for your proposal, if known. If permits have been applied for list application date and file numbers, if known.

Conditional Use Permit (LB), SEPA determination and building permit (CD).

Please provide one or more of the following exhibits, if applicable to your proposal. None applicable.

Eagle Management Plan will be submitted Issued by WDFW. Applicant has sent required info to WDFW. Condition no construction prior to adoption of plan.

WDFW Eagle Management Plan - pending All reports above and supplemental info in project file.

(Please check appropriate box(es) for exhibits submitted with your proposal):

- Land Use Reclassification (rezone) Map of existing and proposed zoning
- Preliminary Plat or Planned Unit Development
Preliminary plat map
- Clearing & Grading Permit
Plan of existing and proposed grading
Development plans
- Building Permit (or Design Review)
Site plan
Clearing & grading plan
- Shoreline Management Permit
Site plan

A. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site: Flat Rolling Hilly Steep slopes Mountains Other

b. What is the steepest slope on the site (approximate percent slope)?

15% +/-

c. What general types of soil are found on the site (for example, clay, sand, gravel, peat, and muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Not applicable.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Grading will be required for the new monopole. The radio cabinet equipment shelter building will be located on piers. Less than 40 cubic yards of soil will be excavated.

*plus... Approx. 3,000+ sq. ft. for pervious paver
paver maintenance driveway
Erosion control per
City code -
BCC 23.76*

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Best practices will be employed to prevent any erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The project will result in new impervious surface of approximately 100 square feet (piers for the new equipment building and new monopole). The overall site contains 155,073 square feet (3.56 acres). Existing impervious surface area equals 51,050. The new grass paver access path will not increase the impervious surface area. After construction is completed, 33% of the parcel will be impervious surface area that is below the 80% allowed under the City of Bellevue code (section 20.20.010, Uses in Land use Districts, R-4 zone, note 36 which states that: "Impervious surface limits for legally established nonconforming nonresidential uses and for new allowed

SW

nonresidential uses in these residential land use districts shall be 80 percent.") ✓

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

None necessary.

*LA code
BCE 23.76*

*LWC 20.20.D.5
RF emissions per
FCC WCF act, signed
documentation from
RF engineer
6/28/10
in file*

*no extra
measures those
beyond those
required by
code*

2. AIR

a. What types of emissions to the air would result from the proposal (i.e. dust, automobile odors, and industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Small quantities of dust and exhaust will be released from construction vehicles and construction activities during the approximate 1-month construction phase. The completed facility will not generate emissions. ✓

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to the air, if any:

None necessary.

*Construction
Dust suppression
measures per
BCE 23.76 - LA code*

*only noise
will be air conditioner
exhaust on shelter
bldg. over 100 ft from
nearest home -
won't be heard*

3. WATER

a. Surface

(1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

*No.
Wellhead
Buffer area*

*Work within
Wellhead Protection
Buffer Area for
Beaux Arts.
As directed by
LA Dept of Health
ODW, advised
Beaux Arts in
letter dated
9/3/10. No impacts
expected. Get batteries
in shelter only potential
and they are
not expected to
fail. Letter in
project file*

(2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If Yes, please describe and attach available plans.

No.

(3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

(4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. ✓

Not applicable.

(5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. ✓

No.

(6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. ✓

No.

b. Ground

(1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description. ✓

There will be no ground water withdrawal, or water discharge to ground water associated with this development.

(2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. ✓

Not applicable.

c. Water Runoff (Including storm water)

(1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Not applicable-runoff will be channeled through existing collection routes.

(2) Could waste materials enter ground or surface waters? If so, generally describe.

Connections to water and sanitary sewer are not required for this project.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any: ✓

This project will not have any significant impact on water runoff; no additional measures are proposed.

4. Plants

a. Check or circle types of vegetation found on the site:

X deciduous tree: alder, maple, aspen, other

X evergreen tree: fir, cedar, pine, other

X shrubs

X grass

pasture

undeveloped in N. west quadrant of site, native understory and some blackberries

natural drainage

shelter bldg on piers & pervious pavement driveway - all equip. within equip. shelter bldg. therefore project will have very minimal effect on runoff - natural patterns will continue

shelter bldg on piers & pervious pavement driveway - all equip. within equip. shelter bldg. therefore project will have very minimal effect on runoff - natural patterns will continue

ALL 29.76 erosion control techniques

- crop or grain
- wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

One (1) tree will be removed near the project site, and one (1) dead tree will be removed in the SW corner of the property. *Douglas Fir* *ornamental pine*

c. List threatened or endangered species known to be on or near the site.

There are known Eagles nesting areas near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Landscaping is proposed around all sides of the equipment shelter building and the new monopole.

Refer to Tree Risk Assessment & Preservation Plan by Harmer Assoc. dated 11/29/10. Applicant adopted & submitted on 12/1/10. Applicant rec's to place shelter on piers & use directional bore to avoid tree root disturbance

See sheet L-1 new land plan includes new native trees, shrubs a q.c.

5. ANIMALS

a. Check or circle any birds and animals which have been observed on or near the site or are known to be on or near the site: ✓

Birds: hawk, heron, eagle, songbirds, other:

Mammals: deer, bear, elk, beaver, other:

Fish: bass, salmon, trout, herring, shellfish, other:

Animals typ. to lowland forest

All materials submitted to WDFW and recommend condition that no construction until WDFW has issued their eagle management plan & approval also by U.S. F.W.S.

b. List any threatened or endangered species known to be on or near the site.

The subject parcel is located within an Eagle nesting zone, and the project must be approved by the Federal and State Department's of Fish and Wildlife ("DFW").

c. Is the site part of a migration route? If so, explain. ✓

Yes, the site is in an Eagle migration route.

nest within 660' feet - WDFW zone 2

d. Proposed measures to preserve or enhance wildlife, if any: ✓

The biggest concern of the State Dept of DFW is maintaining the trees in the area. To minimize any impact to the surrounding area, only one (1) tree will be removed near the new project location, and one (1) dead tree will be removed in the SW corner of the property.

Per Tree Risk Report by Harmer & Assoc 11/29/10 fir tree has broken out top that wouldn't be use as eagle nest / perch

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy need? Describe whether it will be used for heating, manufacturing, etc.

Standard electric power will be required for the antennas and radio cabinets.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. ✓

No.

c. What kinds of energy conservation features are included in the plans of the proposal? List other proposed measures to reduce or control energy impacts, if any. ✓

Not applicable.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

None.

(1) Describe special emergency services that might be required. ✓

No special emergency services are required for this project. ✓

(2) Proposed measures to reduce or control environmental health hazards, if any.

Not applicable.

b. Noise

(1) What types of noise exist in the area which may affect your project (for example, traffic, equipment, operation, other)?

None. ✓

(2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example, traffic, construction, operation, other)? Indicate what hours noise would come from the site.

This proposal will create negligible amount of noise during the 1-month construction period. The radio cabinets will be contained within the Shelter, and will comply with all noise regulations of the City of Bellevue.

(3) Proposed measures to reduce or control noise impacts, if any: ✓

Placing the radio cabinets within the Shelter will control any noise impacts for this project.

Cell batteries, but not only expected to be in shelter bldg. and even so, would fire

Construction noise regulated per Noise Ordinance BCC 9.18

Recommend construction take place May 1 - July 1 to avoid noise disturbance to eagle nest
only noise air conditioner exhaust

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? ✓

The current use of the site is as a church, Bellevue Christian Church. Adjacent properties are north/south/east and west are -single family residential structures.

b. Has the site been used for agriculture? If so, describe. ✓

No.

c. Describe any structures on the site. ✓

A church building.

d. Will any structures be demolished? If so, what? ✓

No.

e. What is the current zoning classification of the site? ✓

R-4.

f. What is the current comprehensive plan designation of the site? ✓

Residential.

g. If applicable, what is the current shoreline master program designation of the site? ✓

Not applicable.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No. →

i. Approximately how many people would reside or work in the completed project? ✓

None.

j. Approximately how many people would the completed project displace? ✓

None.

k. Proposed measures to avoid or reduce displacement impacts, if any. ✓

None required.

i. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: ✓

The proposal complies with Bellevue zoning regulations concerning the siting of WCF's. T-Mobile strives to integrate its projects into the fabric of the surrounding community. Locating the antennas in a stealth monopole surrounded by trees will ensure the project is compatible with the surrounding area.

Conditional use req'd per WCF 20.20.195.B and 20.20.195 mon. res. use in SF land use district.

...except that w/in zone 2 of eagle management

Requirements of WCF 20.20.195.D met & described in staff report in proper file

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None. ✓

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. ✓

None.

c. Proposed measures to reduce or control housing impacts, if any. ✓

None proposed.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? ✓

The stealth monopole will have a tip height of 135'.

b. What views in the immediate vicinity would be altered or obstructed? ✓

None. The area is rolling, and the monopole will be surrounded by trees that will screen the WCF. The monopole location was revised so that it's located in the NW quadrant of the property to minimize any impact to the surrounding area.

c. Proposed measures to reduce or control aesthetic impacts, if any: ✓

no antennas or cable showing
Locating the antennas within a canister, painted the pole a dark green, and locating the monopole in the trees will control aesthetic impacts. The equipment building will be painted a brown to blend in with the trees as well.

Previous unit paved driveway that will look like lawn.

most of
Applicant has submitted photo simulations w/ views from surrounding neighborhood
WVC 20.20.195.D

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? ✓

The proposed WCF will not produce any additional light or glare.

b. Could light or glare from the finished project be a safety hazard or interfere with views? ✓

No.

c. What existing off-site sources of light or glare may affect your proposal? ✓

None.

d. Proposed measures to reduce or control light or glare impacts, if any: ✓

None required.

no lighting req'd

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity? ✓

The only informal opportunity is to the south, at Enatai Beach Park at the south end of 108th Avenue SE.

b. Would the proposed project displace any existing recreational uses? If so, describe. ✓

No.

existing informal paths thru site to remain

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None required. ✓

Enatai Neighborhood Park to n. west of site also...
and Enatai Elementary School further north

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe. ✓

None known.

b. Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site. ✓

None noted.

c. Proposed measures to reduce or control impacts, if any: ✓

None required.

Flow permit

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any. ✓

The subject parcel is on SE 28th Street at 108th Avenue SE.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop? ✓

Not Applicable.

Yes on 108th (bus)

c. How many parking spaces would be completed project have? How many would the project eliminate?

The subject proposal will have no impact on parking.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private). ✓

No.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. ✓

No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Approximately one trip per month will be required for routine maintenance.

✓ use previous main driveway accessed off church parking lot

g. Proposed measures to reduce or control transportation impacts, if any:

None required.

R.O.W. permit required for delivery of pole ~~off~~ pole crane needs to be placed on 108th BCC 14.30

15. Public Services

a. Would the project result in an increased need for the public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None required.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other. [underlined rather than circled]

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Electric and phone services are required for this project. Power will be provided by PSE. Telephone service will be provided by Qwest. Water and sewer services are not required for this project.

Signature

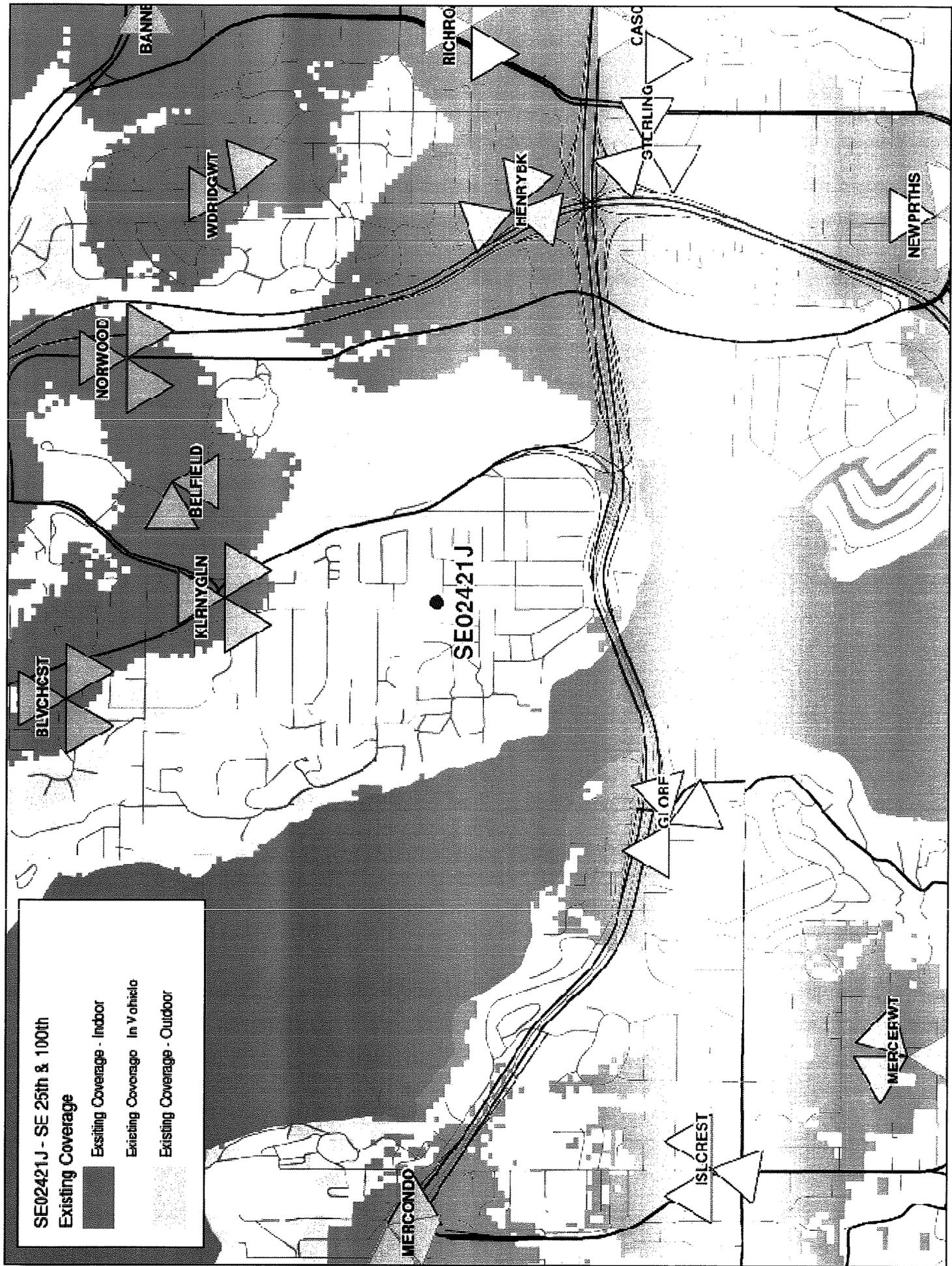
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature.....
Date Submitted.....

T-Mobile – Bellevue Christian Church
10808 SE 25th Street
Project #10-117198-LB

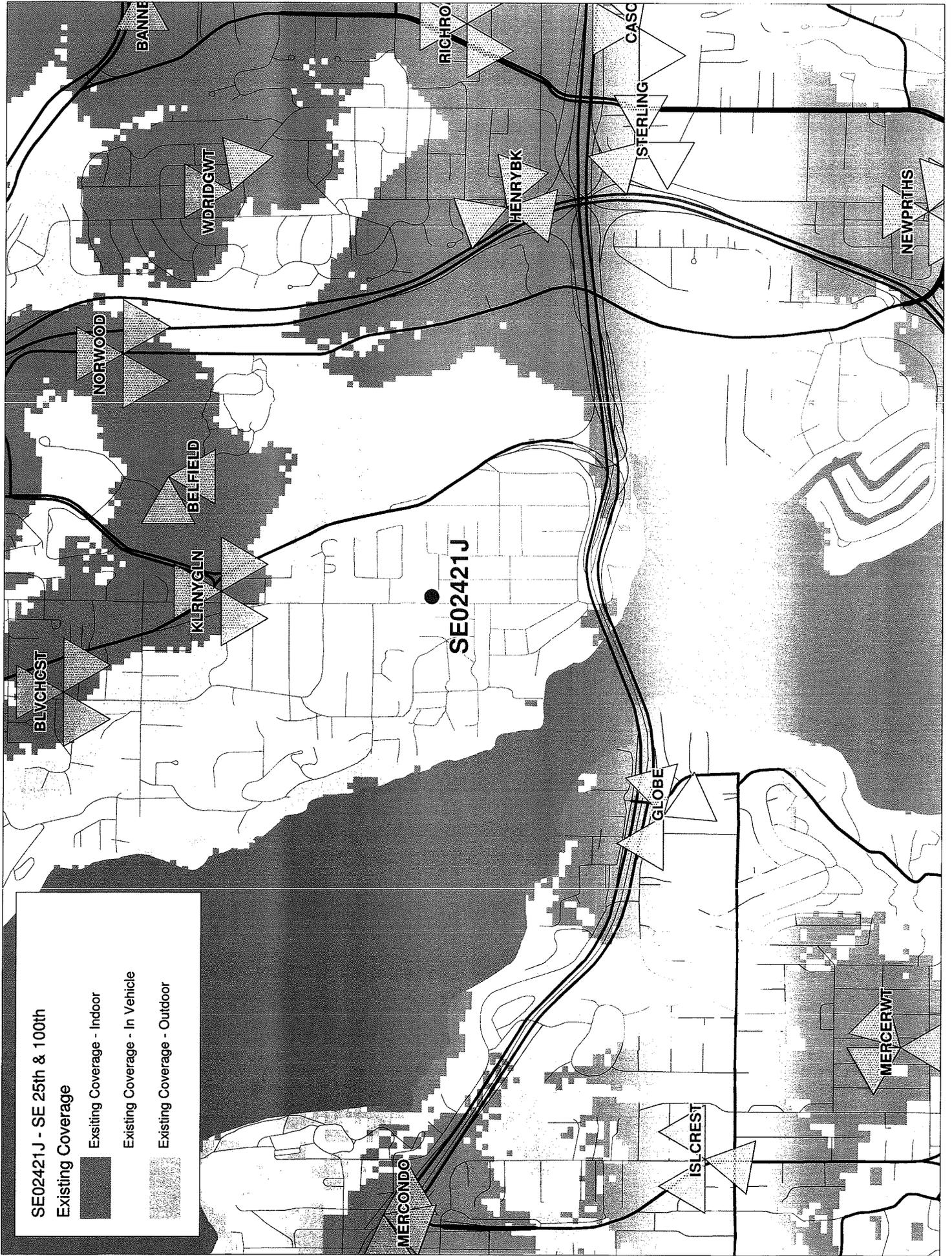
Attachment 3
T-Mobile Propagation Maps

Attachment 3 – Propagation Maps



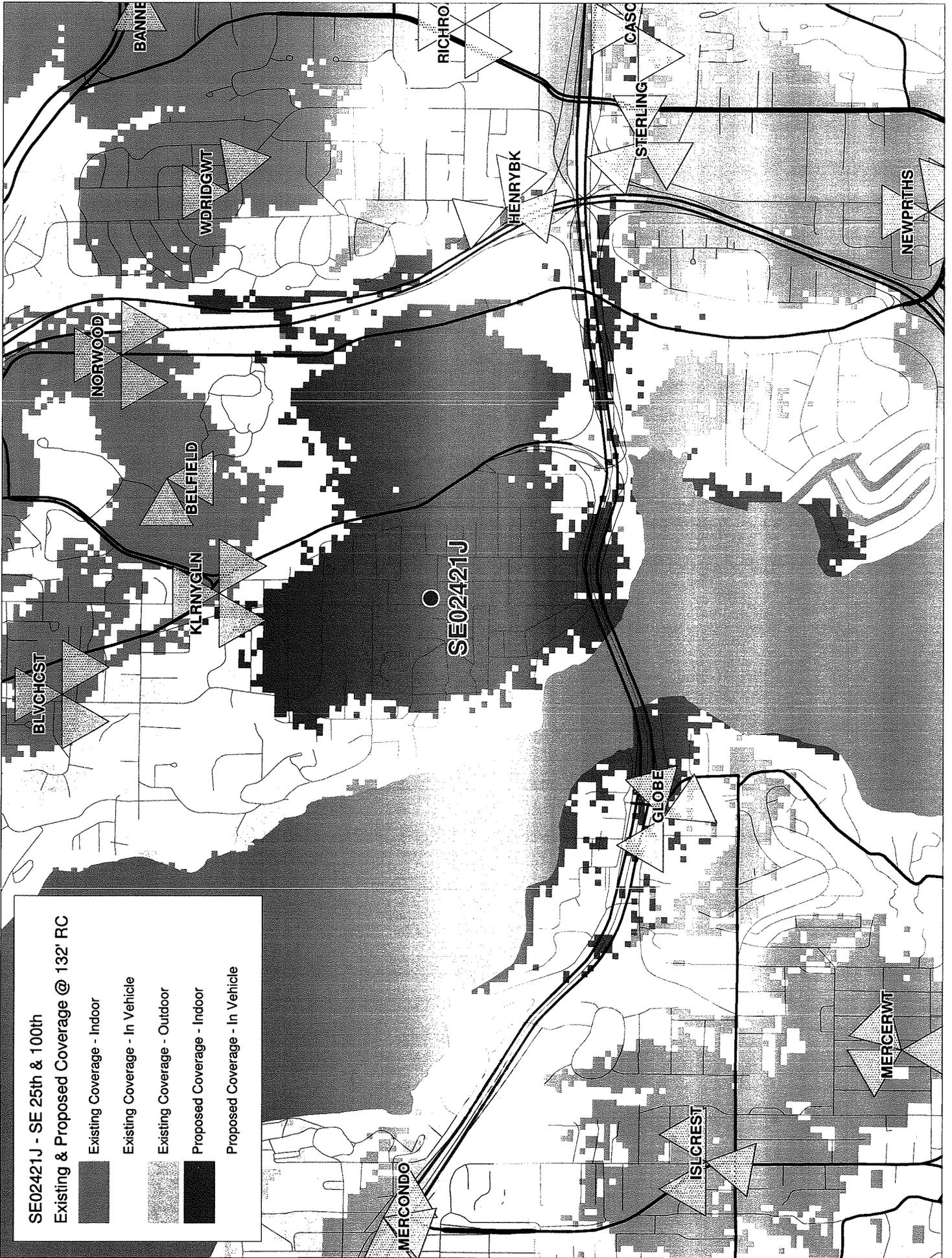
SE02421J - SE 25th & 100th
Existing Coverage

- Existing Coverage - Indoor
- Existing Coverage - In Vehicle
- Existing Coverage - Outdoor



SE02421J - SE 25th & 100th
Existing & Proposed Coverage @ 132' RC

- Existing Coverage - Indoor
- Existing Coverage - In Vehicle
- Existing Coverage - Outdoor
- Proposed Coverage - Indoor
- Proposed Coverage - In Vehicle



**SE02421J - SE 25th & 100th
Existing & Proposed Coverage @ 110' RC**

- Existing Coverage - Indoor
- Existing Coverage - In Vehicle
- Existing Coverage - Outdoor
- Proposed Coverage - Indoor
- Proposed Coverage - In Vehicle



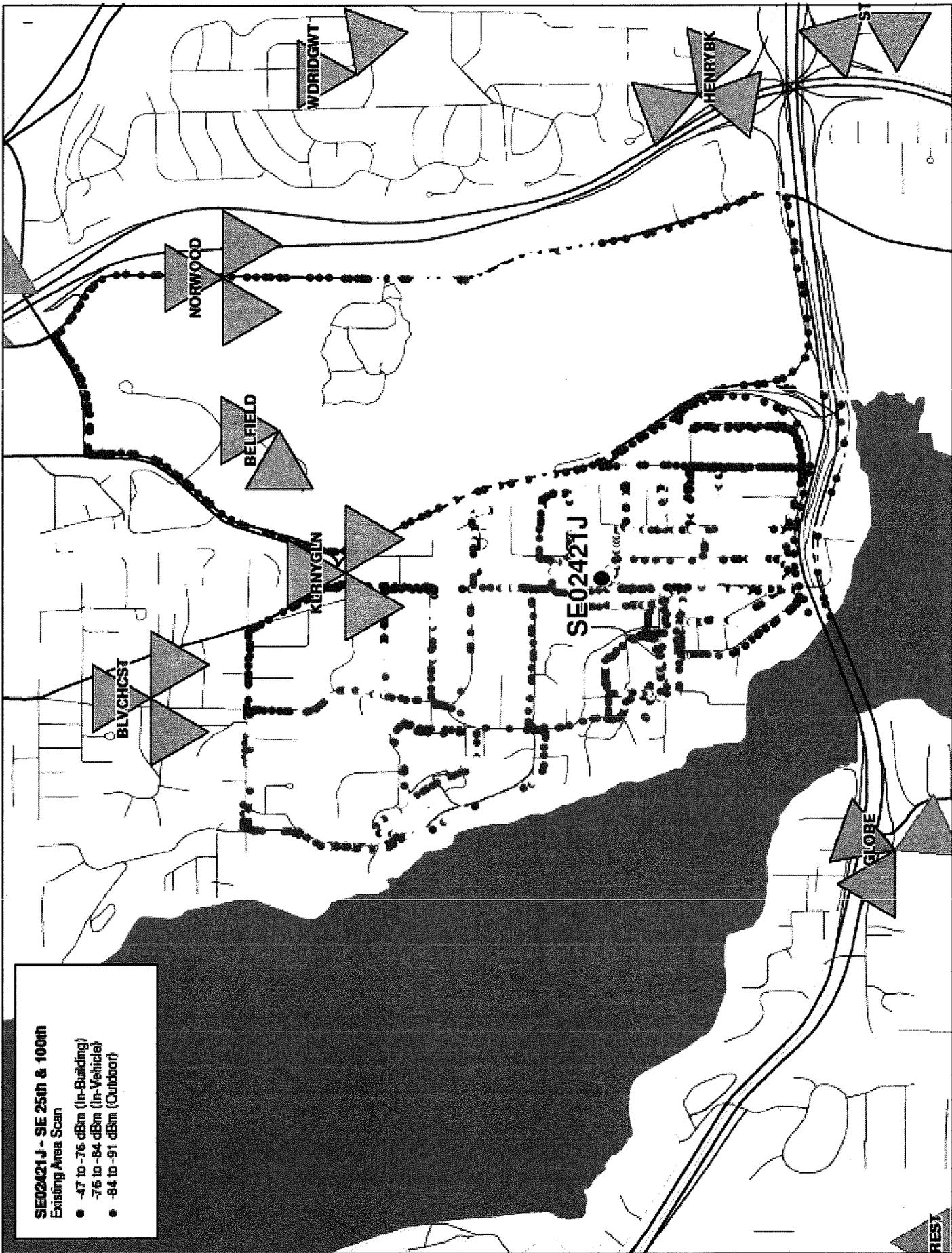


SE02421J - SE 25th & 100th
Existing & Proposed Coverage @ 85' RC

	Existing Coverage - Indoor
	Existing Coverage - In Vehicle
	Existing Coverage - Outdoor
	Proposed Coverage - Indoor
	Proposed Coverage - In Vehicle

T-Mobile – Bellevue Christian Church
10808 SE 25th Street
Project #10-117198-LB

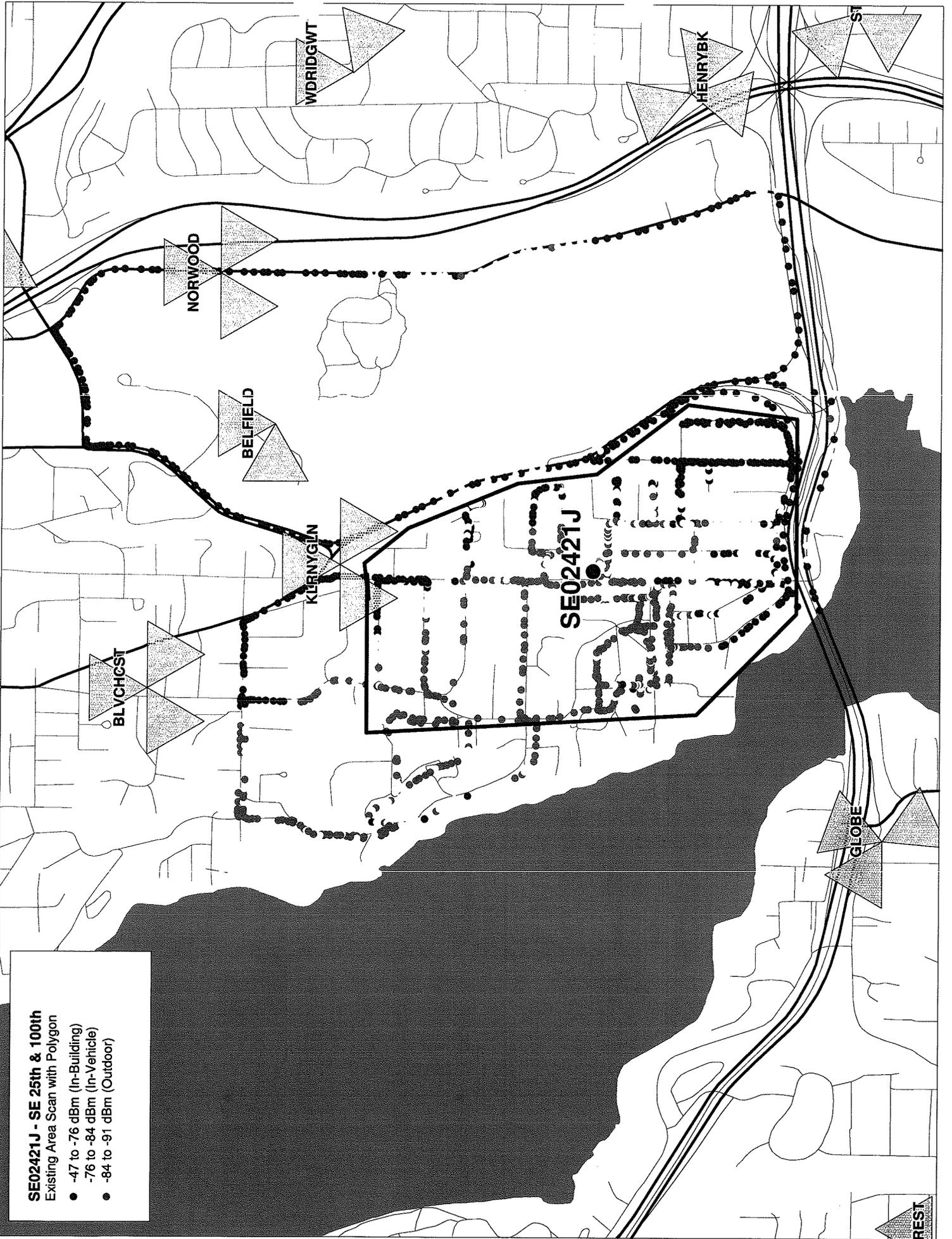
Attachment 4
T-Mobile Test Drive Maps
and
Analysis



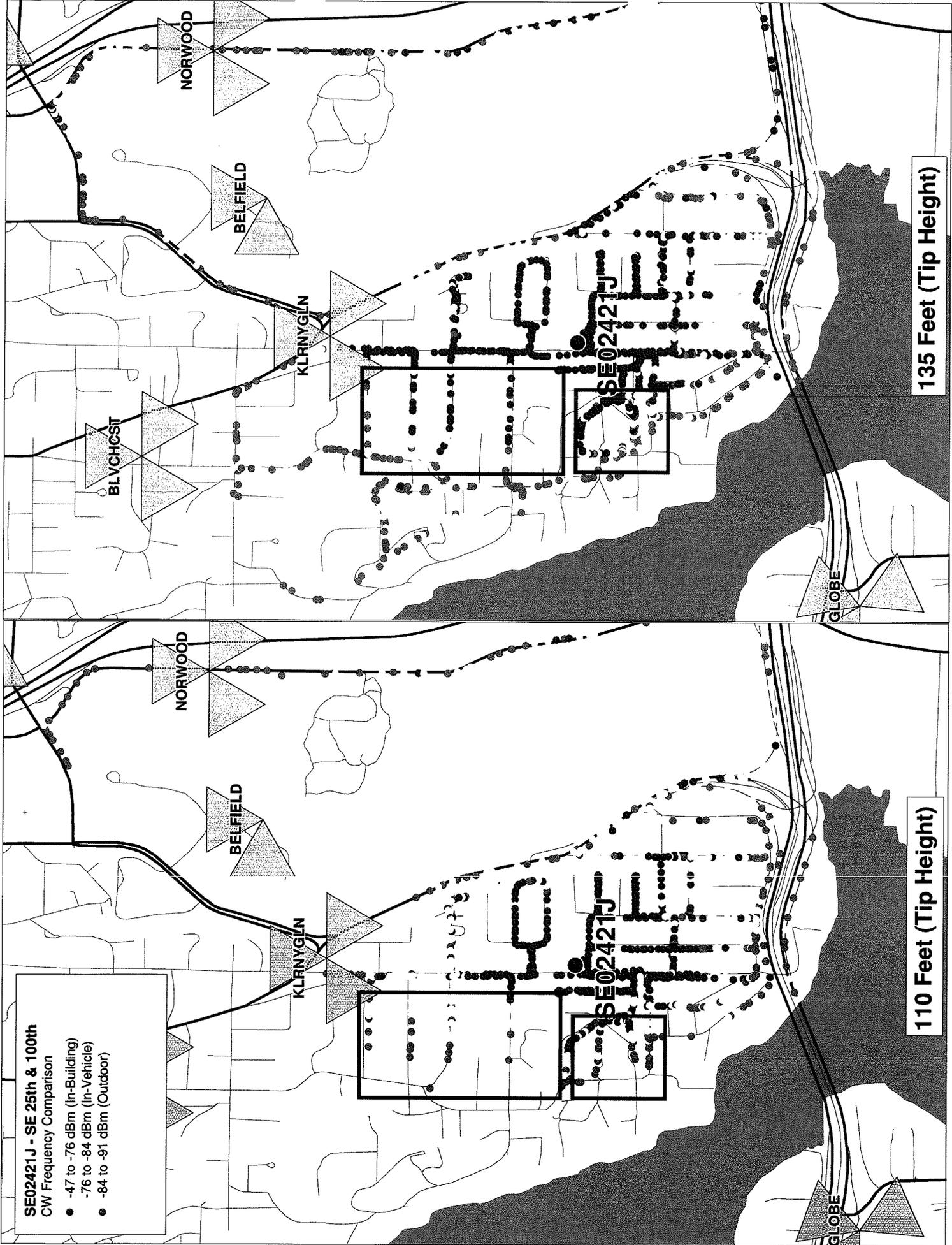
SE02421J - SE 25th & 100th

Existing Area Scan with Polygon

- -47 to -76 dBm (In-Building)
- -76 to -84 dBm (In-Vehicle)
- -84 to -91 dBm (Outdoor)

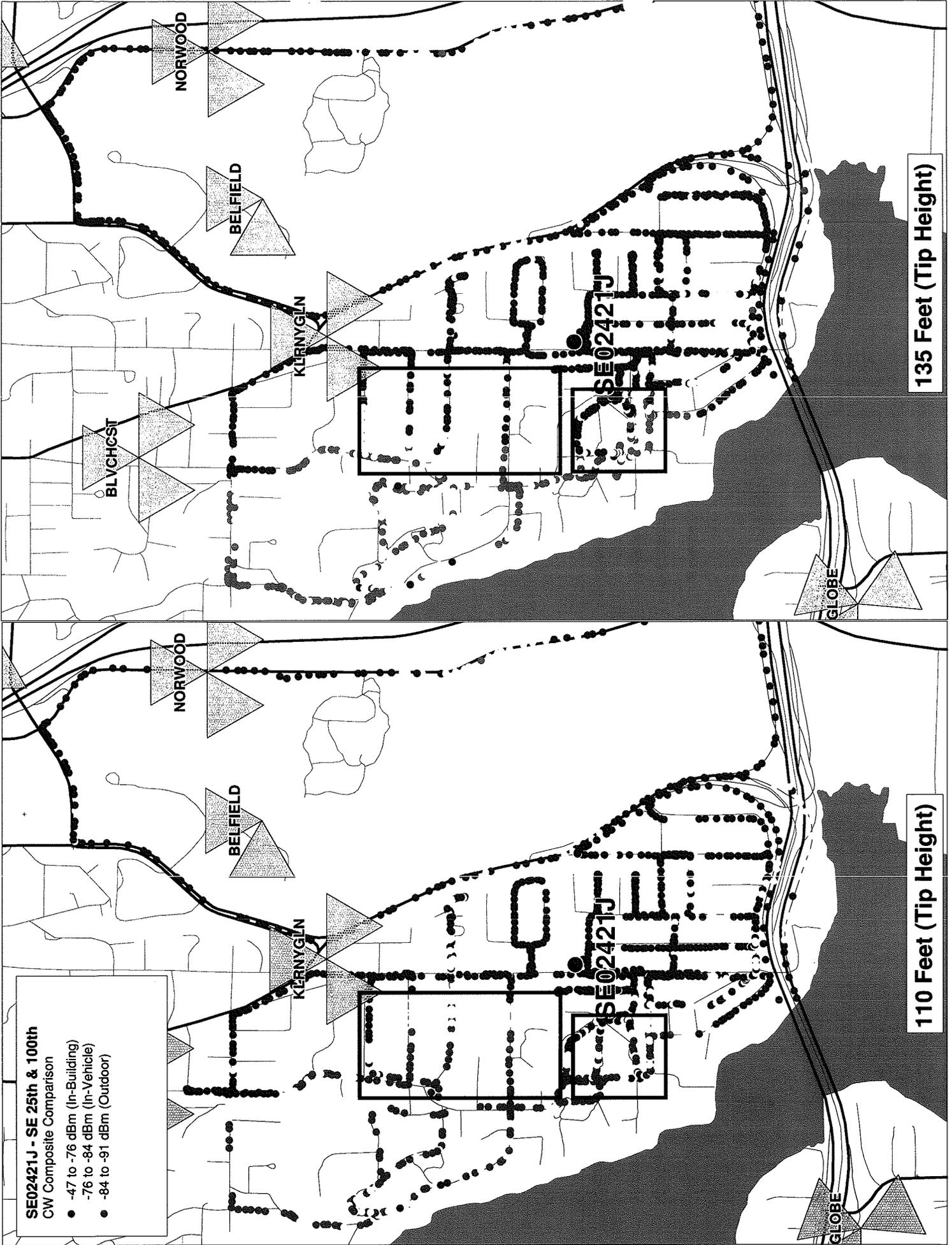


REST



135 Feet (Tip Height)

110 Feet (Tip Height)



135 Feet (Tip Height)

110 Feet (Tip Height)



19807 N. Creek Parkway N.
Bothell, WA
98011

This letter is being submitted to provide additional technical data regarding the recent drive testing done by T-Mobile for the subject site SE02421J. This is in reference to the proposed Wireless Communication Facility located at 10828 SE 28th Street, Bellevue, WA.

The site location is based on T-Mobile's Design Guidelines and experience in the installation and operation of WCF's in suburban (residential) areas taking into account both the coverage and capacity requirements needed to provide outstanding T-Mobile services. The following is an explication of how the drive testing was conducted and how the results are to be interpreted.

Coverage:

With regards to coverage, this is typically defined as having a certain level of signal strength in a particular area. T-Mobile's target is to provide -76dBm of signal strength to our customers in all areas. This level of coverage guarantees reliable signal strength inside of buildings and homes. This level of coverage allows T-Mobile to provide excellent voice quality and data throughput (speed) in both residential neighborhoods and commercial areas. In today's competitive marketplace, T-Mobile requires these coverage levels to be competitive and to fulfill our responsibilities under our FCC license.

Existing and proposed coverage is demonstrated by use of both propagation maps and drive test data. The propagation maps are computer simulations of wireless coverage in a given area. The RF Planning Tool used to prepare the computer simulations uses a mathematical model to simulate the radio signal from the cell sites in the T-Mobile Network. The tool houses a database of all T-Mobile sites allowing the engineers to predict and analyse existing coverage in all areas of the Network. At the same time these predicated coverage maps can be used to locate areas of weak or non-existent coverage in the Network which in turn aids in the planning and location of new cell sites. The engineer can easily add the proposed (new) site to the database and simulate the coverage using different design parameters including antenna type, antenna height and antenna azimuths.

In addition to the planning tool, which relies on mathematical modeling, it is sometimes desirable to verify that a new (or proposed) site will adequately fill a coverage hole via empirical data collection and analysis. This is done by completing a CW drive test. A test transmitter is connected to a test antenna which is placed on the boom of a crane and extended as close to the actual location as possible where the antennas would be physically located if the site were to be built i.e. at the same physical height and location of the antennas on the WCF. A test signal is then transmitted through this antenna which then creates a coverage footprint in the area around the site. Drive test data can then be collected to determine the extent of the coverage i.e. does the proposed site meet the required coverage objectives. The goal is to verify that this footprint meets the following requirements:

Received

FEB 18 2011

Permit Processing

- Provides sufficient overlap with the existing Network.
This will allow for seamless handover between adjacent cell sites
- The site does not over propagate
In contrast to TV and Radio Station broadcasters who rely on only a few large radio transmission towers to coverage very large geographic areas, i.e. a County, Wireless Carriers rely on a Network of cells (hence the term cellular network) which have well contained RF footprints and cell overlap.
- The site does not provide too little coverage

The collection of the drive test data is done by having a drive test team in a vehicle systematically drive through the coverage objective, with specialized measurement equipment (a scanning receiver) and a GPS. This allows the engineer to collect actual wireless signal strength measurements from the test transmitter. The collected data is geo-coded and can then be plotted on a map showing the actual coverage in the area. These empirical results are highly accurate and are a valuable aid in verifying that a site meets all of the design objectives. Unlike the simulations from the planning tool, which due to the mathematical modeling, can have a statistical standard deviation and mean error, the drive test data collected from the CW test is absolute.

Antenna Height

With reference to the antenna height being requested for the WCF, we are requesting an antenna tip 135 feet. This height is required due to a number of factors, some of these being:

- Localized topography – the hilly and undulating terrain in the area.
The radio propagation is severely influenced by the terrain obstructions and the signal is heavily attenuated in this type of area resulting in a reduced coverage footprint.

The way to combat this problem is to increase the antenna height so that the signal is propagated above and over the terrain rather than into the terrain.

- Localized morphology – the dense tree canopy in the area.
As with the terrain, localized clutter and obstructions including trees, forested areas and greenbelts also serve to influence the radio propagation and the signal is heavily attenuated by the foliage resulting in a reduced coverage area. This is particularly pronounced in the summer months and is often referred to as “seasonality”.

In addition to the natural morphology, manmade structures (houses, buildings, bridges and roads) also influence and attenuate the signal as it propagates away from the antennas. This will also result in a reduced coverage area.

The way to combat this problem is to increase the antenna height so that the signal is propagated above and over the foliage and manmade clutter rather than into the foliage and other clutter.

Base Station Power

The WCF base station transmitted power is very low. As a result the WCF is only able to propagate the signal within a relatively small area around the site. As mentioned above, a cell site is designed to provide localized and focused coverage to a very specific area unlike a radio or TV station that broadcasts their signal as far as possible.

Quality of Service

There is always a requirement for reliable handover of calls between cell sites. In order to ensure the best possible customer experience, a cellular network is made up of hundreds of sites or cells. These cells ideally should all overlap to some degree. This is the reason the term "cellular" is used. This is required for two primary reasons, first capacity and second coverage.

In brief, many cells or sites translate into large capacity reserve for the Network, which in turn ensures that the customer is always able to access and use the system at any time i.e. we avoid a busy signal when making or receiving a call, or not being able to browse the internet.

As far as coverage goes, each of these cells or sites is required to overlap to some extent with the adjacent cells or sites. In doing so, this overlap allows the user to move between cells or sites (for example while driving) without dropping the call. This is commonly referred to as Mobility. By placing the antennas at the requested height, we are ensuring that we allow for mobility and thus do not negatively impact the customer experience.

Drive test data and drive test maps

Attached please find four drive test data maps, these are the following:

1. Existing coverage from the T-Mobile Network in the Enatai neighborhood and the surrounding areas in south Bellevue;
2. Data collected from the drive test signal for each of the heights that we tested;
3. Composite coverage map showing the data from the test signal merged with the existing Network coverage for each of the heights that we tested;
4. Polygon showing the area that T-Mobile is intending to cover with this WCF overlaid on the existing coverage.

For the testing, test heights of 110 and 135 feet (antenna tip height) were used.

For the various coverage thresholds shown on the drive tests

Green:

Indoor coverage represented by signals equal to or greater than -76 dBm

Yellow:

In-Vehicle and good outdoor coverage represented by signals greater than or equal to -84 dBm

Grey:

Outdoor coverage only represented by signals equal or better than -92 dBm

For the first map, described above in #1, we are presenting the actual Network coverage that T-Mobile is currently providing in this area. The data presented shows outdoor coverage levels, which can be seen to be weak across most of the area. Please note that indoor coverage levels are always weaker due to signal attenuation from the construction materials used to build the houses and or buildings. Thus, weak coverage outdoors typically translates into very weak to no coverage indoors. Weak coverage also translates into poor throughput for 3G and 4G services. Over the last several years there has been a paradigm shift and most people now expect and demand reliable in-building coverage. We have also seen a huge increase and demand for high speed data services. Prior to this, outdoor coverage was deemed acceptable.

In the fourth map, described above in #4, we have bounded the area in which T-Mobile would like to improve and provide coverage with a blue polygon. We have also used this polygon to do a statistical analysis of the raw drive test data to show the signal strength improvement.

SE02421J	Signal in dBm
Average of the existing signal strength in the area bounded by the polygon	82
Average of the test signal at 135 feet	74
Average of the test signal at 110 feet	80

As can be seen from the table shown above, the signal strength over the area from a site at 135 feet is substantially better than that of a site at 110 feet. A lower (smaller) number is actually better when represented in dBm. dBm is a measurement of power in decibels commonly used in radio engineering.

In the second map, described in #2 above, we are presenting the signal strength measured from the test signal at 110 and 135 feet. We have overlaid blue rectangular polygons onto the drive test data to highlight the areas of improvement. It can be clearly seen that for the signal at 135 feet, we are seeing substantially more in-building coverage across the area, specifically to the west and northwest of the site location.

With regards to the good coverage to the far north and far south from the test signal, this verifies that we would have good coverage overlap with the coverage from the existing Network. As described above, this is very desirable from a Quality of Service perspective.

In the third map, described in #3 above, we are presenting the signal strength measured from both the existing Network and the test signal at 110 and 135 feet. This is what we commonly refer to as the composite coverage. This is a view of what the Network would look like taking into account both the existing and future coverage at the same time, i.e. what the customer would experience once the site is built and integrated into the T-Mobile Network.

Again, we have overlaid blue rectangular polygons onto the drive test data to highlight the areas of improvement. It can be clearly seen that for the signal at 135 feet, we are seeing substantially more in-building coverage across the area, specifically to the west and northwest of the site location.

In these two rectangular polygons, we have been able to count the number of homes using Google satellite imagery. Based on a rough count along SE 20th, SE 22nd and SE 23rd we count in excess of fifty homes that would gain significant coverage improvement. In addition, we would also be able to provide reliable in-building coverage to the Bellevue Public School (Enatai) and to Enatai Park.

We would also be providing reliable coverage along 108th Avenue SE, the main north south arterial in the area connecting the neighbourhood to Bellevue Way. This is also the primary access to Enatai Beach Park. This arterial is well travelled by the residents in this neighbourhood and is also one of the main bus routes for the area.

Conclusion

Based on the data presented above and as shown in the drive test data maps, a WCF of 135 feet tip height located on the property of the Bellevue Christian Church is the minimum height to allow T-Mobile to provide reliable in-building coverage and other services (high speed data and 911) to the area.

Sincerely,

A handwritten signature in black ink, appearing to read 'Darryl Salk', with a long horizontal line extending to the right.

Darryl Salk
Senior RF Engineer, Site Deployment
T-Mobile USA

T-Mobile – Bellevue Christian Church
10808 SE 25th Street
Project #10-117198-LB

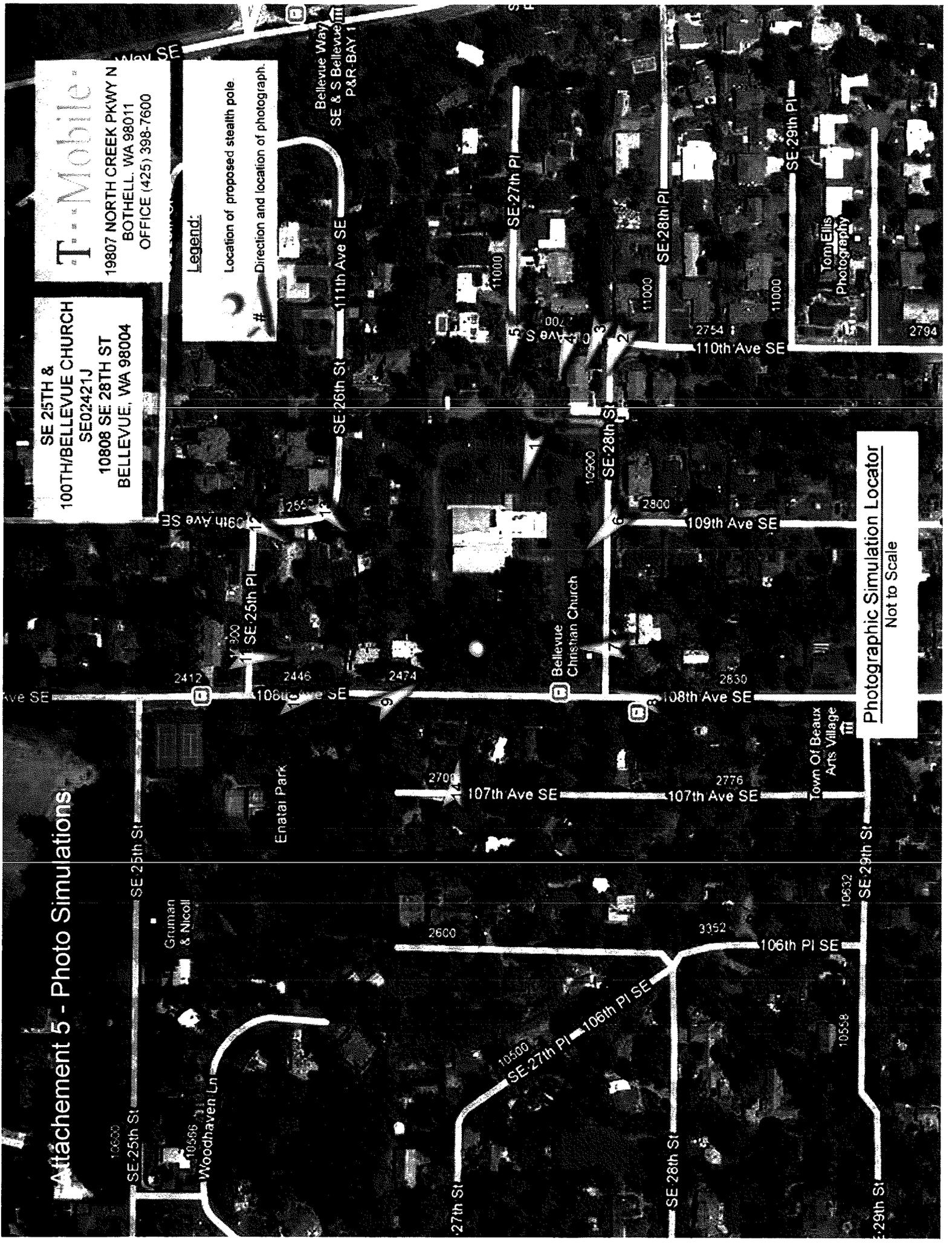
Attachment 5
Photo Simulations

Attachement 5 - Photo Simulations

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004

Legend:
Location of proposed stealth pole.
Direction and location of photograph.



Photographic Simulation Locator
Not to Scale

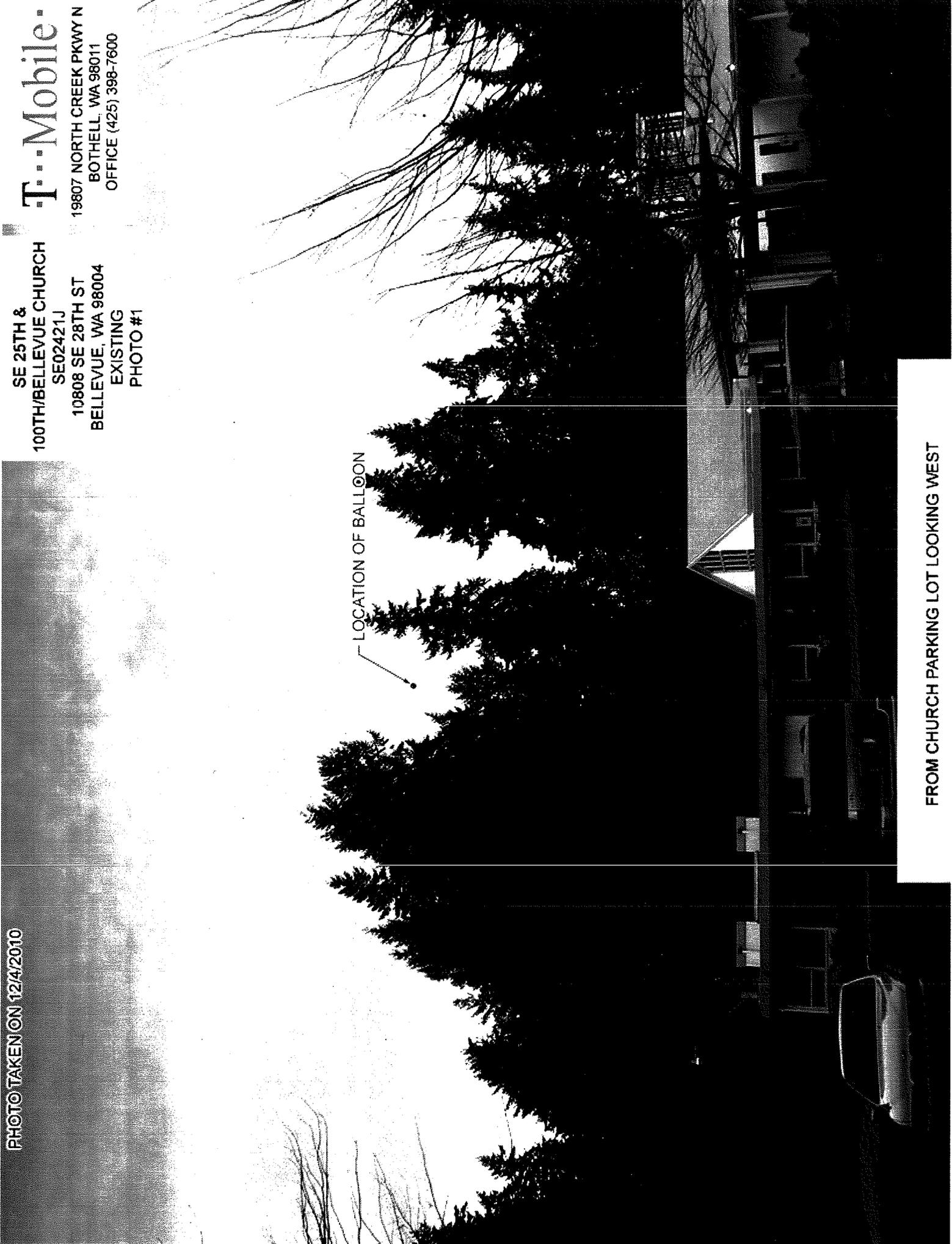
PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #1

F Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

LOCATION OF BALLOON

FROM CHURCH PARKING LOT LOOKING WEST



T-Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #1

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM CHURCH PARKING LOT LOOKING WEST



PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #2

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

LOCATION OF BALLOON

FROM INTERSECTION OF 110TH AVE SE & SE 28TH ST
LOOKING NORTH-WEST



T-Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #2

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM INTERSECTION OF 110TH AVE SE & SE 28TH ST
LOOKING NORTH-WEST

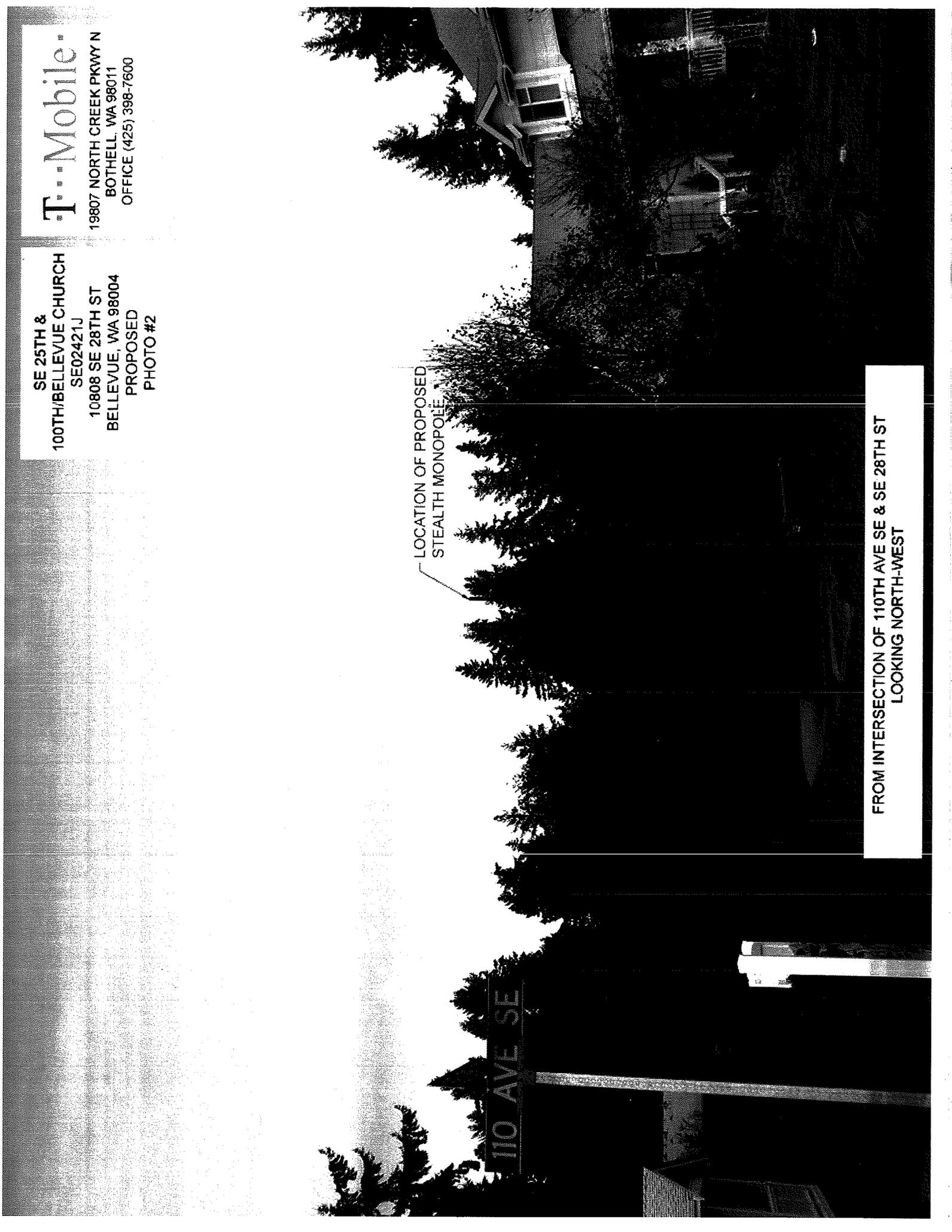


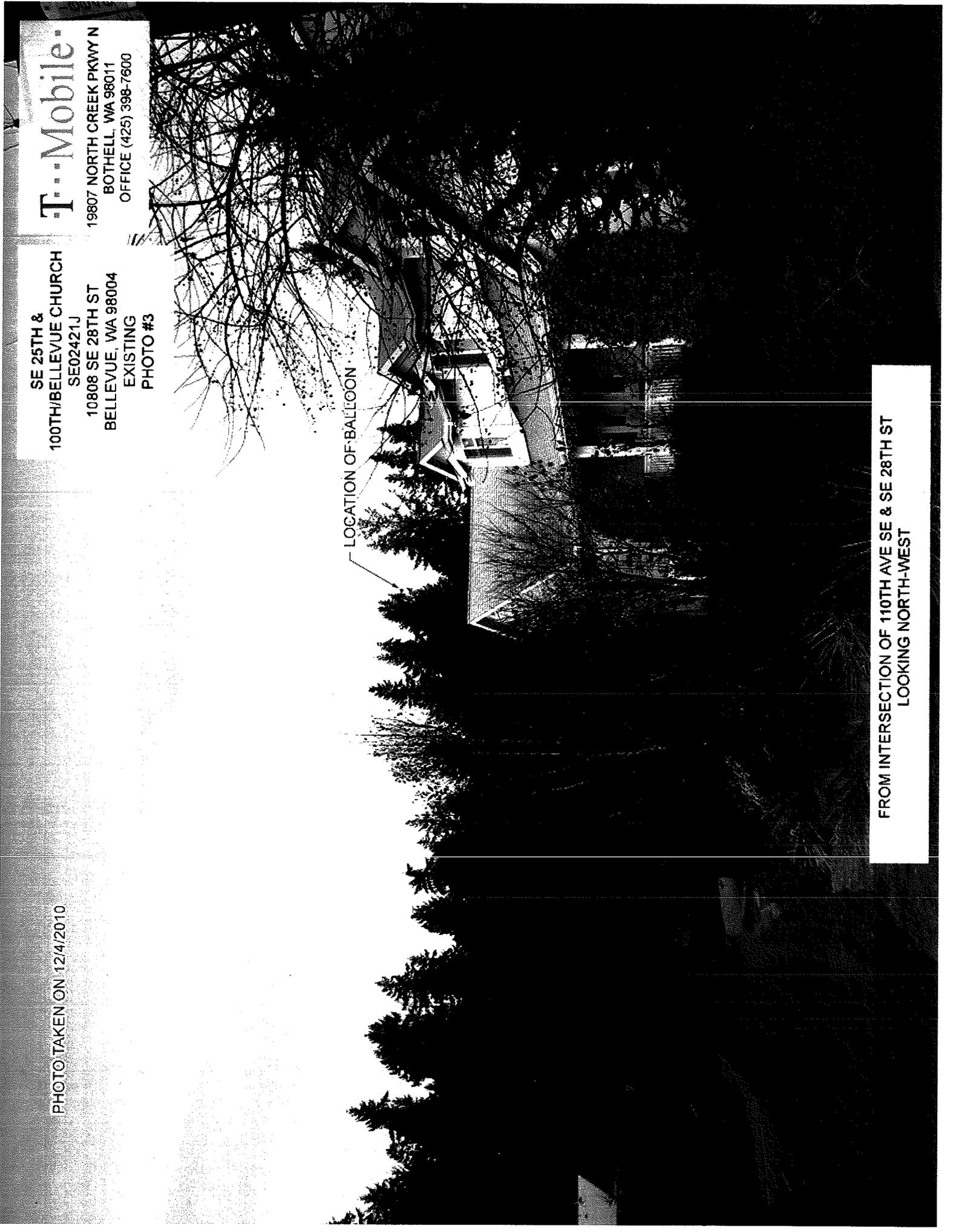
PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #3

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

LOCATION OF BALLOON

FROM INTERSECTION OF 110TH AVE SE & SE 28TH ST
LOOKING NORTH-WEST



T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #3

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM INTERSECTION OF 110TH AVE SE & SE 28TH ST
LOOKING NORTH-WEST

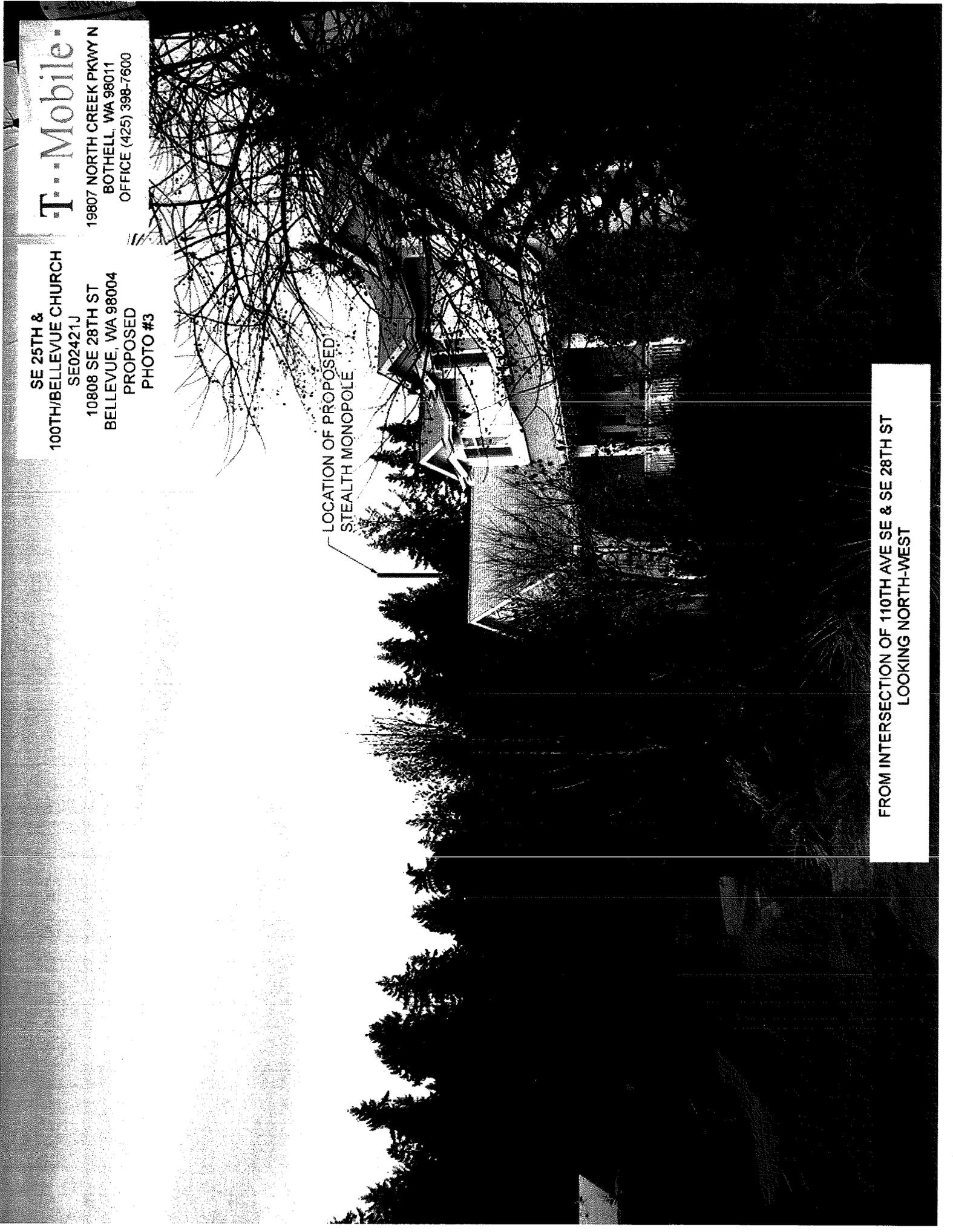


PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVEUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVEUE, WA 98004
EXISTING
PHOTO #4

T-Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

LOCATION OF BALLOON

FROM 110TH AVE SE LOOKING WEST

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #4

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM 110TH AVE SE LOOKING WEST

PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING/PROPOSED
PHOTO #5

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

FROM 110TH AVE SE LOOKING WEST
(BALLOON NOT VISIBLE THIS VIEW)

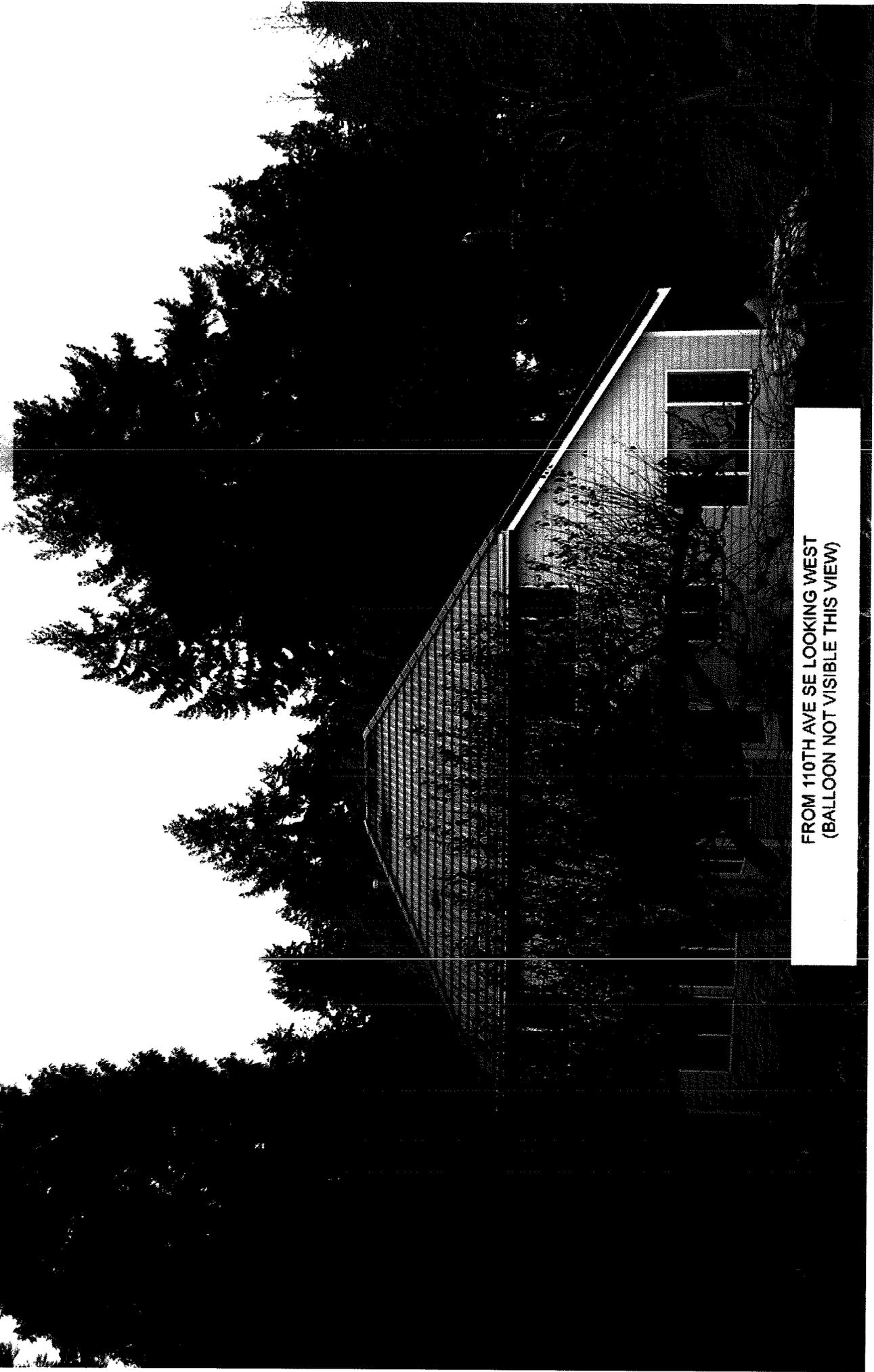


PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVEUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVEUE, WA 98004
EXISTING
PHOTO #6

T-Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

LOCATION OF BALLOON

FROM INTERSECTION OF 109TH AVE SE & SE 28TH ST
LOOKING NORTH-WEST

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #6

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM INTERSECTION OF 109TH AVE SE & SE 28TH ST
LOOKING NORTH-WEST

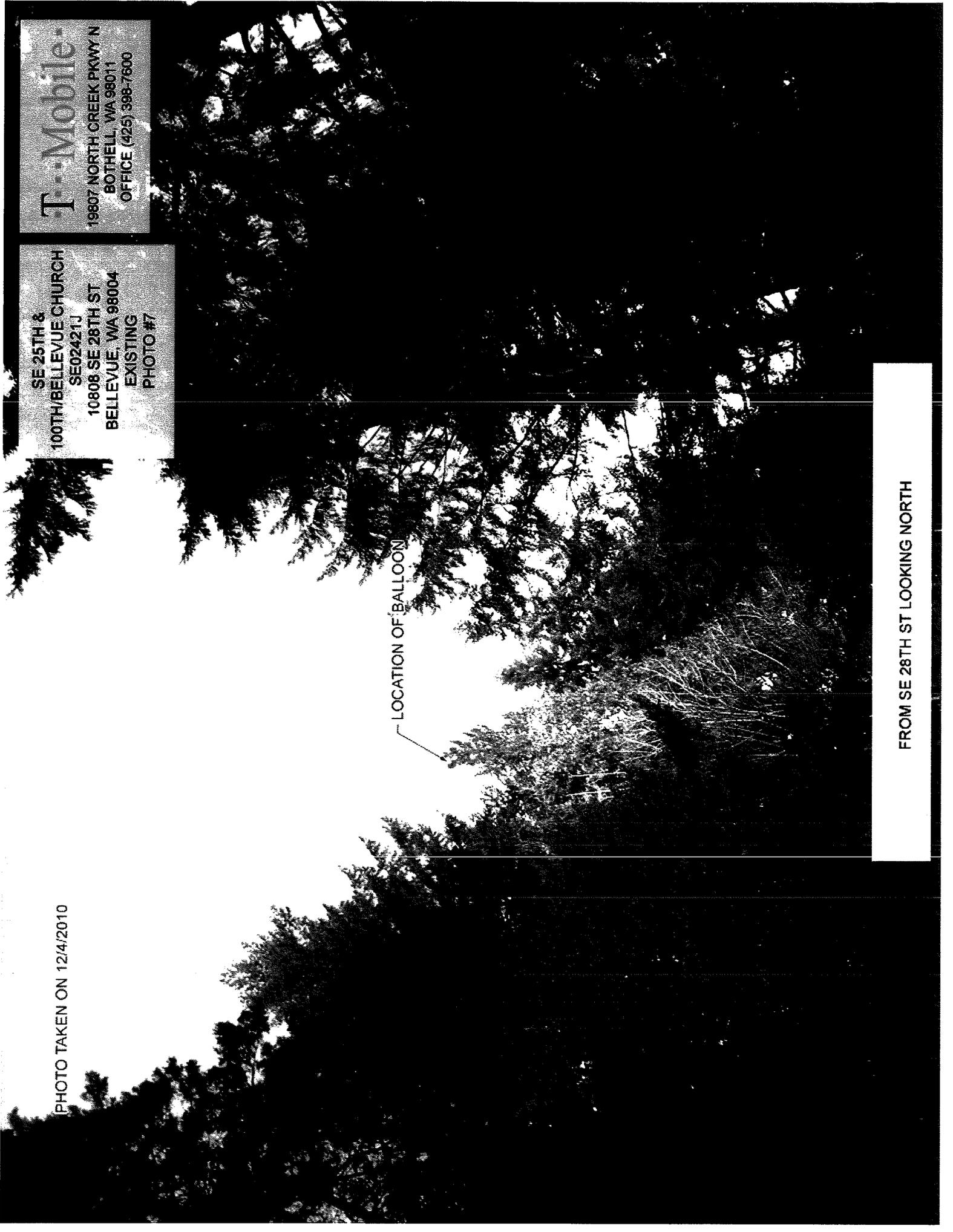
PHOTO TAKEN ON 12/4/2010

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #7

LOCATION OF BALLOON

FROM SE 28TH ST LOOKING NORTH



T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #7

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM SE 28TH ST LOOKING NORTH

PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #8

F Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

LOCATION OF BALLOON

FROM 108TH AVE SE LOOKING NORTH

T-Mobile

19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #8

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM 108TH AVE SE LOOKING NORTH

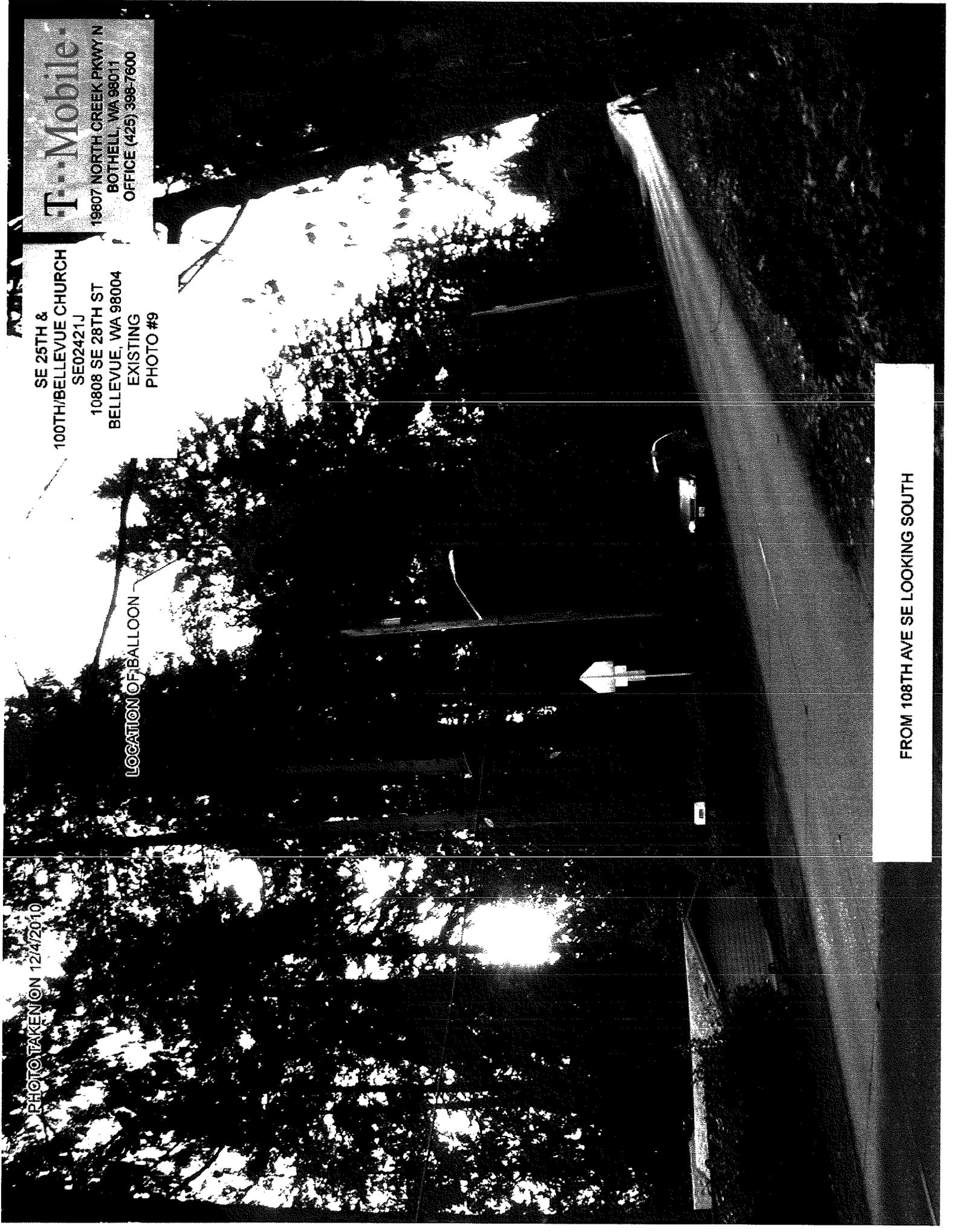
PHOTO TAKEN ON 12/4/2010

LOCATION OF BALLOON -

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #9

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

FROM 108TH AVE SE LOOKING SOUTH



T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #9

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM 108TH AVE SE LOOKING SOUTH

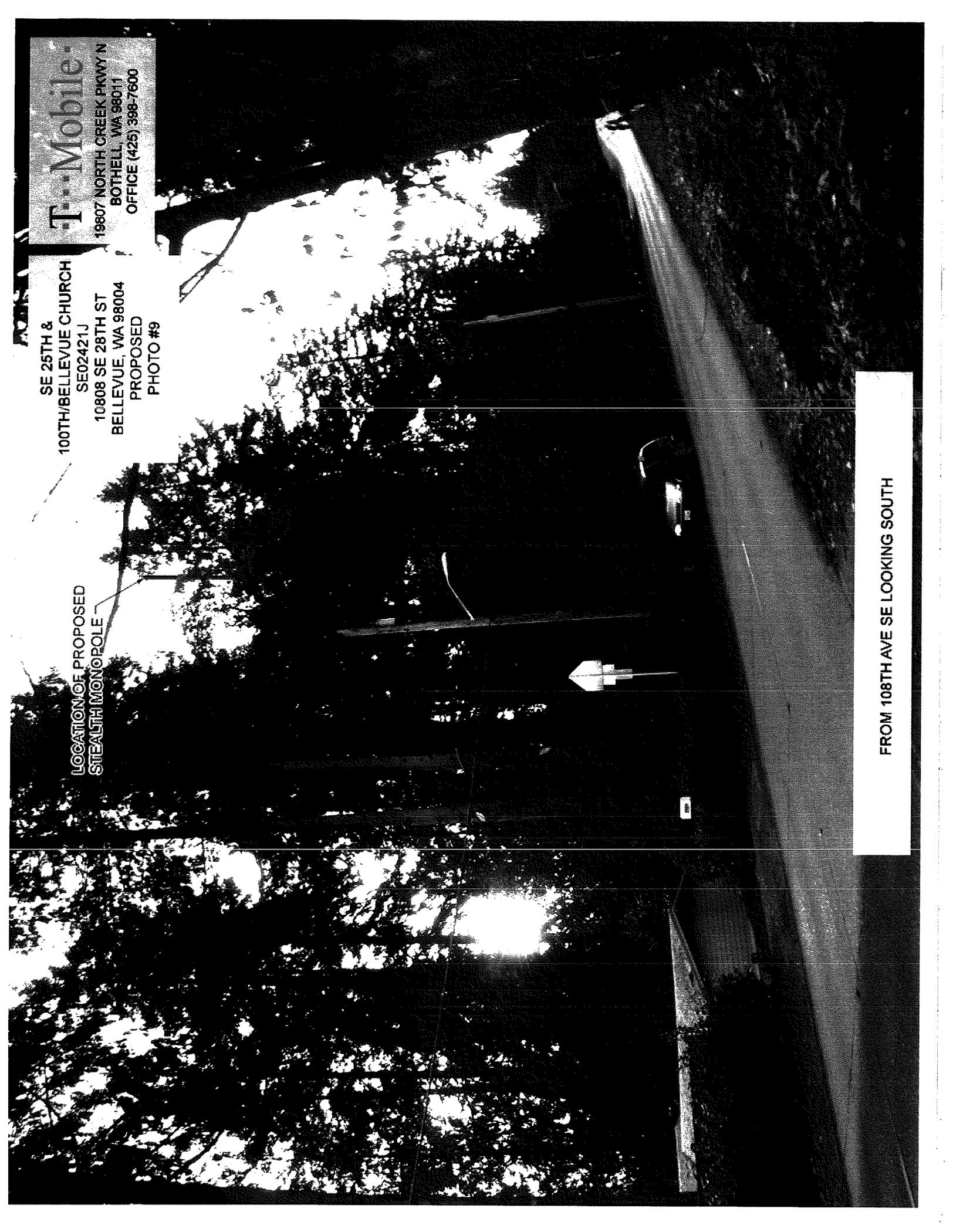


PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING/PROPOSED
PHOTO #10

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

FROM 108TH AVE SE LOOKING SOUTH
(BALLOON NOT VISIBLE THIS VIEW)

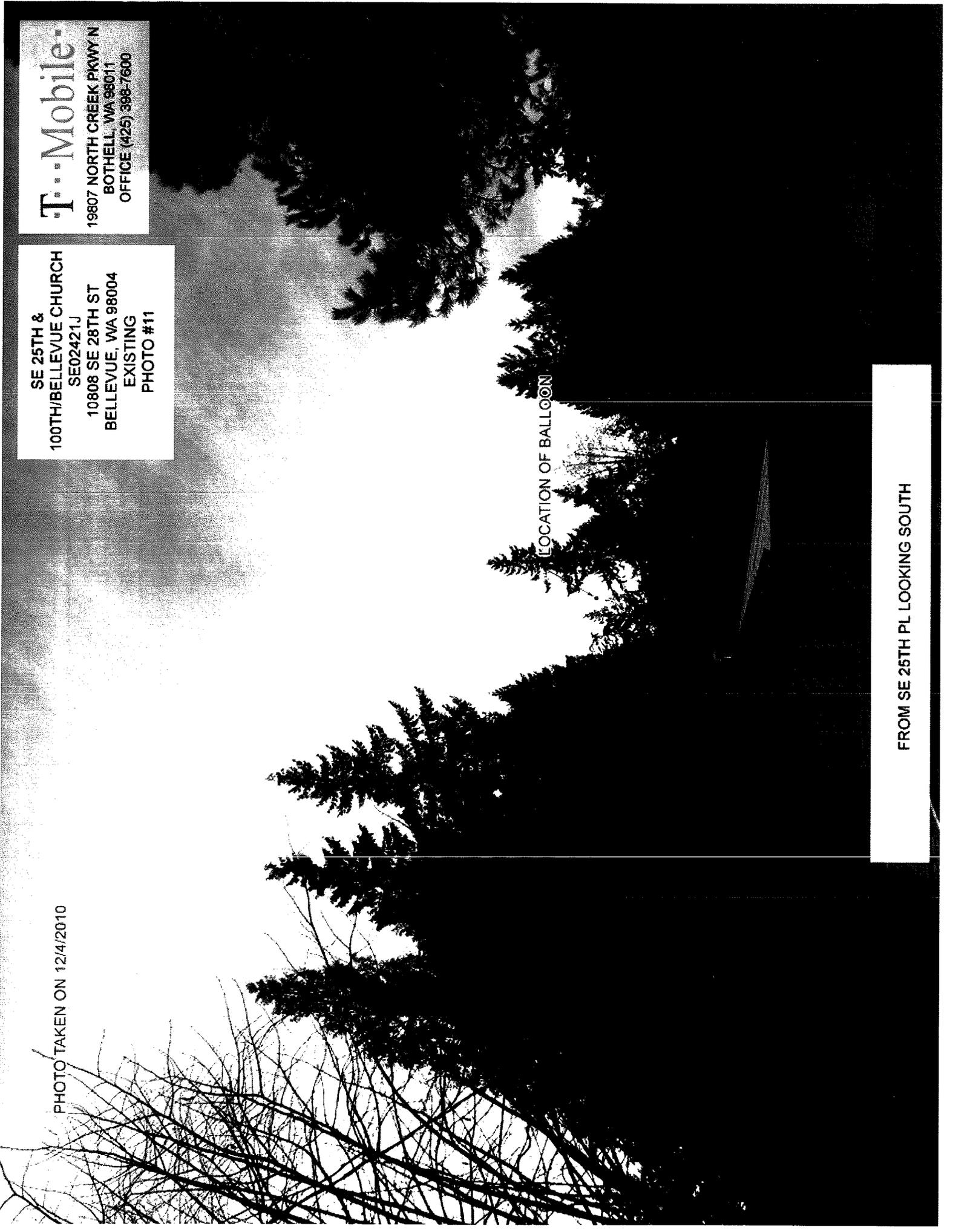
PHOTO TAKEN ON 12/4/2010

T-Mobile
19807 NORTH CREEK PKWY N
BOTHELL, WA 98011
OFFICE (425) 398-7600

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #11

LOCATION OF BALLOON

FROM SE 25TH PL LOOKING SOUTH



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SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #11

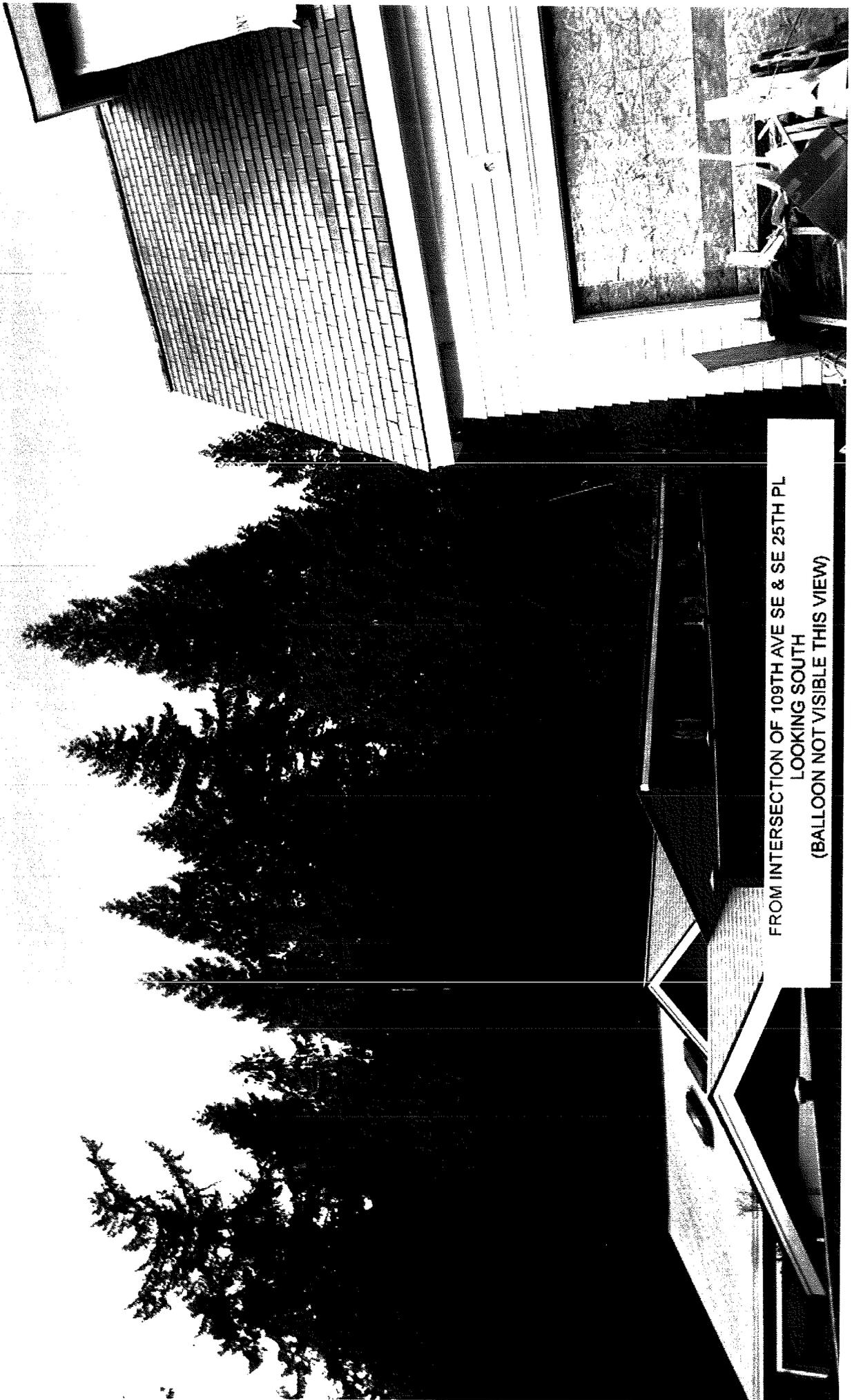
LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM SE 25TH PL LOOKING SOUTH

PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING/PROPOSED
PHOTO #12

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FROM INTERSECTION OF 109TH AVE SE & SE 25TH PL
LOOKING SOUTH
(BALLOON NOT VISIBLE THIS VIEW)

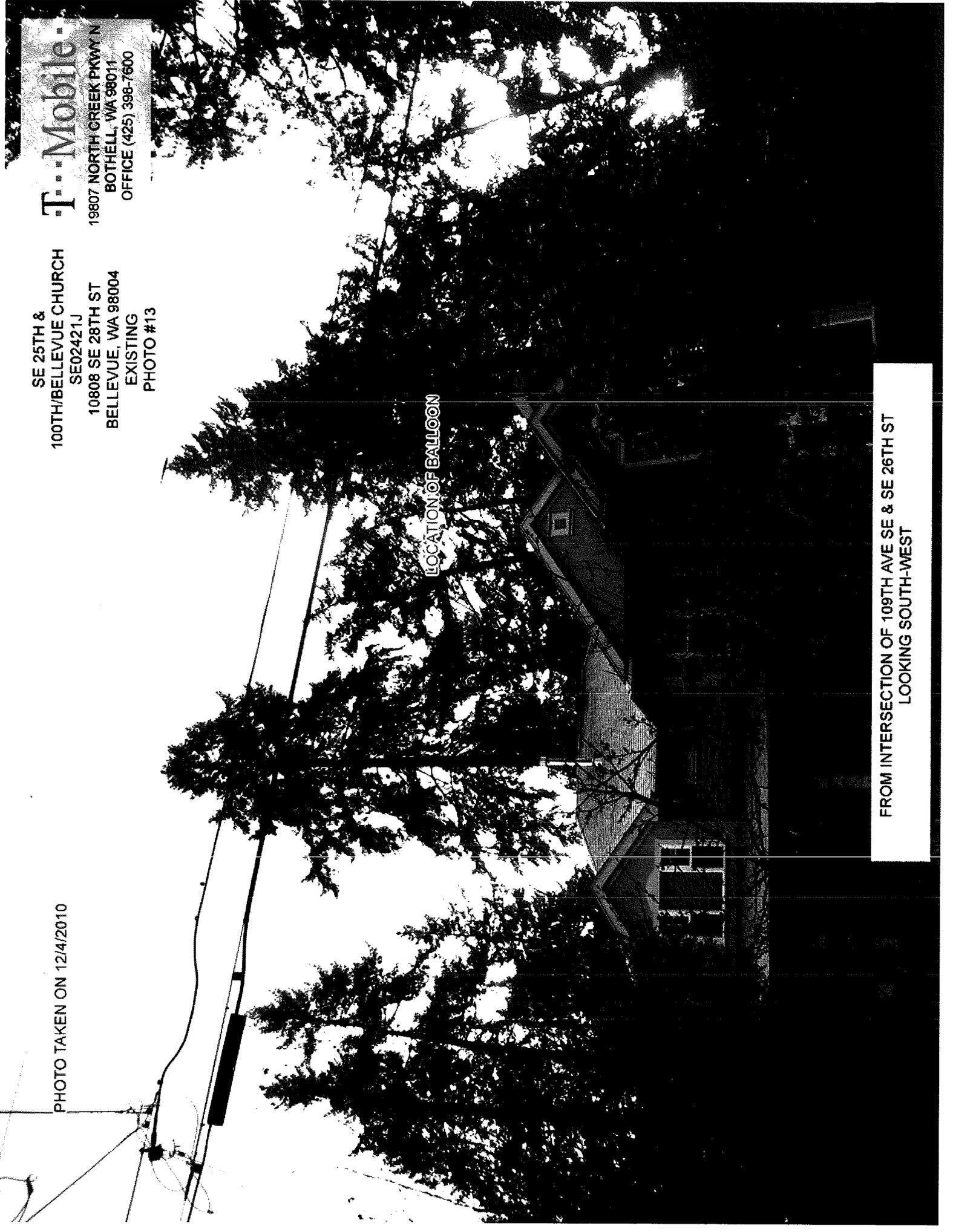
PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #13

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LOCATION OF BALLOON

FROM INTERSECTION OF 109TH AVE SE & SE 26TH ST
LOOKING SOUTH-WEST



SE 25TH &
100TH/BELLEVUE CHURCH
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10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #13

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LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM INTERSECTION OF 109TH AVE SE & SE 26TH ST
LOOKING SOUTH-WEST

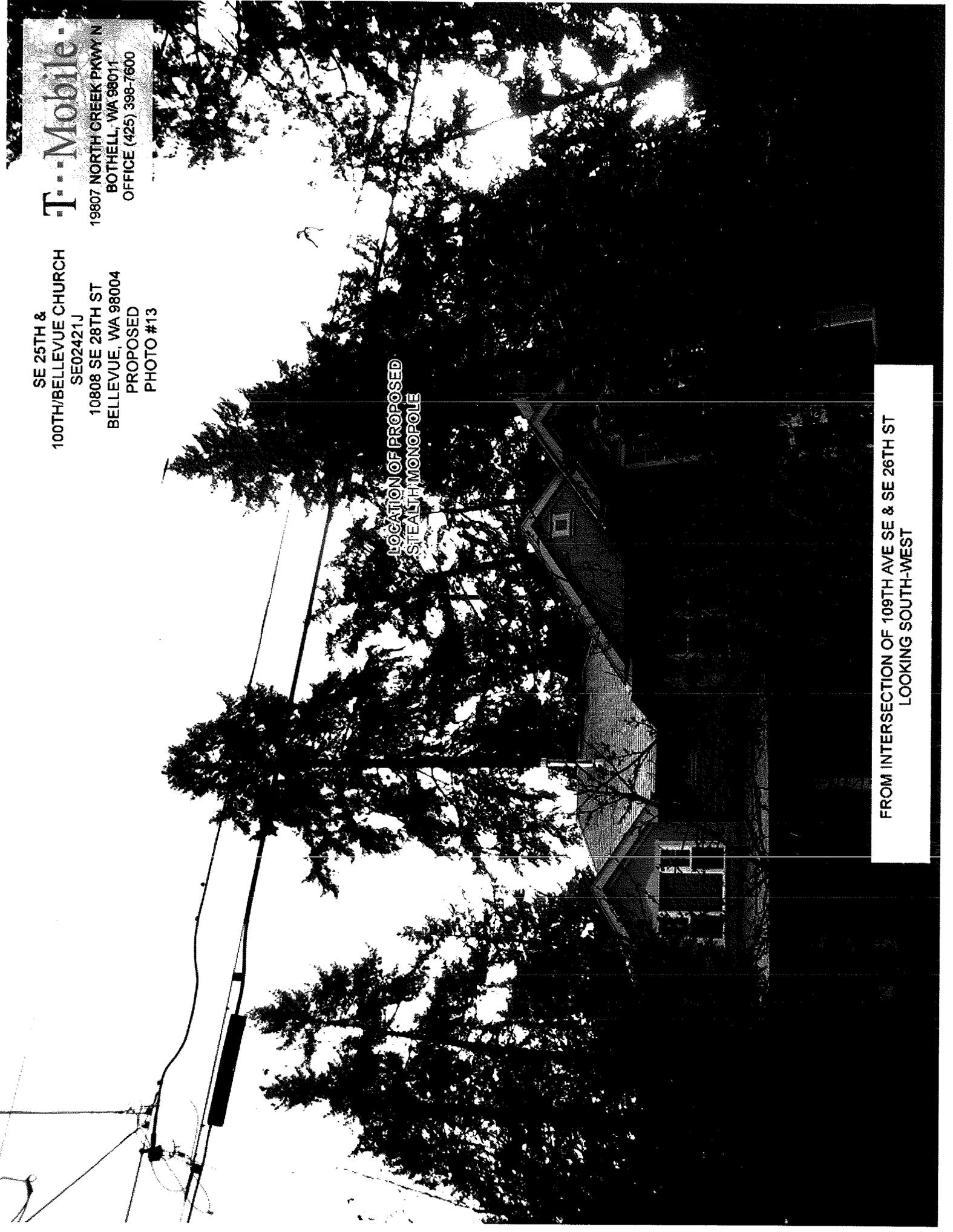


PHOTO TAKEN ON 12/4/2010

SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
EXISTING
PHOTO #14

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LOCATION OF BALLOON

FROM 107TH AVE SE LOOKING EAST

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SE 25TH &
100TH/BELLEVUE CHURCH
SE02421J
10808 SE 28TH ST
BELLEVUE, WA 98004
PROPOSED
PHOTO #14

LOCATION OF PROPOSED
STEALTH MONOPOLE

FROM 107TH AVE SE LOOKING EAST