



June 28, 2011

File: CSU-11-04

NOTICE OF TENTATIVE DECISION

This is official notice of action taken by the Milwaukie Planning Director on June 28, 2011.

Applicant: Zach Phillips on behalf of AT&T Mobility
Location: 5410 SE International Way
Tax Lot: 1S 2E 31D 01000
Application Type: Community Service Use -- Wireless Communication Facility
Decision: Approved with Conditions
Review Criteria: Milwaukie Zoning Ordinance:¹

- MMC 19.321.14 Community Service Use, Standards for Wireless Communication Facilities
- MMC 19.1011.2 Type II Administrative Review

Neighborhood: Milwaukie Business Industrial

This notice is issued in accordance with Milwaukie Zoning Ordinance Subsection 19.1011.2 Type II Administrative Review.¹ Type II decisions allow for public comment and requests for a public hearing before the Planning Commission. The Planning Director may modify this decision based on comments received during the comment period. Additional notice will be provided if the decision is modified. Comments and requests for a public hearing must be received no later than the date shown below.

Comment period closes: 5:00 p.m., July 12, 2011

¹ This application was submitted prior to the effective date of Ordinance 2025, which reorganized and renumbered Milwaukie Municipal Code (MMC) Title 19 Zoning. As per ORS 215.427(3), the application is subject to the standards and criteria that were applicable at the time of submittal. In this Notice of Tentative Decision, all references are to the version of MMC Title 19 that was in effect prior to Ordinance 2025.

This decision is final once the comment period closes. Once final, the decision may be appealed to the Milwaukie Planning Commission in accordance with Milwaukie Zoning Ordinance Subsection 19.1011.2. An appeal of this decision must be filed within 15 days of close of the comment period. The appeal period expires on the date shown below.

Appeal period closes: 5:00 p.m., July 27, 2011

Appeals to the Planning Commission must be accompanied by the appeal fee, be submitted in the proper format, address applicable criteria, and be made on forms provided by the Planning Department. Milwaukie Planning staff (503-786-7630 or planning@ci.milwaukie.or.us) can provide information regarding forms, fees, and the appeal process.

Findings in Support of Approval

1. Zach Phillips ("the applicant"), on behalf of AT&T Mobility, proposes to modify an existing wireless communication facility by replacing 3 existing antennas on the existing monopole at 5410 SE International Way with 3 new Long Term Evolution (LTE) panel antennas, 6 Remote Radio Head (RRH) units, 1 GPS antenna, and 1 "squid" antenna. The installation would replace existing equipment on or near two of the three mounting structures located near the top of the monopole.

The subject property is zoned Business Industrial BI. According to Clackamas County records, the property is owned by Ran-Tech Engineering and Aerospace, Inc. Property manager John Rupp has authorized the land use application to allow the proposed installation.

2. A 100-ft-tall wooden monopole was originally approved for the subject property in 1991 (Land Use Application File #CSO-91-01). The approval included a variance to exceed the 50-ft maximum height allowed for community service uses at that time (File #VR-91-02). In 1996, the existing steel monopole was approved to replace the original wooden monopole as a minor change to CSO-91-01.
3. The current application (CSU-11-04) was submitted prior to the effective date of Ordinance 2025, which reorganized and renumbered Milwaukie Municipal Code (MMC) Title 19 Zoning. As per ORS 215.427(3), the application is subject to the standards and criteria that were applicable at the time of submittal. The proposal is subject to the following provisions of MMC Title 19, with references to the version of Title 19 that was in effect prior to Ordinance 2025:
 - MMC 19.321.14 Community Service Use, Standards for Wireless Communication Facilities
 - MMC 19.1011.2 Type II Administrative Review

Sections of the MMC that are not addressed in these findings are found to not be applicable decision criteria for the development proposal.

4. MMC 19.321.14 Standards for Wireless Communication Facilities (Community Service Use)

A. MMC 19.321.14.B Purpose

The goal of the wireless communication facilities ordinance is to allow for the siting of wireless communication facilities (WCFs) while preventing clutter and designs that are not consistent with existing and future land uses. The application is consistent with the goals of MMC 19.321.14.B by proposing to (1) enhance the ability of wireless communication providers to provide comprehensive service to the community and (2) use an existing monopole as an antenna support structure instead of constructing a new tower.

B. MMC 19.321.14.C Application Process

MMC 19.321.14.C.1 establishes that modifications of WCFs not involving the construction of a new monopole shall be processed with Type II administrative review. The proposal involves replacement of equipment on an existing monopole. The application has been processed and public notice has been provided in accordance with MMC 19.1011.2 Type II Administrative Review. Properties receiving notice of this notice of tentative decision are shown on the map in Exhibit 3.

C. MMC 19.321.14.D Application Submission Requirements

MMC 19.321.14.D.2 establishes application requirements for WCFs that do not involve construction of a new monopole.

- 1) MMC 19.321.14.D.2.a requires a detailed narrative description of the proposed antenna location. The applicant submitted a project narrative as part of the application. This requirement is met.
- 2) MMC 19.321.D.2.b requires antennas to be placed so as to allow for placement of additional antennas on the same antenna support structure in the future. The proposed LTE panel antennas would replace existing antennas on existing mounting infrastructure on the monopole. The proposed RHH units would also be installed on the existing mounting infrastructure. The proposed GPS antenna and "squid" antenna would be installed on the pole itself, near the existing mounting infrastructure. As proposed, the installations would allow room for the placement of additional antenna equipment in the future. This requirement is met.
- 3) MMC 19.321.14.D.2.c requires the applicant to provide documentation that demonstrates the proposal has been approved by the owner of the structure to which the wireless communication equipment will be attached. The applicant provided authorization from AT&T Mobility, owner of the monopole, to conduct the proposed work. This requirement is met.
- 4) MMC 19.321.14.D.2.d requires documentation that all necessary applications, permits, agreements, and easements have been obtained. The applicant has indicated that all necessary easements and agreements remain in place for the operation of WCFs on the existing monopole. This requirement is met.

- 5) MMC 19.321.14.D.e requires that extensions to existing facilities provide documentation of Federal Aviation Administration (FAA) approval. No extension to the existing monopole is proposed. This requirement is not applicable.
- 6) MMC 19.321.14.D.2.f requires a site plan that includes such details as existing and proposed landscaping and locations of proposed related base equipment. The applicant submitted plans that show the location of the monopole and associated equipment area. No new landscaping or changes to the equipment area are proposed. No new utility connections, easements, or access drives are proposed. This requirement is met.

D. MMC 19.321.14.E Use of Existing Tower or Antenna Support Structure

- 1) MMC 19.321.14.E.1 requires the applicant to attempt to co-locate on existing antenna support structures before proposing the construction of a new tower. The proposal would attach the antennas to an existing monopole, and no new tower or pole is proposed. This requirement is met.
- 2) MMC 19.321.14.E.4 requires that support structures over 80 ft in height shall be designed to allow co-location of other antennas. The existing monopole is approximately 101 ft tall and includes three existing mounting structures at elevations of approximately 82 ft, 90 ft, and 101 ft, designed to accommodate additional antennas. This requirement is met.

E. MMC 19.321.14.F Location and Size Restrictions

MMC 19.321.14.F.2 establishes a 100-ft height limit for monopoles in the BI zone. For co-location on existing towers, MMC 19.321.14.F.2.b allows extensions up to 120 ft.

A variance request in 1991 (File #VR-91-02) approved the original wooden monopole for a 100-ft height, an increase from the previous 50-ft standard. In 1996, a 100-ft steel monopole was approved as a replacement for the original wooden pole, though it appears that the actual installation resulted in a final pole height of approximately 101 ft. The highest existing antennas extend approximately 4 to 6 ft above the top of the monopole—the proposed new antennas will extend the same approximate distance above the top of the pole, and no additional extensions are proposed. This standard is met.

F. MMC 19.321.14.G Development Standards for All WCFs

1. MMC 19.321.14.G.1 establishes standards for equipment cabinets, including a requirement to meet the vegetative screening requirements provided in MMC 19.321.14.G.6. This requirement is addressed in Finding 4.F-4, below.
2. MMC 19.321.14.G.4 establishes standards for lighting. The equipment area is not currently lighted and no additional lighting is proposed. This standard is met.
3. MMC 19.321.14.G.5 establishes standards for buffering noise-generating equipment, particularly when surrounding properties are zoned for residential uses. The subject property is adjacent to other BI-zone properties on the

- west, north, and east and is adjacent to the Highway 224 right-of-way on the south. This standard is not applicable. (Note: The applicant voluntarily submitted an acoustical analysis on June 8, 2011, demonstrating that the proposed new equipment will not exceed the relevant standards outlined in MMC Chapter 8.08 Noise Control.)
4. MMC 19.321.14.G.6 establishes standards for landscaping to effectively screen the view of the base of the tower as well as equipment cabinets and any security fencing. Around the base of the existing monopole and equipment area, the project area includes a 6-ft chain-link fence topped with three strands of barbed wire, with no landscaping or visual screening of the fenced area. A condition has been established to require that the fenced area be visually screened, either by vegetation or sight-obscuring fence slats. As conditioned, this standard is met.
 5. MMC 19.321.14.G.9 establishes a requirement that any WCF not operated for a continuous period of 6 months shall be considered abandoned and must be removed by the landowner of the subject property. The applicant's narrative acknowledged this requirement, and a condition has been established to ensure that this standard is met.
 6. MMC 19.321.14.G.10 establishes a requirement that WCF operators keep the City informed of any changes in the status of the WCF's operation and to provide an annual statement verifying the continued use of the WCF and compliance with applicable State and federal regulations. The applicant's narrative acknowledged this requirement, and a condition has been established to ensure that this standard is met.

G. MMC 19.321.14.H Expiration of Approval

As per MMC 19.321.14.H, approval of application CSU-11-04 shall be void after 6 months from the end of the final appeal date for the application unless substantial construction has taken place. As conditioned, if this approval becomes void, all wireless communication equipment installed pursuant to the approval of CSU-11-04 shall be removed and the site shall be returned to its pre-existing condition.

As conditioned, the Planning Director finds that the applicable standards of MMC 19.321.14 are met.

5. The application was forwarded to the following City departments and related entities for review and comment: City of Milwaukie Building and Engineering Departments and Clackamas County Fire District #1. All reviewers responded with no comments on the project.

Conditions of Approval

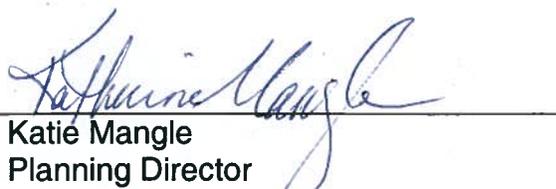
1. Within 6 months of the approval of CSU-11-04, the applicant shall schedule a Planning Inspection to demonstrate compliance with this approval and related conditions. At the time of inspection, the following items shall be addressed:

- a. Final site plans, elevation drawings, and equipment details shall be in substantial conformance with the plans approved by CSU-11-04, which are the plans stamped received June 2, 2011, by the Milwaukie Planning Department. As necessary, the applicant shall submit a narrative to describe any changes to the plans approved by CSU-11-04. Any such changes shall be evaluated by the Planning Director to determine whether further review is necessary.
 - b. The applicant shall demonstrate that the fenced area at the base of the monopole has been visually screened with either vegetation or sight-obscuring fence slats.
2. The operator of the wireless communication facility (WCF) shall provide an annual report to the Planning Director that verifies continued use of the facility and describes any change in the status of its operation, including the following:
 - a. Change in or loss of Federal Communication Commission (FCC) license.
 - b. Receipt of notice of failure to comply with the regulations of any authority over the facility.
 - c. Loss or termination of lease for the WCF for a period of 6 months or longer.
 3. Approval of this application shall be void after 6 months from the expiration of the final appeal period unless substantial construction has taken place. If this approval becomes void, all wireless communication equipment installed pursuant to the approval of CSU-11-04 shall be removed and the site shall be returned to its pre-existing condition.

Exhibits

Exhibits are not attached unless otherwise indicated. All attachments are available for public viewing upon request.

1. Notice of Decision for VR-91-02
2. 1996 Approval of Minor Change to CSO-91-01
3. Map of Properties Receiving Notice of Tentative Decision (attached)
4. Applicant's Narrative
5. Applicant's Site Plans (Sheets A-4 and RF-1, attached)



Katie Mangle
Planning Director

cc: Applicant
Tom Larsen, Building Official
Bonnie Lanz, Permit Specialist
File: CSU-11-04

CITY OF MILWAUKIE



COMMUNITY DEVELOPMENT
PUBLIC WORKS

6101 S.E. JOHNSON CREEK BLVD.

TELEPHONE: 652-4410

April 11, 1991

File #VR-91-02

NOTICE OF DECISION

This is official notice of action taken by the Milwaukie Planning Commission at a public hearing on April 9, 1991, with regard to an application by Interstate Mobilephone Co. for a height variance (VR-91-02) within the BI Zone. The subject property is located at 5552-5558 SE International Way.

At the public hearing, the Planning Commission formally approved VR-91-02 based upon findings included within the Staff Report. Conditions of approval were also adopted and are attached to this notice.

Copies of the Staff Report and findings for approval of VR-91-02 are available upon request.

This action of the Planning Commission is subject to appeal. An appeal of the approval of VR-91-02 must be filed within 15 days of the date of this notice. City Community Development Department Staff. (phone 652-4410) can provide information regarding forms, fees, and the appeal process. If no appeal is filed for VR-91-02 by April 26, 1991, at 5:00 p.m., this approval shall be final.


Maggie Collins, Community Development Director

DK/mgh
91.00185

cc: Interested Persons
Planning Commission members
Tim Corbett, Public Works Director
File #VR-91-02

Conditions of Approval for VR-91-02

1. Pole height shall be limited to 100 feet, above grade, as proposed.
2. An aircraft warning light shall be affixed to the pole subject to the standards of the Oregon Aeronautics Board.

DK/mgh
91.00189



November 19, 1996

Mr. Don deBlanc
Sprint Spectrum L.P.
7770 SW Mohawk, Bldg. F
Tualatin, OR 97062

RE: Determination of Community Development Director Approval for Minor Change to Development Permit CSO-91-01 - 5552-5558 SE International.

This is to inform you that your proposal to relocate and replace the communications pole approved under Conditional Use Permit CSO-91-01 and Variance VR-91-02, and to add an additional antenna platform to the new pole, has been approved as a minor change pursuant to Section 321.4(C) of the Zoning Code. These provisions allow Community Development Director approval where proposed alterations are minor in nature and would not significantly affect adjacent properties.

Your proposal involves the removal of the existing 100 foot wood pole, which is presently occupied by AT&T and contains two antenna platforms, and the construction of a new 100 foot steel monopole with three antenna platforms to be used by both AT&T and Sprint. The proposed co-location of antenna on to one new pole will not increase the number of towers, meets all the zoning requirements of the BI Zoning District, and will not affect any of the Planning Commission's original findings and conditions for CSO-91-01 and VR-91-02. This proposal, therefore, complies with the required findings for minor alteration approval pursuant to Section 321.4(C) of the Zoning Code.

This approval is grant subject to the following conditions:

1. This approval is for the demolition and reconstruction of the AT&T pole located at 5552-5558 SE International Way. Construction shall be in accordance with the plan submitted for review on October 28, 1996. Minor changes may be allowed by Planning staff.
2. Building Permits must be obtained for both the construction of the new monopole and the demolition of the existing wood pole. The applicant shall submit a bond to insure the removal of the existing pole within 45 days from the date that the new pole is operational for both carriers.

COMMUNITY DEVELOPMENT • PUBLIC WORKS
6101 SE JOHNSON CREEK BLVD.
MILWAUKIE, OREGON 97206
PHONE: (503) 786-7600 • FAX: (503) 774-8236

Sprint Spectrum L.P.
CSO-91-01 Minor Alteration
Page 2

3. The tower height shall not exceed 100 foot as approved by VR-90-02.
4. The applicant shall submit color samples for review and approval prior to the issuance of the Building Permit.
5. A landscape buffer shall be installed to screen the new equipment buildings. The applicant shall submit a landscape plan for review and approval which identifies type, location and size of proposed plant materials.
6. The placement of any additional antenna on this pole must be reviewed by the Community Director for compliance with the provisions for minor alterations (Section 321.4(C)).

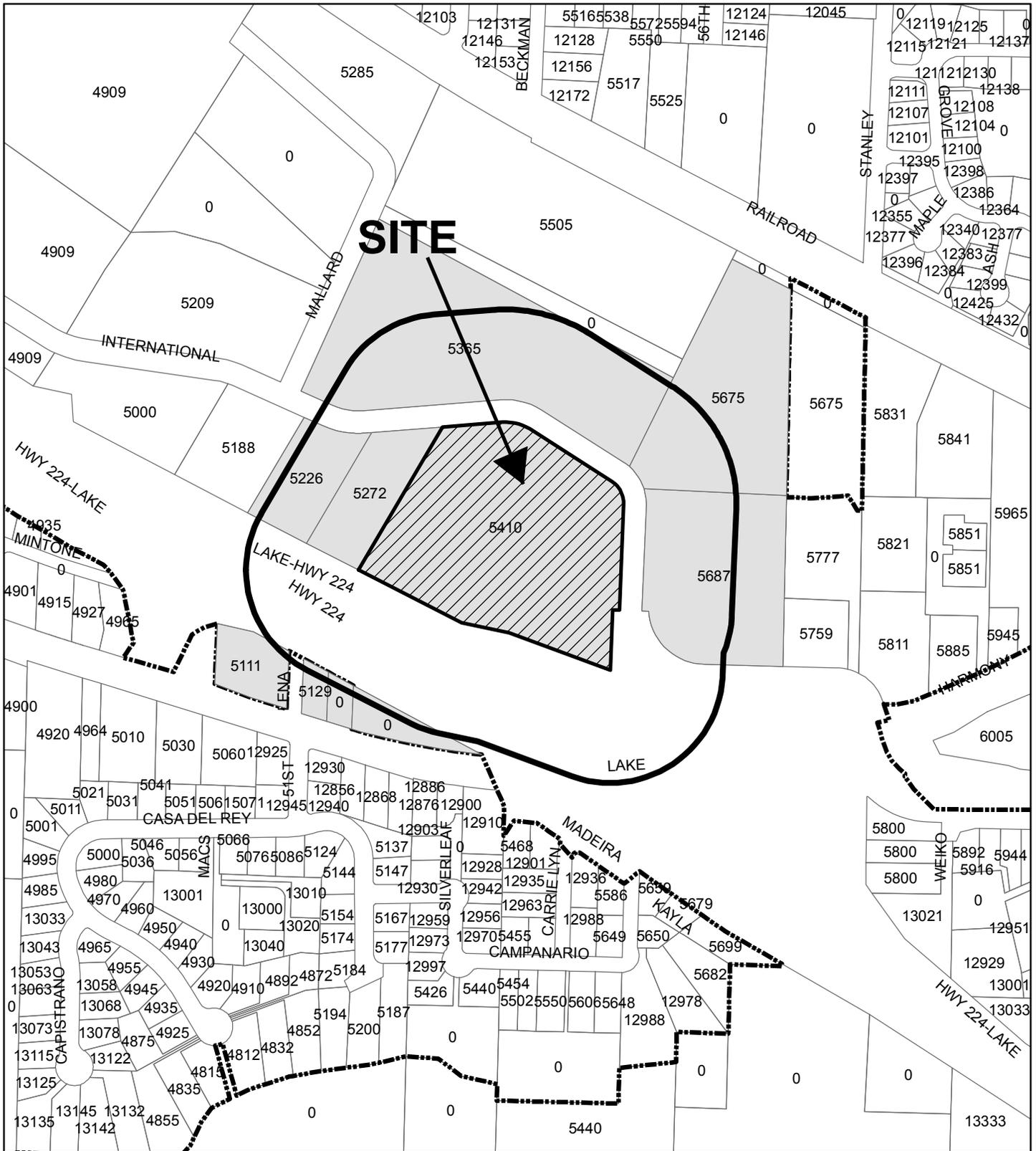
Please contact our office if you have questions regarding this approval.

Sincerely,



Maggie Collins
Director, Community Development Department

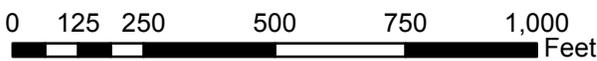
cc File CSO-91-01
File VR-91-02
Susan Heiser, Senior Planner



Site Map
5410 SE International Way
(1S 2E 31D 01000)
File#CSU-11-04

Legend

-  300-ft buffer
-  CSU-11-04 site
-  Tax lots receiving notice
-  City Limit
-  Other tax lots





April 27, 2011

City of Milwaukie
Planning Department
6191 SE Johnson Creek Blvd.
Milwaukie, OR 97206

GENERAL INFORMATION

Application: Radio Frequency Transmission Facility

Applicant: Zach Phillips
PTS (on behalf of AT&T)
1001 Water St., Ste 180
Portland, OR 97214

RECEIVED

APR 27 2011

CITY OF MILWAUKIE
PLANNING DEPARTMENT

Landowner: John Rupp
SE Industrial land Developers
5558 SE International Way
Milwaukie, OR 97222

Tax Lot: 12E31D 01000

Current Zoning: BI

Address of Project: 5410 SE International Way
Milwaukie, OR 97222

Current Uses: Wireless Communication, Residential

Dear Planning Department:

On behalf of AT&T, PTS is requesting to replace 3 antennas on an existing monopole that was originally approved with a variance in 1991.

PROJECT DESCRIPTION:

Replace 3 antennas on monopole with 3 new Long Term Evolution (LTE) antennas. Attach RRHs (radios) behind existing antennas. Additional support equipment will be located on an existing rack inside of an adjacent building.

BACKGROUND:

AT&T along with most of the wireless carriers is upgrading its facilities to support LTE. LTE will increase the speed and volume of data that can be transmitted and received over wireless devices. LTE is often referred to as a 4G (4th Generation) technology.

JUSTIFICATION CRITERIA

The following sections address the review criteria relevant for this project.

19.321.14 Standards for Wireless Communication Facilities

C. Application Process

1. Placement, construction, or modification of WCFs not involving the construction of a new monopole shall be subject to the provisions of Subsection 19.1011.2 Type II Administrative Review process, provided that the antennas and base equipment comply with the standards contained in this section. Also see Table 19.321.14.C.

Proposal is to modify an existing wireless communications facility on a previously approved monopole. This standard applies, so a Type II Administrative Review is required.

D. Application Submission Requirements

2. WCF Not Including a New Tower

- a. Detailed narrative description describing the proposed antenna location, design and height.

Three existing antennas will be removed from existing facility. Three new antennas will be installed in their place, see drawings. A total of 6 RRHs will be installed behind the antennas, see RF-1 and RF-2 sheets for details.

- b. Statement that antenna was placed so as to allow for placement of additional antennas on the same antenna support structure, to the extent practicable.

The antennas are placed so that additional antennas can be added onto the monopole in a similar fashion. Note that there are other carriers already on this tower.

- c. Documentation demonstrating the proposal has been submitted and approved by the owner of the structure to which the antenna will be attached.

The tower is owned by AT&T, previously known as Interstate Mobilephone Co. and Cingular

- d. Document demonstrating that necessary applications, permits, agreements, and easements have been obtained.

Utility easements have been in place for decades. This is a modification of an existing site. Once land use is approved a building permit will be applied for.

- e. For extensions to existing facilities the applicant shall provide documentation of FAA approval of the tower design or satisfactory evidence that FAA approval is not required. Satisfactory evidence that FAA approval is not required shall be an Aerospace Safety Analysis Corporation determination or similar evidence.

There will not be any height extension above the existing building, so FAA and ODA are not warranted.

f. The site plan must include the elements listed on the site plan checklist and must also include, to the extent applicable:

(1) Landscaping plan showing existing and proposed vegetation, include size, type and amount of proposed vegetation. In some cases, such as co-location on rooftops or other similar uses, the City may determine that landscaping will not be required;

No additional landscaping proposed.



Aerial view of parcel. Tower identified with red arrow.

(2) Location of connections to utilities and right-of-way curb cuts;

Utilities are existing.

(3) Location of required easements and access drives;

Easements and access drives are previously approved.

(4) Location of proposed related base equipment and existing WCF;

Current location of equipment is in an existing rack located in adjacent building. This will not change, see sheet A-3.

(5) Lease area in relation to the underlying parcel/property as well as neighboring parcels on all sides.

Lease area is in an existing building. All surrounding parcels are zoned BI.

F. Location and Size Restrictions

2. Height: maximum heights.

The maximum height limitation of the monopole tower and antennas shall not exceed the following:

(1) BI and M Zones: 100 feet

The existing monopole is 101' tall and the existing antennas reach up about an additional 4'. The pole height was approved by VR-91-02. AT&T requests that the previously approved height continue to be allowed.

G. Development Standards for All WCFs

1. Setbacks and Equipment Cabinets

Site is existing, see CS0-91-01. No additional height is proposed that would affect setback standards.

2 Ladder Rungs

No ladder rungs proposed

3. Lighting

No additional lighting is proposed.

5. Noise

No additional noise added by new equipment.

6. Landscaping

No additional landscaping is proposed.

7. Access Drives

No additional access drives are proposed.

8. Signage

Only signage will be those required by the Federal Communications Commission.

9. Discontinued Use of and Removal of WCFs

a. Any WCF not operated for a continuous period of 6 months shall be considered abandoned. The WCF owner is required to remove all abandoned facilities and base equipment within 90 days after notice from the City of Milwaukie.

AT&T knows this standard and will abide by it.

b. If the owner of the WCF cannot be located or is no longer in business, it shall be the responsibility of the landowner on whose property the WCF is located to remove the abandoned facility and base equipment.

Per CS0-91-01 the landlord has previously agreed to this and understands its responsibility for abandoned facilities.

10. Affirmative Duty to Keep City Informed

a. All operators of WCFs within the City of Milwaukie shall be required to report in writing to the Planning Director any changes in the status of their operation. The report shall include any of the following changes:

- (1) Changes in or loss of FCC license from the FCC to operate;
- (2) Receipt of notice of failure to comply with the regulations of any other authority over the business or facility;
- (3) Loss or termination of lease for the WCF for a period of 6 months or longer.

AT&T understands and will comply with these standards.

b. An annual written statement shall be filed with the Planning Director verifying continued use of each of their facilities in the City's jurisdiction as well as continued compliance with State and federal agency regulations.

AT&T understands and will comply with these standards.

H. Expiration of Approval

Authorization under this chapter shall be void after 6 months unless substantial construction has taken place. If substantial construction has not taken place and the approval becomes void, the facility must be completely removed and the site must return to its preexisting condition. (Ord. 2015 § 2, 2010; Ord. 2001 § 2,

2009; Ord. 1962 § 2 (part), 2006; Ord. 1910 Exh. 1, 2002: Ord. 1893 (part), 2001:
Ord. 1880 (part), 2000)

AT&T understands and will comply with this standard.

I hope these answers address the appropriate criteria. If you have any questions regarding the submitted materials or the proposal, please contact me at 503/232- 5213 or zphillips@ptswa.com.

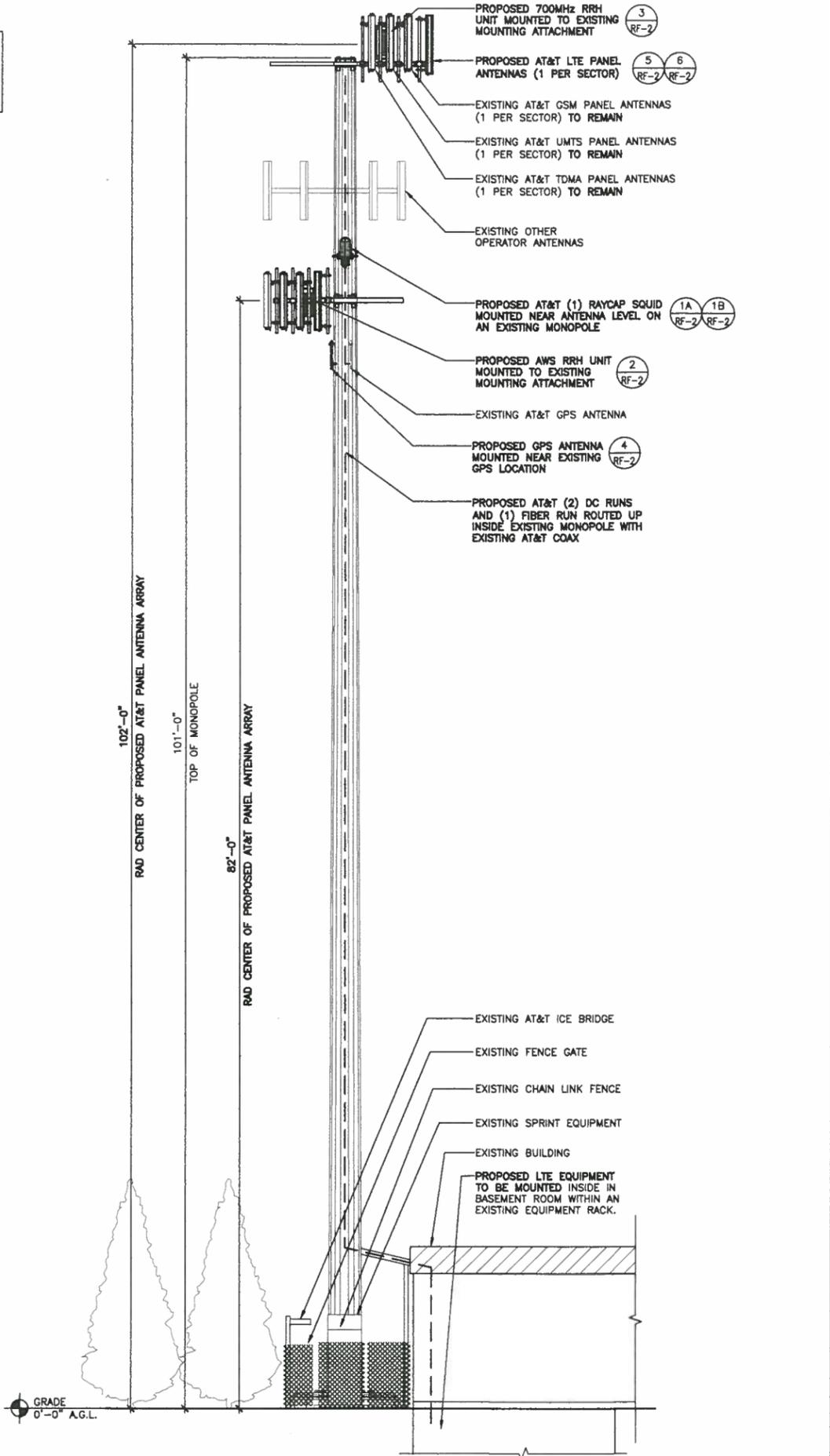
Thank you for your time and consideration.

Sincerely,

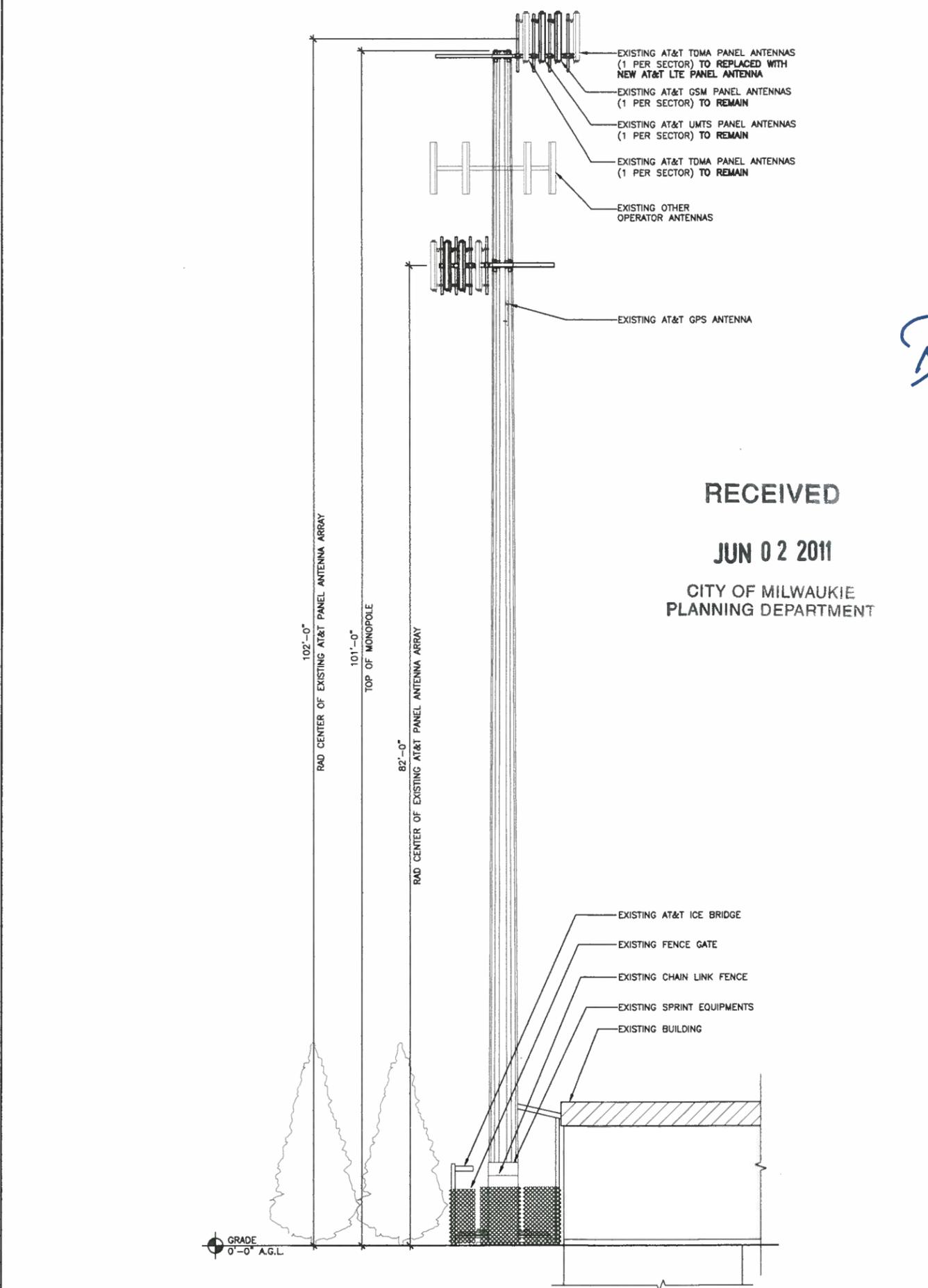
A handwritten signature in black ink, appearing to read 'Zach Phillips', with a stylized flourish at the end.

Zach Phillips
Land Use and Ordinance Specialist
PTS

NOTE:
PROPOSED AT&T LTE ANTENNAS,
MOUNTING HARDWARE AND
EQUIPMENT CABINETS TO BE
PAINTED TO MATCH EXISTING



PROPOSED SOUTH ELEVATION 2



EXISTING SOUTH ELEVATION 1

PACIFIC TELECOM SERVICES, LLC

REGISTERED ARCHITECT
 RICHARD B. HALL
Richard B. Hall
 SEATTLE, WA
 5008
 STATE OF OREGON
 EXPIRATION DATE OF THE LICENSE: 06/30/12

RECEIVED
 JUN 02 2011
 CITY OF MILWAUKIE
 PLANNING DEPARTMENT

HIGHWAY 224
 PR62
 5410 SE INTERNATIONAL WAY
 MILWAUKIE, OR 97222

REVISIONS			
NO.	DATE	DESCRIPTION	INITIAL
A	12/16/10	ISSUED FOR PCO REVIEW	BF
O	05/12/11	ISSUED FOR CONSTRUCTION	RC

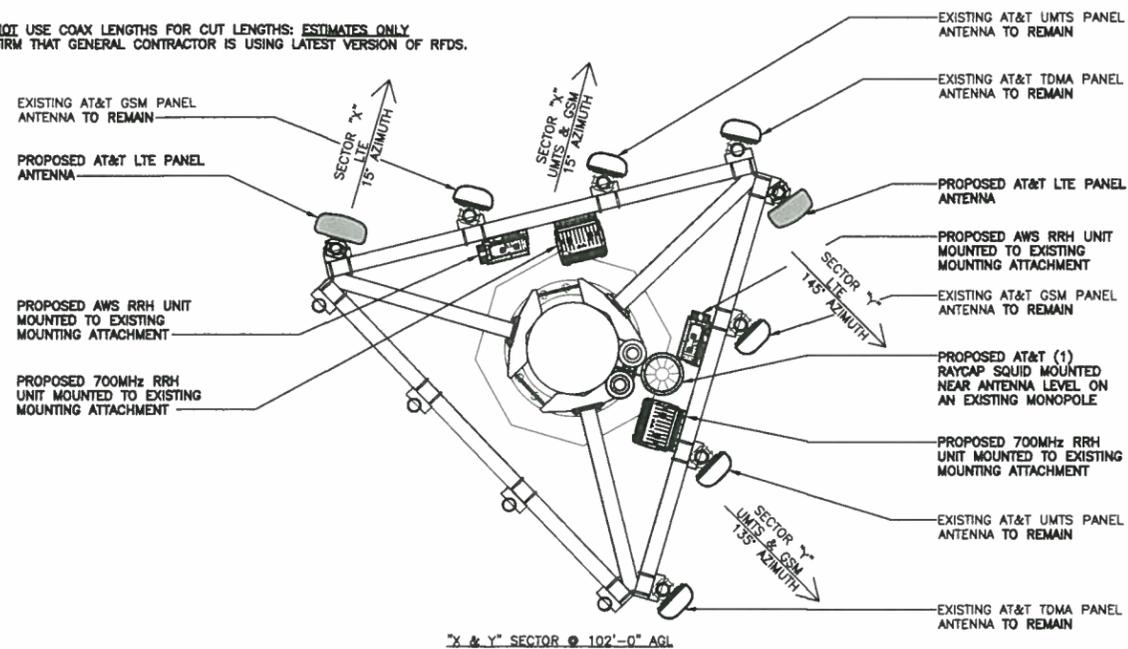
NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE
 EXISTING & PROPOSED SOUTH ELEVATIONS

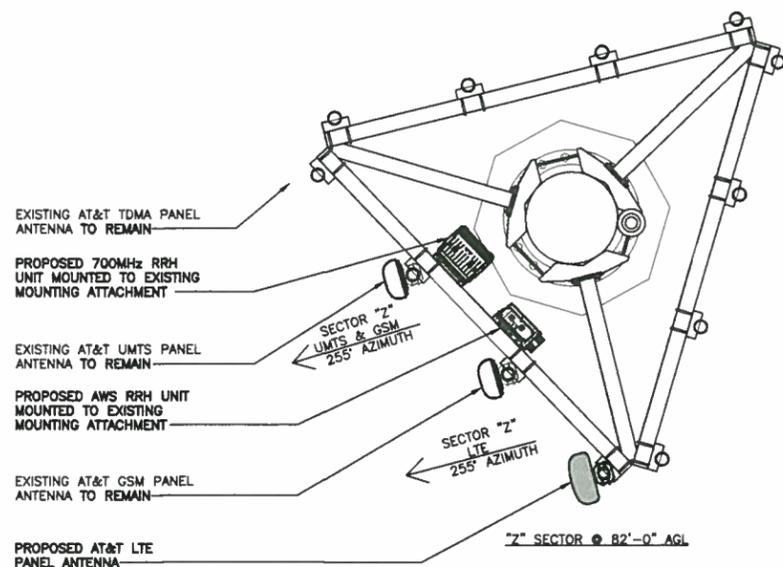
SHEET NUMBER
A-4

PROPOSED ANTENNA CONFIGURATION AND SCHEDULE													
SECTOR X	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX #	COAX LENGTH	DIPLEXED
GSM 850	15°	102'-0"	1	KATHREIN	742-264	4°	0°	YES	NONE	2	7/8"	100'-0"	NO
GSM 1900	15°	102'-0"	1	KATHREIN	742-264	4°	0°	YES	(2) MHA CS72993.08	2	7/8"	100'-0"	NO
UMTS 850	15°	102'-0"	1	KATHREIN	742-264	2°	0°	NO	NONE	2	7/8"	100'-0"	YES UB U9
UMTS 1900	15°	102'-0"	1	KATHREIN	742-264	4°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9
LTE 700	15°	102'-0"	1	POWERWAVE	P65-17-JUH-RR	0°	0°	YES	-	0	FIBER	100'-0"	NO
SECTOR Y	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX #	COAX LENGTH	DIPLEXED
GSM 850	135°	102'-0"	1	KATHREIN	742-264	0°	0°	YES	NONE	2	7/8"	100'-0"	NO
GSM 1900	135°	102'-0"	1	KATHREIN	742-264	0°	0°	YES	(2) MHA CS72993.08	2	7/8"	100'-0"	NO
UMTS 850	135°	102'-0"	1	KATHREIN	742-264	6°	0°	NO	NONE	2	7/8"	100'-0"	YES UB U9
UMTS 1900	135°	102'-0"	1	KATHREIN	742-264	0°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9
LTE 700	145°	102'-0"	1	KMW	AM-X-CD-16-65-001-RET	11°	0°	YES	-	0	FIBER	100'-0"	NO
SECTOR Z	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX #	COAX LENGTH	DIPLEXED
GSM 850	255°	82'-0"	1	KATHREIN	742-264	2°	0°	YES	NONE	2	7/8"	100'-0"	NO
GSM 1900	255°	82'-0"	1	KATHREIN	742-264	2°	0°	YES	(2) MHA CS72993.08	2	7/8"	100'-0"	NO
UMTS 850	255°	82'-0"	1	KATHREIN	742-264	6°	0°	NO	NONE	2	7/8"	100'-0"	YES UB U9
UMTS 1900	255°	82'-0"	1	KATHREIN	742-264	2°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9
LTE 700	255°	82'-0"	1	POWERWAVE	P65-17-JUH-RR	1°	0°	YES	-	0	FIBER	100'-0"	NO

NOTES:
 * DO NOT USE COAX LENGTHS FOR CUT LENGTHS; ESTIMATES ONLY
 * CONFIRM THAT GENERAL CONTRACTOR IS USING LATEST VERSION OF RFDS.



"X & Y" SECTOR @ 102'-0" AGL

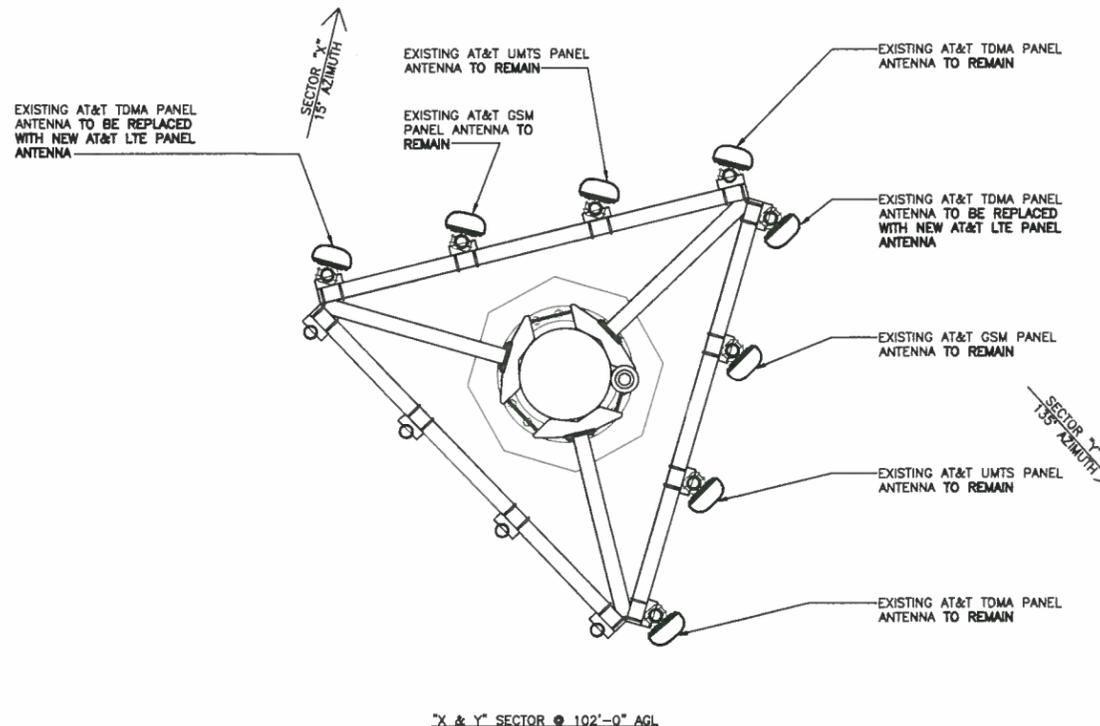


"Z" SECTOR @ 82'-0" AGL

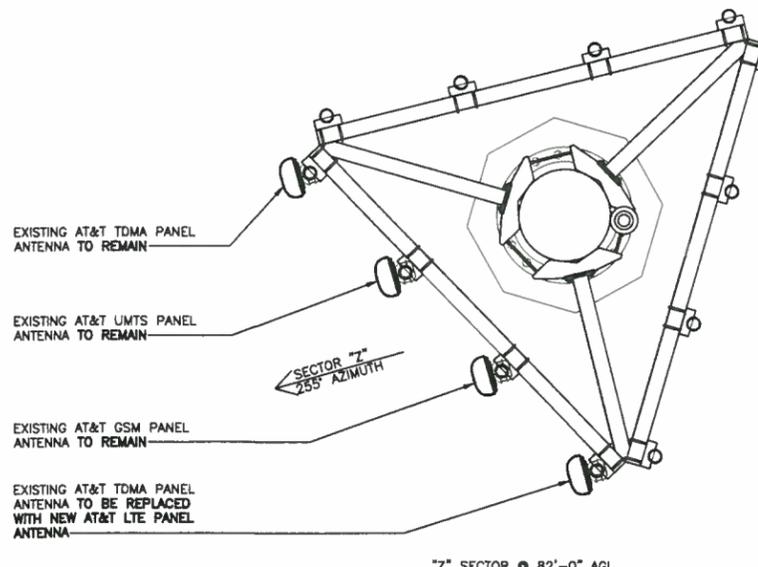
24"x36" SCALE: 3/4" = 1'-0"
 11"x17" SCALE: 3/8" = 1'-0"

PROPOSED ANTENNA CONFIGURATION 2

EXISTING ANTENNA CONFIGURATION AND SCHEDULE													
SECTOR X	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX #	COAX LENGTH	DIPLEXED
GSM 850	15°	102'-0"	1	KATHREIN	742-264	4°	0°	YES	NONE	2	7/8"	100'-0"	NO
GSM 1900	15°	102'-0"	1	KATHREIN	742-264	4°	0°	YES	(2) MHA CS72993.08	2	7/8"	100'-0"	NO
UMTS 850	15°	102'-0"	1	KATHREIN	742-264	2°	0°	NO	NONE	2	7/8"	100'-0"	YES UB U9_1
UMTS 1900	15°	102'-0"	1	KATHREIN	742-264	4°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9_1
UMTS 1900_1	15°	102'-0"	1	KATHREIN	742-264	4°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9_1
SECTOR Y	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX #	COAX LENGTH	DIPLEXED
GSM 850	135°	102'-0"	1	KATHREIN	742-264	0°	0°	YES	NONE	2	7/8"	100'-0"	NO
GSM 1900	135°	102'-0"	1	KATHREIN	742-264	0°	0°	YES	(2) MHA CS72993.08	2	7/8"	100'-0"	NO
UMTS 850	135°	102'-0"	1	KATHREIN	742-264	6°	0°	NO	NONE	2	7/8"	100'-0"	YES UB U9_1
UMTS 1900	135°	102'-0"	1	KATHREIN	742-264	0°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9_1
UMTS 1900_1	135°	102'-0"	1	KATHREIN	742-264	0°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9_1
SECTOR Z	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX #	COAX LENGTH	DIPLEXED
GSM 850	255°	82'-0"	1	KATHREIN	742-264	2°	0°	YES	NONE	2	7/8"	100'-0"	NO
GSM 1900	255°	82'-0"	1	KATHREIN	742-264	2°	0°	YES	(2) MHA CS72993.08	2	7/8"	100'-0"	NO
UMTS 850	255°	82'-0"	1	KATHREIN	742-264	6°	0°	NO	NONE	2	7/8"	100'-0"	YES UB U9_1
UMTS 1900	255°	82'-0"	1	KATHREIN	742-264	2°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9_1
UMTS 1900_1	255°	82'-0"	1	KATHREIN	742-264	2°	0°	YES	(2) LGP 21401	2	7/8"	100'-0"	YES UB U9_1



"X & Y" SECTOR @ 102'-0" AGL



"Z" SECTOR @ 82'-0" AGL

24"x36" SCALE: 3/4" = 1'-0"
 11"x17" SCALE: 3/8" = 1'-0"

EXISTING ANTENNA CONFIGURATION 1



HIGHWAY 224
 PR62
 5410 SE INTERNATIONAL WAY
 MILWAUKIE, OR 97222

REVISIONS			
NO.	DATE	DESCRIPTION	INITIAL
A	12/16/10	ISSUED FOR PCRD REVIEW	BF
O	05/12/11	ISSUED FOR CONSTRUCTION	RC

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

RECEIVED
 JUN 02 2011
 CITY OF MILWAUKIE
 PLANNING DEPARTMENT

SHEET TITLE
 ANTENNA CONFIGURATIONS

SHEET NUMBER
 RF-1