**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of: | ) | |
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| Streamlining Deployment of Small Cell Infrastructure by Improving Wireless Facilities Siting Policies | ) | WT Docket No. 16-421 |
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| | ) | |
| Mobilitie, LLC Petition for Declaratory Ruling | ) | |
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**Comments on behalf of the following cities in Washington State: Bellevue, Bothell, Burien, Ellensburg, Gig Harbor, Kirkland, Mountlake Terrace, Mukilteo, Normandy Park, Puyallup, Redmond and Walla Walla.**

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March 8, 2017

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## INTRODUCTION

It is critical that the Commission "get it right" when it provides direction to local governments. As Mobilitie, LLC ("Mobilitie") aptly notes in its Petition for Declaratory Ruling, wireless facilities and the networks that connect them are "the critical infrastructure of the 21st Century."[1] In Washington State, the growth of wireless connectivity is important to our citizens, and to our cities. However, as stewards of the public rights-of-way, it is our responsibility to be mindful of the impact of initial small cell deployment, its inevitable future expansion and the cumulative impacts of that expansion.

## CONSORTIUM OF WASHINGTON CITIES

We submit these comments as a consortium of Washington State cities who, for the past year, have worked cooperatively with wireless service providers to streamline our permitting procedures to accommodate the deployment of small cell facilities in our right-of-way. We are a part of a larger consortium of 25 cities.[2] The consortium includes communities throughout Washington State ranging in size from Stanwood, with a population of 6,635, to Bellevue, with a population of 139,400. The consortium was formed as a result of requests made by Mobilitie to deploy its facilities (including proposals for transport facilities up to 120 feet in height in the

[1] Mobilitie, LLC Petition for Declaratory Ruling, *Promoting Broadband for All Americans by Prohibiting Excessive Changes for Access to Public Rights of Way*, 2 (filed Nov. 15, 2016).

[2] Bellevue, Redmond, Kent, Mountlake Terrace, Kirkland, Renton, Issaquah, Puyallup, Walla Walla, Spokane Valley, Gig Harbor, Mukilteo, Mount Vernon, Ellensburg, Richland, Bremerton, Oak Harbor, Bothell, Snohomish, Lake Stevens, Des Moines, Shoreline, Stanwood, Federal Way, and Burien.

rights of-way). In recognition of the future deployment of small cells, the cities in our consortium are working proactively to modify our codes, permitting processes and franchises, and to educate our planning and public works departments and city councils to accommodate the deployment of small cell technologies.

Of the 25 cities involved in the consortium, the majority has not been contacted by a wireless provider for the deployment of small cell infrastructure within their cities,[3] and Mobilitie has only filed applications for a franchise in five of the cities. All of the applications submitted by Mobilitie were, and remain, incomplete, and all include requests for new poles or macro facilities in the right-of-way; the actual requests are a far cry from the typical small cell deployment represented in their petition.

Our consortium's efforts have been characterized by cooperation from the wireless providers to help educate our members regarding the technology of small cell deployments. We have sponsored three meetings with wireless providers to describe the providers' respective technologies, equipment and facilities, and their individual and often different deployment strategies. We have involved the wireless providers in our efforts to develop model ordinances to enable the deployment of small cell infrastructure. We developed a model franchise application, and have solicited feedback from telecommunications applicants (both wireless and wireline facilities). We are in the process of developing a model franchise/master permit that will serve as the basis for future small cell deployment. The consortium routinely works with the telecommunications industry, including nearly daily calls and emails with various telecommunications representatives and consultants.

Further, we have involved the electrical utilities in this process. Many of our member cities do not own an electrical utility. Public and private utilities own the majority of the poles within the rights-of-way and control the deployment of electrical power to wireless communications facilities. The utilities' guidance regarding the potential impacts of electrical and safety codes is an essential component of the planning process and concealment features.

Along with consortium specific meetings, we continue to meet as independent cities with the wireless providers to discuss city-specific deployments, design standards and strategies. Some wireless providers have repeatedly indicated their willingness to utilize the least, or at least less, intrusive technology and address design concerns in sensitive zones and historic districts. We would categorize our relationship with the telecommunications industry as proactive and amicable. Our plan is to continue this relationship through our development of a streamlined process for small cell deployment. We are not developing these ordinances, permitting processes, applications or model franchises in a vacuum, but rather in collaboration with telecommunications representatives and local utilities providing electricity, fiber and other infrastructure. We ask that the Commission does not derail our efforts by preempting these months of work.

[3] Verizon has commenced contacting about a third of the consortium cities and recently started requesting franchises.

## THE ROBBER BARON ERA IS HOPEFULLY OVER

Wireless providers often compare themselves to telephone and other wireline facilities when raising the issue of discrimination and equal access to the right-of-way. In our state, original wireline facilities were installed in the 1880s and 1890s. This was a time when the existence of telephone, telegraph and later electricity was of such benefit to communities that it outweighed any consideration of the impact of these facilities. This was also a time in our national history when environmental or aesthetic concerns were not a consideration. Rivers were dammed, and forests clear cut to further private business interests. Similarly, the telephone and electric companies placed poles in the public rights-of-way at their discretion.

Over time, we as a nation have come to appreciate the need for thoughtful regulation of our environment. With wireline facilities, cities determined that the undergrounding of the wires significantly enhances the public environment by protecting sensitive view corridors and the residential environment in general. These undergrounding activities also occur to enhance public safety and avoid an abundance of structures in the public rights-of-way that are distracting to drivers.[4] Further, undergrounding protects our electrical and telecommunications infrastructure in case of emergencies, such as major windstorms, which are quite common in the Pacific Northwest. Many of our communities have, either at public cost or through private contributions and initiatives, undergrounded substantial areas of the community.[5] While it is reasonable to provide access for small cell deployments to existing utility poles, the installation of new structures dedicated to small cell or macro cell use and the use of replacement structures different from or larger than the originals are subjects which require greater scrutiny. We should be permitted to require providers to assess other reasonable options such as roof-mounted equipment, panel antennas and co-location through "least intrusive means" tests before installing macro tower transmission facilities or new or larger replacement structures in the public rights-of-way, particularly in undergrounded areas, downtown districts, sensitive view corridors, historic districts and environmentally sensitive areas such as the shoreline.

As noted, our cities have made substantial investments in their downtown business core. Many downtown business districts declined in the 1980s due to competition from large malls and other specialty shopping areas. Since then, communities have invested heavily in revitalizing their downtown cores. The current regulatory framework encourages wireless providers to work with local governments to design replacement structures such as lighting fixtures to fit within the cities' designed streetscape. If cities are limited in their ability to require public right-of-way users to adhere to design standards (by unlimited discretion to place new poles in the public right-of-way, or to increase the height of existing poles) then our investment of public and private money will be significantly undercut. Why would a business entity spend the extra money if it has the right to locate its equipment, as it pleases, in any fashion that it pleases? Our

[4] "Traffic on nearly all streets and highways has increased considerably in recent years. With this increase in traffic has come an increase in accidents. Collisions with solid objects in proximity to the traveled portions of our streets and highways enhance the injuries resulting from these accidents. Furthermore, street obstructions created while carrying out improvements or while repairing, replacing, or relocating utility poles and wires increase the risk of accident. Requiring that all wires be placed underground at the same time that the street is improved promotes the public's safety by reducing the number of times a street must be blocked." *GTE v. Edmonds*, 21 Wn. App. 218, 223-224 (1978).

[5] *See* Exhibit A for examples of costs associated with recent undergrounding projects.

efforts to restore the vitality of our central business districts are bearing fruit as more of our citizens return to inner cities to live, shop and work.

One of the members of our larger consortium has undergrounded virtually its entire city and has embraced the dark sky theory to reduce light pollution by using low-rise light standards. Many undergrounding efforts were undertaken at the expense of the abutting property owners through assessment processes known in our state as Local Improvement Districts. In our communities, abutting property owners retain a fee interest in the underlying public right-of-way.[6] They literally "own" the right-of-way abutting their properties. Their concerns should be considered. The right-of-way is their front yard. Many of the regulations being sought in the petition not only harm local governments, but in Washington State, at least, have a significant effect on the ownership interests of abutting private property owners.

## CITIES ARE THE STEWARDS OF THE RIGHTS-OF-WAY

As the Washington State Courts have told us, the primary purpose of the public right-of-way is transportation.[7] In addition to the primary transportation use, a wide variety of public utilities and other business interests hold franchises, which permit the use the public right-of-way to conduct business. Railroads, water, sewer, telephone, electricity, backhaul telecommunications providers and a wide variety of other uses have occupied the public right-of-way over the years. Use of the public right-of-way has and will continue to evolve. Any action by the Commission should take into account that continual evolution.

As local governments, we have made an enormous investment in our cityscape. The high-usage areas targeted by the providers for small cell deployments are often areas in which cities have made substantial investments in the form of downtown revitalizations. Our cities have spent hundreds of millions of dollars on their streetscapes. That investment comes in the form of undergrounding utilities, ornamental lighting, street furniture, decorative surfacing and other amenities which are an important part of downtown revitalization. No business entity should be given an individual right to override local communities' efforts to protect their aesthetic environment and undermine their significant investment. The providers often reference the investment they are about to make in the deployment of small cells in the right-of-way, but that substantial investment is dwarfed by our investment of local tax revenue, grant moneys and local private investment in the streetscape.

We believe the Commission may have been misled regarding the aesthetic impact of small cells as evidenced by the following statement: "Due to their size and placement, small cells may have

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[6] *Finch v. Matthews*, 74 Wn.2d 161, 167-68 (1968).

[7] "Normally, the interest acquired by the public is but an easement. * * * [Citing cases.] But whatever the nature of the interest may be, it is held in trust for the public, and the primary purpose for which highways and streets are established and maintained is 'for the convenience of public travel' * * * [Citing cases.] In addition to this primary purpose, however, there are numerous other purposes for which the public ways may be used, such as for watermains, gas pipes, telephone and telegraph lines, etc. These are termed secondary uses and are subordinate to, and permissible only when not inconsistent with, the primary object of the highways. * * * [Citing cases]." *Winkenwerder v. Yakima*, 52 Wn.2d 617, 625-26 (1958) (quoting *State ex rel. York v. Board of County Commissioners*, 28 Wn.2d 891 (1947)) (asterisks and brackets in original).

less potential for aesthetic and other impacts than macrocells."[8] Though many wireless providers have made strides to work with cities to design small cell deployments, these deployments necessarily contain multiple boxes and antennas, require wireline attachments for electricity and backhaul, include exterior conduit.[9] Deployments are often placed on wooden utility poles that were originally designed to fade into the background of local vegetation. Note that the exterior conduit and cabinets, rather than the small cell antennas themselves, create the bulk of the installation and magnify the eyesore.[10] Further, due to the sheer number of small cell deployments, in addition to the number of providers and other telecommunications infrastructure companies, small cell deployment – if not properly regulated – will become even more visible. Unlike macro facilities which are often placed in industrial or commercial areas, on private land, attached to buildings, or are otherwise camouflaged, the wireless small cell providers want to deploy small cell facilities in the public thoroughfare. Moreover, macro facilities are discouraged through zoning regulations from placement within residential, downtown districts and other sensitive zoning districts.

The wireless providers, whom we are attempting to accommodate, want specific exemptions from these zoning requirements for their small cell deployments, specifically so that they can deploy these facilities *in* residential and downtown districts. Such requests can be especially burdensome in planned neighborhoods where utilities are often underground and existing street light poles do not exceed thirty feet. Siting small cell facilities becomes even more difficult in residential areas where backhaul was not installed at the time of the initial undergrounding of the power, telephone and cable lines. Deploying small cell facilities in these areas requires street cuts and traffic disturbances. We recognize the need to provide capacity to wireless customers. We are willing to work cooperatively telecommunications providers to plan how to best deploy their facilities. We believe these concerns can be resolved, but only through a collaborative process.

The public right-of-way is an asset to be utilized but it is also our front yard, our market place and, most importantly, the public thoroughfare.

## THE MORPHING OF SMALL CELLS

Under current regulations utility poles, once used for small cell facilities, become base stations, subject to expansion under the 6409(a) regulations. One of the primary concerns of our communities is how that use will evolve over time. As stewards of the public right-of-way, we are concerned that a small cell, defined in our state as an antenna of no more than three cubic feet and associated equipment cabinets not to exceed 17 cubic feet[11] can be expanded within the public right-of-way in volume, height and width. A cabinet box on a utility pole that started out the size of a dorm room refrigerator could become the visual equivalent of a commercial refrigerator/freezer. In order to adequately employ concealment technology we require a

[8] *Streamlining Deployment of Small Cell Infrastructure by Improving Wireless Facilities Siting Policies, Mobilitie, LLC Petition for Declaratory Ruling*, Public Notice, WT Docket No. 16-421, DA 16-1427, 12 (WTB Dec. 22, 2016).
[9] The exterior conduit is and spacing of such conduit is governed by the National Electric Code and the National Electric Safety Code.
[10] *See* Exhibit B showing pictures of small cell facilities deployed in Seattle, Washington.
[11] RCW 80.36.375.

reasonable amount of time to consider the potential future expansion and its cumulative aesthetic impacts. As the Commission proceeds, it should be cognizant of the combined impact of placing small cells in the rights-of-way with 6409(a) regulations.

Once in place, these small cell facilities will not go away but will, under the regulations implementing 6409(a), continue to morph into larger and cumulatively more impactful facilities. Though the industry touts that these facilities are small and are getting smaller, the current regulatory environment permits the expansion of these facilities with little to no oversight permitted by the municipal government. We ask that the Commission issues a new rule stating that the 6409(a) regulations related to wireless facilities modifications[12] are not applicable to small cell deployments. In the alternative, we ask that the Commission explicitly acknowledge that a small cell facility by very definition is a concealment element under 6409(a) regulations.

## MOBILITIE'S BUSINESS MODEL

After close to a year of conversations with Mobilitie, we have come to realize that Mobilitie is masquerading its infrastructure build out as a small cell deployment. Its business model differs from other wireless providers in that it seeks to locate transmission (macro cell) facilities in the public right-of-way. Mobilitie's plans require a deployment of macro cell facilities of up to 120 feet and small cell infrastructure sited on new poles. Wireless providers and other telecommunications companies such as Crown Castle and American Tower have primarily constructed macro cell towers and monopoles on private or public property outside of the rights-of-way. The telecommunications providers now seek to use small cell deployments to fill in holes in their network. Mobilitie, on the other hand, proposes to construct not only small cell facilities in the public right-of-way but also macro facilities. Macro facilities are proposed by Mobilitie to be up to 120 feet tall with a four foot six inch base. This diameter is slightly smaller than a round table seating eight people. Placing these facilities on sidewalks and in other parts of the public rights-of-way will likely violate ADA requirements. Further, even the small cell facilities that are proposed by Mobilitie are often on new poles in the public rights-of-way rather than on existing infrastructure.[13] Mobilitie's transportation or monopole facilities are out of scale with the small cell facilities suggested by other providers and are typically (and properly) regulated through the land use process in our cities. This zoning review treats all providers' transportation facility towers and monopoles equally. A review of Mobilitie's "small cell" deployment requests cannot ignore that they include these macro facility requests.

Working with Mobilitie has proven to be challenging. Significant turnovers in principle staff members have hampered our discussions, as have differing descriptions of deployment. In addition, Mobilitie initially created confusion by approaching our member cities under a different name: Network Transmission Authority, WA LLC. Each of our member cities has been contacted by Mobilitie. However, Mobilitie has filed applications for franchises/ master permits in only five of our member cities. Despite notices of incompleteness provided months ago, to date no complete application has been filed by Mobilitie in any member city.

[12] Specifically a revision to 47 C.F.R. § 1.40001.
[13] *See* Exhibit C.

We have included as Exhibit C, three examples of Mobilitie construction and photo simulation drawings that were submitted to cities in the consortium. Rather than adhering to the Commission, state and local guidance to utilize co-location in facility deployments, Mobilitie's plans outright ignore opportunities to co-locate. As an example, in Kirkland, Washington, Mobilitie proposed a fifty foot pole in a residential area on the side of the street that is purposefully without utility structures, rather than co-locating on existing utility poles on the other side of the street. The new pole is proposed to be placed outside of an apartment building, a preferred existing structure for the location or co-location of telecommunications equipment in Kirkland. Most troublesome, Mobilitie's proposed new pole is a mere one block away from an existing telecommunications tower with multiple wireless facilities as well as a nearby school and church location with existing installations.[14] We believe that many of Mobilitie's concerns regarding the length of time needed to acquire approvals can be addressed through its own lack of preparation and its failure to present a complete application packet upon original submittal. Cities have a right to proper organization, pre-planning, adherence to city-code, and appreciation of city staff time by Mobilitie.

The cumulative impact of small cell deployments in high-usage areas and the impact of Mobilitie's attempts to locate new poles and 120-foot transmission poles in the public right-of-way require careful consideration. Mobilitie has failed to articulate (other than cost reasons attributable to its own unique business model) why these new poles must be in the rights-of-way, rather than attaching their facilities to existing infrastructure such as buildings, utility poles, existing macro facilities, and other public infrastructure such as water towers. Mobilitie's business model ignores the emphasis put on co-location by cities, states and the Commission.

Despite our past difficulties with Mobilitie, we do acknowledge that the current Mobilitie team is better prepared and have met with our consortium members twice; however, no complete applications for a franchise have been filed.

## THE LAW OF UNINTENDED CONSEQUENCES

Mobilitie's arguments that fees for the use of public right-of-way should be limited to the costs of administration would logically create an environment which encourages the migration of macro tower facilities to the public right-of-way. Why would a business entity spend tens of thousands of dollars per year to lease a site for a macro tower when it can install such a facility in the public right-of-way for the cost of processing a permit (as Mobilitie suggests)? This logic will encourage the movement of macro facilities from private property, attached to other infrastructure or water towers, and other areas designated for such macro facilities to the public rights-of-way, eliminating the financial incentives towards co-location. We suggest that Mobilitie has not proposed plans for co-location on existing facilities because it does not fit with its business model. Rather than place its small cell facilities on existing facilities that currently host other telecommunications structures or construct its transportation facilities in areas zoned for that use, Mobilitie insists that its new poles (both those housing small cell and larger 120-foot facilities) *must be* in the rights-of-way. In essence, Mobilitie contends it has a personal right to the public right-of-way that surpasses that of any other person and/or business. There is no

[14] For example, outside the church property (approximately a quarter mile away) is a utility pole with existing wireless communications facilities.

support for Mobilitie's claim that its use and proposed facilities trumps any other use of the public rights-of-way.

Furthermore, if Mobilitie's business plan works, what will stop other providers from locating their macro tower facilities in the right-of-way? Once this door is opened, principals of competitive equity will make it difficult to close. Considering the fair market value of the public right-of-way for Mobilitie's macro cells in light of other providers' leases and investments is an appropriate use of that discretion and therefore treats all telecommunications companies evenhandedly.

## FAIR AND REASONABLE COMPENSATION SET BY STATE LAW

The Commission's proposed action in interpreting Section 253(c) is antithetical to the language of the statute and Congressional intent. The language of Section 253(c) itself is clearly aimed at preserving state and local regulatory authority. As noted by several of the Circuit Courts,[15] only Sections 253(a) and (b) may be preempted by the Commission under Section 253(d). The legislative history of Section 253 further clarifies that Congress explicitly limited Commission preemption power to Sections 253(a) and (b), thereby giving the authority to enforce Section 253(c) to the federal courts, not the Commission. In so doing, Congress recognized not only the historic authority of state and local governments to manage their right-of-ways, but also that "fair and reasonable" compensation will vary by locality, and depend on a unique set of facts and circumstances. Congress determined state and local governments are best situated to make such determinations, with the oversight of the federal district courts.

During debate on Section 253, Senator Gorton offered an amendment containing the current language of the section, explaining:

> There is no preemption ... for subsection (c) which is entitled, "Local Government Authority," and which is the subsection which preserves to local governments control over their public rights of way. It accepts the proposition ... that these local powers should be retained locally, that any challenge to them take place in the Federal district court in that locality and that the Federal Communications Commission not be able to preempt such actions.[16]

Later in the debate, Senator Gordon stated further, "[The amendment] retains not only the right of the local communities to deal with their rights of way, but their right to meet any challenge on home ground in their local district courts."[17]

Congress purposely did not empower the Commission with regard to Section 253(c). The Commission lacks authority to offer anything more than a non-binding interpretation of Section 253(c).[18] We request that the Commission defer, as Congress intended, to the state and local

[15] *Qwest Corp. v. City of Santa Fe, New Mexico*, 380 F.3d 1258, 1266 (10th Cir. 2004); *Bell South Telecomm. Inc. v. Town of Palm Beach*, 252 F.3d 1169, 1187-89 (11th Cir. 2001); *TCG Detroit v. City of Dearborn*, 206 F.3d 618, 623 (6th Cir. 2000).
[16] 141 Cong. Rec. S8213 (1995).
[17] 141 Cong. Rec. S8308 (1995).
[18] *See, e.g., Telebeam Telecommunications Corporation v. City of New York*, 194 F. Supp. 3d 178 (E.D.N.Y. 2016) (declining to adopt Commission's interpretation of types of restrictions permitted under Section 253(c)).

governments to set fair and reasonable compensation for telecommunications facilities in the public rights-of-way.

If the Commission determines that it is appropriate to provide non-binding guidance, we request that it carefully examine Mobilitie's request and defer to the reasonable exercise of state and local governments' judgment. Section 253 requires "fair and reasonable compensation from telecommunications providers, on a competitively neutral and nondiscriminatory basis, for use of public rights-of-way on a nondiscriminatory basis, if the compensation required is publicly disclosed by such government."[19] Mobilitie's petition equates the term "fair and reasonable compensation" in Section 253 with the "just and reasonable" provision in the Pole Attachment Act, in Section 224. In fact, the Sixth Circuit has clearly determined that they are not synonymous:

> The question then is whether the fee assessed by the City is "fair and reasonable compensation," within the meaning of the Act. In concluding that it is, the district court first examined, and rejected, TCG's contention that this phrase, which is not defined in the Act, should be given the same meaning as the words "just and reasonable" in the Pole Attachment Act, 47 U.S.C. § 224 (which applies to cable television providers' use of utilities' poles). The latter defines "just and reasonable" in terms of recovery of additional costs borne by the utility in providing pole attachments. The court noted that Congress did not choose to insert a comparable definition in the Act, that "costs" and "compensation" are not the same, and that only the totality of the circumstances could illuminate whether a fee is "fair and reasonable." [20]

Look closely at Congressional intent. Congress determined it was necessary to define what constitutes a "just and reasonable" rate in the Pole Attachment Act itself, and gave clear direction to the Commission when issuing regulations. Congress did not give this same direction to the Commission in Section 253, nor did it provide a definition of "fair and reasonable compensation." Instead it deferred to state and local government authority. We discourage the Commission from defining "fair and reasonable compensation" under Section 253(c) as only actual costs. Had Congress intended to apply this definition it would have explicitly stated so.

We urge the Commission to defer, as Congress intended, to the state and local governments to set fair and reasonable compensation for telecommunications facilities in the rights-of-way. In fact, Washington State adopted revisions to our state laws at RCW 35.21.860 in 2000, creating a statutory framework for fees that can be charged for the usage of the rights-of-way.[21,22] The

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[19] 47 U.S.C. § 253(c).

[20] *TCG Detroit v. City of Dearborn*, 206 F.3d 618, 624-25 (2000).

[21] RCW 35.21.860 was revised in 2008 without modification to the compensation elements, and in 2014 as part of a bill related to small cell deployment, and therefore modifying the compensation element to require that the replacement structure has to be higher than the existing structure and the overall height of the replacement structure and wireless facility is more than sixty feet before a city may charge a site-specific charge.

[22] The statute is a limitation on what cities can charge for the usage of the rights-of-way and specifically prohibits franchise fees. However, taxes and administrative fees may be recovered. We further recognize that in other states a rental fee for the rights of way is permitted, and we support the rights of those jurisdictions to charge such fees as Mobilitie and other telecommunications entities are leasing the rights of way for their private use.

statute allows a site-specific charge for personal wireless service facilities for (i) the placement of new structures in the rights-of-way, regardless of height; (ii) the placement of replacement structures if higher than the replaced structure and over sixty feet; or (iii) the placement of personal wireless facilities on structures owned by a city.[23] To ensure that these costs are reasonable and to provide a prompt and inexpensive remedy, the statute sets up a low cost binding arbitration process in which the arbitrator may evaluate the fee based "on comparable siting agreements involving public lands and rights-of-way."[24]

Importantly, along with creating a mechanism to aid in determining what is "fair and reasonable compensation" for the usage of the rights-of-way, the Washington State Legislature incentivized providers to use existing infrastructure before placing new facilities in the public rights-of-way. Site specific charges related to personal wireless facilities on non-city owned structures and pre-existing structures are not permitted by the statute. The Commission has a long history of encouraging co-location on existing infrastructure as well. A declaratory ruling defining "fair and reasonable compensation" in line with Mobilitie's request would eviscerate one of the key tools to encourage co-location. We request that the Commission decline to adopt an interpretation of "fair and reasonable" compensation.

## FINANCIAL IMPLICATIONS

In its filing, Mobilitie alleges that certain states, Washington among them, charge a six percent fee for Mobilitie to occupy the right-of-way. *This is a significant misstatement of the purpose and application of Washington's Business and Occupations Tax.* Washington State has no income tax. Local governments rely on property taxes, sales tax and a limited number of Business and Occupations ("B&O") taxes. State statute specifically authorizes Washington cities to impose an excise tax on entities doing business within their jurisdiction.[25] Our members routinely charge utilities, including their own water, sewer and electrical utilities, a B&O tax -- typically six percent as a tax on the operation of the business. Wireless providers are not alone in paying this fee and, in reality, such fees are passed through to consumers by the utilities. In fact, the statute requires that ordinances imposing such utility taxes, including taxes on telephone service be subject to referendum and initiative.[26] Thus consumers are free to repeal such taxes or prevent them from going into effect.

Federal courts have repeatedly recognized that similar charges constitute taxes, even when imposed on users of a municipality's rights-of-way.[27] Moreover, local taxes such as Washington's B&O tax fall outside the Commission's preemption authority.[28] That Congress

[23] RCW 35.21.860(e)
[24] RCW 35.21.860(e)
[25] Chapter 35A.82 RCW.
[26] RCW 35.21.706.
[27] *See, e.g., Qwest Corp. v. City of Surprise*, 434 F.3d 1176, 1184 (9th Cir. 2006); *Keleher v. New England Tel. & Tel. Co.*, 947 F.2d 547, 549 (2d Cir. 1991) *abrogated on other grounds by Jefferson County v. Acker*, 527 U.S. 423, 434, 119 S.Ct. 2069, 144 L.Ed.2d 408 (1999); *Robinson Protective Alarm Co. v. City of Philadelphia*, 581 F.2d 371, 376 (3d Cir. 1978); *City of Chattanooga v. BellSouth Telecomm., Inc.*, 1 F.Supp.2d 809, 814 (E.D. Tenn. 1998).
[28] "Notwithstanding paragraph (1), nothing in this Act or the amendments made by this Act shall be construed to modify, impair, or supersede, or authorize the modification, impairment, or supersession of, any State or local laws

explicitly exempted such taxes from the provisions of the Federal Telecommunications Act further demonstrates the inaccuracy of Mobilitie's position in its petition.

Washington's tax structure is an oddity, but the six percent B&O tax referenced in Mobilitie's petition is not a charge to a wireless provider for right-of-way use but a lawful tax uniformly levied on most, if not all, utilities by Washington cities. The taxes are part of our state revenue structure and by definition not a charge to use the right-of-way.

## APPLICATION FEES

Under Washington law, application fees associated with franchises are strictly limited. Only actual administrative expenses associated with the issuance of the franchise, permit and/or license in conjunction with expenses related to inspection and construction may be charged to the franchisee.[29] We have adopted a "fee deposit structure" in which an entity applying for a franchise makes a fee deposit. The actual cost of processing an application and negotiating the franchise determines the fee which is ultimately paid. The more detailed and thorough an application, the quicker it can be processed. The more prepared an applicant, the cheaper the process.

Mobilitie has requested that municipalities publicly disclose the fees that they have charged to other providers. This request is duplicative and unnecessary. Not only is the requirement to publicly disclose such compensation already expressly contained in Section 253(c), but cities are required under the state public records act to disclose this information.[30] Mobilitie merely needs to ask for this information from the cities, further action by the Commission is not necessary. In addition, cities often publish a rate schedule of all permit fees, hourly rates for city staff and fee resolutions setting application fee deposits. Many Washington municipal franchises state within the franchise itself the actual administrative expenses associated with issuing the franchise, many of which can be found by a simple internet search. Cities by law cannot withhold this information.

The most significant barrier to responding to Mobilitie's request regarding calculation of charges for the placement of new poles in the rights-of-way is its novelty. Many cities have not had to answer this question before. Traditionally, telecommunications providers have placed macro facilities outside of the rights-of-way. Lease rates for those macro facilities are subject to the public records requirements. There is little information to give Mobilitie about 120-foot poles in the public rights-of-way because telecommunications providers have not traditionally placed such facilities in the public rights-of-way, but rather in less intrusive locations or co-located with other providers or existing infrastructure.

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pertaining to taxation, except as provided in sections 662 and 653(c) of the Communications Act of 1934 and section 602 of this Act." 47 U.S.C. § 152 note.

[29] RCW 35.21.860; *see also Burns v. City of Seattle*, 161 Wn.2d 129, 164 P.3d 475 (2007).

[30] Chapter 42.56 RCW.

## THE TICKING CLOCK

At this point we are challenged to approve or deny siting applications within timeframes set by the *2009 Declaratory Ruling.* Further, significant confusion exists over which timeline applies, as the Commission has now determined that a "reasonable period of time" is 150 days for new facilities, 90 days for co-locations, and 60 days for eligible facility requests. These are in addition to our own state's timing requirements for franchises and master permits.[31] We dispute that these timeframes should be adjusted for small cell deployments, especially if such siting requests are on new poles. The fact that the small cells are presumptively smaller than macro-facilities does not make a city's obligations to maintain the safety of its rights-of-way any less. Small cells are not deployed individually but in polygons or larger scale deployments of dozens of cells and include their attendant infrastructure such as fiber and backhaul.

Not all small siting requests are created equal. Small cell facilities attached to existing infrastructure, such as utility owned poles which already have power and backhaul connections are easier to review and process than small cell facilities on new poles. In fact, the Commission itself in its *2014 Infrastructure Order* noted that new poles should trigger the longer 150-day review period.[32]

As a consortium, we are working with the telecommunications providers to develop a streamlined permitting process so that small cell deployment will be more efficient. This is an on-going process that we have not yet finalized, but will include a discussion of batching of permits. It is too early in this process for us to provide experience regarding the amount of time it takes for the cities to process small cell applications both for a franchise and within the planning departments. To date the City of Bellevue is the only member of our consortium that has received a complete application for a small cell deployment. We are currently working cooperatively with providers on proposed deployments, but the providers' plans are preliminary and therefore the providers have not submitted applications.[33] We are working proactively to develop a framework for small cell deployment, but statistically valid analysis as to the timeframes for small cell deployment is premature.

We urge the Commission to allow cities to determine how best to streamline these applications based on the unique characteristics of our streetscapes, undergrounding requirements, decorative light standards, and safety needs. In addition, placing a new shot clock requirement on staff for small cells will create an added burden on cities, one which they may not have sufficient personnel to accommodate. Creating a shorter shot clock could in certain situations have the undesired effect of moving small cell applications to the front of the line, ahead of siting macro facilities and other telecommunications infrastructure necessary to coordinate small cell deployment as well as other types of public and private development. We ask the Commission

[31] In Washington master permits must be acted on within 120 days and 30 days for use permits. *See* RCW 35.99.030.

[32] *Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, Report and Order, 29 FCC Rcd 12865, 12972-24, para. 272 (2014) (*2014 Infrastructure Order*).

[33] Please note, we greatly appreciate the cooperative and collaborative nature of the providers that we are working with and believe that within the next several months as a group we can create a streamlined process.

to maintain the shot clocks already clarified by the *2014 Infrastructure Order* and allow cities and the providers the leeway to create the appropriate streamlined process.

## SPEEDY DEPLOYMENT

Mobilitie and the telecommunications providers all emphasize a desire for speedy deployment. We appreciate their aim of constructing their facilities as soon as possible in order to meet their consumer demands and prepare for 5G. However, actions such as this Petition for a Declaratory Ruling or proposed legislation in states across the country by the telecommunications industry are having the exact opposite effect. City resources to plan, negotiate agreements, review applications, and issue permits are scarce. The same planning and public works directors and city attorneys that work with the telecommunications industry to enable the deployment of wireless facilities are now called on by the cities to review, analyze, comment, negotiate, and lobby in the state legislature with regard to these proposed bills. It is a distraction and an inefficient use of time. The cities do not want to be an impediment to telecommunications infrastructure, but they do require reasonable time to effectively review and coordinate these deployments.

The Commission requests comments on whether it should attempt to reconcile the differences amongst the circuits on the interpretation of "prohibit or have the effect of prohibiting" telecommunications services. We recommend that such reconciliation will have the opposite effect on the deployment of wireless technology. The cities have operated under the Circuit Court opinions for decades and have planned their ordinances, franchises, permits, and processes based on the case law established by their respective Circuits. Similar to the proposed state legislation, a Commission ruling modifying this interpretation will require cities to rewrite code, planning documents, and retrain staff. This will slow deployment and processing of applications as cities get up to speed with new requirements and interpretations.

As communities within the jurisdiction of the Ninth Circuit, we abide by its rulings regarding the review of macro cell transport facilities. As the Commission rightly notes, the Ninth Circuit has provided a clear standard that is beneficial to the industry.

The Commission has provided time frames for us to act as local government entities. The Ninth Circuit has provided us clear direction and standards, and current federal and state statutes provide remedies. The current playing field is level and provides incentives to the wireless providers to work with our communities and to utilize co-location. Requiring local governments to act promptly when they receive a complete application is reasonable and the Commission currently provides strict shot clocks for us.

## CONCLUSION

Please, let us undertake the deployment of small cells in the right-of-way in a thoughtful manner. We have worked diligently and cooperatively for months, and we would appreciate the ability to continue this process without intervention by the Commission. The public right-of-way is our citizens' front yard, our community's living room and our market place. In Greece, this was known as the agora, a market place of ideas as well as business.

Please, do not lock us into a 19th century regulatory approach to 21st century technology by limiting local governments to 1890s wireline regulatory standards. We have learned a lot since the era of the Robber Barons. Let us apply that knowledge. The current Ninth Circuit model creates a balance through the "least intrusive means" standard which allows us to balance industry needs with our local environment. Our communities need the technology and our citizens want the service. However, each community has its own unique challenges and environments.

Accordingly, we ask the Commission to:

1. Clarify the application of 6409(a) to small cell facilities.

2. Defer to the state and local governments to set "fair and reasonable compensation" for the usage of the rights-of-way.

3. Maintain the status quo with regard to timelines, streamlining processes, and federal interpretation of Sections 253 and 332.

The Commission and the Ninth Circuit have provided a structure which balances local and industry concerns. As stewards of the public right-of-way, we understand our obligations. By all means hold us to them, but allow us to use a thoughtful approach when authorizing small cell deployments (and macro-cell deployments) in our communities.

**Exhibit A**
**Investments in Downtown Infrastructure**
**Summary**

A.1 - City of Bothell: Public investments = $150 Million.

A.2 - City of Federal Way: City Center Plaza, Town Center and Sound Transit = $300 Million.

A.3 - City of Redmond = $166.57 Million Dollars since 2011. A total of $1.115 Billion is expected to be spent on capital projects through 2030.

A.4 - City of Mukilteo: Redevelopment of Rose Hill Community Center = $351,292

A.5 - City of Bellevue: Pedestrian improvements in downtown core = $120 Million.

**Exhibit A-1**
**Investments in Downtown Infrastructure**
**City of Bothell**

"The revitalization of downtown Bothell is underway. The plan, launched in 2006, capitalizes on the historic charm of the City's Main Street, bringing new retail, offices and creating five new residential neighborhoods in the downtown district.

In total, the City has sold nearly a million square feet of land for development, consistent with the vision the Bothell community established. The City itself has completed public investments of over $150 million.

The result of these public investments will be a fully integrated and pedestrian friendly downtown that reflects the City's heritage, while leveraging 25 acres of previously city-owned properties into a destination and gathering place for area residents, employees and visitors."

City of Bothell Downtown Revitalization Plan
http://www.ci.bothell.wa.us/319/Downtown-Revitalization-Plan

**Exhibit A-2**
**Investments in Downtown Infrastructure**
**City of Federal Way**

"In November of 2014, the Mayor and City Council voted for the acquisition of a 7.48 acre parcel adjacent to the soon to be developed Performing Arts and Conference Center in downtown. In addition, the City acquired property for a park site. Combined with the Federal Way Transit Center, there are 21 acres to create growth and revitalization of Federal Way's downtown. This is now known as the Town Center.

The effort envisions a dense mix of uses featuring a conference hotel for the Performing Arts and Conference Center along with housing, educational/classroom space, specialty retail, civic uses and open space. A theme for the Town Center consists of encouraging strategic investment in a compact environment that contains a variety of uses and creates a unique sense of place.

The City began the process in 2007 with the acquisition of 4 acres currently known as Town Center -2. The City previously issued a Request for Proposal for the site however, due to the Great Recession; the development opportunities presented during this time were impacted by tight capital markets. However, during the interim, it was used as a park site. The interim use had a very positive impact on the community and now it has been transformed to the Town Square Park.

Additionally, after many years of community discussion, the City acquired another 5 acre site for the development of the $32.7 million Performing Arts and Conference Center. The development of this project was approved by the Mayor and City Council in June 2014. This site is known as Town Center-1. The City broke ground on this facility in October 2015 ground breaking with expectations of opening in summer of 2017.

Meanwhile, in November 2014, the mayor and City Council approved the acquisition of another 7.48 acres of property adjacent to the Town Center-1 known as Town Center-3. Based upon the interests of the Mayor and City Council, noteworthy opportunities include development of the following; a conference hotel including conference and ballroom space, along with a bar and restaurant space adjacent to the performing arts and convention facility. Additionally the City is looking for office, specialty retail, market rate housing, space for arts and entertainment including galleries, studios, museums, educational/classroom space, specifically for a culinary arts institute which will support the performing arts and conference facility. Also included is childcare facility. Additionally, Federal Way is working to recruit a four-year university for a branch campus in the city center to serve the growing higher education needs of the community and South King County."

City of Federal Way City Center Redevelopment
http://www.cityoffederalway.com/content/city-center-redevelopment

**Exhibit A-3**
**Investments in Downtown Infrastructure**
**City of Redmond**

**Redmond Comprehensive Plan Ordinance 2679, Effective 2/16/2013**
Urban Centers: Downtown
"DT-22 Establish standards for Downtown streetscape treatments to reinforce the identity of Downtown zones and promote the Downtown's aesthetic appeal. Consider use of treatments, such as special paving materials for sidewalks, street furniture, landscaping and lighting. Ensure that these treatments are implemented as part of public and private development." (pg 14-15)

**Vision Blueprint, Redmond's Capital Investment Strategy, Approved 12/13/2011**
"Capital improvements also help to facilitate economic development. For example, the City's investments in the Downtown and Overlake are tangible steps to realize the vision for these locations, and encourage continued private investment in the City long-term. The private sector also contributes to Redmond's physical development from minor redevelopment to major revitalization projects. This can occur in the form of new mixed use buildings with open public plazas, such as the recently-completed Red 160 development in Downtown. In addition, private developers install utilities and improve streets and sidewalks to serve new housing or commercial developments. In some cases, public-private partnerships are forged to meet mutual service goals for the public and private sector." (pg Intro-4)

The City of Redmond has made a twenty year investment in redeveloping the downtown core, and is also focusing on improvements to other commercial neighborhoods and parks (entitled Overlake and SE Redmond). The projected costs for all of the planned projects through 2030 is $1.115 Billion. Since 2011 they have completed $166 Million worth of capital projects, and have fully funded $286.25 Million in capital projects.

**Exhibit A-4**
**City of Mukilteo - Rosehill Community Center Redevelopment**

The below photographs depict the Rosehill Community Center in 2008 prior to the redevelopment and the new Rosehill Community Center in 2011 with the undergrounding of utility poles. The cost solely of undergrounding this one square block around the Rosehill Community Center was $351,292.

Before (2008):

After (2011)

**Exhibit A-5**
**Investments in Downtown Infrastructure**
**City of Bellevue**

Downtown Bellevue is the City's primary growth center and fastest growing neighborhood. This 410-acre downtown area was home to 50,562 jobs in 2015 and 12,890 residents in 2016. Projections show Downtown Bellevue growing to 70,300 jobs and 19,000 residents by the year 2030. The City has invested heavily in the Downtown public realm in the form of the 20-acre Downtown Park, Ashwood Park as well as the first phases of Meydenbauer Bay Park. The City also relocated City Hall to downtown in 2006 with significant investment in the purchase and adaptive re-use of an old telecommunications facility.

The private sector has also made significant investments in the Downtown public realm over the past three decades. Many downtown sidewalks are public easements on private property. City analysis shows approximately 18.8 miles of pedestrian improvements within Downtown in the form of public sidewalks, landscaping and associated amenities. These pedestrian improvements encompass close to 21.6 acres and are valued at close to $120 million in construction value in 2017 dollars.

**Exhibit B**
**Small Cell Facilities Deployed in Seattle, Washington**

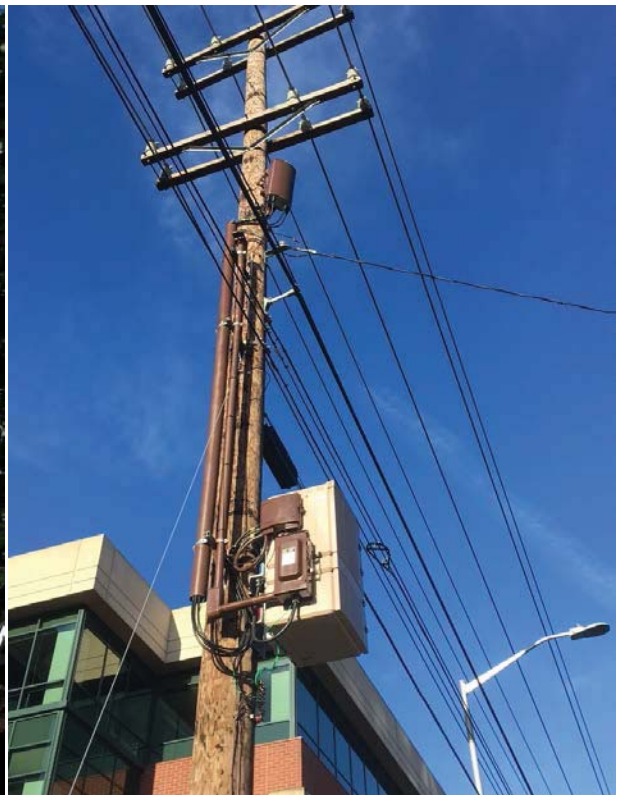
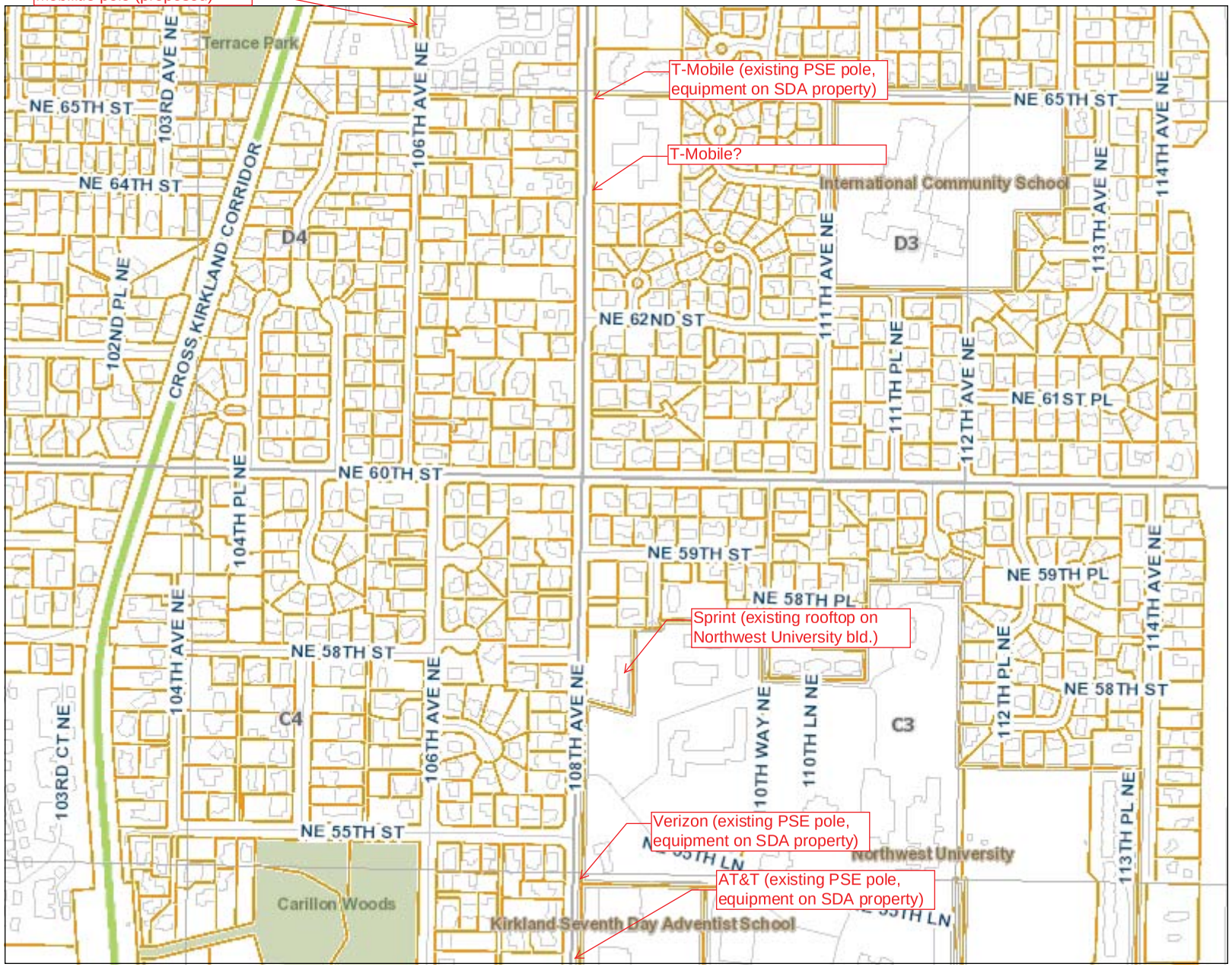


**Exhibit C-1**
**Mobilitie Application for a Facility in Kirkland, WA**

Narrative: Mobilitie proposed a 50 foot pole (43 feet above ground) in a residential area on the side of the street that is purposefully without utility structures, rather than co-locating on existing utility poles on the other side of the street. The new pole is proposed to be placed outside of an apartment building, a preferred existing structure for the location or co-location of telecommunications equipment in Kirkland. Most troublesome, Mobilitie's proposed new pole is a mere one block away from an existing telecommunications tower with wireless facilities as well as a nearby school and church location with existing installations.

Exhibit C-1a: Vicinity Map (created by City of Kirkland)
Exhibit C-1b: Photo Simulation (created by Mobilitie)
Exhibit C-1c: Construction designs (created by Mobilitie)

# Exhibit C-1a



## Legend

- City Limits
- Grid
- QQ Grid
- Cross Kirkland Corridor
- Regional Rail Corridor
- Streets
- Parcels
- Buildings
- Lakes
- Parks
- Schools
- Olympic Pipeline Corridor

1: 6,000

## Notes

0.2 0 0.09 0.2 Miles

NAD_1983_StatePlane_Washington_North_FIPS_4601_Feet

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No warranties of any sort, including but not limited to accuracy, fitness, or merchantability, accompany this product.

Exhibit C-1b

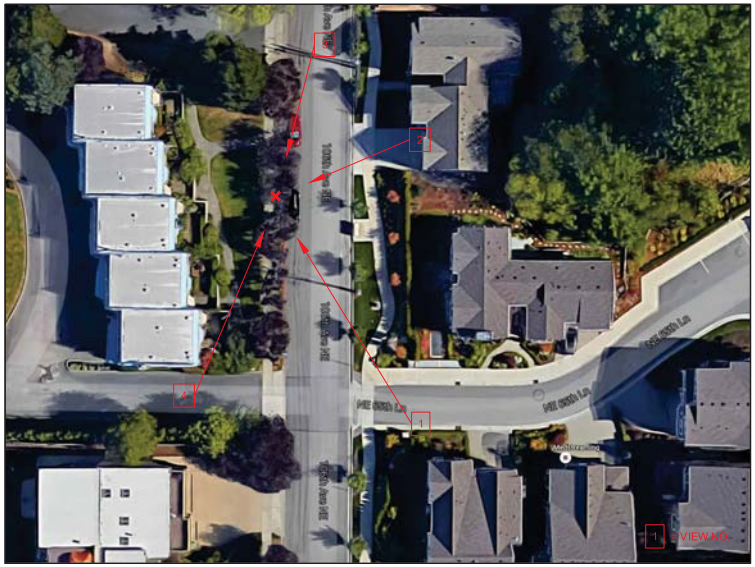
# MOBILITIE, LLC

## PHOTO SIMULATION

FOR NEW SMALL CELL SITE LOCATED AT:

## 6523 106TH AVE NE & NE 65TH LN | KIRKLAND, WA 98033

## 9WAB001622A




VICINITY MAP

PREVIEW

**SITE DESCRIPTION:**

NEW SMALL CELL SITE WITHIN EXISTING RIGHT OF WAY

**VIEWS: 5**

**SHEET INDEX**

SHEET 2: VIEW 1
SHEET 3: VIEW 2
SHEET 4: VIEW 3
SHEET 5: VIEW 4

DATE: 06.21.16



Photo Simulation By:

Tangent SYSTEMS

424-262-4167 | tangentsystems.co

**Photo Simulation**

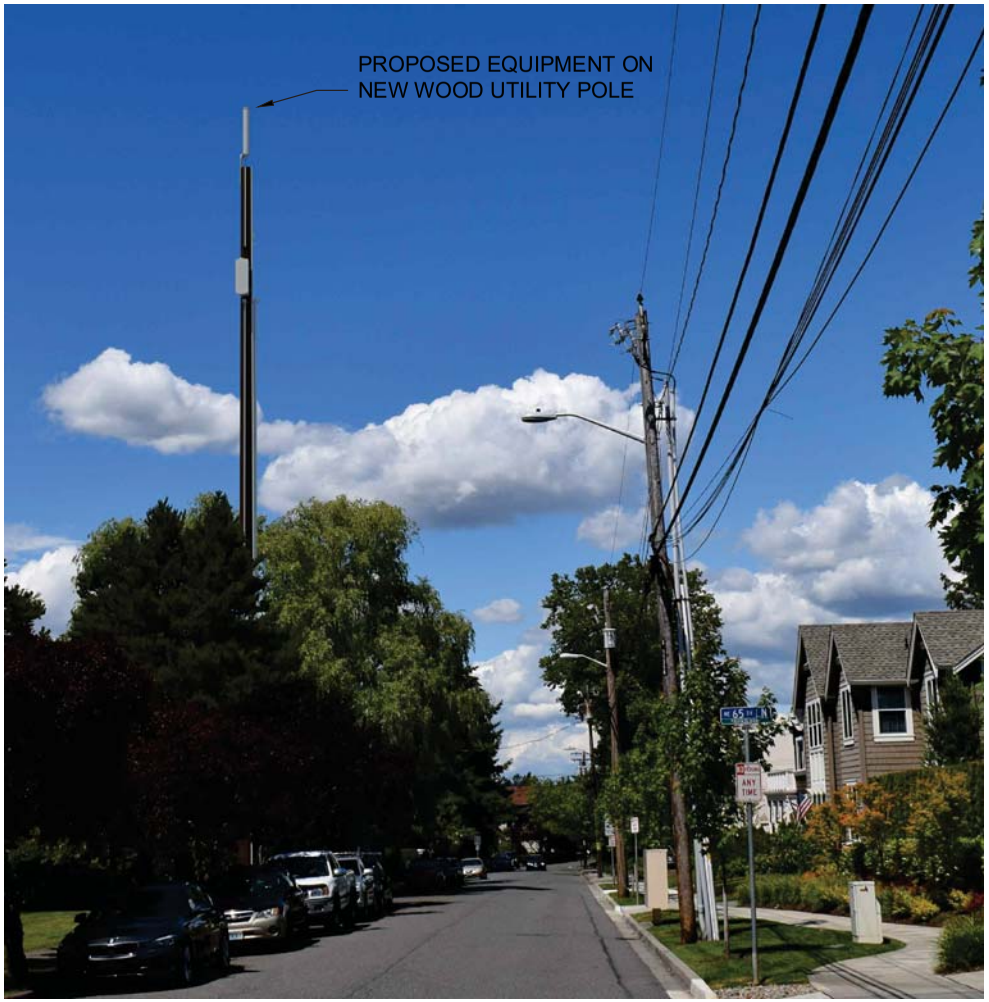
This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

MOBILITIE, LLC

**Site ID: 9WAB001622A**

POLE TYPE: NEW WOOD UTILITY POLE

6523 106TH AVE NE & NE 65TH LN
KIRKLAND, WA 98033

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Tangent SYSTEMS

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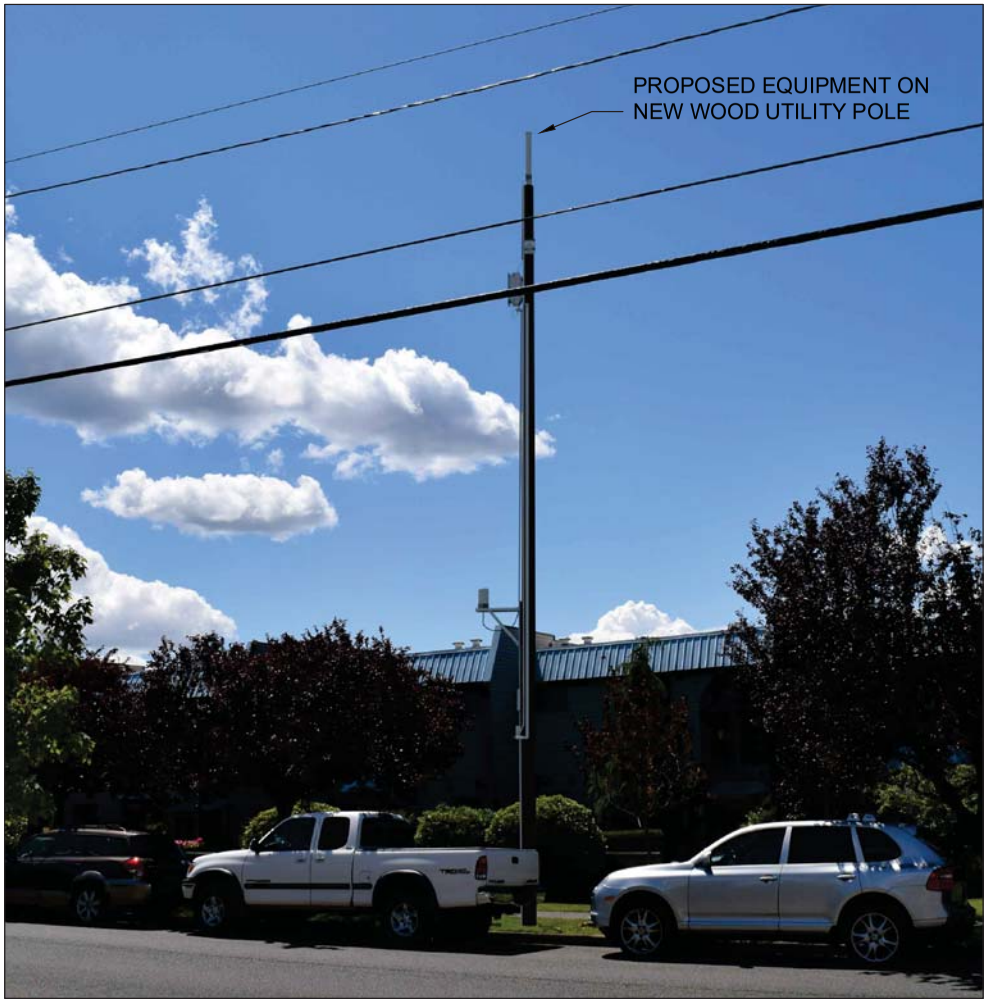
MOBILITIE, LLC

## Site ID: 9WAB001622A

POLE TYPE: NEW WOOD UTILITY POLE

6523 106TH AVE NE & NE 65TH LN
KIRKLAND, WA 98033

**EXISTING VIEW**




**PROPOSED VIEW**

DATE: 06.21.16

VIEW 2 - LOOKING NORTH WEST FROM 106TH AVE NE

**SHEET: 3 / 5**

Photo Simulation By:

Tangent SYSTEMS

424-262-4167 | tangentsystems.co

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

MOBILITIE, LLC

## Site ID: 9WAB001622A

POLE TYPE: NEW WOOD UTILITY POLE

6523 106TH AVE NE & NE 65TH LN
KIRKLAND, WA 98033

EXISTING VIEW

PROPOSED VIEW

DATE: 06.21.16

VIEW 3 - LOOKING SOUTH FROM 106TH AVE NE



Photo Simulation By:

Tangent SYSTEMS
424-262-4167 | tangentsystems.co

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

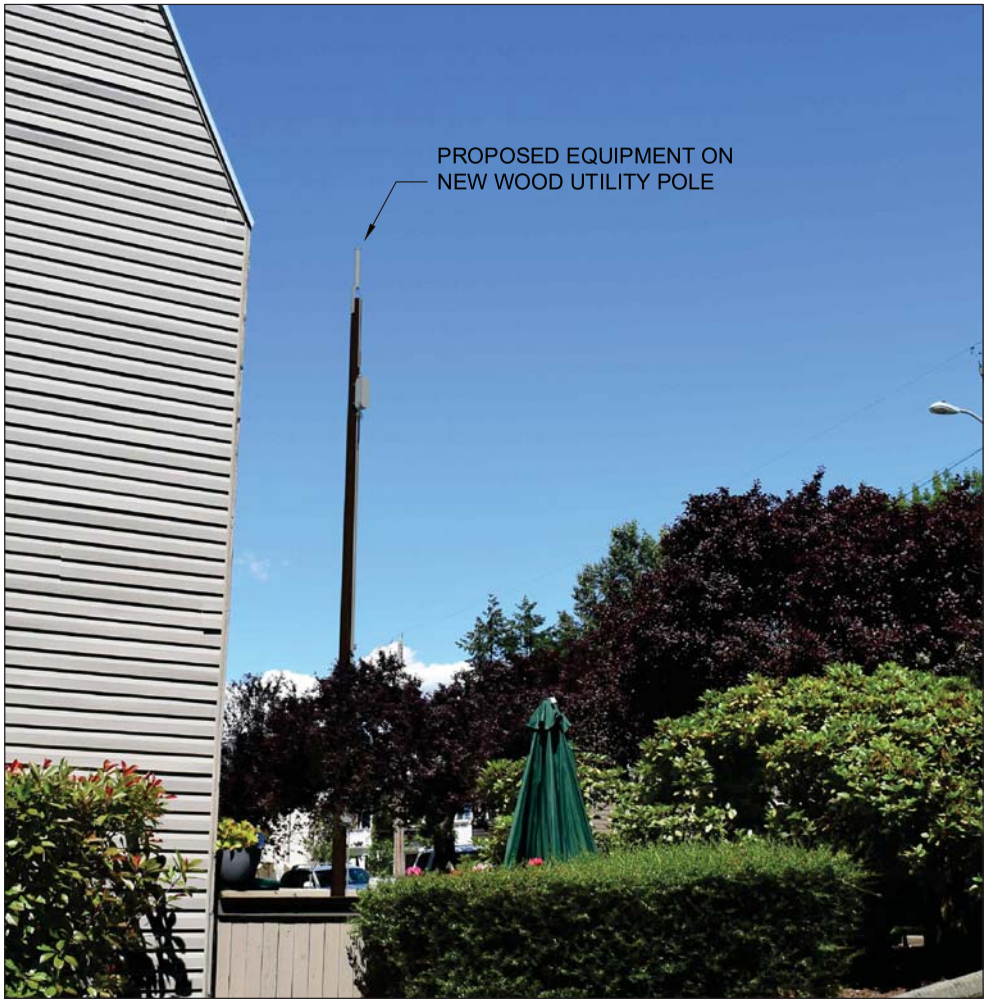
MOBILITIE, LLC

## Site ID: 9WAB001622A

POLE TYPE: NEW WOOD UTILITY POLE

6523 106TH AVE NE & NE 65TH LN
KIRKLAND, WA 98033

EXISTING VIEW




PROPOSED VIEW

DATE: 06.21.16

VIEW 4 - LOOKING NORTH EAST FROM NE 65TH LN



Photo Simulation By:

Tangent SYSTEMS

424-262-4167 | tangentsystems.co

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

MOBILITIE, LLC

## Site ID: 9WAB001622A

POLE TYPE: NEW WOOD UTILITY POLE

6523 106TH AVE NE & NE 65TH LN
KIRKLAND, WA 98033

mobilitie®

# SITE ID: 9WAB001622A

## SITE LOCATION:

6523 106TH AVE NE, KIRKLAND, WA 98033

106TH AVE NE & NE 65TH LN

# NEW WOOD UTILITY POLE

### GENERAL NOTES

THE FACILITY IS NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

### SITE INFORMATION

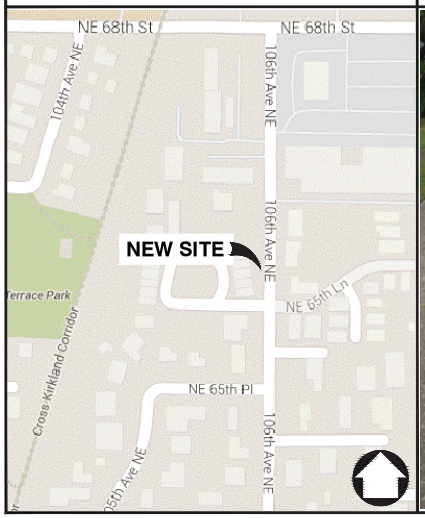
| | |
|---|---|
| APPLICANT: | MOBILITIE |
| APPLICANT ADDRESS: | 2955 RED HILL AVENUE, SUITE 200<br>COSTA MESA, CA. 92626 |
| APPLICANT CONTACT: | STEVEN BERKE |
| APPLICANT PHONE: | 208.661.3116 |
| APPLICANT E-MAIL: | steven.berke@mobilitie.com |
| PUBLIC ROW/PRIVATE PROPERTY: | PUBLIC ROW |
| NEAREST ADDRESS: | 6523 106TH AVE NE |
| NEAREST APN'S: | 918500-0000 |
| SITE LATITUDE: | 47° 39' 54" N (47.665131°) |
| SITE LONGITUDE: | 122° 11' 54" W (-122.198601°) |
| GIS TYPE: | CA83-VF (NAD83) |
| GROUND ELEVATION: | ±184' AMSL |
| COUNTY: | KING |
| JURISDICTION: | CITY OF KIRKLAND |

### DO NOT SCALE DRAWINGS

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

### LOCATION MAPS

**VICINITY MAP**




**SITE LOCATION**

### PROJECT DESCRIPTION

APPLICANT PROPOSES TO CONSTRUCT A NEW SMALL CELL SITE WITHIN AN EXISTING RIGHT OF WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- ATTACH NEW EQUIPMENT TO NEW 50'-0" DOUGLAS FIR UTILITY POLE
- INSTALL ONE (1) AC DISTRIBUTION PANEL
- INSTALL ONE (1) REMOTE RADIO HEAD
- INSTALL ONE (1) UE RELAY
- INSTALL ONE (1) GPS ANTENNA
- INSTALL ONE (1) OMNI DIRECTIONAL ANTENNA
- INSTALL ONE (1) NEMA 3R DISCONNECT SWITCH

### ENGINEERING

- 2012 INTERNATIONAL BUILDING CODE
- 2014 NATIONAL ELECTRICAL CODE
- TIA/EIA-222-G-2 OR LATEST EDITION
- LOCAL BUILDING/PLANNING CODE

### DRAWING INDEX

| SHEET NO: | SHEET TITLE |
|---|---|
| T-1 | TITLE SHEET |
| T-2 | GENERAL NOTES |
| T-3 | GENERAL NOTES |
| A-1 | SITE PLANS |
| A-2 | EAST & SOUTH ELEVATIONS |
| D-1 | EQUIPMENT DETAILS |
| D-2 | EQUIPMENT DETAILS |
| E-1 | ELECTRICAL PLAN |
| G-1 | GROUNDING PLAN |
| TC-1 | TRAFFIC CONTROL PLAN |
| | |

### DESIGN TEAM

MOBILITIE
2955 RED HILL AVENUE, SUITE 200
COSTA MESA, CA. 92626
PM: SYLVETTE CUEVAS
PHONE: (562) 202-0165
EMAIL: Sylvette.cuevas@mobilitie.com

811 Dig Alert
Know what's below. Call before you dig.
WASHINGTON
Call Two Working Days Before You Dig
811 or 800-424-5555

mobilitie®

A&E SERVICES

**MOBILITIE, LLC**

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 06/13/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 06/13/2016 | 90% CONSTRUCTION | ENG |

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

NEW WOOD UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

**T-1**

## □□□□RAL □ O□ STR□ □TIO□ □OT□S

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE, THE LATEST EDITION AND ALL OTHER APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL CONSTRUCT SITE IN ACCORDANCE WITH THESE DRAWINGS AND CONSTRUCTION SPECIFICATIONS 80□T1196□1 REV H. THE SPECIFICATION IS THE RULING DOCUMENT AND ANY DISCREPANCIES BETWEEN THE SPECIFICATION AND THESE DRAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION

3. CONTRACTOR SHALL VISIT THE JOB SITE AND SHALL FAMILIARI□E HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARI□ING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OF FIELD CONDITIONS

4. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND APPURTENANCES, AND LABOR NECESSARY TO EFFECT ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS. OWNER PROVIDED MATERIALS WILL INCLUDE THE FOLLOWING, UNLESS NOTED OTHERWISE:
   A. □TRANSMITTER
   B. □RF FILTER
   C. □HOSE AND HOSE MANIFOLDS. ANY COPPER OR STEEL SECTIONS PROVIDE BY CONTRACTOR□
   D. □UHF ANTENNA AND MOUNTING BRACKETS, GPS ANTENNAS AND KU ANTENNAS
   E. □ UHF COAX AND HANGERS
   F. □4.90□208 & 208/400 ELECTRICAL TRANSFORMERS □RE□E□2 FOR SPECIAL□□ED TRANSFORMERS PROVIDED BY CONTRACTOR□□
   G. □AUTOMATIC TRANSFER SWITCH AND GENERATOR
   H. □EQUIPMENT SHELTER □SHELTERS FURNISHED IN FACTORY W□HVAC EQUIPMENT AND ELECTRICAL DISTRIBUTION PANEL□
   I. □INTEGRATED LOAD CENTER

5. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE WORK.

6. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

□. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING, AND SHALL RECEIVE IN WRITING AUTHORI□ATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.

8. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST CONSTRUCTION SKILLS AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.

9. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS.

10. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE SUPERINTENDENT OF BUILDINGS & GROUNDS AND SCHEDULE HIS ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.

12. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

13. MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SURFACES, EQUIPMENT, IMPROVEMENTS, PIPING ETC. AND IMMEDIATELY REPAIR ANY DAMAGE THAT OCCURS DURING CONSTRUCTION.

14. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., MUST BE CLEARLY UNDERSTOOD THAT REINFORCING STEEL SHALL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES □UNLESS NOTED OTHERWISE□. LOCATIONS OF REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT.

15. REPAIR ALL EXISTING WALL SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND IN WITH ADJACENT SURFACES.

16. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS.

1□. KEEP CONTRACT AREA CLEAN, HA□ARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. □ LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF □CONSTRUCTION.

18. MINIMUM BEND RADIUS OF ANTENNA CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURERS RECOMMENDATIONS.

19. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED □AND OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO APPLICABLE REGULATORY AUTHORITIES

20. CONTRACTOR SHALL MINIMI□E DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION SHALL BE IN CONFORMANCE WITH JURISDICTIONAL OR STATE AND LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL AND COORDINATED WITH LOCAL REGULATORY AUTHORITIES.

21. ALL CONSTRUCTION IS TO ADHERE TO APPLICANT'S INTEGRATED CONSTRUCTION STANDARDS UNLESS STATE CODE IS MORE STRINGENT.

22. THE INTENT OF THE PLANS AND SPECIFICATIONS IS TO PERFORM THE CONSTRUCTION IN ACCORDANCE PER STATE BUILDING STANDARDS CODE, TITLES 19 AND 24, STATE CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE APPROVED PLANS AND SPECIFICATIONS WHEREIN THE FINISHED WORK WILL NOT COMPLY PER STATE CODE OF REGULATIONS, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE JURISDICTION BEFORE PROCEEDING WITH THE WORK.

## □L□□TRI□AL □OT□S

1. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY ALL ELECTRICAL WORK INDICATED. ANY ALL CONSTRUCTION SHALL BE IN ACCORDANCE W□DRAWINGS AND ANY□ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY □CONSTRUCTION MANAGER□AS SOON AS POSSIBLE, AFTER THE □ DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE □CONSTRUCTION MANAGER□ HAS DIRECTED □THE CORRECTIVE ACTIONS TO BE TAKEN.

2. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARI□E HIMSELF WITH ANY□ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. ALL EXISTING CONDITIONS OF ELECTRICAL EQUIP□ LIGHT FIXTURES, ETC□ THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO □THE SUBMITTING OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.

3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL CODES AND LOCAL ORDINANCES OF THE LOCAL POWER & TELEPHONE COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT NOT BE LIMITED TO
   C. □NATIONAL FIRE CODES
   A. UL □UNDERWRITERS LABORATORIES
   B. NEC □NATIONAL ELECTRICAL CODE
   C. NEMA □NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
   D. OSHA □OCCUPATIONAL SAFETY AND HEALTH ACT
   E. SBC □STANDARD BUILDING CODE

4. DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH □CONSTRUCTION MANAGER□ANY SI□ES AND LOCATIONS WHEN NEEDED.

5. EXISTING SERVICES: CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.

6. CONTRACTOR SHALL PAY FOR ANY ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING EQUIPMENT.

□. THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.

8. CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY□ALL REQUIREMENTS SUCH AS THE □LUG SI□E RESTRICTIONS, CONDUIT ENTRY, SI□E OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS □CONFIRMATION, ETC., ANY□ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.

9. MINIMUM WIRE SI□E SHALL BE □12 AWG, NOT INCLUDING CONTROL WIRING, UNLESS NOTED OTHERWISE. ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION.

10. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET□DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.

11. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

12. ELECTRICAL SYSTEM SHALL BE AS COMPLETELY AND EFFECTIVELY GROUNDED, AS REQUIRED BY SPECIFICATIONS, SET FORTH BY APPLICANT.

13. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY CONSTRUCTION MANAGER.

14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.

15. CONTRACTOR SHALL GUARANTEE ANY ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.

16. THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE □BEEN DAMAGED THEREIN.

1□. ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LOSS AND ANY□ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.

18. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.

19. DITCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND□OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO NOTES AND REQUIREMENTS □EXCAVATION, AND BACKFILLING.

20. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IECE.

21. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURES CATALOG INFORMATION OF ANY ALL LIGHTING FIXTURES, SWITCHES AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.

22. ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE □CONSTRUCTION MANAGER□ UPON FINAL ACCEPTANCE.

23. THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

24. DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY□DUTY, QUICK□MAKE AND QUICK□BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.

25. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI□OXIDE COMPOUND SUCH AS "NO□OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED □NO SUBSTITUTIONS.

26. RACEWAYS: CONDUIT SHALL BE SCHEDULE 80 PVC MEETING OR EXCEEDING NEMA TC2 □1990. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS □200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 2 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL 6 FOR GALVANI□ED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH □RITE □INC□OR COLD GALV□.

2□. SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.

28. CONDUCTORS: CONTRACTOR SHALL USE 98□ CONDUCTIVITY COPPER WITH TYPE THWN INSULATION, 600 VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG. USE STRANDED CONDUCTORS FOR WIRE ABOVE NO. 8 AWG.

29. CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST□ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.

30. SERVICE: 120□240V., SINGLE PHASE, 3 WIRE CONNECTION AVAILABLE FROM UTILITY COMPANY. OWNER OR OWNERS AGENT WILL APPLY FOR POWER.

31. TELEPHONE SERVICE: CONTRACTOR SHALL PROVIDE EMPTY CONDUITS WITH PULL STRINGS AS INDICATED ON DRAWINGS.

32. ELECTRICAL AND TELCO RACEWAYS TO BE BURIED A MINIMUM OF 2□DEPTH.

33. CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL AND TELCO SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC" OR "BURIED TELECOMM".
34. ALL BOLTS SHALL BE 3□16 STAINLESS STEEL

## □RO□□DI□□ □OT□S

1. GC SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION □P", "A", "N", 1"□ WITH 1" HIGH LETTERS.

2. ALL HARDWARE 3□16 STAINLESS STEEL, INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI□OXIDANT COMPOUND BEFORE MATING. ALL HARDWARE SHALL BE STAINLESS STEEL 3□8 INCH DIAMETER OR LARGER.

3. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI□OXIDANT COMPOUND BEFORE MATING.

4. WHEN THE SCOPE OF WORK REQUIRES THE ADDITION OF A GROUNDING BAR TO AN EXISTING UTILITY POLE,THE SUBCONTRACTOR SHALL OBTAIN APPROVAL FROM THE UTILITY POLE OWNER PRIOR TO MOUNTING THE GROUNDING BAR TO THE UTILITY POLE.

5. ALL ELECTRICAL AND GROUNDING AT THE POLE SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE □NEC□; NATIONAL FIRE PROTECTION ASSOCIATION □NFPA□□80 □LATEST EDITION□; AND MANUFACTURER.

**ADDITIONAL NOTES:**

6. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.

□. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING □6 GROUND WIRES. FOLLOW ANTENNA AND BTS MANUFACTURER'S PRACTICES FOR GROUNDING REQUIREMENTS.

8. ALL GROUND CONNECTIONS SHALL BE □6 AWG U.N.O. ALL WIRES SHALL BE COPPER WITH THHN□THWN. ALL GROUND WIRE SHALL BE SOLID TIN COATED OR STRANDED GREEN INSULATED WIRE.

9. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 10 OHMS MAXIMUM. PROVIDE SUPPLEMENT GROUNDING RODS AS REQUIRED TO ACHIEVE SPECIFIED OHMS READING. GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE APPLICANT REPRESENTATIVE.

10. NOTIFY ARCHITECT□ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.

11. ALL HORI□ONTALLY RUN GROUNDING CONDUCTORS SHALL BE INSTALLED MINIMUM 12" BELOW GRADE□FROST□LINE IN TRENCH, U.N.O., AND BACK FILL SHALL BE COMPACTED AS REQUIRED BY ARCHITECT.

12. ALL GROUND CONDUCTORS SHALL BE RUN AS STRAIGHT AND SHORT AS POSSIBLE, WITH A MINIMUM 12"□BENDING RADIUS NOT LESS THAN 90 DEGREES.

13. ACCEPTABLE CONNECTIONS FOR GROUNDING SYSTEM SHALL BE:
   a. BURNDY, HY GRADE U.L. LISTED CONNECTORS FOR OUTDOOR USE OR AS APPROVED BY APPLICANT PROJECT MANAGER.
   b. CADWELD, EXOTHERMIC WELDS □WELDED CONNECTIONS□.
   c. ONE □1□ HOLE TINNED COPPER COMPRESSION □LONG BARREL□FITTINGS.

14. ALL CRIMPED CONNECTIONS SHALL HAVE EMBOSSED MANUFACTURER'S DIEMARK VISIBLE AT THE CRIMP AND WEATHER□PROOFED WITH HEAT SHRINK □RESULTING FROM USE OF PROPER CRIMPING DEVICES□

15. ALL CONNECTION HARDWARE SHALL BE TYPE 3□16 STAINLESS STEEL □NOT ATTRACTED TO MAGNETS□

16. ELECTRICAL SERVICE EQUIPMENT GROUNDING SHALL COMPLY WITH NEC, ARTICLE 250□82 AND SHALL BOND ALL EXISTING AND NEW GROUNDING ELECTRODES. NEW GROUNDING ELECTRODE SHALL INCLUDE BUT NOT LIMITED TO GROUND RODS, GROUND RING IF SERVICE IS WITHIN THE RADIO EQUIPMENT LOCATION, BUILDING STEEL IF APPLICABLE, COLD WATER CONNECTIONS MUST BE MADE ON THE STREET SIDE OF MAIN SHUT□OFF VALVE.

## T□STI□□ A□ D□□□IPM□□ T T□R□ □P R□□□IR□M□□TS

1. RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT TESTING WILL COMPLY WITH CURRENT INDUSTRY STANDARDS AND OR THOSE STANDARDS OF THE EQUIPMENT MANUFACTURE OR PROVIDED TO THE CONTRACTOR PRIOR TO TESTING.

2. CONTRACTOR WILL USE THE APPROPRIATE CALIBRATED TESTING EQUIPMENT IN THE TESTING OF RF CABLE, DATA CABLE , RADIO EQUIPMENT AND BACK HAUL EQUIPMENT THAT MEET INDUSTRY STANDARDS OF THE MANUFACTURE OR THOSE STANDARDS PROVIDED TO THE CONTRACTOR PRIOR TO TESTING.

3. CONTRACTOR TO VERIFY AND RECORD ALL TEST RESULTS AND PROVIDE THESE RESULTS WITHIN THE FINAL CLOSE OUT PACKAGE.

4. ALL PERSONNEL INVOLVED IN THE TESTING OF RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT WILL BE REQUIRED TO HAVE BEEN TRAINED AND OR CERTIFIED IN THE PROPER TESTING OF RF CABLE, DATA CABLE, RADIO EQUIPMENT AND BACK HAUL EQUIPMENT.

5. ALL TEST RESULTS SHALL BE TIME STAMPED, RECORDED AND PRESENTED PRIOR TO ENERGI□ING AND TURN UP OF ANY EQUIPMENT.

6. GPS EQUIPMENT IS NOT TO BE TESTED OR ATTACHED TO ANY CABLING DURING TESTING, DOING SO WILL DAMAGE THE GPS UNIT.

□. PRIOR TO TESTING IF THE CONTRACTOR HAS ANY QUESTIONS ABOUT THE TESTING PROCEDURES THEY ARE TO CALL AND OBTAIN ASSISTANCE FROM A QUALIFIED DESIGNATED TESTING REPRESENTATIVE.

8. EQUIPMENT IS NOT TO BE ENERGI□ED UNTIL ALL TESTING HAS BEEN COMPLETED, APPROVED AND THE APPROPRIATE AUTHORITY HAS BEEN NOTIFIED AND GIVES APPROVAL TO ENERGI□E THE EQUIPMENT.

## MIS□□LLA□□O□S MAT□RIALS

FROM TIME TO TIME IT MAY BE NECESSARY TO MAKE MINOR ADJUSTMENTS TO ACCOMMODATE, LEVEL OR SPACE ANTENNA MOUNTS AND EQUIPMENT. EXAMPLE ADDING A WASHER OR SHIM TO LEVEL OUT A BRACKET OR MOUNT TO MEET SPECIFICATIONS. HAVING TO OFFSET OR SPACE A BRACKET OR MOUNT DUE TO FLANGES AND OR OTHER SMALL PROTRUSIONS ON A POLE TOP ASSEMBLY. ANY MATERIALS, NUTS, BOLTS, SHIMS OR SPACERS USED TO ACCOMMODATE ADJUSTMENTS TO ANTENNA MOUNTS AND EQUIPMENT MUST BE PERMANENTLY AFFIXED, BOLTED TO THE MOUNT, BRACKET OR POLE□AS NEVER TO BECOME A FALL HA□ARD. ALL MATERIALS NUTS, BOLTS, SHIMS OR SPACERS USED IN MINOR ADJUSTMENTS, MUST BE EITHER STAINLESS STEEL OR GALVANIZED□ HALF WASHERS ARE PROHIBITED. ANY MINOR ADJUSTMENTS TO ACCOMMODATE ANTENNA MOUNTS AND EQUIPMENT SHOULD BE DONE IN A PROFESSIONAL MANOR WITH SAFETY AND AESTHETICS IN MIND. SHOULD YOU HAVE ANY QUESTIONS CONTACT YOUR ASSIGNED CONSTRUCTION PROJECT MANAGER OR ENGINEER FOR GUIDANCE.

mobilitie

A&E SERVICES

**MOBILITIE, LLC**

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 06□13□2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 06□13□2016 | 90% CONSTRUCTION | ENG |

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

NEW WOOD UTILITY POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

**T□2**

## SIT□ WOR□ □OT□S

1. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
2. DO NOT SCALE BUILDING DIMENSIONS FROM DRAWING.
3. SI□E, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS-BUILT DRAWINGS BY GENERAL CONTRACTOR AND ISSUED TO ARCHITECT/ENGINEER AT COMPLETION OF PROJECT.
4. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
5. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES BOTH HORI□ONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE. CONTRACTOR SHALL CALL LOCAL DIGGER HOT LINE FOR UTILITY LOCATIONS 48 HOURS PRIOR TO START OF CONSTRUCTION.
6. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
7. GRADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO EXISTING GRADES AT THE GRADING LIMITS.
8. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION □OSHA□REQUIREMENTS.
9. STRUCTURAL FILLS SUPPORTING PAVEMENTS SHALL BE COMPACTED TO 95□ OF MAXIMUM STANDARD PROCTOR DRY DENSITY.
10. NEW GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH APPROVED CLEAN FILL AND COMPACTED TO 95□ OF STANDARD PROCTOR DENSITY.
11. ALL FILL SHALL BE PLACED IN UNIFORM LIFTS. THE LIFTS THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.
12. ANY FILLS PLACED ON EXISTING SLOPES THAT ARE STEEPER THAN 10 HORI□ONTAL TO 1 VERTICAL SHALL BE PROPERLY BENCHED INTO THE EXISTING SLOPE AS DIRECTED BY A GEOTECHNICAL ENGINEER.
13. CONTRACTOR SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO□PAPERS, TRASH, WEEDS, BRUSH OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE DISPOSED OF OFF□SITE BY THE GENERAL CONTRACTOR.
14. ALL TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE PROTECTED BY THE GENERAL CONTRACTOR.
15. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY GENERAL CONTRACTOR WITH LOCAL UTILITY COMPANY, TELEPHONE COMPANY, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.

## □□□IRO□ M□□TAL □OT□S

1. ALL WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH ISSUED PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF FINES AND PROPER CLEAN UP FOR AREAS IN VIOLATION.
2. CONTRACTOR AND□OR DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS AND WATERWAYS AND SHALL BE MAINTAINED IN PLACE THROUGH FINAL JURISDICTIONAL INSPECTION & RELEASE OF SITE.
3. CONTRACTOR SHALL INSTALL/CONSTRUCT ALL NECESSARY SEDIMENTS/ILT CONTROL FENCING AND PROTECTIVE MEASURES WITHIN THE LIMITS OF SITE DISTURBANCE PRIOR TO CONSTRUCTION.
4. NO SEDIMENT SHALL BE ALLOWED TO EXIT THE PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MEASURES FOR CONTROLLING EROSION. ADDITIONAL SEDIMENT CONTROL FENCING MAY BE REQUIRED IN ANY AREAS SUBJECT TO EROSION.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES WITH SILT AND EROSION CONTROL MEASURES MAINTAINED ON THE DOWNSTREAM SIDE OF SITE DRAINAGE. ANY DAMAGE TO ADJACENT PROPERTY AS A RESULT OF EROSION WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTIONS AND ANY REPAIRS OF ALL SEDIMENT CONTROL MEASURES INCLUDING SEDIMENT REMOVAL AS NECESSARY.
7. CLEARING OF VEGETATION AND TREE REMOVAL SHALL BE ONLY AS PERMITTED AND BE HELD TO A MINIMUM. ONLY TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED.
8. SEEDING AND MULCHING AND□OR SODDING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE PROJECT FACILITIES AFFECTING LAND DISTURBANCE.
9. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS, AND CHECK DAMS.
10. RIP RAP OF SI□ES INDICATED SHALL CONSIST OF CLEAN, HARD, SOUND, DURABLE, UNIFORM IN QUALITY STONE FREE OF ANY DETRIMENTAL QUANTITY OF SOFT, FRIABLE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ALKALI, OR OTHER DELETERIOUS SUBSTANCES
11. GC TO PLACE FILTER MATERIAL AT ALL CATCH BASINS ADJACENT TO CONSTRUCTION SITE TO PREVENT SOLID WASTE CONTAMINATION FROM ENTERING SEWER SYSTEM

## □O□□DATIO□ □□□□A□ATIO□ A□D BA□□□ILL □OT□S

1. ALL FINAL GRADED SLOPES SHALL BE A MAXIMUM OF 3 HORI□ONTAL TO 1 VERTICAL.
2. ALL EXCAVATIONS PREPARED FOR PLACEMENT OF CONCRETE SHALL BE OF UNDISTURBED SOILS, SUBSTANTIALLY HORI□ONTAL AND FREE FROM ANY LOOSE, UNSUITABLE MATERIAL OR FRO□EN SOILS, AND WITHOUT THE PRESENCE OF POUNDING WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED WHEN REQUIRED. COMPACTION OF SOILS UNDER CONCRETE PAD FOUNDATIONS SHALL NOT BE LESS THAN 95□ OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR THE SOIL IN ACCORDANCE WITH ASTM D155□.
3. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC OR UNSUITABLE MATERIAL. IF INADEQUATE BEARING CAPACITY IS REACHED AT THE DESIGNED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION SHALL BE FILLED WITH CONCRETE OF THE SAME TYPE SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILI□E THE BOTTOM OF THE EXCAVATION. ANY STONE SUB BASE MATERIAL, IF USED, SHALL NOT SUBSTITUTE FOR REQUIRED THICKNESS OF CONCRETE.
4. ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH PRIOR TO BACK FILLING. BACK FILL SHALL CONSIST OF APPROVED MATERIALS SUCH AS EARTH, LOAM, SANDY CLAY, SAND AND GRAVEL, OR SOFT SHALE, FREE FROM CLODS OR LARGE STONES OVER 2 1/2" MAX DIMENSIONS. ALL BACK FILL SHALL BE PLACED IN COMPACTED LAYERS.
5. ALL FILL MATERIALS AND FOUNDATION BACK FILL SHALL BE PLACED IN MAXIMUM 6"THICK LIFTS BEFORE COMPACTION. EACH LIFT SHALL BE WETTED IF REQUIRED AND COMPACTED TO NOT LESS THAN 95□ OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR SOIL IN ACCORDANCE WITH ASTM D155□.
6. NEWLY PLACED CONCRETE FOUNDATIONS SHALL CURE A MINIMUM OF □2 HRS PRIOR TO BACK FILLING.
7. FINISHED GRADING SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE AND PREVENT STANDING WATER. THE FINAL□FINISH□ ELEVATION OF SLAB FOUNDATIONS SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE CENTER. FINISH GRADE OF CONCRETE PADS SHALL BE A MAXIMUM OF 4 INCHES ABOVE FINAL FINISH GRADE ELEVATIONS. PROVIDE SURFACE FILL GRAVEL TO ESTABLISH SPECIFIED ELEVATIONS WHERE REQUIRED.
8. NEWLY GRADED SURFACE AREAS TO RECEIVE GRAVEL SHALL BE COVERED WITH GEOTEXTILE FABRIC TYPE□TYPAR□3401 AS MANUFACTURED BY "CONSTRUCTION MATERIAL 1□800 233□3841" OR AN APPROVED EQUIVALENT, SHOWN ON PLANS. THE GEOTEXTILE FABRIC SHALL BE BLACK IN COLOR TO CONTROL THE RECURRENCE OF VEGETATIVE GROWTH AND EXTEND TO WITHIN 1 FOOT OUTSIDE THE SITE FENCING OR ELECTRICAL GROUNDING SYSTEM PERIMETER WHICH EVER IS GREATER. ALL FABRIC SHALL BE COVERED WITH A MINIMUM OF 4" DEEP COMPACTED STONE OR GRAVEL AS SPECIFIED. I.E. FDOT TYPE No. 5□ FOR FENCED COMPOUND□FDOT TYPE No. 6□ FOR ACCESS DRIVE AREA.
9. IN ALL AREAS TO RECEIVE FILL, REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE. PLOW STRIP OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORI□ONTAL SUCH THAT FILL MATERIAL WILL BIND WITH EXISTING□PREPARED SOIL SURFACE.
10. WHEN SUB GRADE OR PREPARED GROUND SURFACE HAS A DENSITY LESS THAN THAT REQUIRED FOR THE FILL MATERIAL, SCARIFY THE GROUND SURFACE TO DEPTH REQUIRED, PULVERI□E, MOISTURE□CONDITION AND□OR AERATE THE SOILS AND RECOMPACT TO THE REQUIRED DENSITY PRIOR TO PLACEMENT OF FILLS.
11. IN AREAS WHICH EXISTING GRAVEL SURFACING IS REMOVED OR DISTURBED DURING CONSTRUCTION OPERATIONS, REPLACE GRAVEL SURFACING TO MATCH ADJACENT GRAVEL SURFACING AND RESTORED TO THE SAME THICKNESS AND COMPACTION AS SPECIFIED. ALL RESTORED GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES.
12. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED WITH THE CONDITION THAT ANY UNFAVORABLE AMOUNTS OF ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ANY ADDITIONAL GRAVEL RESURFACING MATERIAL AS NEEDED TO PROVIDE A FULL DEPTH COMPACTED SURFACE THROUGHOUT SITE.
13. GRAVEL SUB SURFACE SHALL BE PREPARED TO REQUIRED COMPACTION AND SUB GRADE ELEVATIONS BEFORE GRAVEL SURFACING IS PLACED AND□OR RESTORED. ANY LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED AND ANY DEPRESSIONS IN THE SUB GRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL SHALL NOT BE USED FOR FILLING DEPRESSIONS IN THE SUB GRADE.
14. PROTECT EXISTING GRAVEL SURFACING AND SUB GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING /MATTS□OR OTHER SUITABLE PROTECTION DESIGNED TO SPREAD EQUIPMENT LOADS AS MAY BE NECESSARY. REPAIR ANY DAMAGE TO EXISTING GRAVEL SURFACING OR SUB GRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTORS OPERATIONS.
15. DAMAGE TO EXISTING STRUCTURES AND□OR UTILITIES RESULTING FROM CONTRACTORS NEGLIGENCE SHALL BE REPAIRED AND□OR REPLACED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE CONTRACT.
16. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES AT NO ADDITIONAL COST TO THE CONTRACT.

mobilitie

A&E SERVICES

**MOBILITIE, LLC**

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 06/13/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 06/13/2016 | 90% CONSTRUCTION | ENG |

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

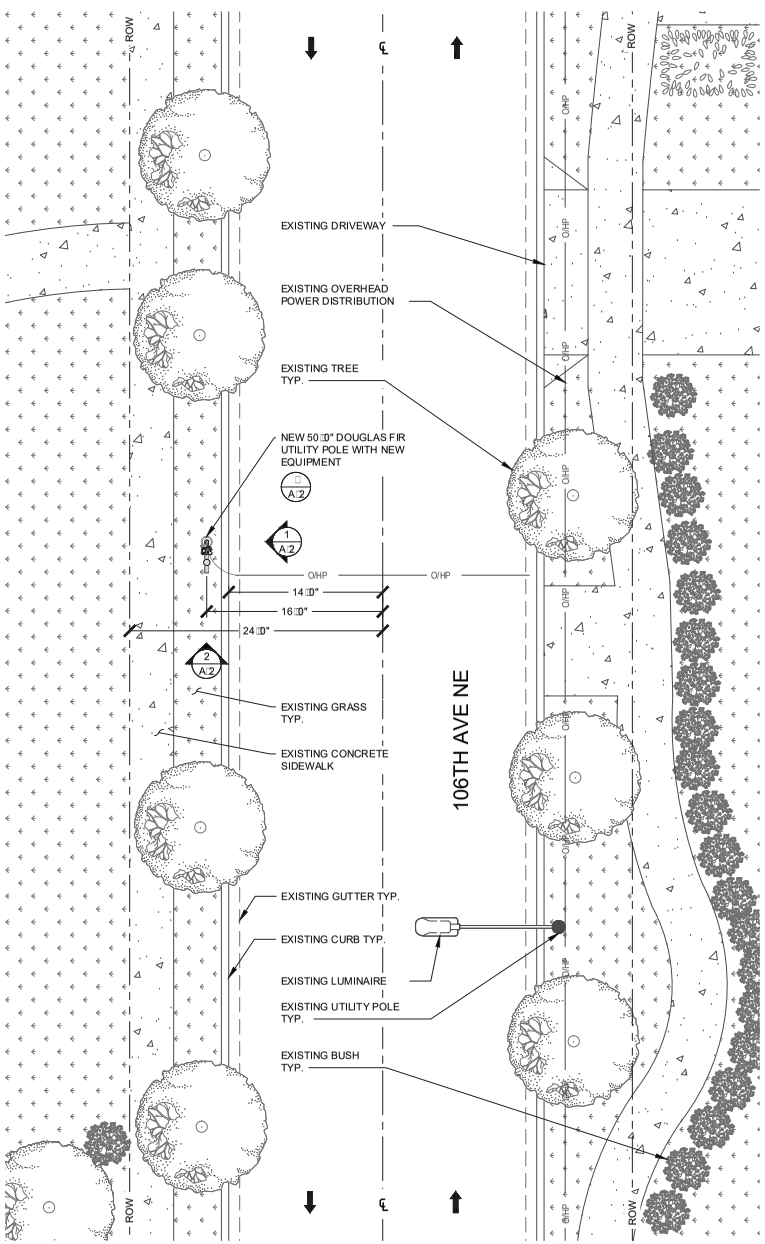
NEW WOOD UTILITY POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

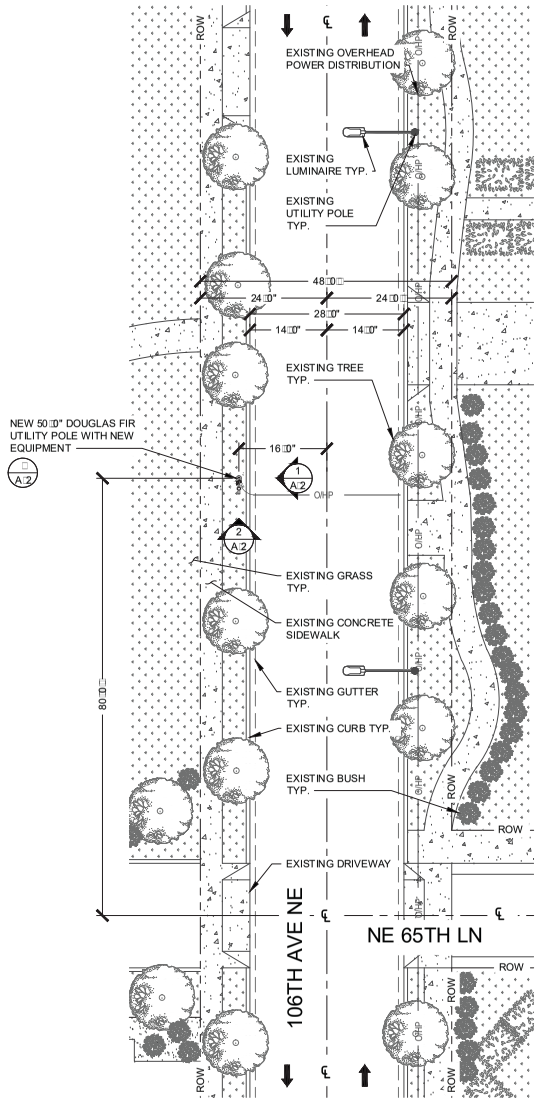
T□□




## LANDSCAPE SITE PLAN

24"-36" SCALE: 3/16" = 1'-0"
11"-17" SCALE: 3/32" = 1'-0"

2




NOTE: EXISTING MILE POST DOES NOT EXIST WITHIN THIS VICINITY

## SITE PLAN

24"-36" SCALE: 3/32" = 1'-0"
11"-17" SCALE: 3/64" = 1'-0"

1

DRAWINGS ARE DIAGRAMMATIC AND NOT FOR CONSTRUCTION, AND COMPLETED WITHOUT THE BENEFIT OF A CIVIL SURVEY. BY OTHERS: ALL DIMENSIONS, NOTES AND EXISTING CONDITIONS ARE ESTIMATED, INCLUDING PROPERTY LINES, UTILITY CONNECTIONS, ROUTING, AND EASEMENTS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION

mobilitie

A&E SERVICES

**MOBILITIE, LLC**

SITE ACQUISITION

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**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

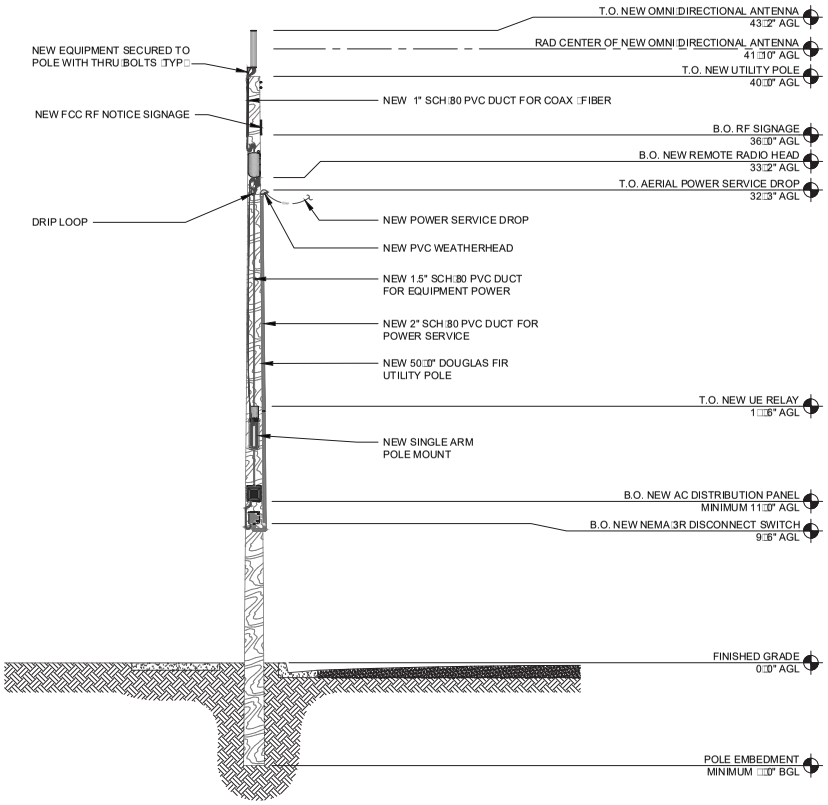
NEW WOOD UTILITY POLE

SHEET TITLE

SITE PLANS

SHEET NUMBER

**A1**

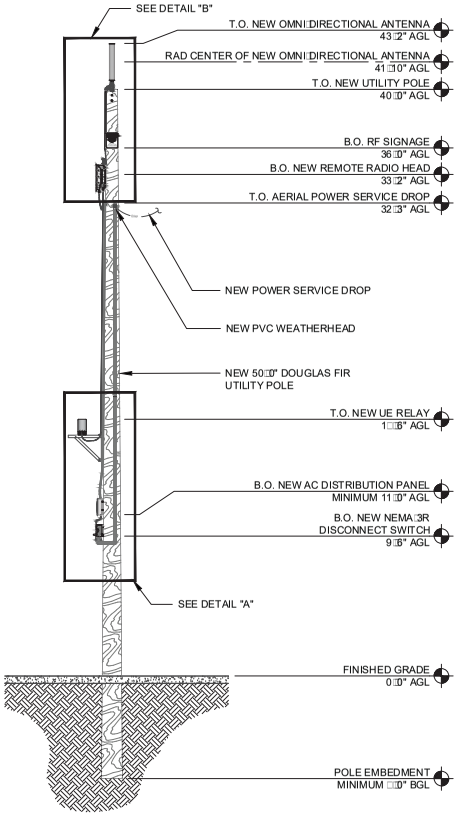


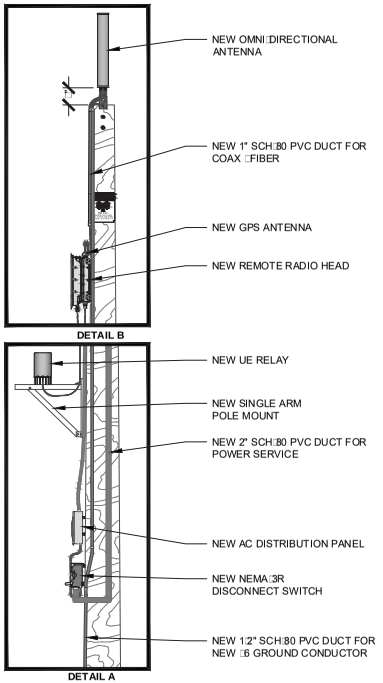

| EQUIPMENT CHART | | | | |
|---|---|---|---|---|
| QUANTITY | DESCRIPTION | CABLE LENGTH | DIMENSIONS -H-W-D- | WEIGHT |
| 1 | ALPHA WIRELESS AW34--S OMNI-DIRECTIONAL ANTENNA | TBD | 29.5" X 4.5"Ø | 8.8 LBS |
| 1 | AIRSPAN IR460 UE RELAY | TBD | 13" X 7"Ø | 8.8 LBS |
| 1 | PCTEL 39-1D-DH-W GPS ANTENNA | TBD | 2.48" X 2.36Ø | .11 LBS |
| 1 | AIRSPAN AH 1000D REMOTE RADIO HEAD | TBD | 18.9" X 9.6" X -.48" | 34.14 LBS |
| 1 | RAYCAP RSTAC-3111-P-120 AC DISTRIBUTION PANEL | TBD | 13.1" X 11.4" X 4.4" | 8 LBS |
| 1 | SIEMENS GNF321R NEMA-3R DISCONNECT SWITCH | TBD | 9.9" X 8.8" X 4.5" | 5 LBS |

## --W SO- TH -L-- ATIO-

24"-36" SCALE: 1/4" = 1'-0"
11"-17" SCALE: 1/8" = 1'-0"
4'- 3'- 2'- 1'- 0" 4'

2




ACTUAL FIELD CONDITIONS MAY VARY FROM WHAT IS SHOWN HEREIN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.

## -W -AST -L-- ATIO-

24"-36" SCALE: 1/4" = 1'-0"
11"-17" SCALE: 1/8" = 1'-0"
4'- 3'- 2'- 1'- 0" 4'

1

mobilitie

A&E SERVICES

**MOBILITIE, LLC**

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 06-13-2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
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**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

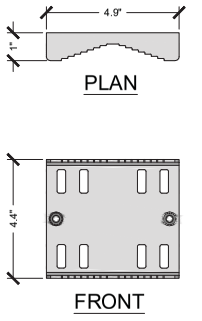
NEW WOOD UTILITY POLE

SHEET TITLE

EAST & SOUTH ELEVATIONS

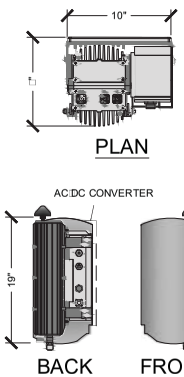
SHEET NUMBER

**A-2**



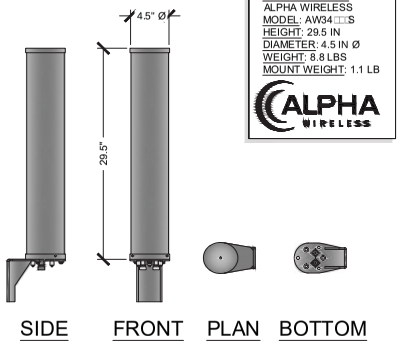

MANUFACTURER: AIRSPAN
MODEL: 402.00.328
OR APPROVED EQUAL
HEIGHT: 4.4 IN
WIDTH: 4.9 IN
DEPTH: 1 IN
WEIGHT: 2 LBS

**POL LAMP** — SCALE N.T.S. — 6




MANUFACTURER: AIRSPAN
MODEL: AH 1000D
OR APPROVED EQUAL
HEIGHT: 18.9 IN
WIDTH: 9.6 IN
DEPTH: 4.8 IN
WEIGHT: 34.14 LBS
MOUNT WEIGHT: 2.04 LBS

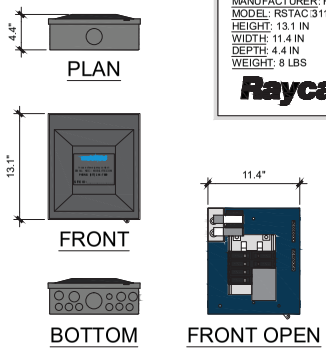
**R MOT RADIO H AD** — SCALE N.T.S.




MANUFACTURER: ALPHA WIRELESS
MODEL: AW34 S
HEIGHT: 29.5 IN
DIAMETER: 4.5 IN Ø
WEIGHT: 8.8 LBS
MOUNT WEIGHT: 1.1 LB

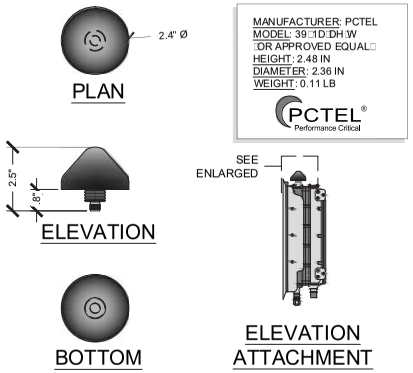
**OM I DIR TIO AL A T A** — SCALE N.T.S. — 1

**OT S D** — SCALE N.T.S. — 9



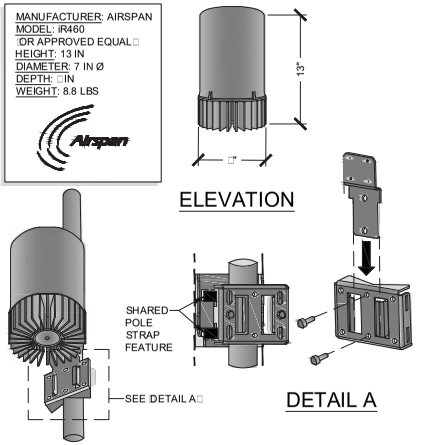

MANUFACTURER: RAYCAP
MODEL: RSTAC 3111 P 120
HEIGHT: 13.1 IN
WIDTH: 11.4 IN
DEPTH: 4.4 IN
WEIGHT: 8 LBS

**A DISTRIB TIO PA L** — SCALE N.T.S. — 10



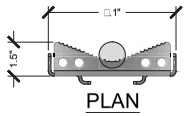

MANUFACTURER: PCTEL
MODEL: 39 D DH W
OR APPROVED EQUAL
HEIGHT: 2.48 IN
DIAMETER: 2.36 IN
WEIGHT: 0.11 LB

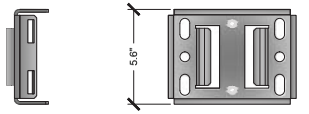
**PS A T A** — SCALE N.T.S.




MANUFACTURER: AIRSPAN
MODEL: IR460
OR APPROVED EQUAL
HEIGHT: 13 IN
DIAMETER: 7 IN Ø
DEPTH: IN
WEIGHT: 8.8 LBS

MANUFACTURER: AIRSPAN
MODEL: MC40200285 OR MC40200284
OR APPROVED EQUAL
HEIGHT: 5.6 IN
WIDTH: .1 IN
DEPTH: 1.5 IN
WEIGHT: 2 LBS

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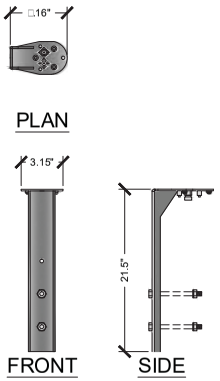
**R LA** — SCALE N.T.S. — 2

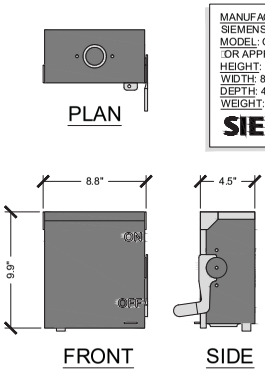
**OT S D** — SCALE N.T.S. — 11




MANUFACTURER: ALPHA WIRELESS
MODEL: AW34 S PTM
OR APPROVED EQUAL
HEIGHT: 21.5 IN
WIDTH: 3.15 IN
DEPTH: .16 IN
WEIGHT: 1.1 LB

NOTE:
BRACKET SHOWN WITH THROUGH-BOLT CONFIGURATION. OTHER MOUNTING METHODS AVAILABLE.

**A T A MO T** — SCALE N.T.S.




MANUFACTURER: SIEMENS
MODEL: GNF321R
OR APPROVED EQUAL
HEIGHT: 9.9 IN
WIDTH: 8.8 IN
DEPTH: 4.5 IN
WEIGHT: 5 LBS

**MA R DIS O T SWIT H** — SCALE N.T.S.

mobilitie

A&E SERVICES

**MOBILITIE, LLC**

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 06/13/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 06/13/2016 | 90% CONSTRUCTION | ENG |

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**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

NEW WOOD UTILITY POLE

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
**D1**

□ OT □ S□ D

SCALE N.T.S. 9

□ OT □ S□ D

SCALE N.T.S. 6

□ OT □ S□ D

SCALE N.T.S.

**OWNER / OPERATOR NOTE:**
SITE ID LABEL TO BE AFFIXED WITH T□eS241 LABELING TAPE OR EQUIVALENT BLACK ON WHITE LABELING TAPE OF AT LEAST 18mm WIDTH WITH EXTRA□STRENGTH ADHESIVE. USE ANY COMPATIBLE P□TOUCH LABEL MAKER. TEXT SHOULD BE PRINTED IN ALL CAPS WITH A MINIMUM HEIGHT OF 1.2".

□M□R□ □□□□ □O□ TA□ T SI□□

SCALE N.T.S. 1

□ OT □ S□ D

SCALE N.T.S. 10

□ OT □ S□ D

SCALE N.T.S.

**SITE ID: 9WAB001622**

**6523 106TH AVE NE**

CONTACT EQUIPMENT OWNER 24 HOURS PRIOR TO SHUTDOWN AT:
1.8□□.244.□889

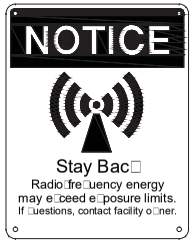
CONTACT EQUIPMENT OWNER UPON COMPLETION OF WORK. RE□ENERGI□E WITH PRIOR WRITTEN CONSENT OF SPRINT ONLY.

MINIMUM APPROACH DISTANCE TO
PRIMARY ANTENNA: 4.14ft
SECONDARY ANTENNA: 1.31ft

**INNER PANEL**
**SITE IDENTIFICATION**

DE-ENERGIZING PROTOCOL LABEL

SCALE N.T.S.




**ANTENNA SIGNAGE:**
ON WOOD POLES □SIGN ON ALUMINUM WITH SS SCREW TO THE POLE
ON METAL POLES □ADHESIVE VINYL OR PLACARD STRAPPED WITH SS TIES
ON CONCRETE □COMPOSITE □PLACARD STRAPPED WITH SS TIES

**SIGN PLACEMENT:**
AFFIX TO THE STRUCTURE 3'-4" BELOW THE COMMERCIAL RF ANTENNA□S□ SI□E APPROX. 8" □5.5"

A□ T□□□ A SI□□ A□□

SCALE N.T.S. 2

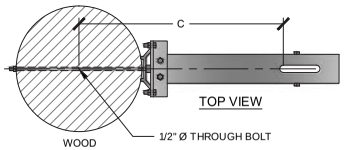
□ OT □ S□ D

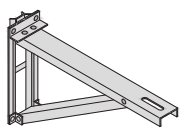
SCALE N.T.S. 11

□ OT □ S□ D

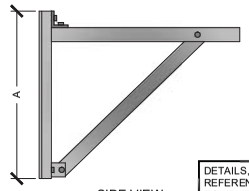
SCALE N.T.S.

| MANUFACTURER: | | ALUMA□FORM, INC. |
|---|---|---|
| MODEL □: | | CAM□OMN□42 |
| DIMENSIONS: | | UNIT WEIGHT: |
| A | 24" | |
| B | 8" | 24.48 LBS |
| C | 24" MAX. | |



ISOMETRIC VIEW




SIDE VIEW

FRONT VIEW

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A□ T□□□ A SI□□ L□ ARM POL□ MO□□T

SCALE N.T.S.

mobilitie

A&E SERVICES

**MOBILITIE, LLC**

SITE ACQUISITION

| DRAWN BY: | SASCO |
|---|---|
| DATE: | 06□13□2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 06□13□2016 | 90% CONSTRUCTION | ENG |

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**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

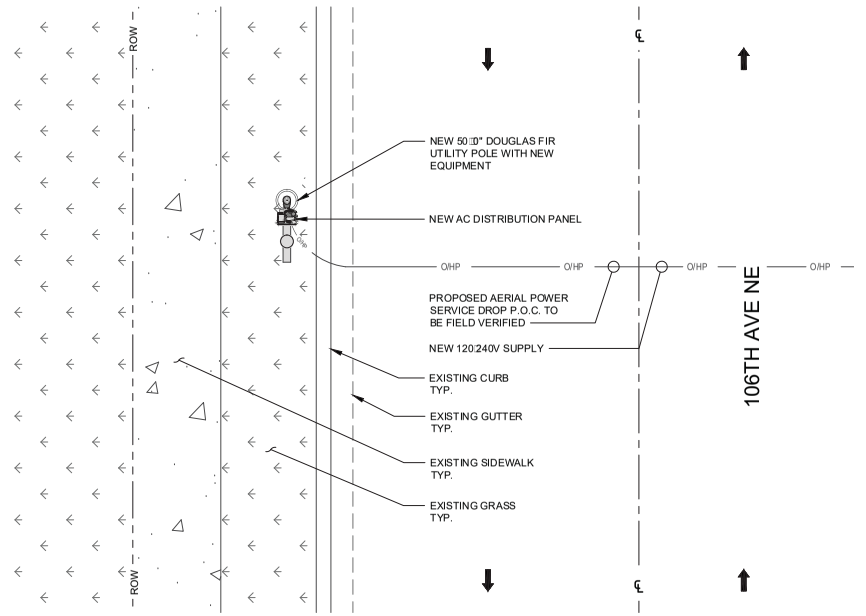
NEW WOOD UTILITY POLE

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
**D□2**

## POL□ I□ □ORMATIO□

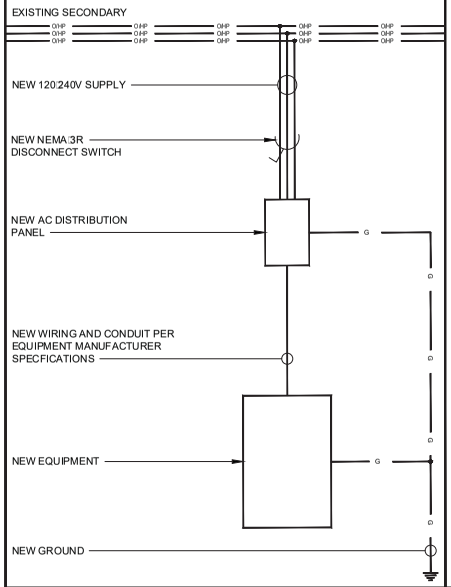
| | |
|---|---|
| SITE NAME: | 9WAB001622A |
| INSTALLATION TYPE: | NEW |
| POLE HEIGHT: | 50□0" |
| LAT □LONG: | 4□665131, □122.198601 |
| | |
| PROPOSED ATTACHMENT HEIGHT: | TBD |
| INSTALLATION TYPE: | UTILITY POLE |
| RECORD POLE OWNER: | |
| RECORD POLE ID NUMBER: | |
| RECORD POLE DIAMETER: | 14" |
| DESCRIBE AC POC ON EXISTING POLE: | AERIAL DROP |
| POWER PROVIDER: | PSE |
| LENGTH OF PROPOSED POWER POC: | TBD |
| REQUIRED TO BRING POWER POC TO SITE: | TBD |
| LAT □LONG OF POWER POC: | 4□6651 □□9, □122.19846□68 |
| VISIBLE WIRED BACKHAUL OPTION: | |
| | |
| METHOD OF INSTALLMENT: | BASE FILL□QUICK SET FOAM |
| | |
| SPECIAL SITE NOTES: | |




## PR□LIMI□AR□ □TILIT□ PLA□

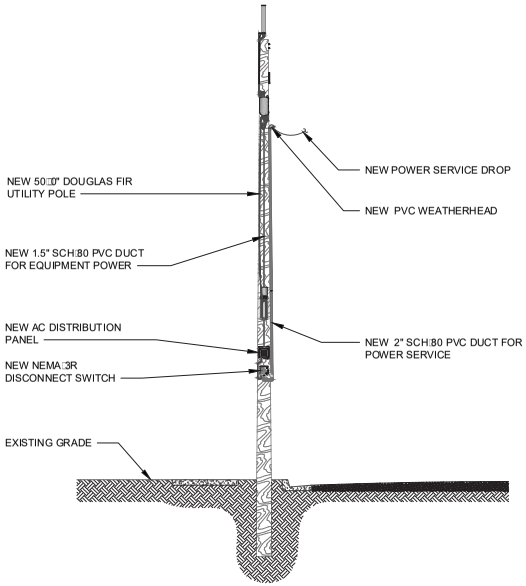
24"□36" SCALE: 3/8" = 1□0"
11"□17" SCALE: 3/16" = 1□0"

1




## O□□□LI□□ DIA□RAM

24"□36" SCALE: NTS
11"□17" SCALE: NTS




DRAWINGS ARE DIAGRAMMATIC AND NOT FOR CONSTRUCTION, AND COMPLETED WITHOUT THE BENEFIT OF A CIVIL SURVEY □BY OTHERS□. ALL DIMENSIONS, NOTES AND EXISTING CONDITIONS ARE ESTIMATED, INCLUDING PROPERTY LINES, UTILITY CONNECTIONS, ROUTING, AND EASEMENTS □TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION

## PR□LIMI□AR□ □TILIT□ □L□□ATIO□ □SO□TH

24"□36" SCALE: 3/16" = 1□0"
11"□17" SCALE: 3/32" = 1□0"

2

mobilitie

A&E SERVICES

**MOBILITIE, LLC**

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 06□13□2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 06□13□2016 | 90% CONSTRUCTION | ENG |

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

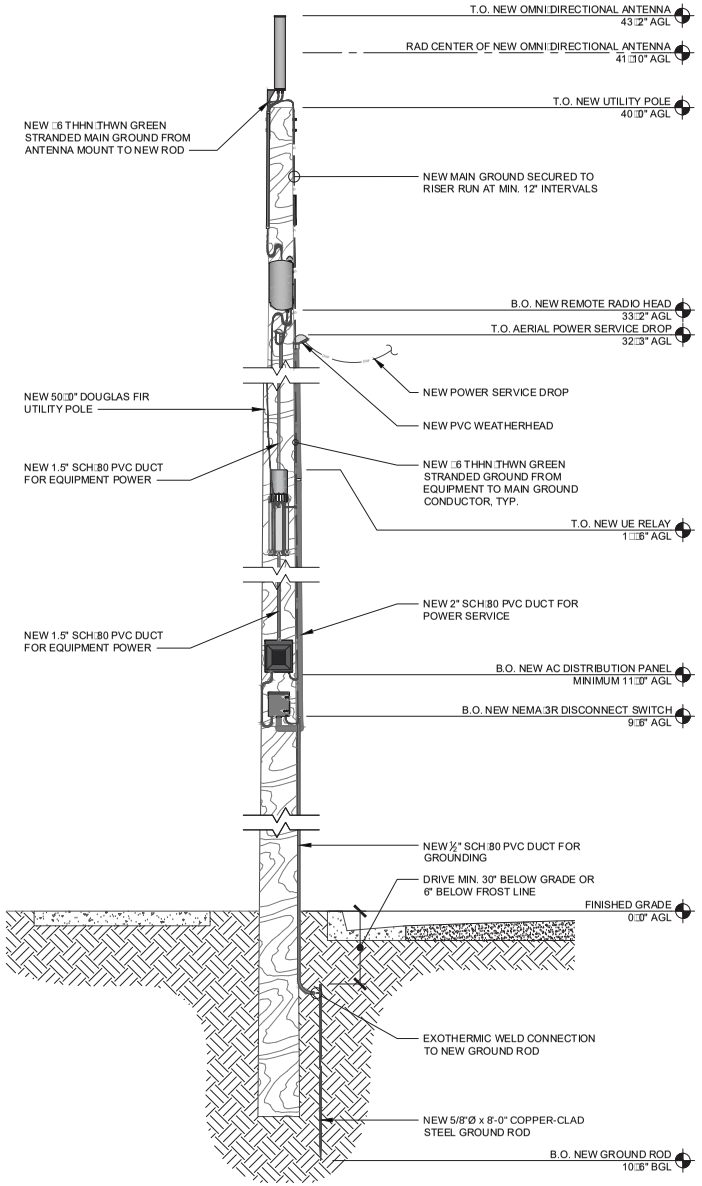
NEW WOOD UTILITY POLE

SHEET TITLE

ELECTRICAL PLAN

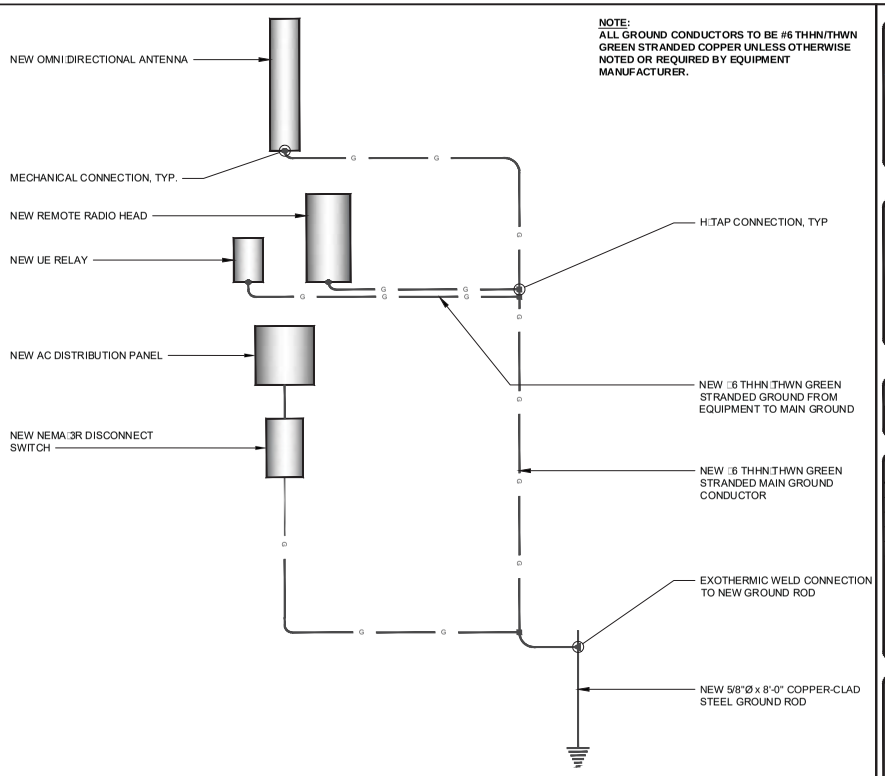
SHEET NUMBER

□1




## GROUNDING DIAGRAM

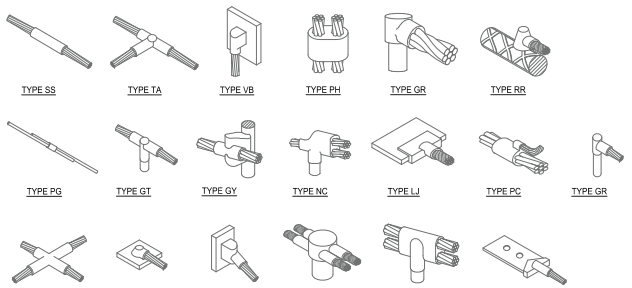
24"x36" SCALE: NTS
11"x17" SCALE: NTS




## RADIO DIAGRAM

24"x36" SCALE: NTS
11"x17" SCALE: NTS

1




## LEAD WIRE DETAIL

24"x36" SCALE: NTS
11"x17" SCALE: NTS

2

1. **GROUND BONDS**: ALL BONDS ARE TO BE MADE WITH #6 AWG STRANDED COPPER IN GREEN INSULATION. ATT TP 6416 , 6.
2. **EXTERIOR UNIT BONDS**: ALL METALLIC OBJECTS SHALL BE BONDED TO THE GROUND ROD. ATT TP 6416 , 12.6
3. **GROUND ROD**: UL LISTED COPPER CLAD STEEL GROUND ROD WITH MINIMUM DIAMETER OF 5/8" AND MINIMUM LENGTH OF 8 FEET. ALL GROUND RODS MAY BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO A MINIMUM DEPTH OF 30" BELOW GRADE OR 6 INCHES BELOW FROST LINE. ATT TP 6416 1.4 2.2, 3, 10

## RADIO DIAGRAM

24"x36" SCALE: NTS
11"x17" SCALE: NTS

## RADIO DETAILS

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**MOBILITIE, LLC**

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 06/13/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 06/13/2016 | 90% CONSTRUCTION | ENG |

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

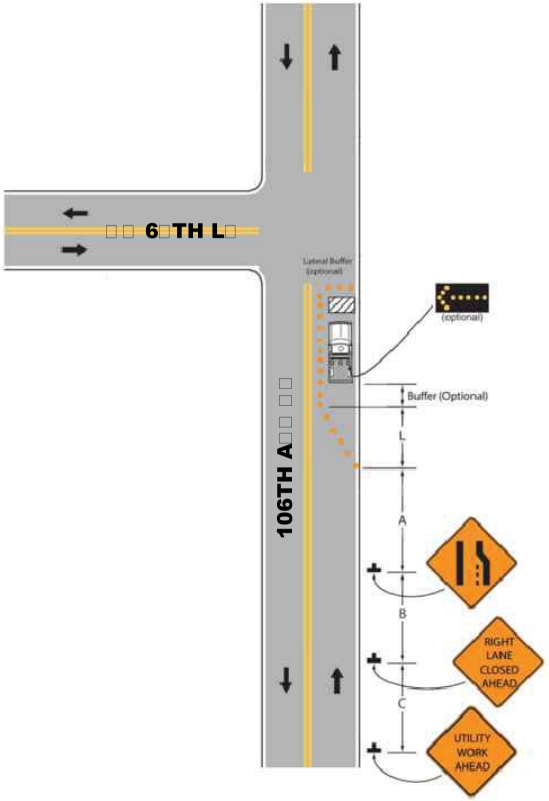
NEW WOOD UTILITY POLE

SHEET TITLE

GROUNDING PLAN

SHEET NUMBER

T1




| DIMENSIONS | FEET |
|---|---|
| A (Distance Between Signs) | 100 |
| B (Distance Between Signs) | 100 |
| C (Distance Between Signs) | 100 |
| L (Merging Taper Length) | 125 |
| Maximum Taper Channelizing Device Spacing | 25 |
| Maximum Tangent Channelizing Device Spacing | 50 |

| DISTANCE BETWEEN SIGNS | | | | |
|---|---|---|---|---|
| Speed (MPH) | Spacing (ft.) | | | |
| | A | B | C | D |
| 40 or less | 200 | 200 | 200 | 100 |
| 41 to 49 | 350 | 350 | 350 | 1□5 |
| 50 to 54 | 500 | 500 | 500 | 250 |
| 55 or greater | 2640 | 1640 | 1000 | 500 |

□ "ROAD WORK 1 MILE" sign may be used as an alternate to the "ROAD WORK AHEAD" sign

□□ 500□beyond the "ROAD WORK AHEAD" sign or mid□ay bet□een signs, □hichever is less

□□□ "BE PREPARED TO STOP" sign may be omitted for speeds of 45 MPH or less

| BUFFER SPACE | |
|---|---|
| Speed (MPH) | Distance (ft.) |
| 25 | 155 |
| 30 | 200 |
| 35 | 250 |
| 40 | 305 |
| 45 | 360 |
| 50 | 425 |
| 55 | 495 |
| 60 | 5□0 |
| 65 | 645 |
| □0 | □30 |

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

## LEGEND

- CHANNELI□ING DEVICE
- SIGN
- WORK SPACE
- FLAGGER
- DIRECTION OF TRAFFIC

## GENERAL NOTES

1. Wor□ operations shall be confined to one traffic lane, leaving the opposite lane open to traffic.
2. Additional one□□ay control may be effected by the follo□ing means:
   - Flag□carrying vehicle
   - Official vehicle
   - Pilot vehicle
   - Traffic signal
3. The "ONE LANE ROAD" signs are to be fully covered and the "FLAGGER" signs either removed or fully covered □hen no □or□is being performed and the road□ay is open to t□o□□ay traffic
4. When a side road intersects the road□ay □ithin the TTC □one, additional TTC devices shall be placed in accordance □ith applicable TC□ Inde□es.
5. The t□o channeli□ing devices directly in front of the □or□area and the one channel□ing device directly at the end of the □or□ area may be omitted provided vehicles in the □or□area have high□intensity rotating, flashing, oscillating, or strobe lights operating.
6. For general TC□ re□uirements and additional information, refer to MUTCD.

## DURATION NOTES

1. "ROAD WORK AHEAD" and the "BE PREPARED TO STOP" signs may be omitted if all of the follo□ing conditions are met:

a. Wor□operations are 60 minutes or less
b. Speed limit is 45 MPH or less
c. No sight obstructions to vehicles approaching the □or□area for a distance e□ual to the buffer space
d. Vehicles in the □or□area have high□intensity, rotating, flashing, oscillating, or strobe lights operating
e. Volume and comple□ity of the road□ay has been considered

## CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA BETWEEN THE CENTERLINE AND A LINE 2□OUTSIDE THE EDGE OF TRAVEL WAY



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A&E SERVICES

MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 06/13/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 06/13/2016 | 90% CONSTRUCTION | ENG |

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**SITE ID: 9WAB001622A**

6523 106TH AVE NE
KIRKLAND, WA 98033
106TH AVE NE & NE 65TH LN

NEW WOOD UTILITY POLE

SHEET TITLE

TRAFFIC CONTROL PLAN

SHEET NUMBER

T□ □1

**Exhibit C-2**
**Mobilitie Application for a Facility in Bellevue, WA**

Narrative: Mobilitie proposed an 80 foot wood pole right in front of a major hospital campus in Bellevue, Washington. As the photo simulations show, this pole is significantly higher than existing traffic poles and decorative light standards and is in the middle of a well manicured green belt. Further, other than electric power lines on utility poles, all backhaul, power and other utilities are underground.

Exhibit C-2a: Photo Simulation
Exhibit C-2b: Construction designs

# Exhibit C-2a

**EXISTING SITE**

**VICINITY MAP**

© 2016 Google

**PROPOSED VIEW** - LOOKING NORTHEAST FROM NE. 10TH ST.

**VIEW: 1 / 4**

Photo Simulation By:

mobilitie

877 296 1009 | www.mobilitie.com

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

MOBILITIE, LLC.

## Site ID: 9WAB000745A

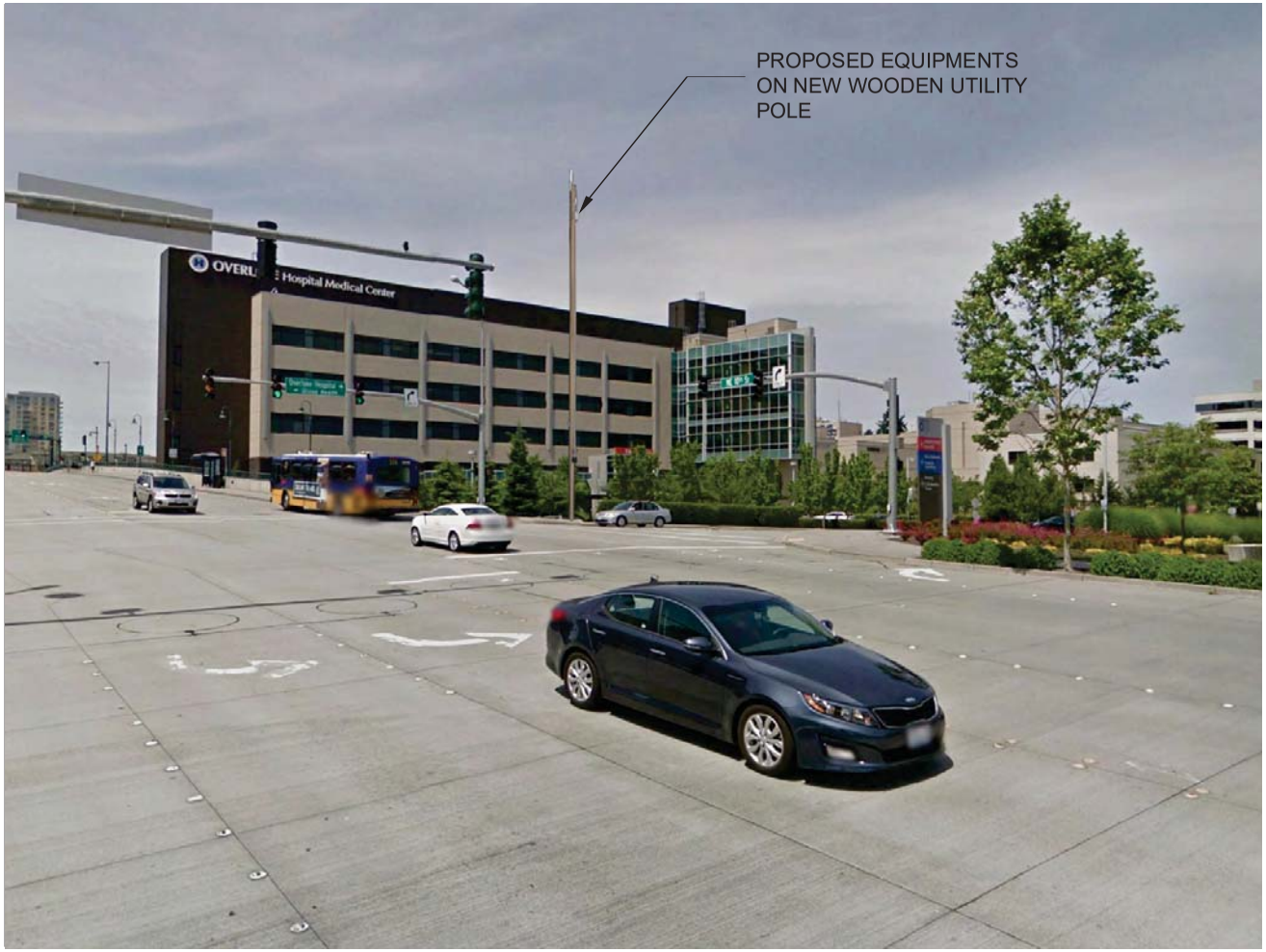
POLE TYPE: NEW WOODEN UTILITY POLE

NE. 10TH ST. & FELIX TERRY SWISTAK DR. NE.
BELLEVUE, WA 98004

**EXISTING SITE**

**VICINITY MAP**

© 2016 Google




**PROPOSED VIEW** - LOOKING NORTHWEST FROM NE. 10TH ST.

**VIEW: 2 / 4**

Photo Simulation By:

mobilitie

877 296 1009 | www.mobilitie.com

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

MOBILITIE, LLC.

## Site ID: 9WAB000745A

POLE TYPE: NEW WOODEN UTILITY POLE

NE. 10TH ST. & FELIX TERRY SWISTAK DR. NE.
BELLEVUE, WA 98004

**EXISTING SITE**

**VICINITY MAP**

© 2016 Google

**PROPOSED VIEW** - LOOKING SOUTH FROM FELIX TERRY SWISTAK DR. NE.

**VIEW: 3 / 4**

Photo Simulation By:

mobilitie

877 296 1009 | www.mobilitie.com

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

MOBILITIE, LLC.

## Site ID: 9WAB000745A

POLE TYPE: NEW WOODEN UTILITY POLE

NE. 10TH ST. & FELIX TERRY SWISTAK DR. NE.
BELLEVUE, WA 98004

**EXISTING SITE**

**VICINITY MAP**

© 2016 Google

**PROPOSED VIEW** - LOOKING WEST FROM NE. 10TH ST.

**VIEW: 4 / 4**

Photo Simulation By:

mobilitie

877 296 1009 | www.mobilitie.com

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

MOBILITIE, LLC.

## Site ID: 9WAB000745A

POLE TYPE: NEW WOODEN UTILITY POLE

NE. 10TH ST. & FELIX TERRY SWISTAK DR. NE.
BELLEVUE, WA 98004

Exhibit C-2b

mobilitie®

# SITE ID: 9WAB000745A

## SITE LOCATION:
FELIX TERRY SWISTAK DR NE & NE 10TH ST
BELLEVUE, WA 98004

# NEW WOOD UTILITY POLE

## GENERAL NOTES

THE FACILITY IS NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

## SITE INFORMATION

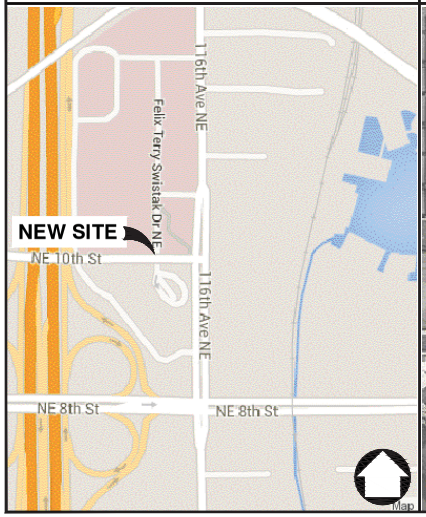
| | |
|---|---|
| APPLICANT: | MOBILITIE, LLC |
| APPLICANT ADDRESS: | 2955 RED HILL AVE SUITE 200 COSTA MESA, CA 92626 |
| APPLICANT CONTACT: | STEVE BERKE |
| APPLICANT PHONE: | 208.661.0216 |
| PUBLIC ROW/PRIVATE PROPERTY: | PUBLIC ROW |
| NEAREST ADDRESS: | 1151 1 NE 10 ST BELLEVUE, WA 98004 |
| NEAREST APN/S: | 644811 0150 |
| SITE LATITUDE: | 47° 37' 9" N (47.6194047B°) |
| SITE LONGITUDE: | 122° 11' 12" W (-122.1866859°) |
| GIS TYPE: | CA83VF /NAD83 |
| GROUND ELEVATION: | ±141' AMSL |
| COUNTY: | SEATTLE KING |
| JURISDICTION: | BELLEVUE CITY |

## DO NOT SCALE DRAWINGS

SUBCONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

## LOCATION MAPS

### VICINITY MAP




### LOCAL MAP

## PROJECT DESCRIPTION

APPLICANT PROPOSES TO CONSTRUCT A NEW SMALL CELL SITE WITHIN AN EXISTING RIGHT OF WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

- ATTACH NEW EQUIPMENT TO NEW 80'0" DOUGLAS FIR UTILITY POLE
- INSTALL ONE 1 /AC DISTRIBUTION PANEL
- INSTALL ONE 1 /REMOTE RADIO HEAD
- INSTALL ONE 1 /UE RELAY
- INSTALL ONE 1 /GPS ANTENNA
- INSTALL ONE 1 /OMNI DIRECTIONAL ANTENNA
- INSTALL ONE 1 /NEMA 3R DISCONNECT SWITCH

## ENGINEERING

- 2012 INTERNATIONAL BUILDING CODE
- 2014 NATIONAL ELECTRICAL CODE
- TIA/EIA 222.G/2 OR LATEST EDITION
- LOCAL BUILDING/PLANNING CODE
- GENERAL ORDER 95 (CA ONLY)
- GENERAL ORDER 96 (CA ONLY)

## DRAWING INDEX

| SHEET NO: | SHEET TITLE |
|---|---|
| T.1 | TITLE SHEET |
| T.2 | GENERAL NOTES |
| T.3 | GENERAL NOTES |
| A.1 | SITE PLANS |
| A.2 | EAST & NORTH ELEVATIONS |
| D.1 | EQUIPMENT DETAILS |
| D.2 | EQUIPMENT DETAILS |
| E.1 | ELECTRICAL PLAN |
| G.1 | GROUNDING PLAN |
| TC.1 | TRAFFIC CONTROL PLAN |
| | |

## DESIGN TEAM


MOBILITIE, LLC
2955 RED HILL AVE SUITE 200
COSTA MESA, CA 92626
PM: SYLVETTE CUE /ON
PHONE: 562.202.0165
EMAIL: Sylvette.cue/on@mobilitie.com


811 Dig Alert
Know what's below. Call before you dig.
WASHINGTON
Call Two Working Days Before You Dig
811 or 800.424.5555

mobilitie

A&E SERVICES

MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04/19/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 04/19/2016 | 90% CONSTRUCTION | ENG |


IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.


**SITE ID:**
**9WAB000745A**

FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

## GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE, THE LATEST EDITION AND ALL OTHER APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL CONSTRUCT SITE IN ACCORDANCE WITH THESE DRAWINGS AND CONSTRUCTION SPECIFICATIONS 80.T1196:1 REV H. THE SPECIFICATION IS THE RULING DOCUMENT AND ANY DISCREPANCIES BETWEEN THE SPECIFICATION AND THESE DRAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION

3. CONTRACTOR SHALL VISIT THE JOB SITE AND SHALL FAMILIARI□E HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIAR□ING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK. NO COMPENSATION WILL BE AWARDED BASED ON CLAIM OF LACK OF KNOWLEDGE OF FIELD CONDITIONS

4. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND APPURTENANCES, AND LABOR NECESSARY TO EFFECT ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS. OWNER PROVIDED MATERIALS WILL INCLUDE THE FOLLOWING, UNLESS NOTED OTHERWISE:
   A. □TRANSMITTER
   B. □RF FILTER
   C. □HOSE AND HOSE MANIFOLDS □ANY COPPER OR STEEL SECTIONS PROVIDE BY CONTRACTOR□
   D. □UHF ANTENNA AND MOUNTING BRACKETS, GPS ANTENNAS AND KU ANTENNAS
   E. □ UHF COAX AND HANGERS
   F. □400□2018 & 208□400 ELECTRICAL TRANSFORMERS □RE□E□2 FOR SPECIALI□ED TRANSFORMERS PROVIDED BY CONTRACTOR□
   G. □AUTOMATIC TRANSFER SWITCH AND GENERATOR
   H. □EQUIPMENT SHELTER □SHELTERS FURNISHED IN FACTORY W□HVAC EQUIPMENT AND ELECTRICAL DISTRIBUTION PANEL□
   I. □INTEGRATED LOAD CENTER

5. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD V□ERIFY DIMENSIONS. SHOULD THERE BE ANY QUE□TIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND □DR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE WORK.

6. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

7. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING, AND SHALL RECEIVE IN WRITING AUTHORI□ATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.

8. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST CONSTRUCTION SKILLS AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.

9. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS.

10. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE SUPERINTENDENT OF BUILDINGS & GROUNDS AND SCHEDULE HIS ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.

12. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

13. MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SURFACES, EQUIPMENT, IMPROVEMENTS, PIPING ETC. AND IMMEDIATELY REPAIR ANY DAMAGE THAT OCCURS DURING CONSTRUCTION.

14. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., MUST BE CLEARLY UNDERSTOOD THAT REINFORCING STEEL SHALL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES UNLESS NOTED OTHERWISE□ LOCATIONS OF REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT.

15. REPAIR ALL EXISTING WALL SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND IN WITH ADJACENT SURFACES.

16. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH U.L. LISTED AND FIRE CODE APPROVED MATERIALS.

17. KEEP CONTRACT AREA CLEAN, HA□ARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.

18. MINIMUM BEND RADIUS OF ANTENNA CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURERS RECOMMENDATIONS.

19. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO APPLICABLE REGULATORY AUTHORITIES

20. CONTRACTOR SHALL MINIM□E DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION SHALL BE IN CONFORMANCE WITH JURISDICTIONAL OR STATE AND LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL AND COORDINATED WITH LOCAL REGULATORY AUTHORITIES.

21. ALL CONSTRUCTION IS TO ADHERE TO APPLICANT'S INTEGRATED CONSTRUCTION STANDARDS UNLESS STATE CODE IS MORE STRINGENT.

22. THE INTENT OF THE PLANS AND SPECIFICATIONS IS TO PERFORM THE CONSTRUCTION IN ACCORDANCE PER STATE BUILDING STANDARDS CODE, TITLES 19 AND 24, STATE CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE APPROVED PLANS AND SPECIFICATIONS WHEREIN THE FINISHED WORK WILL NOT COMPLY PER STATE CODE OF REGULATIONS, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE JURISDICTION BEFORE PROCEEDING WITH THE WORK.

## ELECTRICAL NOTES

1. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY□ALL ELECTRICAL WORK INDICATED. ANY□ALL CONSTRUCTION SHALL BE IN ACCORDANCE W□DRAWINGS AND ANY□ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY □CONSTRUCTION MANAGER□AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE □CONSTRUCTION MANAGER□ HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.

2. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARI□E HIMSELF WITH ANY□ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. ALL EXISTING CONDITIONS OF ELECTRICAL EQUIP□ LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTING OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.

3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL CODES AND LOCAL ORDINANCES OF THE LOCAL POWER & TELEPHONE COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT NOT BE LIMITED TO:
   C. □NATIONAL FIRE CODES
   A. UL □UNDERWRITERS LABORATORIES
   B. NEC □NATIONAL ELECTRICAL CODE
   C. NEMA □NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
   D. OSHA □OCCUPATIONAL SAFETY AND HEALTH ACT
   E. SBC □STANDARD BUILDING CODE

4. DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, AND CONFIRM WITH CONSTRUCTION MANAGER□ANY SI□ES AND LOCATIONS WHEN NEEDED.

5. EXISTING SERVICES□ CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.

6. CONTRACTOR SHALL PAY FOR ANY□ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING EQUIPMENT.

7. □ THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.

8. CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY□ALL REQUIREMENTS SUCH AS THE□LUG SI□E RESTRICTIONS, CONDUIT ENTRY, SI□E OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNER'S□CONFIRMATION, ETC., ANY□ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.

9. MINIMUM WIRE SI□E SHALL BE □12 AWG, NOT INCLUDING CONTROL WIRING, UNLESS NOTED OTHERWISE. ALL CONDUCTORS SHALL BE COPPER WITH THWN INSULATION.

10. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET□DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.

11. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

12. ELECTRICAL SYSTEM SHALL BE AS COMPLETELY AND EFFECTIVELY GROUNDED, AS REQUIRED BY SPECIFICATIONS, SET FORTH BY APPLICANT.

13. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY CONSTRUCTION MANAGER.

14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.

15. CONTRACTOR SHALL GUARANTEE ANY□ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.

16. THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION, WHICH MAY HAVE BEEN DAMAGED THEREIN.

17. □ ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LOSS AND ANY□ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.

18. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.

19. DITCHING AND BACK FILL□ CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND□DR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO NOTES AND REQUIREMENTS EXCAVATION, AND BACKFILLING.

20. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IECE.

21. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURES CATALOG INFORMATION OF ANY□ALL LIGHTING FIXTURES, SWITCHES AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.

22. ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE CONSTRUCTION MANAGER□ UPON FINAL ACCEPTANCE.

23. THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN DIRECTORIES. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

24. DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY□DUTY, QUICK□MAKE AND QUICK□BREAK ENCLOSURES, AS REQUIRED BY EXPOSURE TYPE.

25. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI□OXIDE COMPOUND SUCH AS "NO□OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED □NO SUBSTITUTIONS.

26. RACEWAYS□ CONDUIT SHALL BE SCHEDULE 80 PVC MEETING OR EXCEEDING NEMA TC2 □1990. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS □200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 2 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL6 FOR GALVANI□ED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH □RITE □INC□OR COLD GALV□

27. □ SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.

28. CONDUCTORS□ CONTRACTOR SHALL USE 98□ CONDUCTIVITY COPPER WITH TYPE THWN INSULATION, 600 VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG. USE STRANDED CONDUCTORS FOR WIRE ABOVE NO. 8 AWG.

29. CONNECTORS FOR POWER CONDUCTORS□ CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST□ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.

30. SERVICE□ 120□240 V, SINGLE PHASE, 3 WIRE CONNECTION AVAILABLE FROM UTILITY COMPANY. OWNER OR OWNERS AGENT WILL APPLY FOR POWER.

31. TELEPHONE SERVICE□ CONTRACTOR SHALL PROVIDE EMPTY CONDUITS WITH PULL STRINGS AS INDICATED ON DRAWINGS.

32. ELECTRICAL AND TELCO RACEWAYS TO BE BURIED A MINIMUM OF 2□DEPTH.

33. CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL AND TELCO SERVICE CONDUITS. CAUTION□S TAPE TO READ "CAUTION BURIED ELECTRIC" OR "BURIED TELECOMM".

34. ALL BOLTS SHALL BE 3□16 STAINLESS STEEL

## GROUNDING NOTES

1. GC SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION □"P", "A", "N", "I"□ WITH 1" HIGH LETTERS.

2. ALL HARDWARE 3□16 STAINLESS STEEL, INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI□OXIDANT COMPOUND BEFORE MATING. ALL HARDWARE SHALL BE STAINLESS STEEL 3□8 INCH DIAMETER OR LARGER.

3. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI□OXIDANT COMPOUND BEFORE MATING.

4. WHEN THE SCOPE OF WORK REQUIRES THE ADDITION OF A GROUNDING BAR TO AN EXISTING UTILITY POLE, THE SUBCONTRACTOR SHALL OBTAIN APPROVAL FROM THE UTILITY POLE OWNER PRIOR TO MOUNTING THE GROUNDING BAR TO THE UTILITY POLE.

5. ALL ELECTRICAL AND GROUNDING AT THE POLE SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE □NEC□, NATIONAL FIRE PROTECTION ASSOCIATION □NFPA□□80 □LATEST EDITION□, AND MANUFACTURER.

**ADDITIONAL NOTES:**

6. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.

7. □ GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING □8 GROUND WIRES. FOLLOW ANTENNA AND BTS MANUFACTURER□S PRACTICES FOR GROUNDING REQUIREMENTS.

8. ALL GROUND CONNECTIONS SHALL BE □6 AWG U.N.O. ALL WIRES SHALL BE COPPER WITH THHN□THWN. ALL GROUND WIRE SHALL BE SOLID TIN COATED OR STRANDED GREEN INSULATED WIRE.

9. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 10 OHMS MAXIMUM. PROVIDE SUPPLEMENT GROUNDING RODS AS REQUIRED TO ACHIEVE SPECIFIED OHMS READING. GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE APPLICANT REPRESENTATIVE.

10. NOTIFY ARCHITECT ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.

11. ALL HORI□ONTALLY RUN GROUNDING CONDUCTORS SHALL BE INSTALLED MINIMUM 12" BELOW GRADE FROST LINE IN TRENCH, U.N.O., AND BACK FILL SHALL BE COMPACTED AS REQUIRED BY ARCHITECT.

12. ALL GROUND CONDUCTORS SHALL BE RUN AS STRAIGHT AND SHORT AS POSSIBLE, WITH A MINIMUM 12" BENDING RADIUS NOT LESS THAN 90 DEGREES.

13. ACCEPTABLE CONNECTIONS FOR GROUNDING SYSTEM SHALL BE:
   a. BURNDY, HY□GRADE U.L. LISTED CONNECTORS FOR OUTDOOR USE OR AS APPROVED BY APPLICANT PROJECT MANAGER.
   b. CADWELD, EXOTHERMIC WELDS □WELDED CONNECTIONS□
   c. ONE □1□ HOLE TINNED COPPER COMPRESSION □LONG BARREL□FITTINGS.

14. ALL CRIMPED CONNECTIONS SHALL HAVE EMBOSSED MANUFACTURER'S DIE MARK VISIBLE AT THE CRIMP AND WEATHER□PROOFED WITH HEAT SHRINK. RESULTING FROM USE OF PROPER CRIMPING DEVICES□

15. ALL CONNECTION HARDWARE SHALL BE TYPE 3□16 STAINLESS STEEL □NOT ATTRACTED TO MAGNETS□

16. ELECTRICAL SERVICE EQUIPMENT GROUNDING SHALL COMPLY WITH NEC, ARTICLE 250□82 AND SHALL BOND ALL EXISTING AND NEW GROUNDING ELECTRODES. NEW GROUNDING ELECTRODE SHALL INCLUDE BUT NOT LIMITED TO GROUND RODS, GROUND RING IF SERVICE IS WITHIN THE RADIO EQUIPMENT LOCATION, BUILDING STEEL IF APPLICABLE, COLD WATER CONNECTIONS MUST BE MADE ON THE STREET SIDE OF MAIN SHUT□OFF VALVE.

mobilitie

A&E SERVICES

MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04□19□2016 |

| REV | DATE | DESCRIPTION | BY |
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| 0 | 04□19□2016 | 90% CONSTRUCTION | ENG |

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SITE ID:**
**9WAB000745A**

FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

T-2

## SITE WORK NOTES

1. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
2. DO NOT SCALE BUILDING DIMENSIONS FROM DRAWING.
3. SI:E, LOCATION AND TYPE OF ANY UNDERGROUND UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON AS:BUILT DRAWINGS BY GENERAL CONTRACTOR AND ISSUED TO ARCHITECT:ENGINEER AT COMPLETION OF PROJECT.
4. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS AND THEIR DIMENSIONS SHOWN ON PLANS HAVE, BEEN PLOTTED FROM AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
5. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES BOTH HORI::ONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT:ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT:ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS:HER OWN RISK AND EXPENSE. CONTRACTOR SHALL CALL LOCAL DIGGER HOT LINE FOR UTILITY LOCATIONS 48 HOURS PRIOR TO START OF CONSTRUCTION.
6. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
7. GRADING OF THE SITE WORK AREA IS TO BE SMOOTH AND CONTINUOUS IN SLOPE AND IS TO FEATHER INTO EXISTING GRADES AT THE GRADING LIMITS.
8. ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION :OSHA: REQUIREMENTS.
9. STRUCTURAL FILLS SUPPORTING PAVEMENTS SHALL BE COMPACTED TO 95□ OF MAXIMUM STANDARD PROCTOR DRY DENSITY.
10. NEW GRADES NOT IN BUILDING AND DRIVEWAY IMPROVEMENT AREA TO BE ACHIEVED BY FILLING WITH APPROVED CLEAN FILL AND COMPACTED TO 95□ OF STANDARD PROCTOR DENSITY.
11. ALL FILL SHALL BE PLACED IN UNIFORM LIFTS. THE LIFTS THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE.
12. ANY FILLS PLACED ON EXISTING SLOPES THAT ARE STEEPER THAN 10 HORI::ONTAL TO 1 VERTICAL SHALL BE PROPERLY BENCHED INTO THE EXISTING SLOPE AS DIRECTED BY A GEOTECHNICAL ENGINEER.
13. CONTRACTOR SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, WEEDS, BRUSH OR ANY OTHER DEPOSITS WILL REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE DISPOSED OF OFF:SITE BY THE GENERAL CONTRACTOR.
14. ALL TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH THE IMPROVEMENTS SHALL BE PROTECTED BY THE GENERAL CONTRACTOR.
15. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY GENERAL CONTRACTOR WITH LOCAL UTILITY COMPANY, TELEPHONE COMPANY, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.

## ENVIRONMENTAL NOTES

1. ALL WORK PERFORMED SHALL BE DONE IN ACCORDANCE WITH ISSUED PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF FINES AND PROPER CLEAN UP FOR AREAS IN VIOLATION.
2. CONTRACTOR AND:OR DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS AND WATERWAYS AND SHALL BE MAINTAINED IN PLACE THROUGH FINAL JURISDICTIONAL INSPECTION & RELEASE OF SITE.
3. CONTRACTOR SHALL INSTALL CONSTRUCT ALL NECESSARY SEDIMENT:SILT CONTROL FENCING AND PROTECTIVE MEASURES WITHIN THE LIMITS OF SITE DISTURBANCE PRIOR TO CONSTRUCTION.
4. NO SEDIMENT SHALL BE ALLOWED TO EXIT THE PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MEASURES FOR CONTROLLING EROSION. ADDITIONAL SEDIMENT CONTROL FENCING MAY BE REQUIRED IN ANY AREAS SUBJECT TO EROSION.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES WITH SILT AND EROSION CONTROL MEASURES MAINTAINED ON THE DOWNSTREAM SIDE OF SITE DRAINAGE. ANY DAMAGE TO ADJACENT PROPERTY AS A RESULT OF EROSION WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY INSPECTIONS AND ANY REPAIRS OF ALL SEDIMENT CONTROL MEASURES INCLUDING SEDIMENT REMOVAL AS NECESSARY.
7. CLEARING OF VEGETATION AND TREE REMOVAL SHALL BE ONLY AS PERMITTED AND BE HELD TO A MINIMUM. ONLY TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED.
8. SEEDING AND MULCHING AND OR SODDING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE PROJECT FACILITIES AFFECTING LAND DISTURBANCE.
9. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS, AND CHECK DAMS.
10. RIP RAP OF SI::ES INDICATED SHALL CONSIST OF CLEAN, HARD, SOUND, DURABLE, UNIFORM IN QUALITY STONE FREE OF ANY DETRIMENTAL QUANTITY OF SOFT, FRIABLE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ALKALI, OR OTHER DELETERIOUS SUBSTANCES
11. GC TO PLACE FILTER MATERIAL AT ALL CATCH BASINS ADJACENT TO CONSTRUCTION SITE TO PREVENT SOLID WASTE CONTAMINATION FROM ENTERING SEWER SYSTEM

## FOUNDATION, EXCAVATION AND BACKFILL NOTES

1. ALL FINAL GRADED SLOPES SHALL BE A MAXIMUM OF 3 HORI::ONTAL TO 1 VERTICAL.
2. ALL EXCAVATIONS PREPARED FOR PLACEMENT OF CONCRETE SHALL BE OF UNDISTURBED SOILS, SUBSTANTIALLY HORI::ONTAL AND FREE FROM ANY LOOSE, UNSUITABLE MATERIAL OR FRO::EN SOILS, AND WITHOUT THE PRESENCE OF POUNDING WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED WHEN REQUIRED. COMPACTION OF SOILS UNDER CONCRETE PAD FOUNDATIONS SHALL NOT BE LESS THAN 95□ OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR THE SOIL IN ACCORDANCE WITH ASTM D 155□.
3. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC OR UNSUITABLE MATERIAL. IF INADEQUATE BEARING CAPACITY IS REACHED AT THE DESIGNED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION SHALL BE FILLED WITH CONCRETE OF THE SAME TYPE SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILI::E THE BOTTOM OF THE EXCAVATION. ANY STONE SUB BASE MATERIAL, IF USED, SHALL NOT SUBSTITUTE FOR REQUIRED THICKNESS OF CONCRETE.
4. ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH PRIOR TO BACK FILLING. BACK FILL SHALL CONSIST OF APPROVED MATERIALS SUCH AS EARTH, LOAM, SANDY CLAY, SAND AND GRAVEL, OR SOFT SHALE, FREE FROM CLODS OR LARGE STONES OVER 2 1:2" MAX DIMENSIONS. ALL BACK FILL SHALL BE PLACED IN COMPACTED LAYERS.
5. ALL FILL MATERIALS AND FOUNDATION BACK FILL SHALL BE PLACED IN MAXIMUM 6"THICK LIFTS BEFORE COMPACTION. EACH LIFT SHALL BE WETTED IF REQUIRED AND COMPACTED TO NOT LESS THAN 95□ OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY FOR SOIL IN ACCORDANCE WITH ASTM D 155 □.
6. NEWLY PLACED CONCRETE FOUNDATIONS SHALL CURE A MINIMUM OF □2 HRS PRIOR TO BACK FILLING.
7. FINISHED GRADING SHALL BE SLOPED TO PROVIDE POSITIVE DRAINAGE AND PREVENT STANDING WATER. THE FINAL □FINISH□ ELEVATION OF SLAB FOUNDATIONS SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE CENTER. FINISH GRADE OF CONCRETE PADS SHALL BE A MAXIMUM OF 4 INCHES ABOVE FINAL FINISH GRADE ELEVATIONS. PROVIDE SURFACE FILL GRAVEL TO ESTABLISH SPECIFIED ELEVATIONS WHERE REQUIRED.
8. NEWLY GRADED SURFACE AREAS TO RECEIVE GRAVEL SHALL BE COVERED WITH GEOTEXTILE FABRIC TYPE: TYPAR 3401 AS MANUFACTURED BY "CONSTRUCTION MATERIAL 1:800:239:3841" OR AN APPROVED EQUIVALENT, SHOWN ON PLANS. THE GEOTEXTILE FABRIC SHALL BE BLACK IN COLOR TO CONTROL THE RECURRENCE OF VEGETATIVE GROWTH AND EXTEND TO WITHIN 1 FOOT OUTSIDE THE SITE FENCING OR ELECTRICAL GROUNDING SYSTEM PERIMETER WHICH EVER IS GREATER. ALL FABRIC SHALL BE COVERED WITH A MINIMUM OF 4"DEEP COMPACTED STONE OR GRAVEL AS SPECIFIED. I.E. FDOT TYPE No. 5□ FOR FENCED COMPOUND □FDOT TYPE No. 6□ FOR ACCESS DRIVE AREA.
9. IN ALL AREAS TO RECEIVE FILL, REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE. PLOW STRIP OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORI::ONTAL SUCH THAT FILL MATERIAL WILL BIND WITH EXISTING PREPARED SOIL SURFACE.
10. WHEN SUB GRADE OR PREPARED GROUND SURFACE HAS A DENSITY LESS THAN THAT REQUIRED FOR THE FILL MATERIAL, SCARIFY THE GROUND SURFACE TO DEPTH REQUIRED, PULVERI::E, MOISTURE:CONDITION AND:OR AERATE THE SOILS AND RECOMPACT TO THE REQUIRED DENSITY PRIOR TO PLACEMENT OF FILLS.
11. IN AREAS WHICH EXISTING GRAVEL SURFACING IS REMOVED OR DISTURBED DURING CONSTRUCTION OPERATIONS, REPLACE GRAVEL SURFACING TO MATCH ADJACENT GRAVEL SURFACING AND RESTORED TO THE SAME THICKNESS AND COMPACTION AS SPECIFIED. ALL RESTORED GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES.
12. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED WITH THE CONDITION THAT ANY UNFAVORABLE AMOUNTS OF ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ANY ADDITIONAL GRAVEL RESURFACING MATERIAL AS NEEDED TO PROVIDE A FULL DEPTH COMPACTED SURFACE THROUGHOUT SITE.
13. GRAVEL SUB SURFACE SHALL BE PREPARED TO REQUIRED COMPACTION AND SUB GRADE ELEVATIONS BEFORE GRAVEL SURFACING IS PLACED AND:OR RESTORED. ANY LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED AND ANY DEPRESSIONS IN THE SUB GRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL SHALL NOT BE USED FOR FILLING DEPRESSIONS IN THE SUB GRADE.
14. PROTECT EXISTING GRAVEL SURFACING AND SUB GRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING □MATTS□OR OTHER SUITABLE PROTECTION DESIGNED TO SPREAD EQUIPMENT LOADS AS MAY BE NECESSARY. REPAIR ANY DAMAGE TO EXISTING GRAVEL SURFACING OR SUB GRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTORS OPERATIONS.
15. DAMAGE TO EXISTING STRUCTURES AND:OR UTILITIES RESULTING FROM CONTRACTORS NEGLIGENCE SHALL BE REPAIRED AND□ OR REPLACED TO THE OWNERS SATISFACTION AT NO ADDITIONAL COST TO THE CONTRACT.
16. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES AT NO ADDITIONAL COST TO THE CONTRACT.

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A&E SERVICES

MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04:19:2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 04:19:2016 | 90% CONSTRUCTION | ENG |

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SITE ID:**
**9WAB000745A**

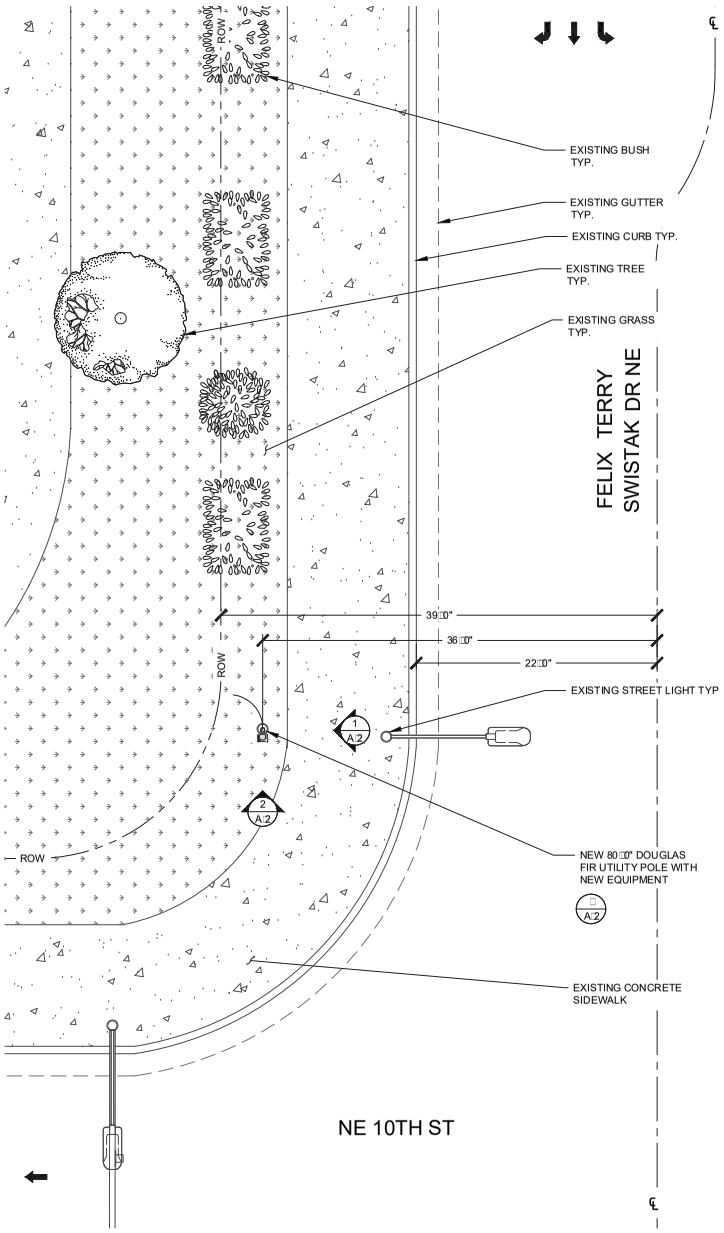
FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

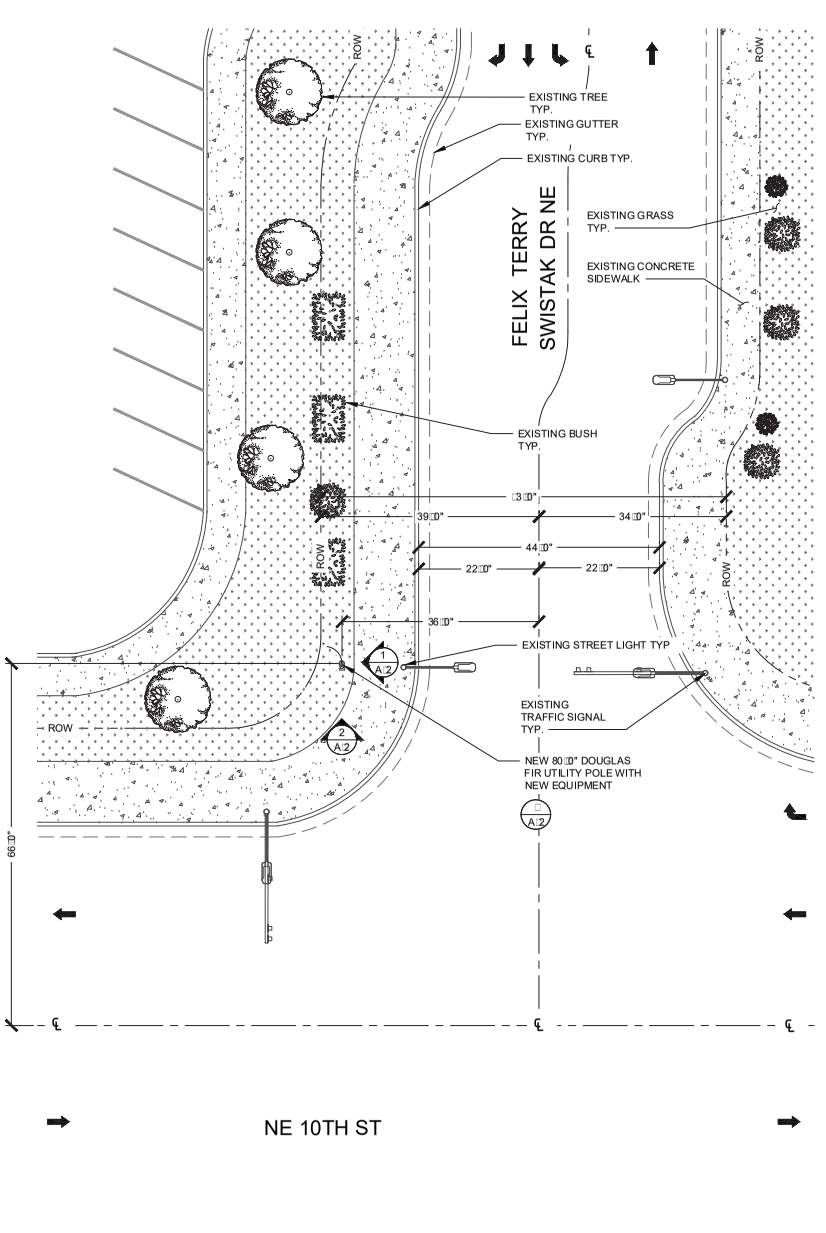
T-3




ENLARGED SITE PLAN

24":36" SCALE: 3:16" = 1'-0"
11":17" SCALE: 3:32" = 1'-0"

2




SITE PLAN

24":36" SCALE: 3:32" = 1'-0"
11":17" SCALE: 3:64" = 1'-0"

1

mobilitie

A&E SERVICES

MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04.19.2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 04.19.2016 | 90% CONSTRUCTION | ENG |

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SITE ID:**
**9WAB000745A**

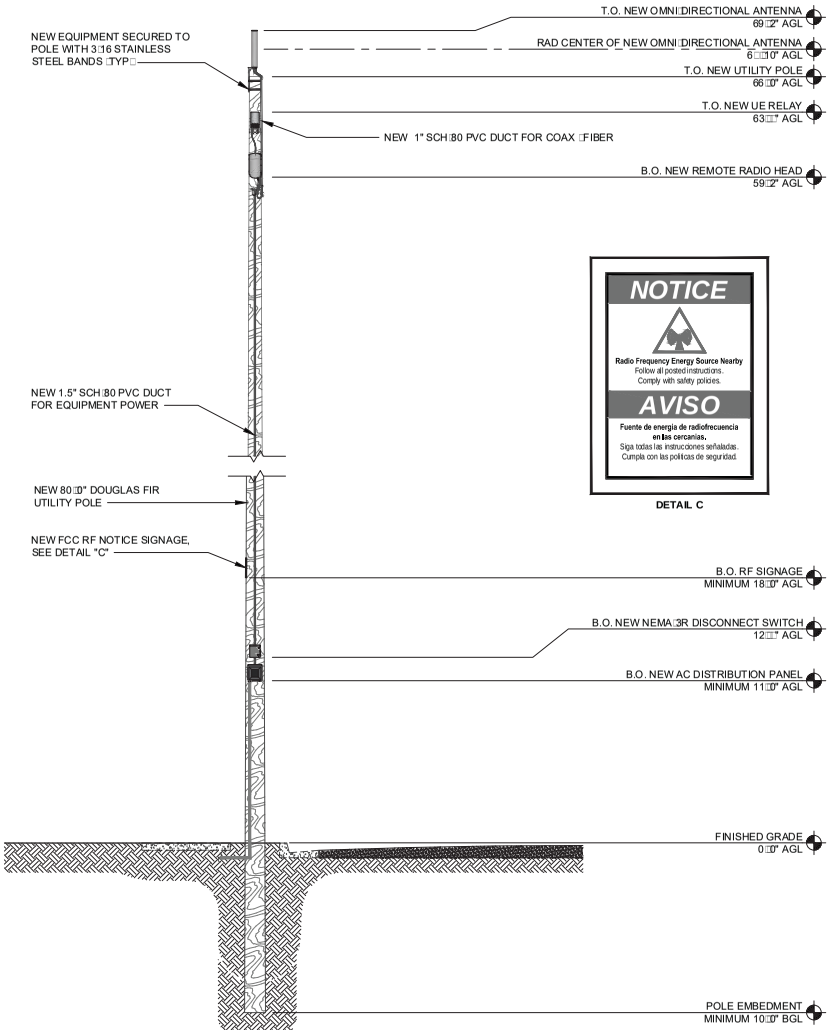
FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE

SITE PLANS

SHEET NUMBER

A-1



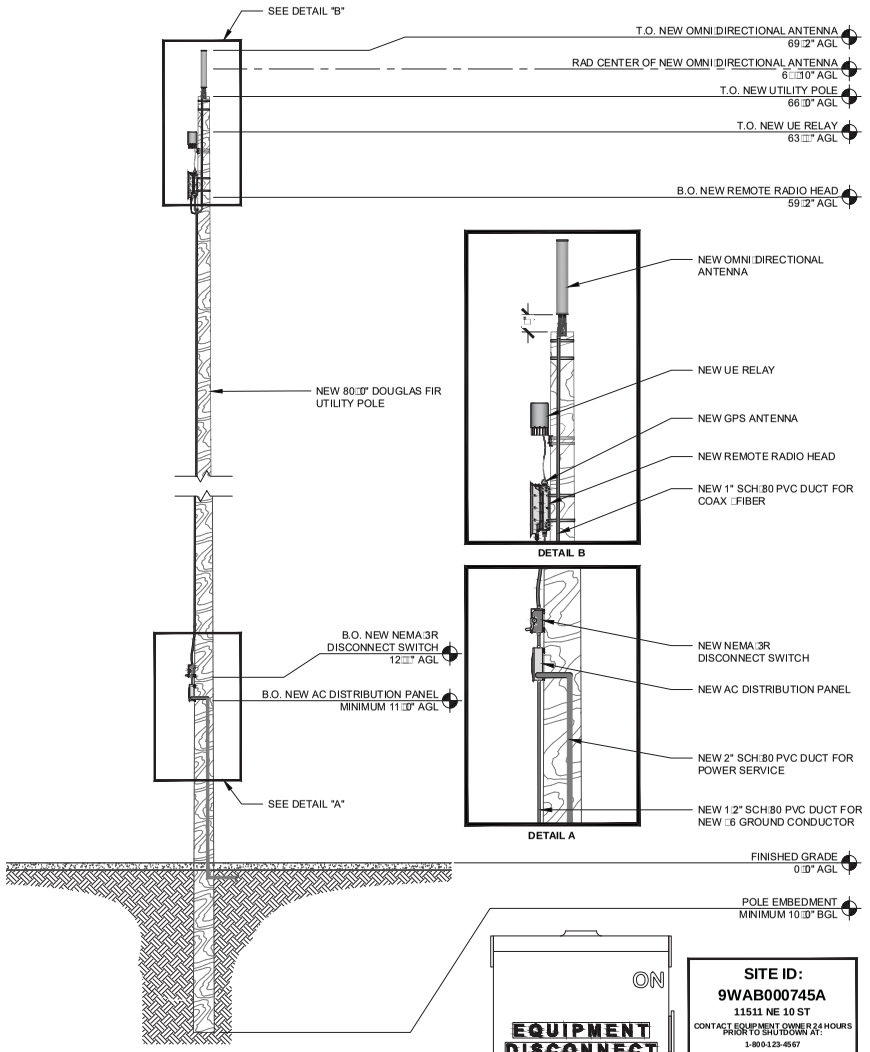

| EQUIPMENT CHART | | | | |
|---|---|---|---|---|
| QUANTITY | DESCRIPTION | CABLE LENGTH | DIMENSIONS (H x W x D) | WEIGHT |
| 1 | ALPHA WIRELESS AW3400S OMNI-DIRECTIONAL ANTENNA | TBD | 29.5" X 4.5"Ø | 8.8 LBS |
| 1 | AIRSPAN IR460 UE RELAY | TBD | 13" X 7"Ø | 8.8 LBS |
| 1 | PCTEL 39-1D (DH:W GPS ANTENNA | TBD | 2.48" X 2.36Ø | .11 LBS |
| 1 | AIRSPAN AH 1000D REMOTE RADIO HEAD | TBD | 18.9" X 9.6" X 2.48" | 34.14 LBS |
| 1 | RAYCAP RSTAC-3111-P-120 AC DISTRIBUTION PANEL | TBD | 13.1" X 11.4" X 4.4" | 8 LBS |
| 1 | SIEMENS GNF321R NEMA 3R DISCONNECT SWITCH | TBD | 9.9" X 8.8" X 4.5" | 5 LBS |

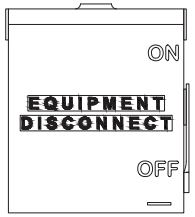
NEW NORTH ELEVATION

24":-36" SCALE: 1/4" = 1'-0"
11":-1." SCALE: 1/8" = 1'-0"

4' 3' 2' 1' 0" 4'

2




DISCONNECT SWITCH FRONT PANEL

**SITE ID:**
**9WAB000745A**
**11511 NE 10 ST**

CONTACT EQUIPMENT OWNER 24 HOURS PRIOR TO SHUTDOWN AT:
1-800-123-4567

CONTACT EQUIPMENT OWNER UPON COMPLETION OF WORK. DE-ENERGIZE WITH PRIOR WRITTEN CONSENT OF SPRINT ONLY.

MINIMUM APPROACH DISTANCE TO
PRIMARY ANTENNA: 4.14ft
SECONDARY ANTENNA: 1.31ft

INNER PANEL SITE IDENTIFICATION

DISCONNECT SWITCH PANEL DETAILS

NEW EAST ELEVATION

24":-36" SCALE: 1/4" = 1'-0"
11":-1." SCALE: 1/8" = 1'-0"

4' 3' 2' 1' 0" 4'

1

mobilitie

A&E SERVICES

MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04/19/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 04/19/2016 | 90% CONSTRUCTION | ENG |

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**SITE ID:**
**9WAB000745A**

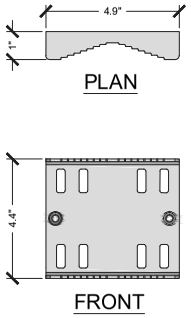
FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE
EAST & NORTH ELEVATIONS

SHEET NUMBER
A-2

NOT USED

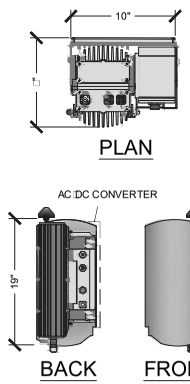
SCALE N.T.S. 9




MANUFACTURER: AIRSPAN
MODEL: 402.00.328
OR APPROVED EQUAL
HEIGHT: 4.4 IN
WIDTH: 4.9 IN
DEPTH: 1 IN
WEIGHT: 2 LBS

POLE CLAMP

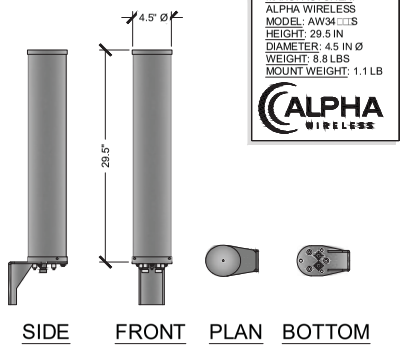
SCALE N.T.S. 6




MANUFACTURER: AIRSPAN
MODEL: AH 1000D
OR APPROVED EQUAL
HEIGHT: 18.9 IN
WIDTH: 9.6 IN
DEPTH: 4.8 IN
WEIGHT: 34.14 LBS
MOUNT WEIGHT: 2.04 LBS

REMOTE RADIO HEAD

SCALE N.T.S. 3



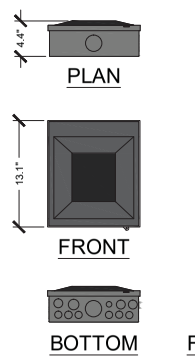

MANUFACTURER: ALPHA WIRELESS
MODEL: AW34
HEIGHT: 29.5 IN
DIAMETER: 4.5 IN Ø
WEIGHT: 8.8 LBS
MOUNT WEIGHT: 1.1 LB

OMNI DIRECTIONAL ANTENNA

SCALE N.T.S. 1

NOT USED

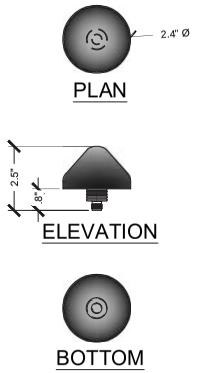
SCALE N.T.S. 10




MANUFACTURER: RAYCAP
MODEL: RSTAC3111P120
HEIGHT: 13.1 IN
WIDTH: 11.4 IN
DEPTH: 4.4 IN
WEIGHT: 8 LBS

AC DISTRIBUTION PANEL

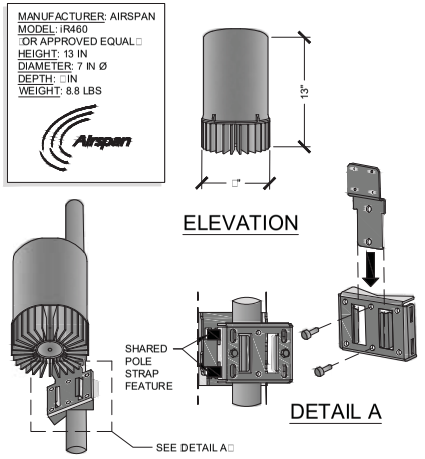
SCALE N.T.S. 7




MANUFACTURER: PCTEL
MODEL: 39.1D.DH.W
OR APPROVED EQUAL
HEIGHT: 2.48 IN
DIAMETER: 2.36 IN
WEIGHT: 0.11 LB

GPS ANTENNA

SCALE N.T.S. 4

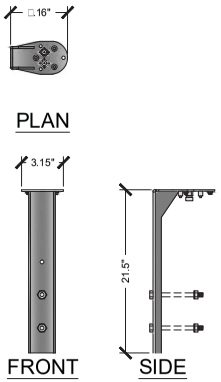



MANUFACTURER: AIRSPAN
MODEL: IR460
OR APPROVED EQUAL
HEIGHT: 13 IN
DIAMETER: 7 IN Ø
DEPTH: IN
WEIGHT: 8.8 LBS

iRELAY 460 MOUNTING BRACKET

NOT USED

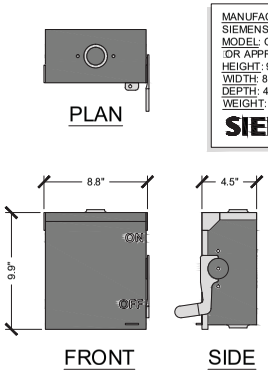
SCALE N.T.S. 11




MANUFACTURER: ALPHA WIRELESS
MODEL: AW34.S PTM
OR APPROVED EQUAL
HEIGHT: 21.5 IN
WIDTH: 3.15 IN
DEPTH: .16 IN
WEIGHT: 1.1 LB

POLE TOP MOUNT

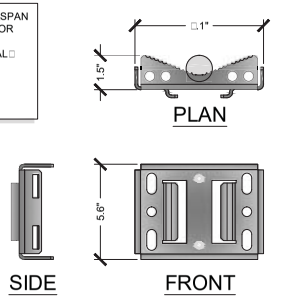
SCALE N.T.S. 8




MANUFACTURER: SIEMENS
MODEL: GNF321R
OR APPROVED EQUAL
HEIGHT: 9.9 IN
WIDTH: 8.8 IN
DEPTH: 4.5 IN
WEIGHT: 5 LBS

NEMA-3R DISCONNECT SWITCH

SCALE N.T.S. 5




MANUFACTURER: AIRSPAN
MODEL: MC40200285 OR MC40200284
OR APPROVED EQUAL
HEIGHT: 5.6 IN
WIDTH: .1 IN
DEPTH: 1.5 IN
WEIGHT: 2 LBS

UE RELAY

SCALE N.T.S. 2

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A&E SERVICES

MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04.19.2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 04.19.2016 | 90% CONSTRUCTION | ENG |

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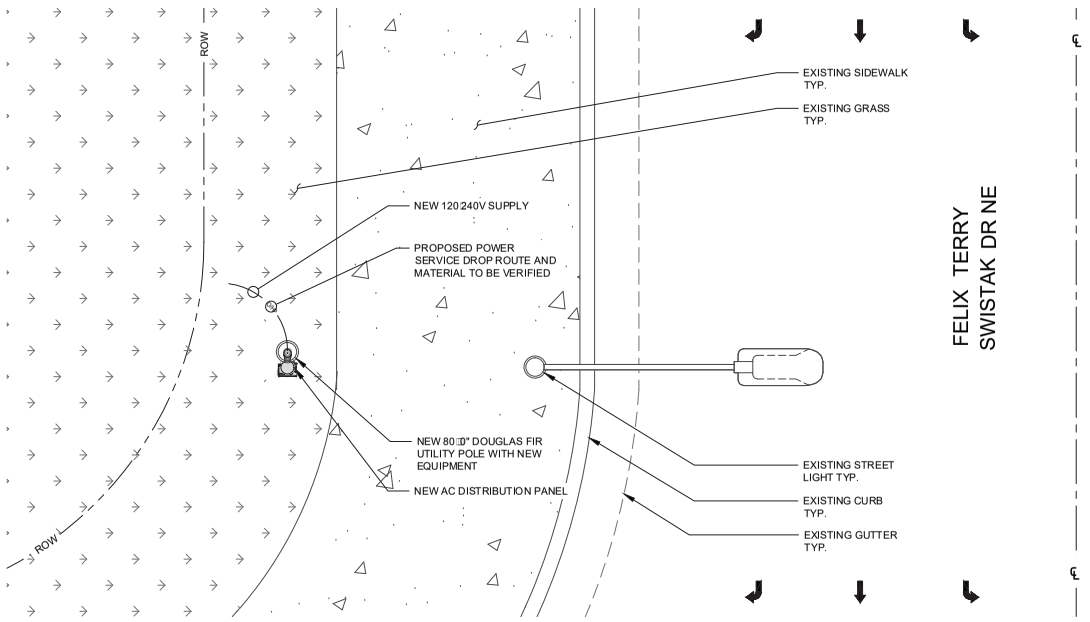
**SITE ID:**
**9WAB000745A**

FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE
EQUIPMENT DETAILS

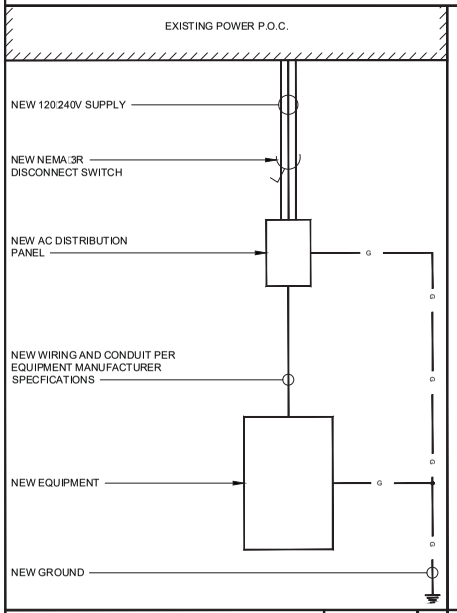
SHEET NUMBER
D-1




PRELIMINARY UTILITY PLAN

24":36" SCALE: 3/8" = 1'-0"
11":17" SCALE: 3/16" = 1'-0"

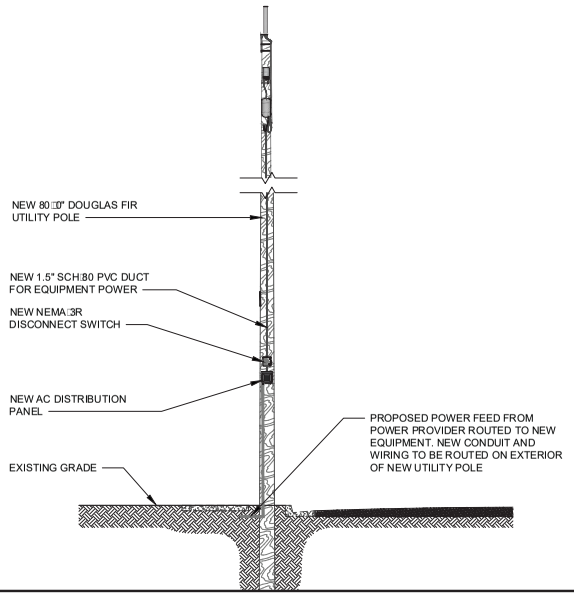
1




ONE-LINE DIAGRAM

24":36" SCALE: NTS
11":17" SCALE: NTS

3




PRELIMINARY UTILITY ELEVATION - NORTH

24":36" SCALE: 3/16" = 1'-0"
11":17" SCALE: 3/32" = 1'-0"

2

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MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04/19/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 04/19/2016 | 90% CONSTRUCTION | ENG |

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**SITE ID:**
**9WAB000745A**

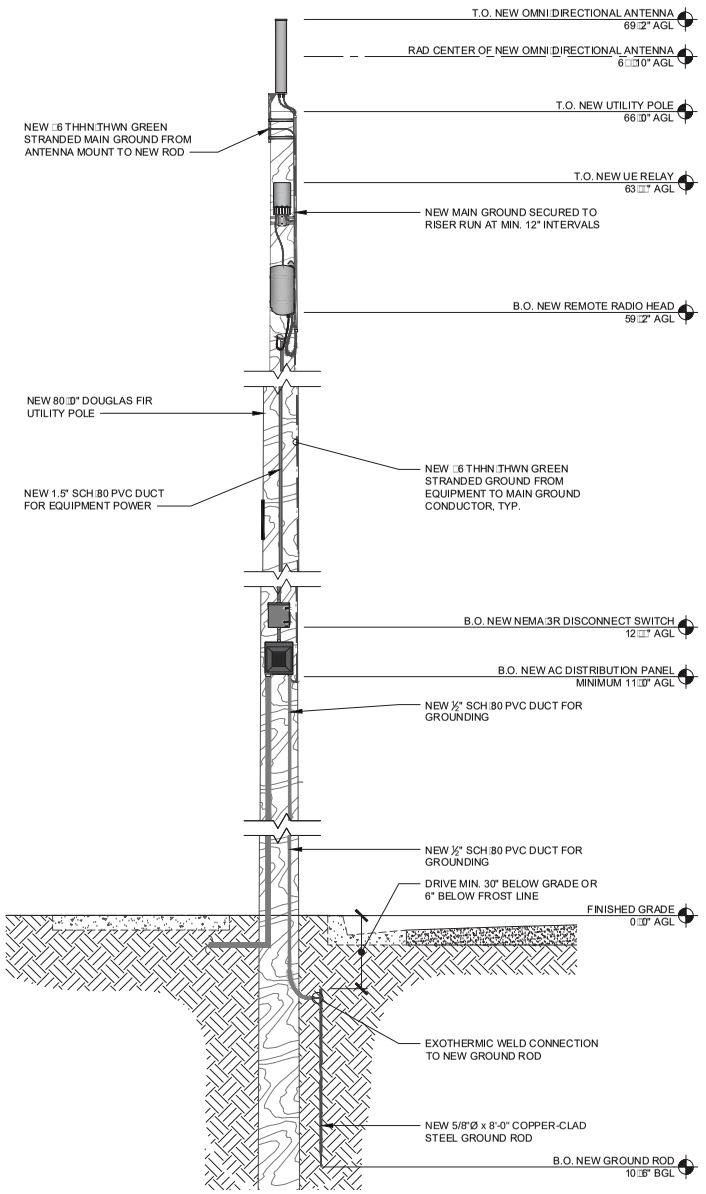
FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE

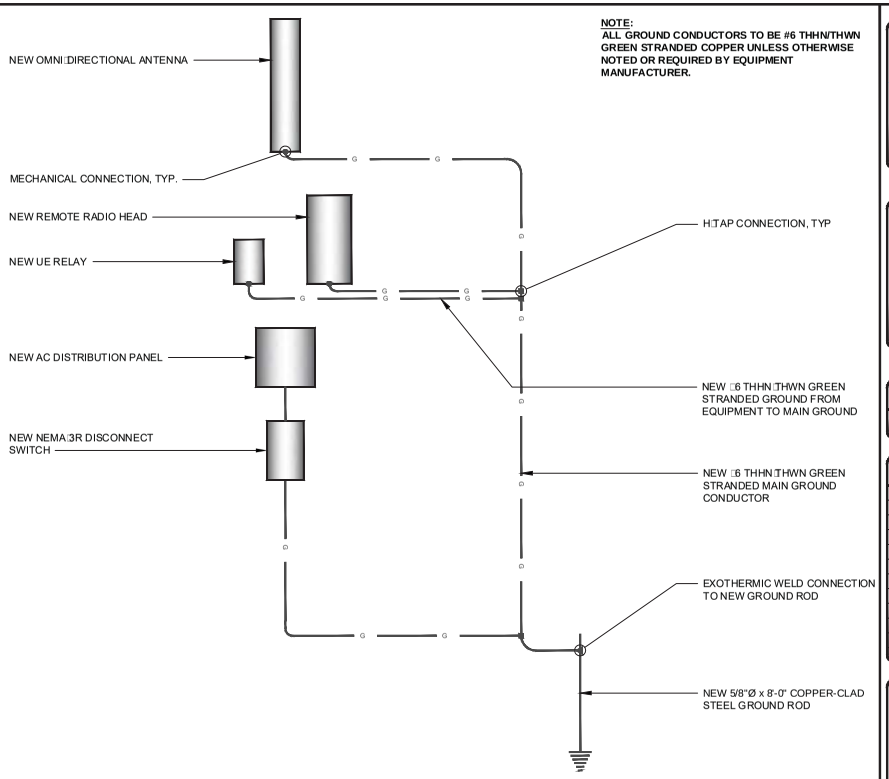
ELECTRICAL PLAN

SHEET NUMBER

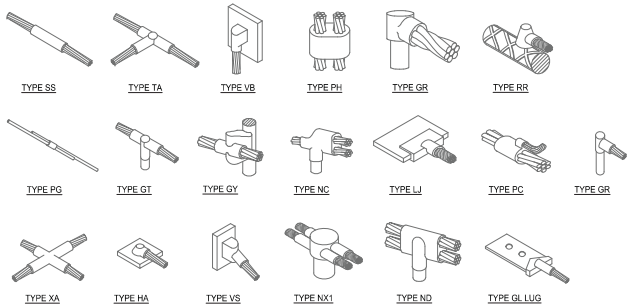
E-1




GROUNDING SCHEMATIC | 24"=36" SCALE: NTS 11"=1'-7" SCALE: NTS | 4




GROUNDING SCHEMATIC | 24"=36" SCALE: NTS 11"=1'-7" SCALE: NTS | 1




CAD WELD DETAIL | 24"=36" SCALE: NTS 11"=1'-7" SCALE: NTS | 2

1. **GROUND BONDS**: ALL BONDS ARE TO BE MADE WITH #6 AWG STRANDED COPPER IN GREEN INSULATION. ATT TP 6416 #, 6.##
2. **EXTERIOR UNIT BONDS**: ALL METALLIC OBJECTS SHALL BE BONDED TO THE GROUND ROD. ATT TP 6416 #, 12.6#
3. **GROUND ROD**: UL LISTED COPPER CLAD STEEL GROUND ROD WITH MINIMUM DIAMETER OF 5/8" AND MINIMUM LENGTH OF 8 FEET. ALL GROUND RODS MAY BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO A MINIMUM DEPTH OF 30" BELOW GRADE OR 6 INCHES BELOW FROST LINE. ATT TP 6416 1.4 #2.2, 3, 10#

GROUNDING NOTES | 3

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MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04/19/2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 04/19/2016 | 90% CONSTRUCTION | ENG |

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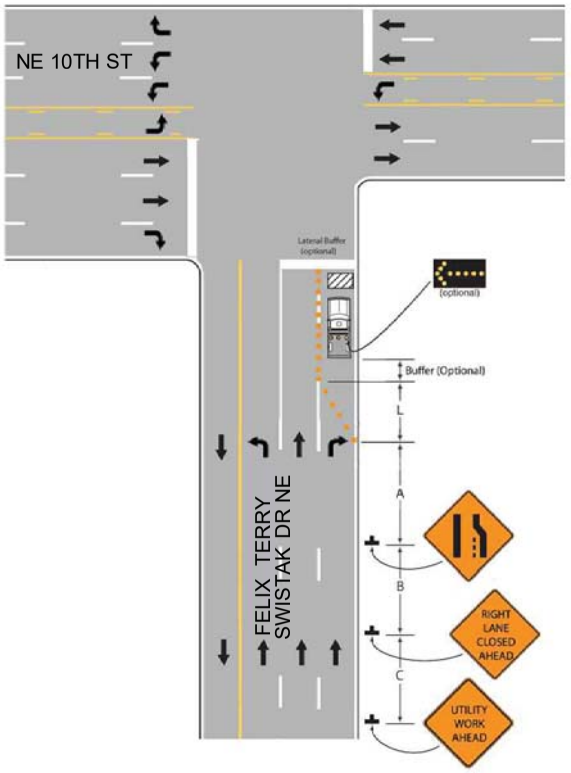
**SITE ID:**
**9WAB000745A**

FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE
GROUNDING PLAN

SHEET NUMBER
G-1




| DIMENSIONS | FEET |
|---|---|
| A (Distance Between Signs) | 100 |
| B (Distance Between Signs) | 100 |
| C (Distance Between Signs) | 100 |
| L (Merging Taper Length) | 125 |
| Maximum Taper Channelizing Device Spacing | 25 |
| Maximum Tangent Channelizing Device Spacing | 50 |

| DISTANCE BETWEEN SIGNS | | | | |
|---|---|---|---|---|
| Speed □MPH□ | Spacing □ft.□ | | | |
| | A | B | C | D |
| 40 or less | 200 | 200 | 200 | 100 |
| 41 to 49 | 350 | 350 | 350 | 1□5 |
| 50 to 54 | 500 | 500 | 500 | 250 |
| 55 or greater | 2640 | 1640 | 1000 | 500 |

□ "ROAD WORK 1 MILE" sign may be used as an alternate to the "ROAD WORK AHEAD" sign

□□ 500□beyond the "ROAD WORK AHEAD" sign or mid□ay bet□een signs, □hichever is less

□□□ "BE PREPARED TO STOP" sign may be omitted for speeds of 45 MPH or less

## LEGEND

- CHANNELI□ING DEVICE
- SIGN
- WORK SPACE
- FLAGGER
- DIRECTION OF TRAFFIC

## GENERAL NOTES

1. Wor□operations shall be confined to one traffic lane, leaving the opposite lane open to traffic.
2. Additional one□□ay control may be effected by the follo□ing means:
   - Flag□carrying vehicle
   - Official vehicle
   - Pilot vehicle
   - Traffic signal
3. The "ONE LANE ROAD" signs are to be fully covered and the "FLAGGER" signs either removed or fully covered □hen no □or□is being performed and the road□ay is open to t□o□□ay traffic
4. When a side road intersects the road□ay □ithin the TTC □one, additional TTC devices shall be placed in accordance □ith applicable TC□ Inde□es.
5. The t□o channeli□ing devices directly in front of the □or□area and the one channel□ing device directly at the end of the □or□ area may be omitted provided vehicles in the □or□area have high□intensity rotating, flashing, oscillating, or strobe lights operating.
6. For general TC□ re□uirements and additional information, refer to MUTCD.

## DURATION NOTES

1. "ROAD WORK AHEAD" and the "BE PREPARED TO STOP" signs may be omitted if all of the follo□ing conditions are met:

a. Wor□operations are 60 minutes or less
b. Speed limit is 45 MPH or less
c. No sight obstructions to vehicles approaching the □or□area for a distance e□ual to the buffer space
d. Vehicles in the □or□area have high□intensity, rotating, flashing, oscillating, or strobe lights operating
e. Volume and comple□ity of the road□ay has been considered

| BUFFER SPACE | |
|---|---|
| Speed □MPH□ | Distance □ft.□ |
| 25 | 155 |
| 30 | 200 |
| 35 | 250 |
| 40 | 305 |
| 45 | 360 |
| 50 | 425 |
| 55 | 495 |
| 60 | 5□0 |
| 65 | 645 |
| □0 | □30 |

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

## CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA BETWEEN THE CENTERLINE AND A LINE 2□OUTSIDE THE EDGE OF TRAVEL WAY

mobilitie

A&E SERVICES

MOBILITIE, LLC

SITE ACQUISITION

| | |
|---|---|
| DRAWN BY: | SASCO |
| DATE: | 04□19□2016 |

| REV | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 0 | 04□19□2016 | 90% CONSTRUCTION | ENG |

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**SITE ID:**
**9WAB000745A**

FELIX TERRY SWISTAK DR NE &
NE 10TH ST
BELLEVUE, WA 98004
NEW WOOD UTILITY POLE

SHEET TITLE
TRAFFIC CONTROL PLAN

SHEET NUMBER
TC-1

**Exhibit C-3**
**Mobilitie Application for a Facility in Kent, WA**

Narrative: Mobilitie proposed a 120 foot pole right in a commercial district in Kent, Washington. As the photo simulations show, this pole is significantly higher than existing utility poles. In addition, Mobilitie did not indicate whether they could co-locate this on existing infrastructure, such as a large power transmission tower less than a block away.

Exhibit C-3a: Photo Simulation
Exhibit C-3b: Construction designs

Exhibit C-3a

Photo Simulation By:

mobilitie®
intelligent infrastructure

877 296 1009 | www.mobilitie.com

**Site ID : 9WAX000357A**
Pole Type: New Steel Utility Pole

68th Ave S & S 224th St
Kent, WA, 98032

**SITE DESCRIPTION:** NEW TRANSPORT SITE WITHIN EXISTING RIGHT OF WAY

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

**EXISTING VIEW**

**PROPOSED VIEW:** Not Site Specific

Photo Simulation By:

mobilitie®
intelligent infrastructure

877 296 1009 | www.mobilitie.com

## Photo Simulation

This photographic simulation is intended as a visual representation only and is not to be used for construction purposes. Accuracy of photo simulation is based on information provided by project applicant.

## Site ID : 9WAX000357A

Pole Type: New Steel Utility Pole

68th Ave S & S 224th St
Kent, WA, 98032

Exhibit C-3b

mobilitie®
intelligent infrastructure

# 9WAX000357A

47.400918, -122.249537

68th Ave S & S 224th St
Kent, WA 98032

811
Know what's below.
Call before you dig.

## GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OF EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

## SITE INFORMATION

| | |
|---|---|
| POLE ID: | 9WAX000357A |
| LATITUDE: | 47.400918 |
| LONGITUDE: | -122.249537 |
| ADDRESS/CROSS STREET: | 68th Ave S & S 224th St |
| CITY, STATE ZIP: | Kent, WA 98032 |
| PROPERTY OWNER | PUBLIC RIGHT-OF-WAY |
| APPLICANT | Mobilitie, LLC |
| APPLICANT ADDRESS | 2955 REDHILL AVENUE, SUITE 200<br>COSTA MESA, CA 92626 |

## DO NOT SCALE DRAWINGS

CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINNER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

## LOCATION MAPS

NORTH

### VICINITY MAP

### REGIONAL MAP

## PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL A NEW UTILITY POLE WITHIN AN EXISTING RIGHT-OF-WAY. THE SCOPE WILL CONSIST OF THE FOLLOWING:

1. INSTALL PROPOSED 120' UTILITY POLE

## CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

## SHEET INDEX

| SHEET # | SHEET DESCRIPTION |
|---|---|
| 0.0 | TITLE SHEET |
| 1.0 | EXHIBIT PHOTO & SITE PLAN |
| 2.0 | UTILITY POLE ELEVATIONS |
| 3.0 | ELECTRICAL |

## ENGINEER

mobilitie
intelligent infrastructure

Mobilitie, LLC

| | |
|---|---|
| PROJECT NUMBER: | 9WAX000357A |
| DRAWN BY: | #### |
| CHECKED BY: | #### |

Preliminary
Not For
Construction

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT

SITE INFORMATION
9WAX000357A
47.400918,-122.249537
68th Ave S & S 224th St
Kent, WA 98032
UTILITY POLE

SHEET TITLE
TITLE SHEET

SHEET NUMBER
0.0

1 EXHIBIT PHOTO – GENERIC (NOT SITE SPECIFIC)
SCALE: N.T.S.

2 AERIAL SITE LOCATION
SCALE: N.T.S.

NOTE:
THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY. PROPERTY LINES, POWER & TELCO UTILITY PINT CONNECTIONS/ROUTES AND EASEMENTS SHOWN ON THESE PLANS ARE ESTIMATED.

TRUE NORTH

NOTE:
PROPOSED 120'0" POLE IN THE R.O.W.
R.O.W. BOUNDARIES TO BE CONFIRMED AFTER SURVEY

3 ENLARGED SITE PLAN
SCALE: N.T.S.

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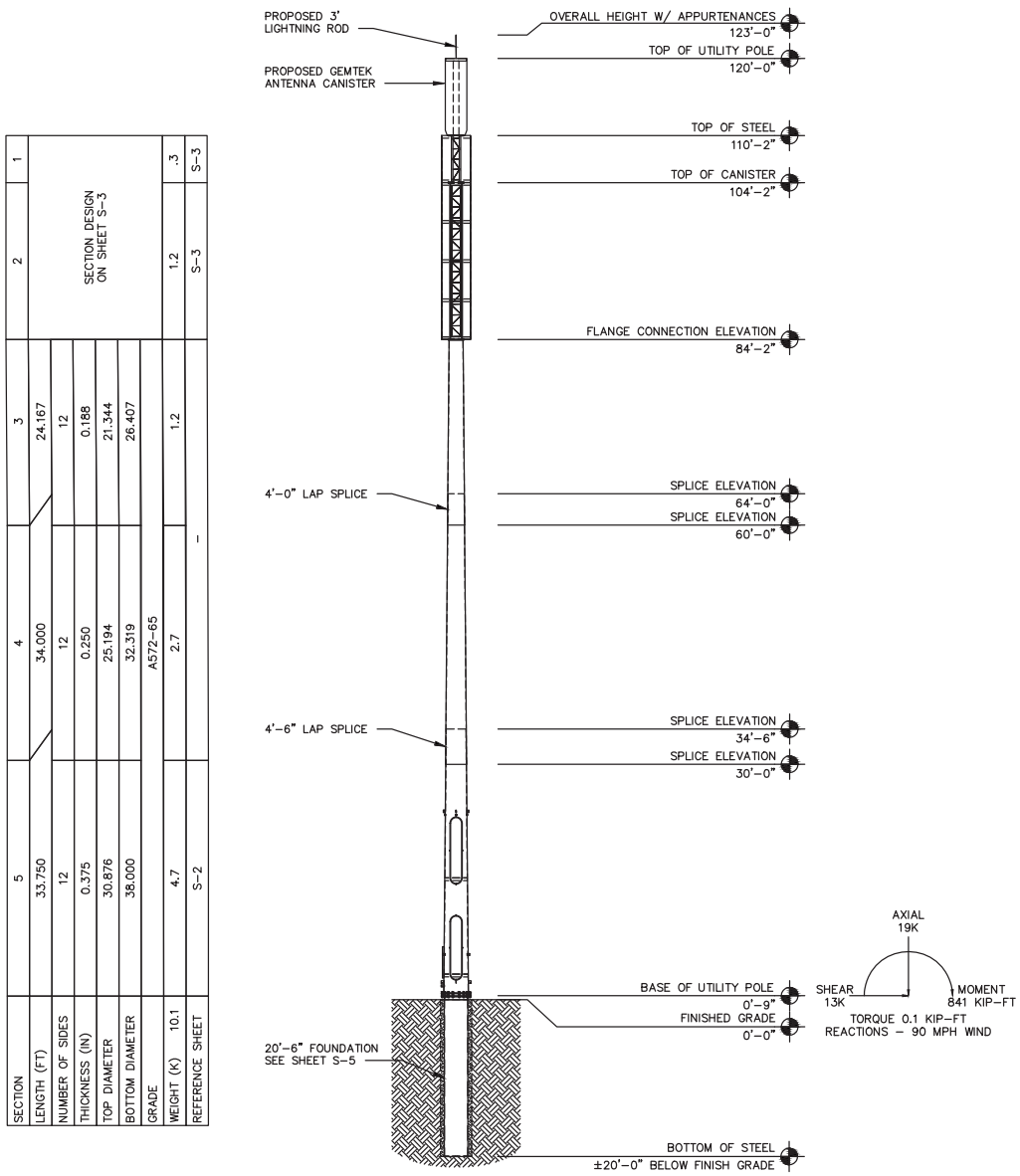
EXHIBIT PHOTO &
ENLARGED SITE PLAN

SHEET NUMBER
1.0




| SECTION | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| LENGTH (FT) | SECTION DESIGN ON SHEET S-3 | | 24.167 | 34.000 | 33.750 |
| NUMBER OF SIDES | | | 12 | 12 | 12 |
| THICKNESS (IN) | | | 0.188 | 0.250 | 0.375 |
| TOP DIAMETER | | | 21.344 | 25.194 | 30.876 |
| BOTTOM DIAMETER | | | 26.407 | 32.319 | 38.000 |
| GRADE | | | A572-65 | | |
| WEIGHT (K) | .3 | 1.2 | 1.2 | 2.7 | 4.7 |
| REFERENCE SHEET | S-3 | S-3 | - | | S-2 |

POLE DESIGN NOTES:

1. POLE IS DESIGNED FOR EXPOSURE C TO THE TIA-222-G STANDARD.
2. ALL WIND SPRRED ARE BASED ON 3 SECOND GUSTS.
3. POLE IS DESIGNED FOR A 90 MPH BASIC WIND IN ACCORDANCE WITH TIA-222-G STANDARD.
4. POLE IS ALSO DESIGNED FOR A 30 MPH BASIC WIND WITH 0.75 IN ICE. ICE IS CONSIDERED TO INCREASE THICKNESS WITH HEIGHT.
5. DEFLECTIONS ARE BASED UPON A 60 MPH WIND.
6. POLE STRUCTURE CLASS II.
7. FOUNDATION DIMENSIONS DETERMINED USING NORMAL SOILS, SITE SPECIFIC GEOTECH REQUIRED FOR FINAL DESIGN.

POLE MANUFACTURER NOTES:

1. THERMAL STUDY SHALL BE PERFORMED BY THE POLE MANUFACTURER TO DETERMINE IF THE PROPOSED EQUIPMENT INSIDE POLE IS BEING ADEQUATELY COOLED/HEATED AND PROVIDE A CLIMATE CONTROL SYSTEM AS NECESSARY BY DESIGN.
2. POLE MANUFACTURER SHALL ENSURE THE THE POLE IS WATERPROOF SO THAT THE INTERIOR COMPONENTS OF THE POLE ARE NOT ADVERSELY AFFECTED BY THE EXTERIOR ELEMENTS.
3. POLE ANALYSIS CALCULATIONS AND THERMAL STUDY SHALL BE PROVIDED TO THE ENGINEER OF RECORD WITH THE POLE SUBMITTAL PACKAGE.
4. POLE SHAFT AND ALL PORT RIM STEEL TO BE 65 KSI.
5. ALL OTHER PLATE TO BE 50 KSI.

**MATERIAL STRENGTH**

| GRADE | Fy | Fu | GRADE | Fy | Fu |
|---|---|---|---|---|---|
| A572-50 | 50 ksi | 65 ksi | A572-65 | 65 ksi | 80 ksi |
| A36 | 36 ksi | 58 ksi | | | |

EQUIPMENT CHART

| QTY | DESCRIPTION | CENTERLINE(AGL) | DIMENSIONS (HxWxD) | WEIGHT |
|---|---|---|---|---|
| 1 | GEMTEK ANTENNA CANISTER | 115'-5" +/- | 118" x 33"ø | 633 LBS |
| 2 | 3' MICROWAVE DISH ANTENNA | 107'-2" +/- | 12" x 36"ø | 53 LBS |
| 3 | 2500 MHz FILTER | 102'-2" +/- | 8" x 12.1" x 2.8" | 22 LBS |
| 3 | 2500 MHz RRU | 99'-8" +/- | 25" x 18" x 6" | 66 LBS |
| 3 | 800 MHz FILTER | 97'-2" +/- | 8.6" x 4.65" x 4.73" | 60 LBS |
| 3 | 800 MHz RRU | 95'-2" +/- | 18" x 11" x 15.4" | 53 LBS |
| 3 | 800 MHz FILTER | 93'-2" +/- | 8.6" x 4.65" x 4.73" | 60 LBS |
| 3 | 800 MHz RRU | 90'-8" +/- | 18" x 11" x 15.4" | 53 LBS |
| 3 | 1900 MHz RRU | 89'-2" +/- | 23" x 16" x 13" | 60 LBS |

**POLE ELEVATION** 1

SCALE: 1" = 15'-6" (1" = 7'-6" ON 24"x36" SHEET)

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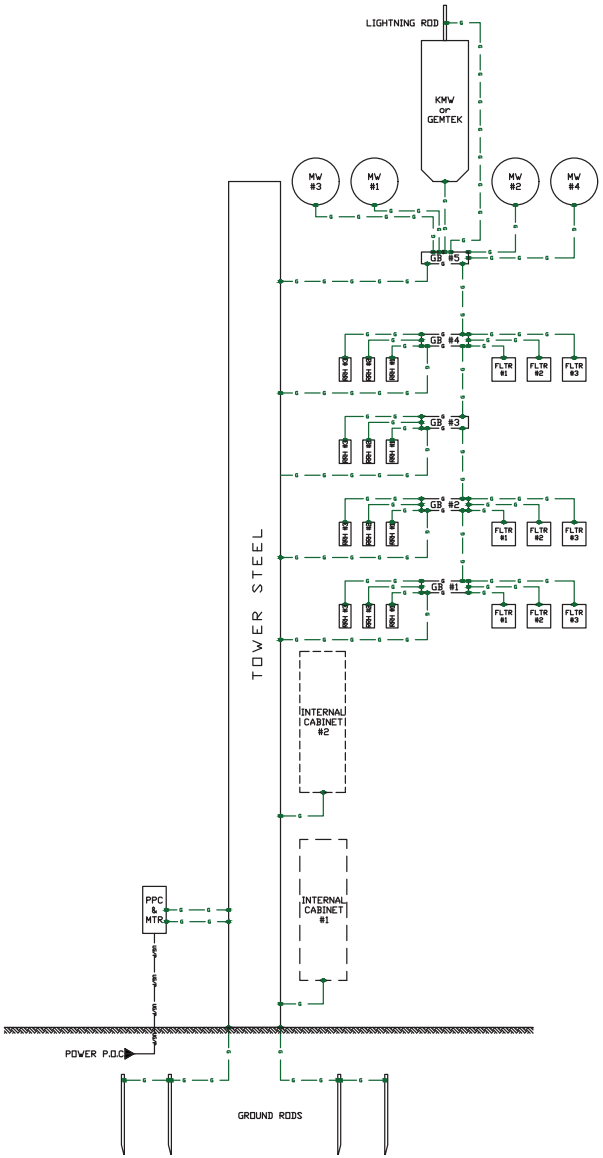
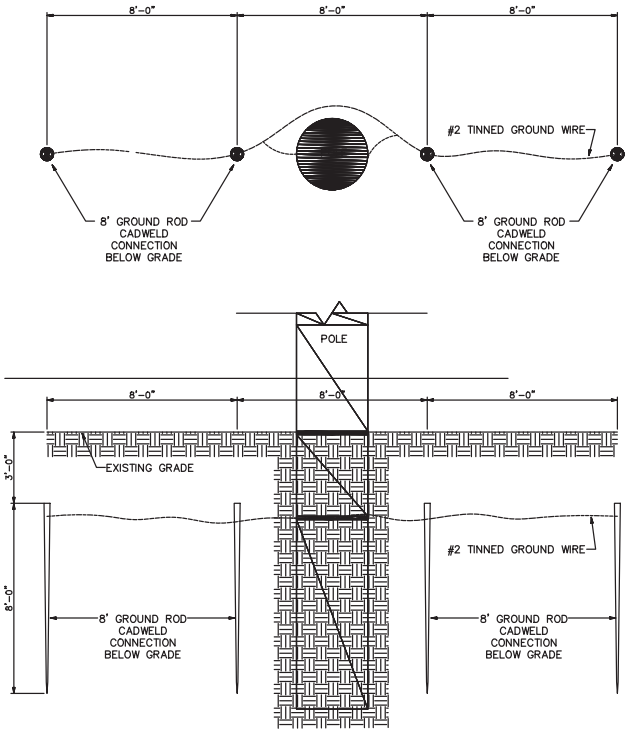



1 GROUNDING SCHEMATIC
SCALE: ########

NOTE:
1.ALL GROUNDS SHALL BE #2AWG STRANDED COPPER GREEN INSULATED WIRE UNLESS OTHERWISE SPECIFIED OR REQUIRED BY MANUFACTURER OR LOCAL ORDINANCE.
2.ALL EXPOSED MECHANICAL GROUND CONNECTIONS WILL BE MADE USING 2-HOLE LUGS OR OEM-PRESCRIBED HARDWARE.
3.ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND KNOWN AS "NO-OXIDEA" BY DEARBORNE CHEMICAL CO.
4.FOR GROUNDING TO TOWER STEEL: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL. COATING ALL SURFACES WITH "NO-OXIDE-A" COMPOUND BEFORE MATING.
5.ALL IN-EARTH GROUND CONNECTIONS WILL BE MADE USING EXOTHERMIC BONDS OR"CADWELDS".
6.CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 10 OHMS MAXIMUM. PROVIDE SUPPLEMENTAL GROUNDING RODS AS REQUIRED (@ 8'-0"O.C.) TO ACHIEVE SPECIFIED OHMS READING.GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE APPLICANT REPRESENTATIVE.




2 GROUND CONNECTION DETAIL
SCALE: ############

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