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November 9, 2017

Quinn M. Barrow, Esq.
City Attorney for Manhattan Beach
Richards Watson & Gershon
355 South Grand Avenue, 40th Floor
Los Angeles, CA 90071-3101

Re. AT&T Distributed Antenna System
City Council Hearing – November 16, 2017

Dear Mr. Barrow:

I write on behalf of New Cingular Wireless PCS, LLC d/b/a AT&T Mobility (AT&T) regarding AT&T's applications to install a distributed antenna system (DAS) consisting of multiple small wireless facilities (called nodes) that will be placed on poles in public rights-of-way in parts of the city where traditional macro facilities are discouraged. AT&T is excited to roll out this win-win project to address its significant gap in service coverage in and around the beach neighborhoods of Manhattan Beach by using low-profile, low-power facilities. Each of the DAS nodes has been selected with input from city staff and based on its location where service coverage is greatly needed. The purpose of this letter is to provide you with an overview of the proposed DAS and to discuss applicable federal laws that support approval of AT&T's applications.

AT&T's Proposed Distributed Antenna System

AT&T seeks to install a DAS in Manhattan Beach as the best available and least intrusive means to close its significant gap in 4G LTE service coverage throughout a large portion of the western communities of Manhattan Beach. More specifically, as explained in the attached Radio Frequency Statement, this gap area is roughly bordered by 40th Street to the north, Homer Street to the south, the Strand and the beach to the west, and Vista and Valley Drives to the east, as well as neighborhoods along Ardmore Avenue to the west of Poinsettia Avenue. By addressing this coverage gap, residents, businesses and visitors to these portions of the city will have access to wireless services including mobile telephone, wireless broadband, emergency 911, data transfers, e-mail, Internet, web browsing, wireless applications, wireless mapping and video streaming. The radio frequency propagation maps submitted with AT&T's applications depict the coverage gain from this project. In addition, updated radio frequency propagation maps attached to the Radio Frequency Statement help show how the DAS will address AT&T's gap.

A DAS network consists of a series of radio access nodes connected to small antennas, typically mounted on existing poles within the public right-of-way, to distribute wireless telecommunications signals. DAS networks provide telecommunications transmission infrastructure for use by wireless services providers to establish or expand their network coverage and capacity. The nodes are linked by fiber optic cable that carry the signal stemming from a central equipment hub to a node antenna. Although the signal propagated from a node

antenna spans over a shorter range than a conventional tower system, DAS can be an effective tool to close service coverage gaps without disturbing the character of the neighborhoods served. In contrast to traditional macro towers, deploying DAS nodes onto poles in public rights-of-way minimizes visual impacts and avoids disturbing the character of the neighborhoods served.

AT&T worked closely with City Staff for the past two years to identify the best available locations and equipment configurations to install the DAS nodes. This process involved walking the gap area to identify appropriate locations to attach antennas and to place equipment to avoid interference with utilities and sidewalks, to avoid impacts to parking, and to minimize visual and aesthetic impacts. As recently as last month, City Staff was suggesting alternative equipment locations and configurations, which AT&T accepted. This process resulted in sixteen proposed DAS nodes. One DAS node was in a controversial location and AT&T and City Staff agreed to pursue further alternative locations. As a result, the Director of Community Development denied AT&T's application for that node – DAS Node MBCH16. The remaining fifteen nodes are before the City Council for consideration, eleven having been approved by the Director of Community Development and four more that are subject to City Council review as they are within the Appealable Area of the Coastal Zone. Attached are analyses of alternatives for fourteen of these fifteen DAS nodes. As you can see, AT&T's proposed locations and configurations for these DAS nodes are the least intrusive means by which AT&T can close its significant service coverage gap. DAS node MBCH20 is not a new location – AT&T is simply swapping the existing AT&T equipment and antennas on this pole – so an alternative sites analysis is not necessary.

Applicable Federal Law Supports Deploying DAS

The federal Telecommunications Act of 1996, 47 U.S.C. § 332 ("Act"), provides rights to wireless service providers and establishes limitations upon state and local zoning authorities with respect to applications for permits to construct personal wireless service facilities. This important law was enacted in part to prioritize and streamline proliferation of wireless technologies on a national basis.[1] Thus, the Act fosters increased infrastructure deployments, such as the proposed DAS.

Rapid deployment of wireless telecommunications facilities is important, especially given the trend of Americans eliminating traditional landline telephone service in favor of wireless communications. The Center for Disease Control and Prevention ("CDC") tracks "wireless substitution" rates as part of its National Health Interview Survey, and the CDC publishes the statistics every six months in its Wireless Substitution reports. The most recent report, issued in May 2017, finds that 50.8% of American homes have only wireless telephones, and another 15.0% receive all or almost all calls on wireless telephones despite also having a landline.[2] With

[1] *See City of Rancho Palos Verdes v. Abrams*, 544 U.S. 113, 115-16 (2005) (explaining that Congress intended to promote rapid deployment of wireless technologies by removing impediments to construction imposed by local governments).

[2] CDC's May 2017 *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July-December 2016* is available at http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201705.pdf.

more than 65% of households relying exclusively or primarily on mobile communication devices at home, it is important that the city foster AT&T's efforts to bring wireless services into residential communities throughout the western portion of the city.

The Act defines the scope and parameters of the city's overall review of AT&T's applications. The Act prohibits a local government from denying applications for wireless telecommunications facilities where doing so would "prohibit or have the effect of prohibiting the provision of personal wireless services."[3] Courts have found an "effective prohibition" exists where a wireless carrier demonstrates (1) a "significant gap" in wireless service coverage; and (2) that the proposed facility would provide the "least intrusive means," in relation to the land use values embodied in local regulations, to provide the service coverage necessary to fill that gap.[4] If a wireless carrier satisfies both of these requirements, state and local standards that would otherwise be sufficient to permit denial of the facility are preempted and the municipality must approve the wireless facility.[5] When a wireless provider presents evidence of a significant gap and the absence of a less intrusive alternative, the burden shifts to the local government to prove that a less intrusive alternative exists. In order to meet this burden (and overcome the presumption in favor of federal preemption), the local government must show that another alternative is available that fills the significant gap in coverage, that it is technologically feasible, and that it is "less intrusive" than the proposed facility.[6]

Here, AT&T has met both prongs of the test by demonstrating that it has a significant service coverage gap and that the proposed DAS is the least intrusive means to close the gap. As depicted in the propagation maps that were filed with the applications and the updated propagation maps that are exhibits to the attached Radio Frequency Statement, coverage is quite poor in this portion of the city. This service coverage gap covers a wide area that includes several hundreds of home, key commercial districts, well-traveled roads, the Strand and the beach, and various other points of interest in the beach neighborhoods of Manhattan Beach. For each DAS node, AT&T reviewed alternative sites and worked closely with City Staff on locations and configurations for the antennas and equipment. The attached alternative sites analyses help show that each node location is the least intrusive means to address AT&T's significant service coverage gap. In addition, DAS Node MBCH20 is least intrusive because we are choosing to swap out existing equipment and antennas rather than to install a new site. Because each proposed DAS node is least intrusive and helps to address AT&T's significant service coverage gap, federal law requires the city to approve AT&T's applications.

AT&T's proposed DAS offers the city far more than simply complying with federal law. The DAS will provide important wireless communications services to Manhattan Beach's beach

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[3] 47 U.S.C. §332(c)(7)(B)(i)(II).

[4] *See e.g., Metro PCS, Inc. v. City and County of San Francisco,* 400 F.3d 715, 734-35 (9th Cir. 2005), abrogated on other grounds, *T-Mobile South, LLC v. City of Roswell*, 135 S.Ct. 808 (2015); *Sprint PCS Assets, LLC v. City of Palos Verdes Estates,* 583 F.3d 716, 726 (9th Cir. 2009).

[5] *See T-Mobile USA, Inc. v. City of Anacortes,* 572 F.3d 987, 999 (9th Cir. 2009).

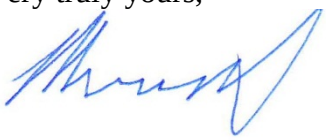
[6] *Id.*, 572 F.3d at 998-999.

neighborhoods and beyond. This important service coverage will be provided using small wireless facilities that will suit residential neighborhoods where large towers are undesirable. In fact, AT&T has taken very serious the need to design the DAS and each node to be compatible with its surroundings. In the end, we believe that we have developed the best available and least intrusive means to address the very serious service coverage problems in this portion of the city.

Conclusion

AT&T is diligently trying to upgrade its network to meet the growing wireless communications demands within the beach neighborhoods of Manhattan Beach, and is doing so in a manner that takes prudent and careful consideration of the impacts of its facilities and the values that the city seeks to promote. AT&T's Proposed Facility complies with the City's Code and is the least intrusive means by which AT&T can close its significant service coverage gap in this portion of Manhattan Beach. To take advantage of this opportunity for a low-profile solution to AT&T's coverage gap, the City Council should approve AT&T's fifteen pending applications.

Very truly yours,



Michael van Eckhardt

Attachment A: Radio Frequency Statement (November 6, 2017)
Attachment B: Alternative Sites Analyses

cc: Anne McIntosh, Director of Community Development

AT&T Mobility Radio Frequency Statement
Manhattan Beach Distributed Antenna System

STATEMENT OF MONICA BANUELOS

I am the AT&T radio frequency engineer assigned to the proposed distributed antenna system (the "DAS") that will include sixteen (16) DAS nodes located on a poles in the public rights-of-way along streets in the western portions of Manhattan Beach. Based on my personal knowledge of the proposed DAS nodes and with AT&T's wireless network, as well as my review of AT&T's records with respect to the DAS and its wireless communications facilities in the surrounding area, I have concluded that the DAS is needed to close AT&T's significant service coverage gap in a large portion of the western communities of Manhattan Beach. More specifically, this gap area is roughly bordered by 40th Street to the north, Homer Street to the south, the Strand and the beach to the west, and Vista and Valley Drives to the east, as well as neighborhoods along Ardmore Avenue to the west of Poinsettia Avenue. This large portion of Manhattan Beach includes many thousands of homes, commercial districts, the beach, and various other points of interest. To remedy this service coverage gap, AT&T needs to construct new wireless communications infrastructure.

The service coverage gap is caused by inadequate infrastructure in the area. As explained further in Exhibit 1, AT&T's existing facilities cannot adequately serve its customers in the desired area of coverage, let alone address rapidly increasing data usage. The DAS will help to close the gap in coverage and address rapidly increasing data usage driven by smart phone and tablet usage. This site is part of an effort to fully deploy 4G LTE technology in the area. 4G LTE is capable of delivering speeds up to 10 times faster than industry-average 3G speeds. LTE technology also offers lower latency, or the processing time it takes to move data through a network, such as how long it takes to start downloading a webpage or file once you've sent the request. Lower latency helps to improve the quality of personal wireless services. What's more, LTE uses spectrum more efficiently than other technologies, creating more space to carry data traffic and services and to deliver a better overall network experience.

AT&T uses industry standard propagation tools to identify the areas in its network where signal strength is too weak to provide reliable in-building service quality. This information is developed from many sources including terrain and clutter databases, which simulate the environment, and propagation models that simulate signal propagation in the presence of terrain and clutter variation. AT&T designs and builds its wireless network to ensure customers receive reliable in-building service quality. In-building service is critical as customers increasingly use their mobile phones as their primary communication device (more than 50% of American households are now wireless only) and rely on their mobile phones to do more (E911, GPS, web access, text, etc.).

Exhibit 2 is a map of the existing LTE 4G service coverage (without the proposed DAS) in the area at issue. It includes service coverage provided by existing AT&T sites. The green shaded areas depict areas within a signal strength range that provide acceptable in-building service coverage. In-building coverage means customers are able to place or receive a call on the ground floor of a building. The yellow shaded areas depict areas within a signal strength range that provide acceptable in-vehicle service coverage. In these areas, an AT&T customer should be able to successfully place or receive a call within a vehicle. The lavender and white areas depict areas in which a customer might have difficulty receiving a consistently acceptable level of service. The quality of service experienced by any individual customer can differ greatly depending on whether that customer is indoors, outdoors, stationary, or in transit. Any area in the yellow, lavender or white category is considered inadequate service coverage and constitutes a service coverage gap.

Exhibit 3 is a map that depicts service coverage based on signal strength from the DAS once constructed as proposed. As shown by this map, placement of the DAS nodes as proposed closes the significant LTE 4G service coverage gap.

In addition, each of the proposed DAS nodes will close a specific significant service coverage gap. Exhibits 4 through 19 depict predicted service coverage based on signal strength from each of the individual DAS nodes as proposed. These maps show that the placement of each DAS node will close a significant service coverage gap in this portion of Manhattan Beach.

I have a Bachelor's Degree in Electrical Engineering from California State Polytechnic University, Pomona, and have worked as an engineering expert in the wireless communications industry for 22 years.

Monica Banuelos
AT&T Mobility Services, LLC
Network, Planning & Engineering
RAN Design & RF Engineering
November 6, 2017

EXHIBIT 1

Prepared by AT&T Mobility

AT&T's digital wireless technology converts voice or data signals into a stream of digits to allow a single radio channel to carry multiple simultaneous signal transmissions. This technology allows AT&T to offer services such as secured transmissions and enhanced voice, high-speed data, texting, video conferencing, paging and imaging capabilities, as well as voicemail, visual voicemail, call forwarding and call waiting that are unavailable in analog-based systems. With consumers' strong adoption of smartphones, customers now have access to wireless broadband applications, which consumers utilize at a growing number.

Mobile data traffic in the United States grew by 75,000 percent over a six-year span, from 2001-2006. And AT&T estimates that since the introduction of the iPhone in 2007, mobile data minutes have increased 250,000 percent on its network.

Mobile devices using AT&T's technology transmit a radio signal to antennas mounted on a tower, pole, building, or other structure. The antenna feeds the signal to electronic devices housed in a small equipment cabinet, or base station. The base station is connected by microwave, fiber optic cable, or ordinary copper telephone wire to the Radio Network Controller, subsequently routing the calls and data throughout the world.

The operation of AT&T's wireless network depends upon a network of wireless communications facilities. The range between wireless facilities varies based on a number of factors. The range between AT&T mobile telephones and the antennas in Manhattan Beach, for example, is particularly limited as a result of topographical challenges, trees, and other obstructions as well as high demand and limited capacity of existing facilities.

To provide effective, reliable, and uninterrupted service to AT&T customers in their cars, public transportation, home, and office, without interruption or lack of access, coverage must overlap in a grid pattern resembling a honeycomb.

In the event that AT&T is unable to construct or upgrade a wireless communications facility within a specific geographic area, so that each site's coverage reliably overlaps with at least one adjacent facility, AT&T will not be able to provide adequate personal wireless service to its customers within that area. Some consumers will experience an abrupt loss of service. Others will be unable to obtain reliable service, particularly if they are placing a call inside a building.

Service problems occur for customers even in locations where the coverage maps on AT&T's "Coverage Viewer" website appear to indicate that coverage is available. As the legend to the Coverage Viewer maps indicates, these maps depict a high-level *approximation* of coverage, which may not show gaps in coverage; *actual* coverage in an area may differ substantially from map graphics, and may be affected by such things as terrain, foliage, buildings and other construction, motion, customer equipment, and network traffic. The legend states that AT&T does not guarantee coverage and its coverage maps are not intended to show actual customer performance on the network, nor are they intended to show future network needs or build requirements inside or outside of AT&T's existing coverage areas.

It is also important to note that the signal losses and service problems described above can and do occur for customers even at times when certain other customers in the same vicinity may be able to initiate and complete calls on AT&T's network (or other networks) on their

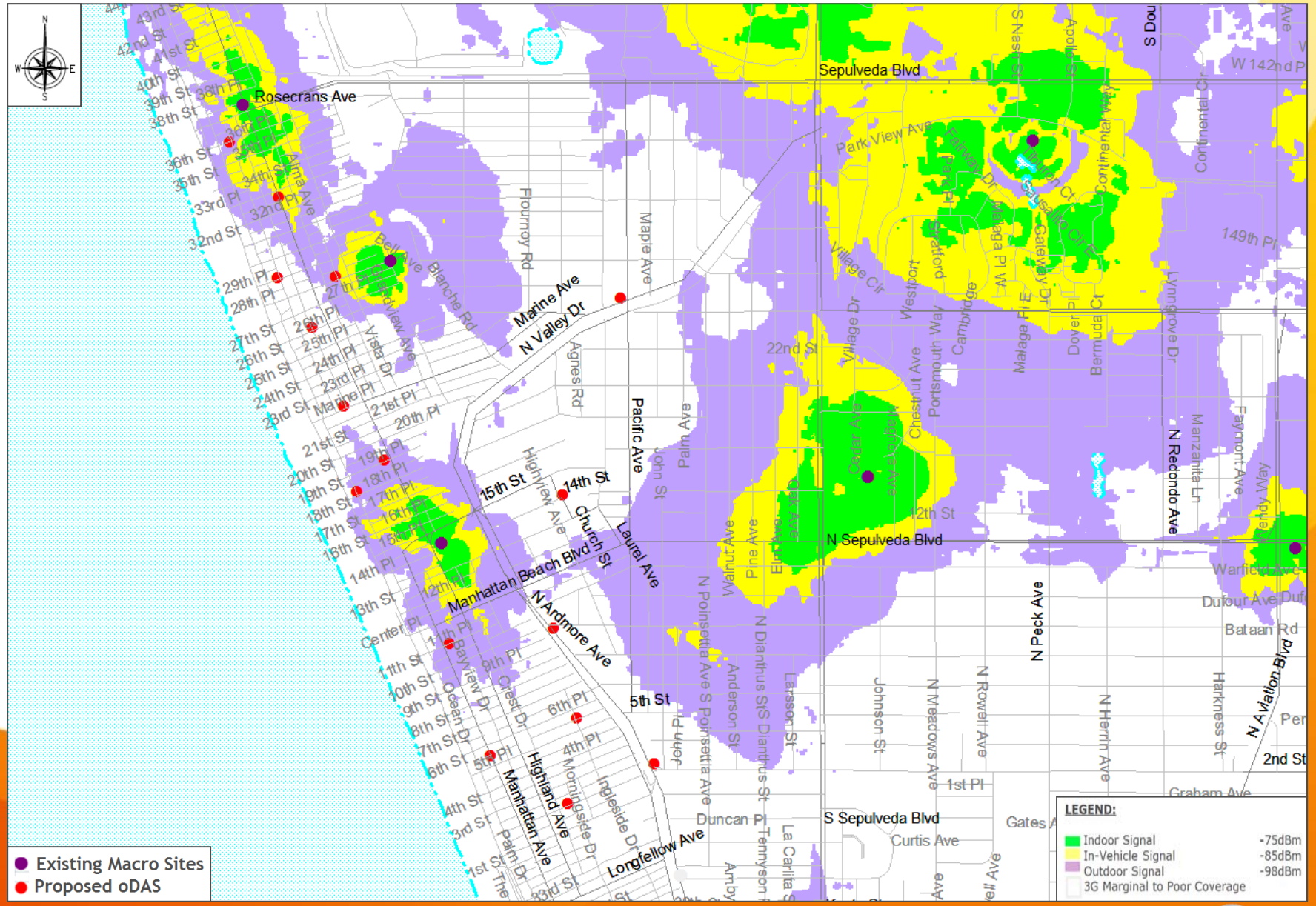
wireless phones. These problems also can and do occur even when certain customers' wireless phones indicate "all bars" of signal strength on the handset.

The bars of signal strength that individual customers can see on their wireless phones are an imprecise and slow-to-update estimate of service quality. In other words, a customer's wireless phone can show "five bars" of signal strength, but that customer can still, at times, be unable to initiate voice calls, complete calls, or download data reliably and without service interruptions.

To determine where new or upgraded telecommunications facilities need to be located for the provision of reliable service in any area, AT&T's radio frequency engineers rely on far more complete tools and data sources than just signal strength from individual phones. AT&T creates maps incorporating signal strength that depict existing service coverage and service coverage gaps in a given area.

To rectify this significant gap in its service coverage, AT&T needs to locate a wireless facility in the immediate vicinity of the Property.

LTE 1900MHz Existing Macro - Coverage



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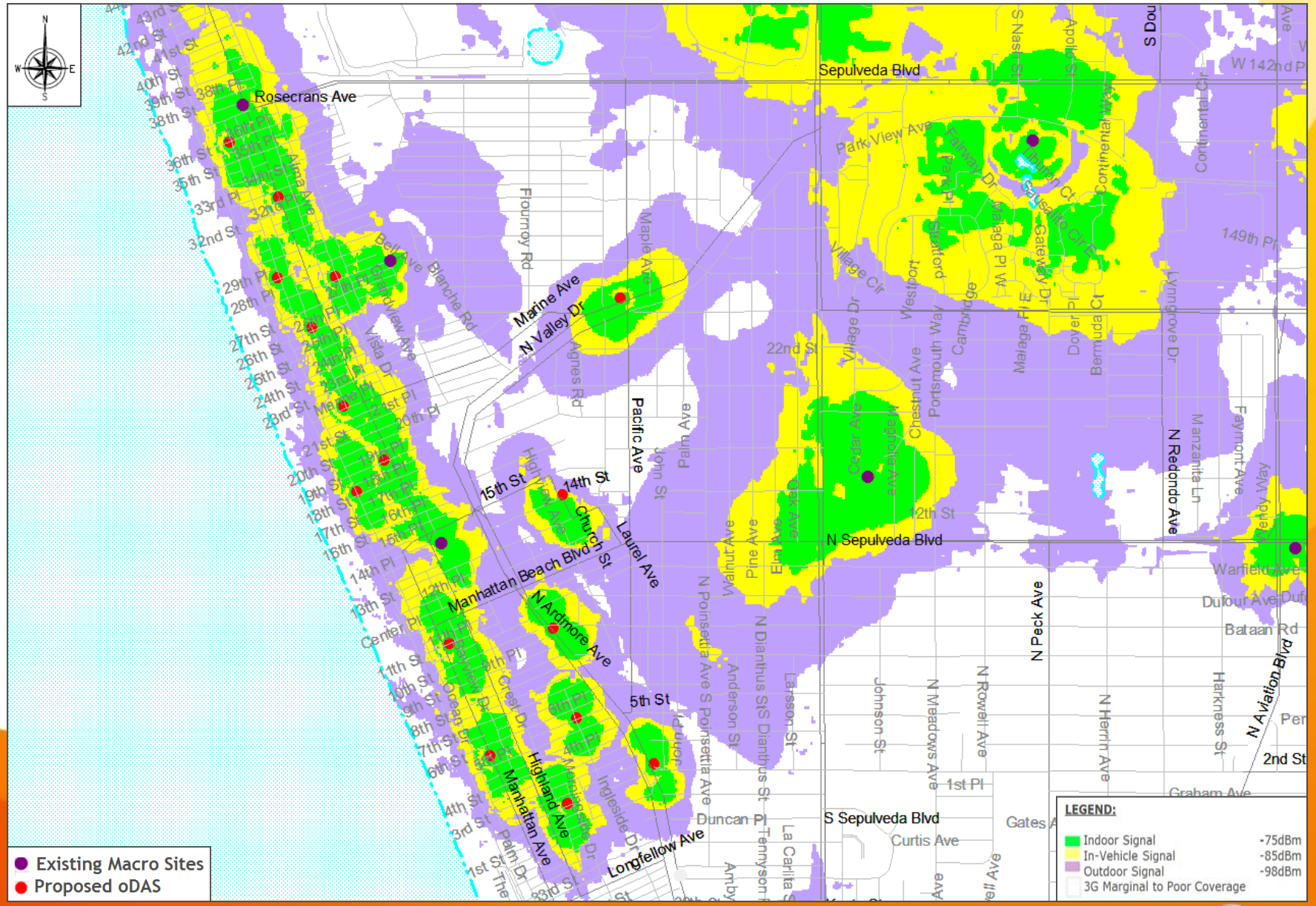
LTE 1900MHz Coverage (Existing Macro + Proposed oDAS)



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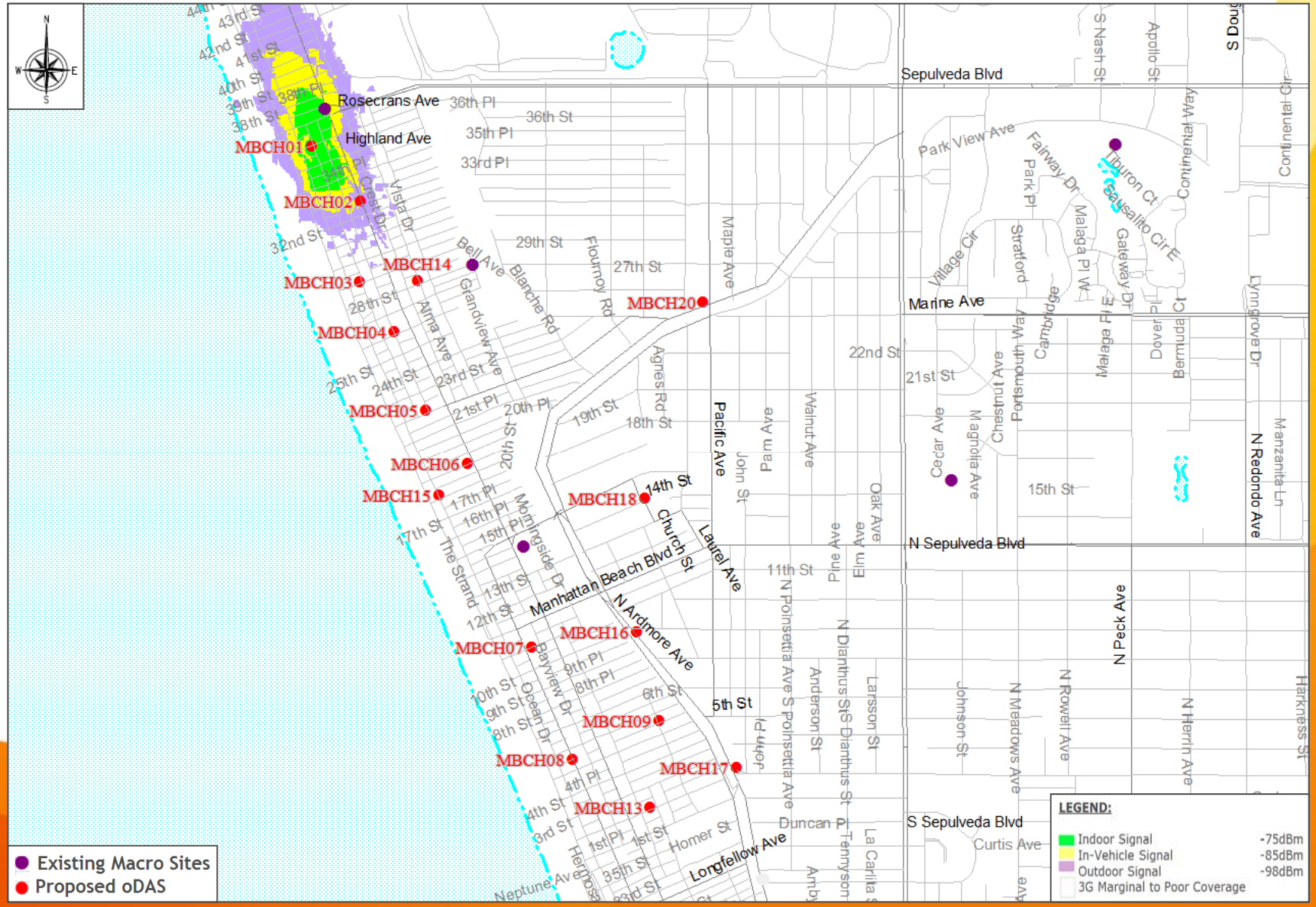
LTE 1900MHz Coverage of Proposed oDAS (MBCH01)



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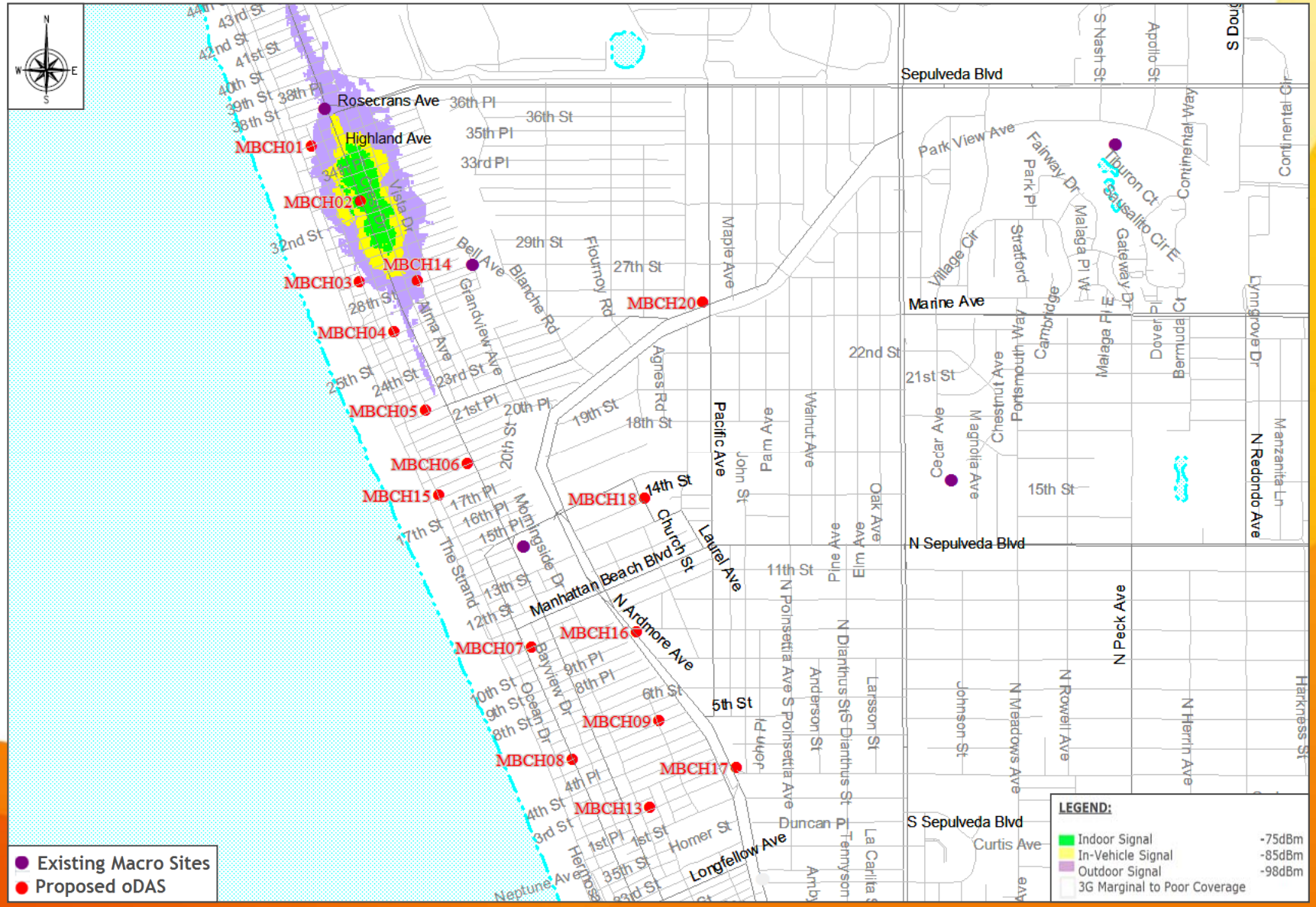
LTE 1900MHz Coverage of Proposed oDAS (MBCH02)



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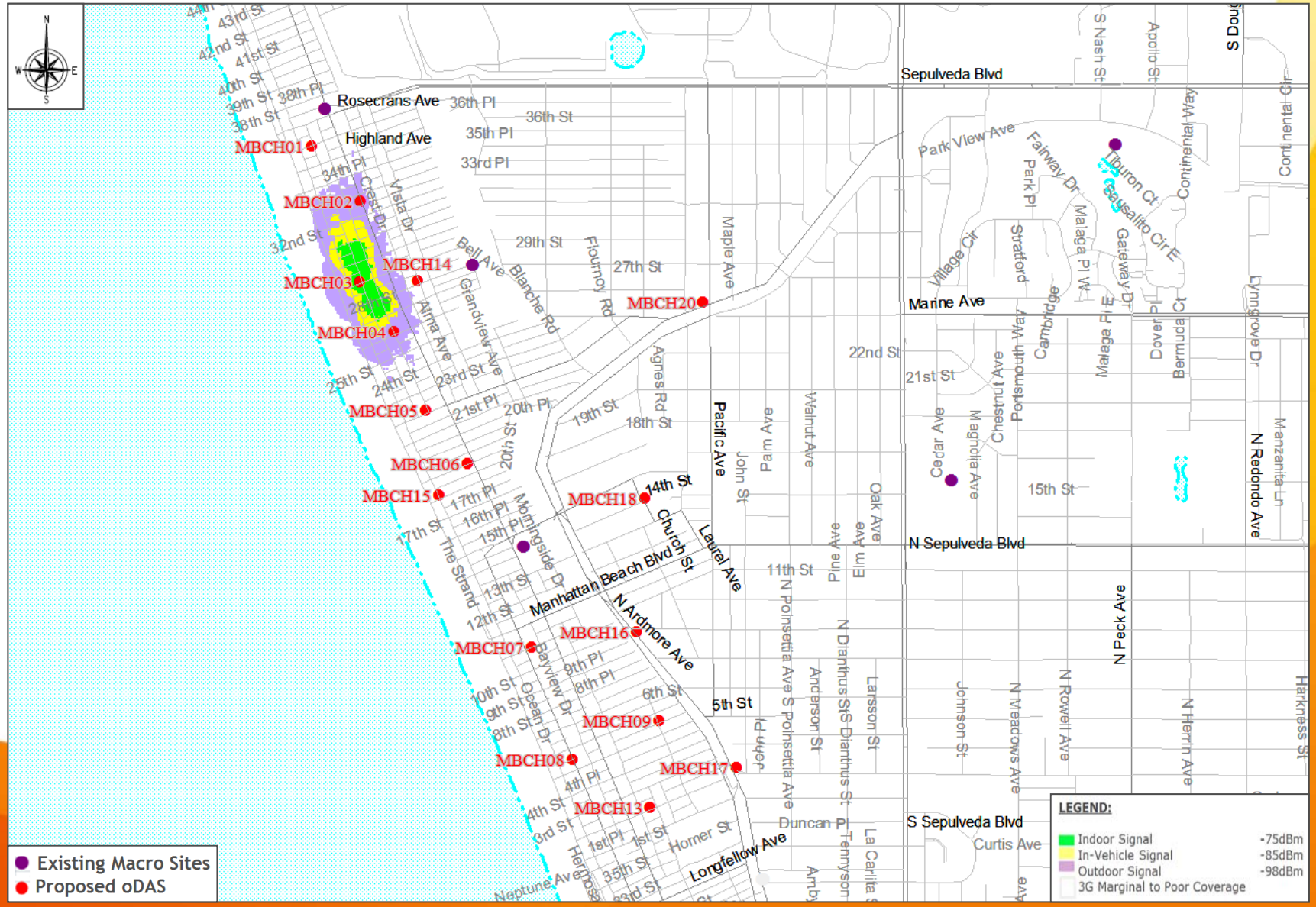
LTE 1900MHz Coverage of Proposed oDAS (MBCH03)



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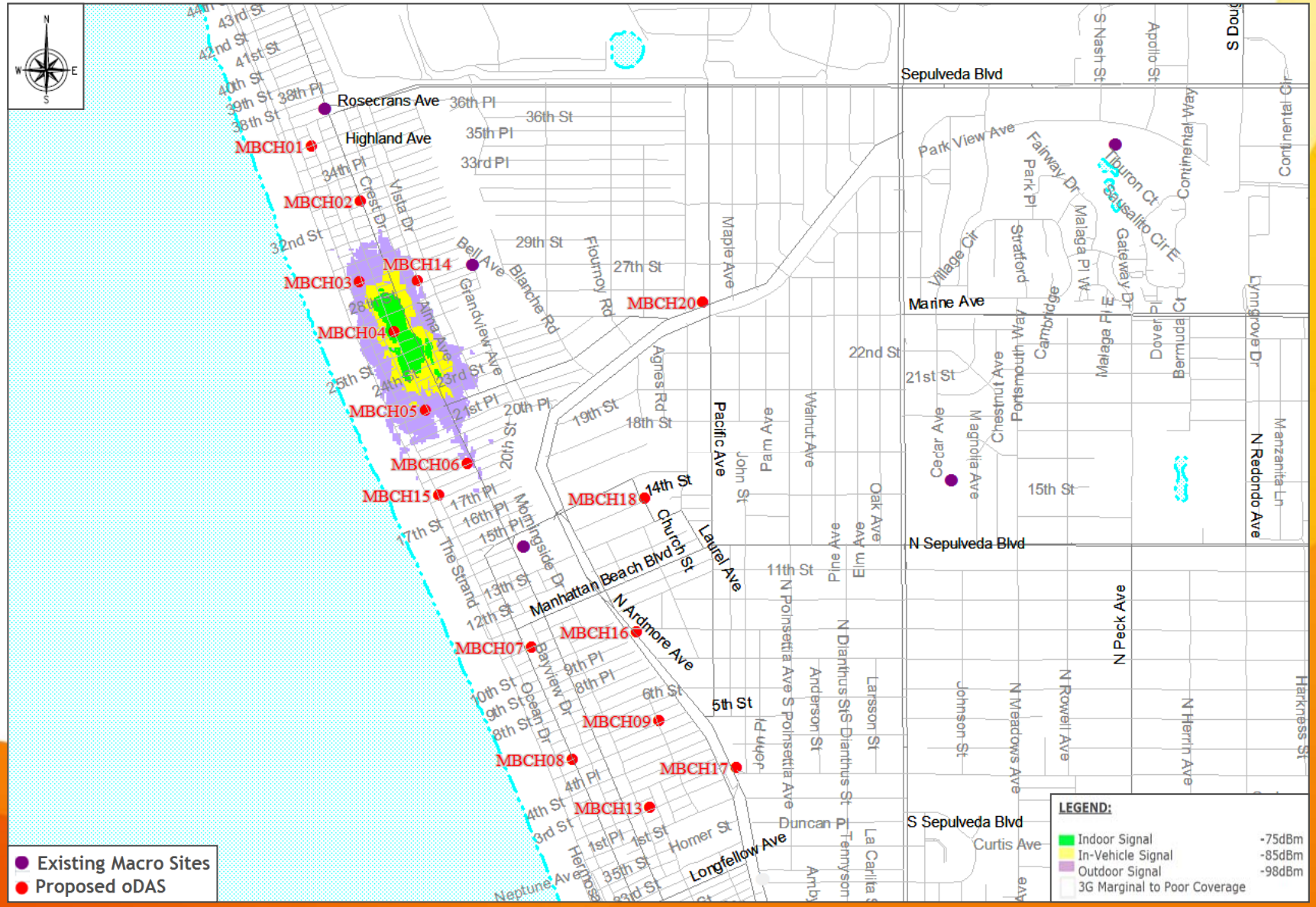
LTE 1900MHz Coverage of Proposed oDAS (MBCH04)



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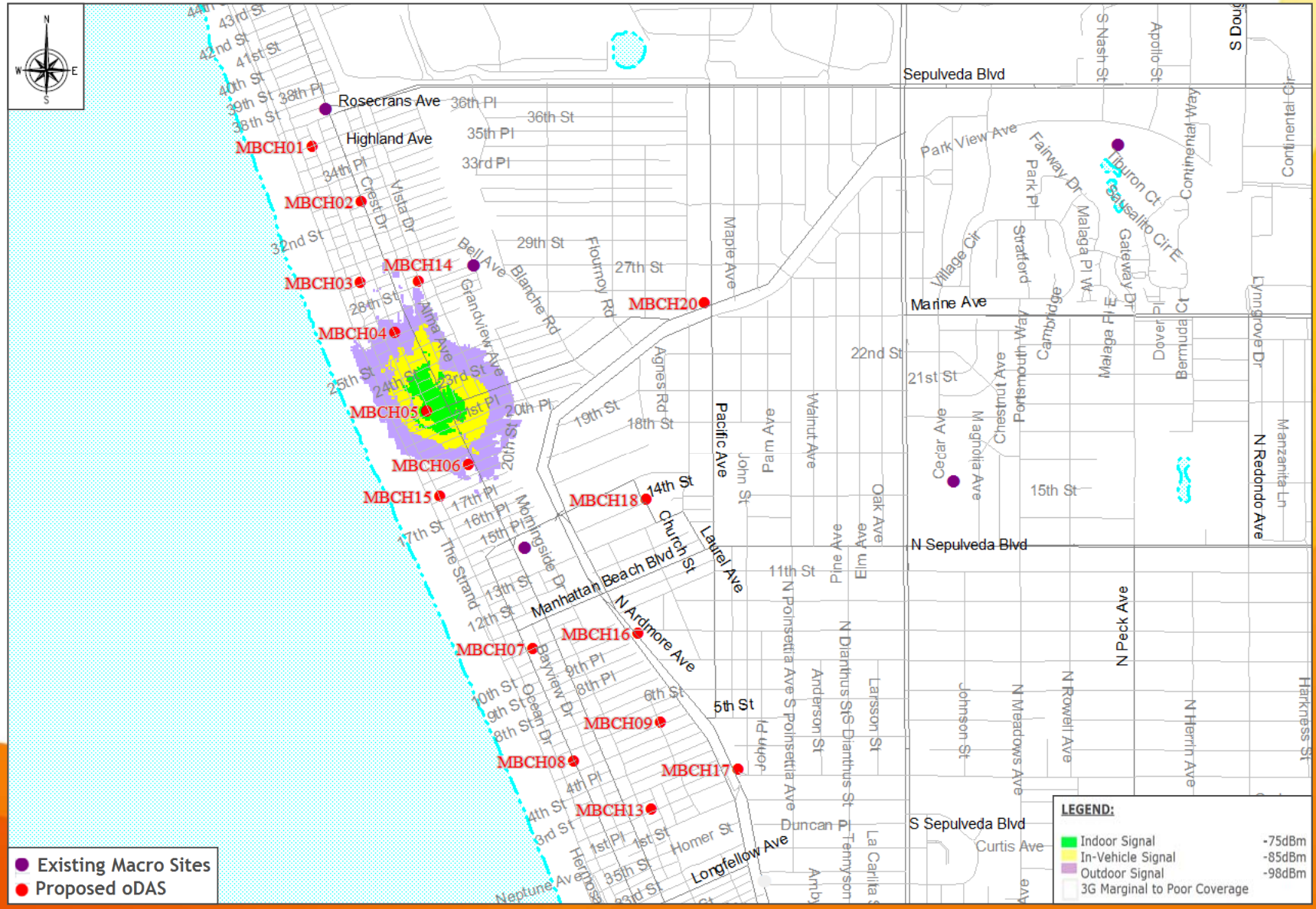
LTE 1900MHz Coverage of Proposed oDAS (MBCH05)



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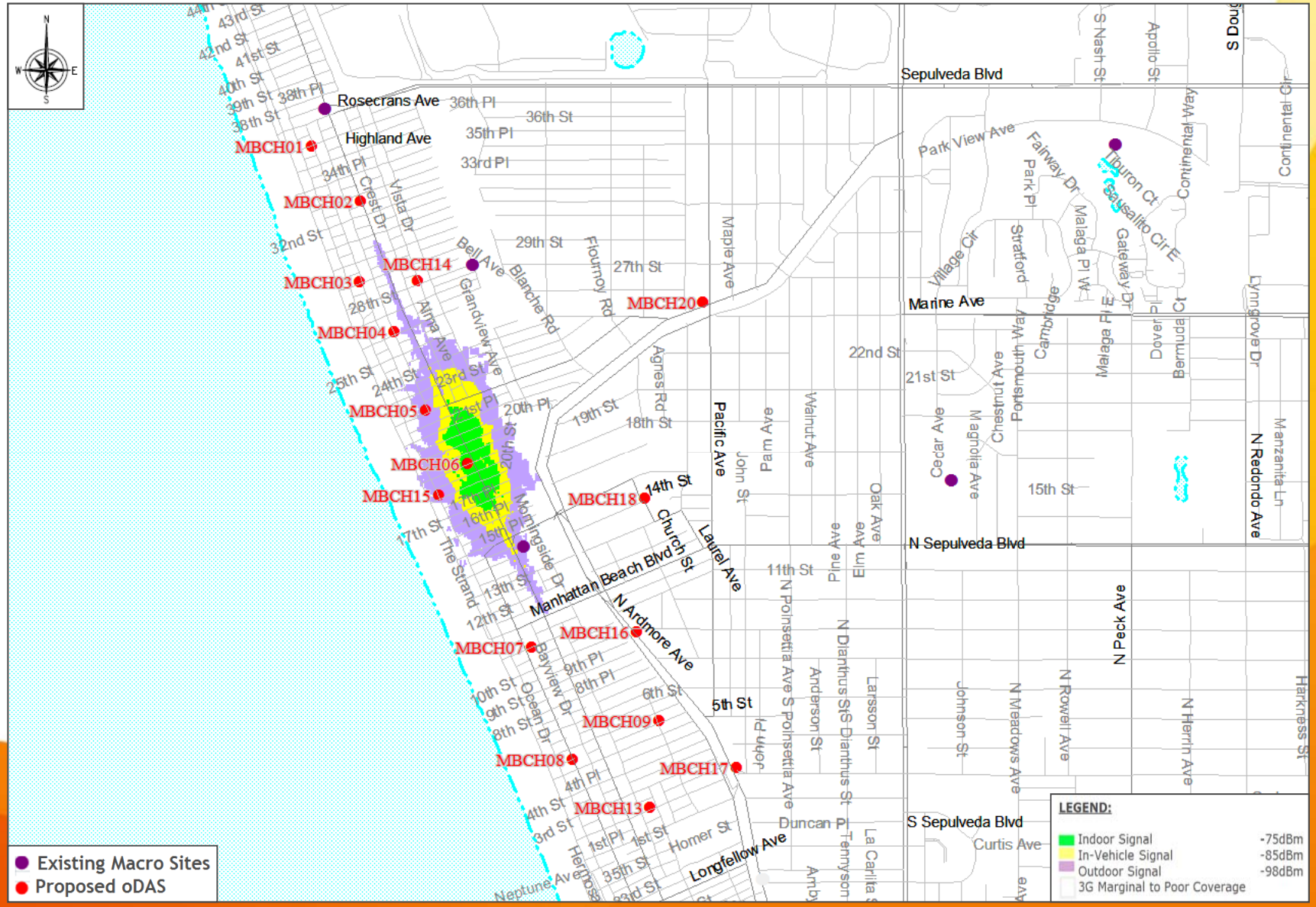
LTE 1900MHz Coverage of Proposed oDAS (MBCH06)



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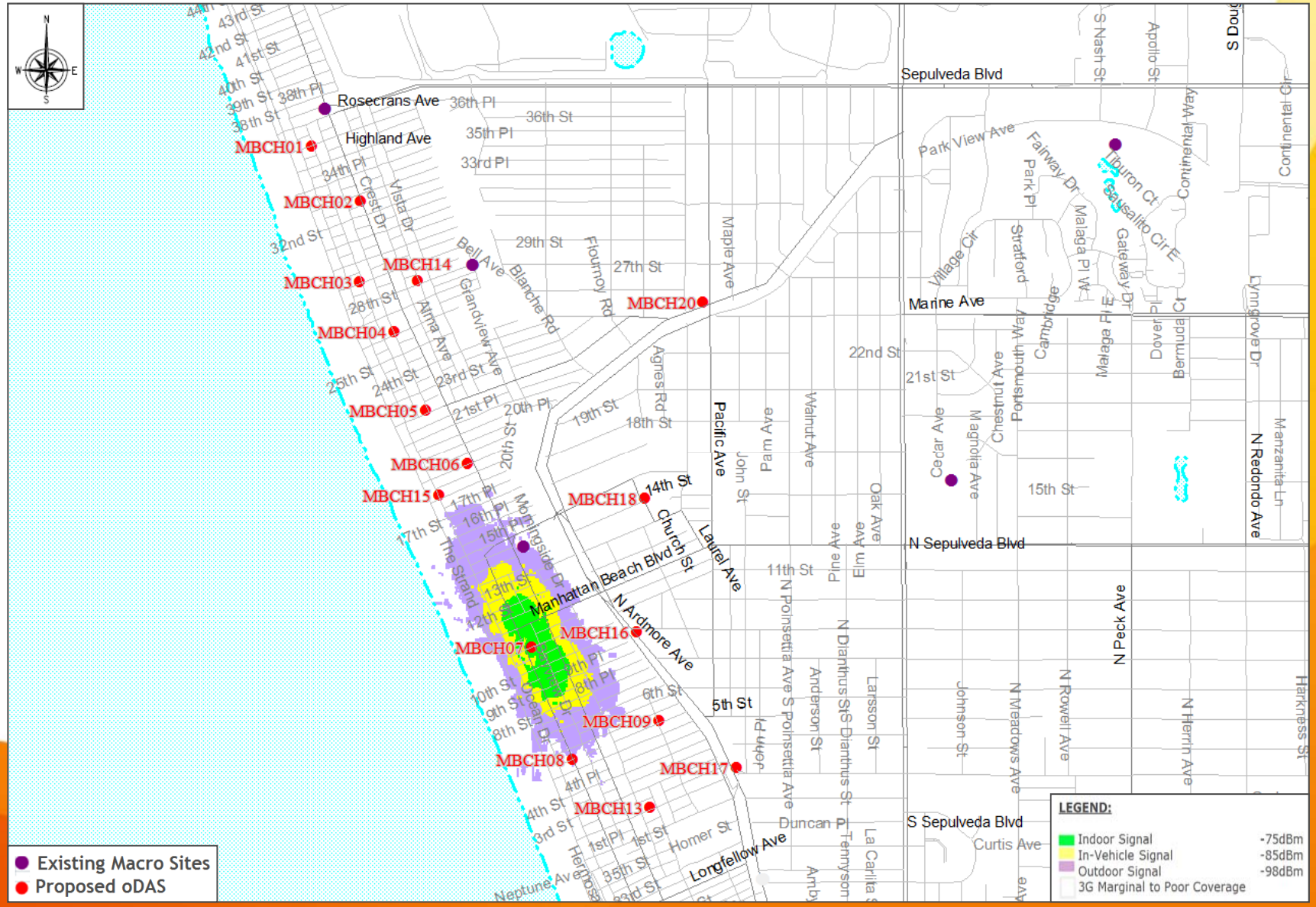
LTE 1900MHz Coverage of Proposed oDAS (MBCH07)



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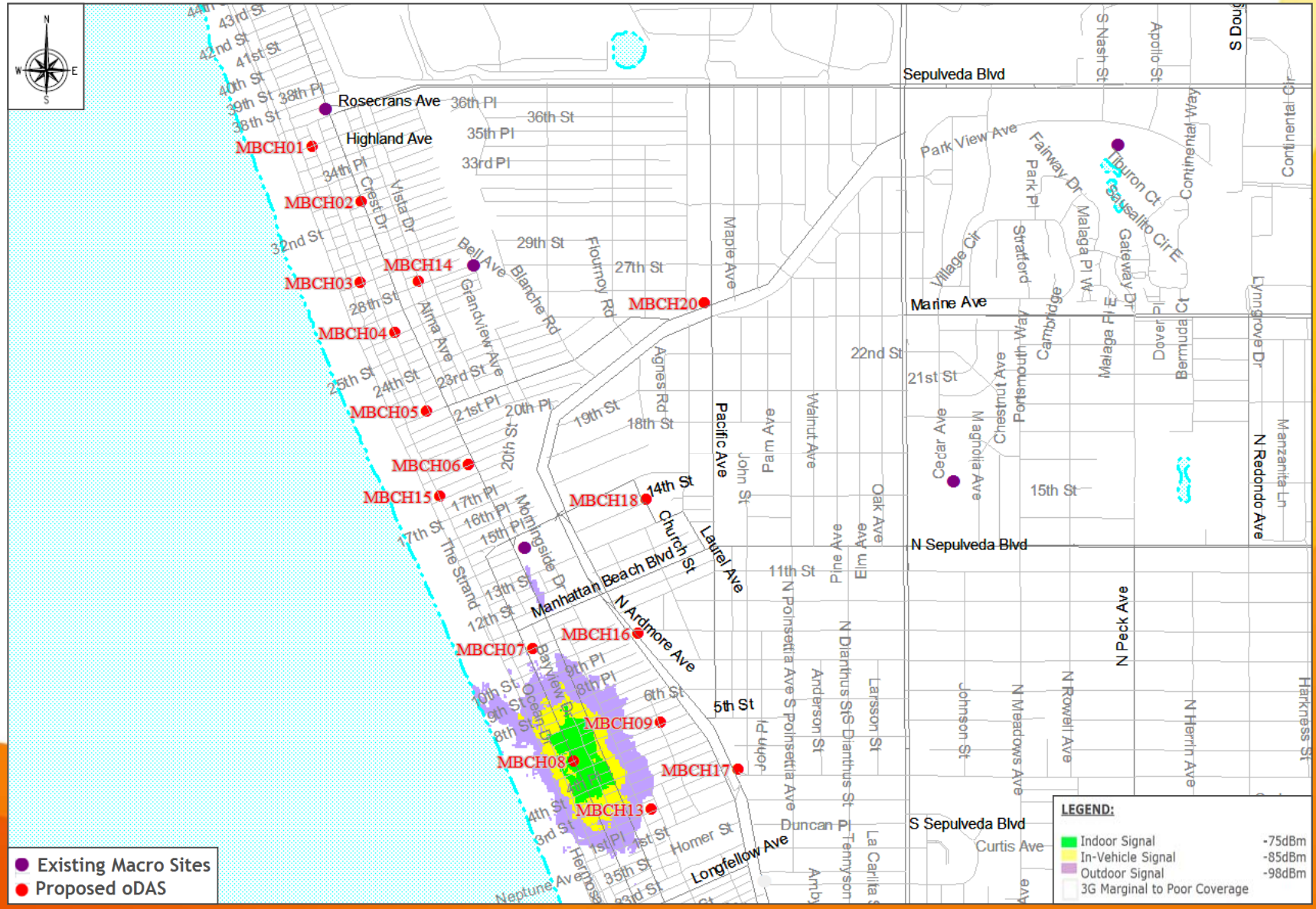
LTE 1900MHz Coverage of Proposed oDAS (MBCH08)



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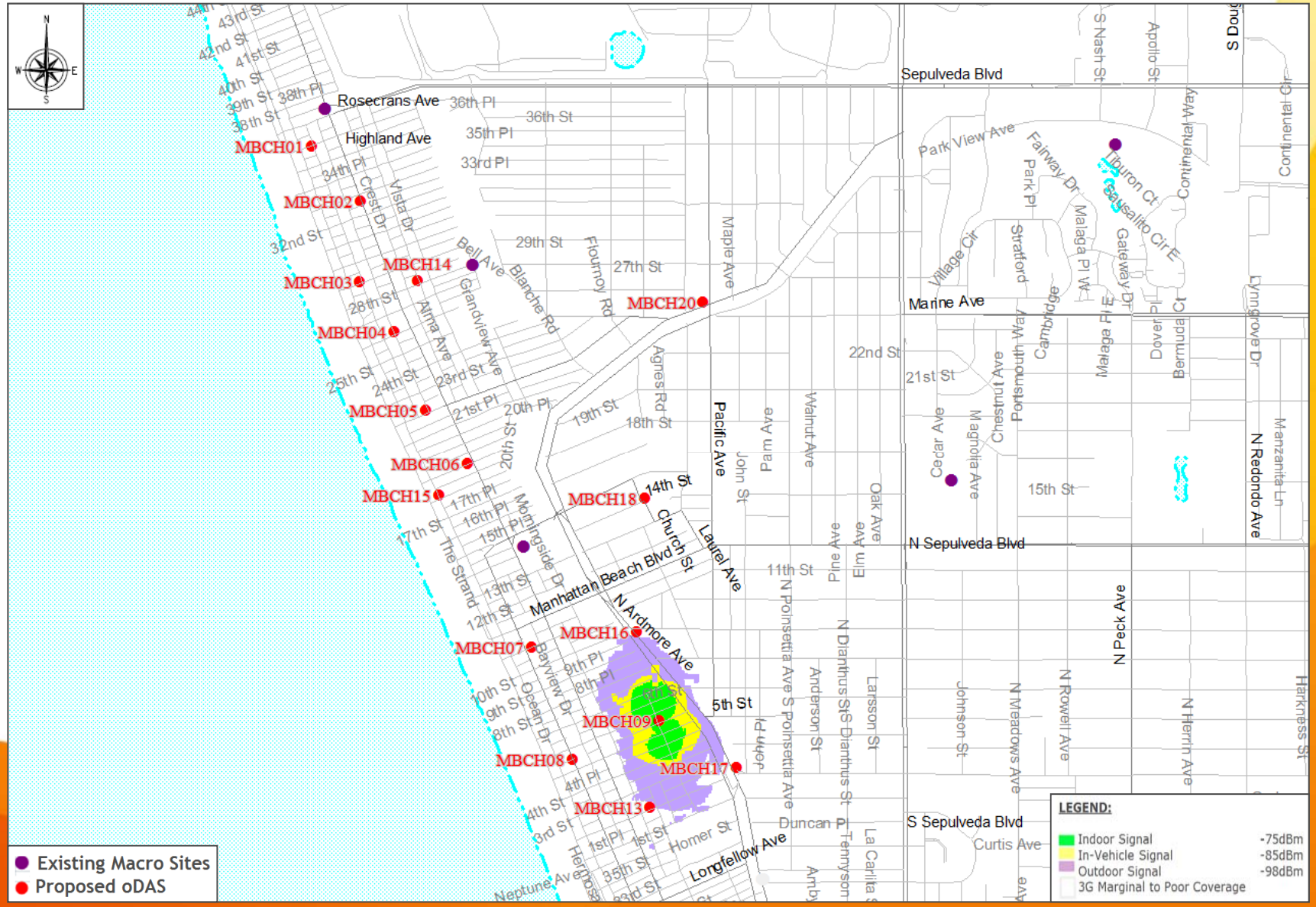
LTE 1900MHz Coverage of Proposed oDAS (MBCH09)



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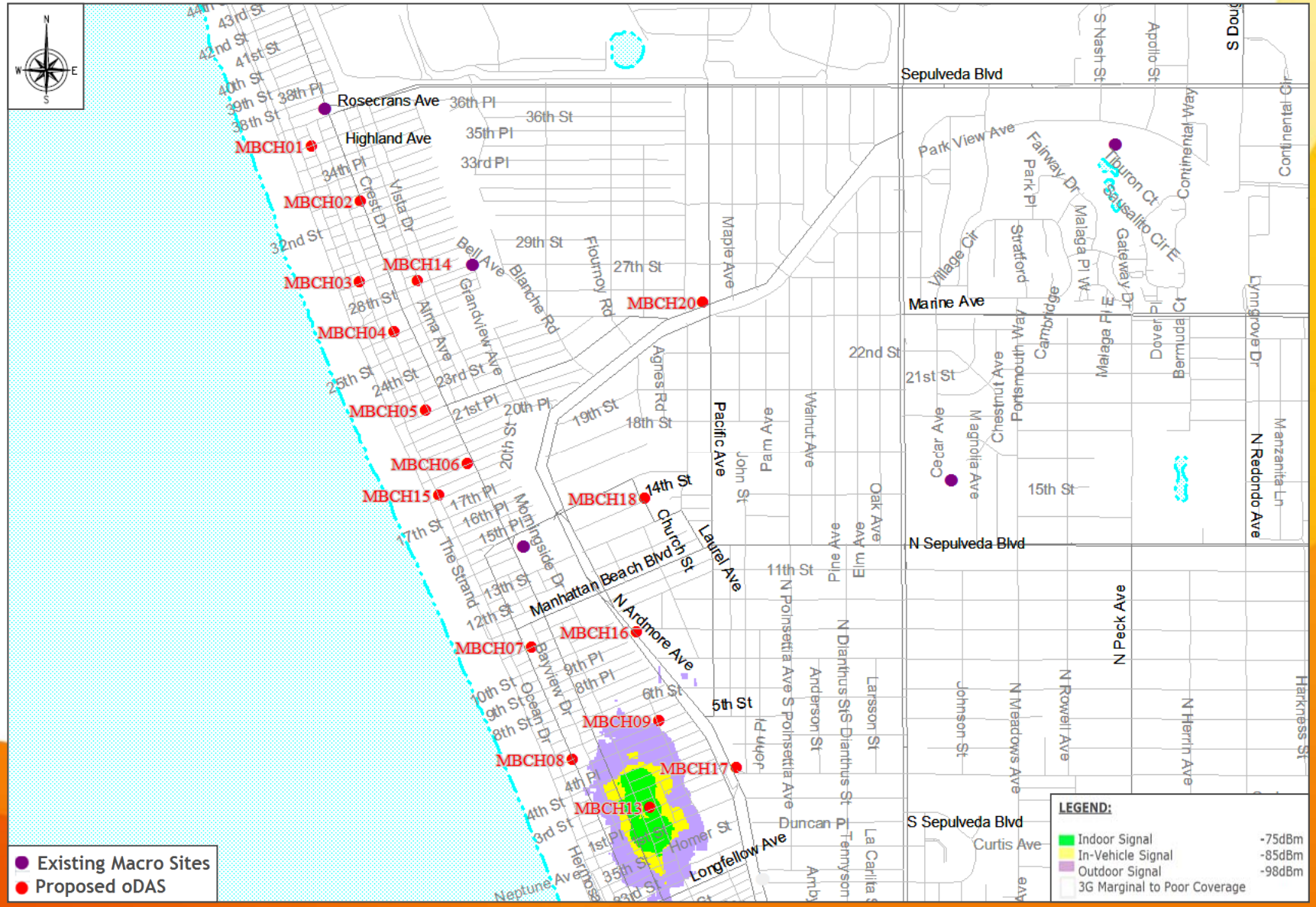
LTE 1900MHz Coverage of Proposed oDAS (MBCH13)



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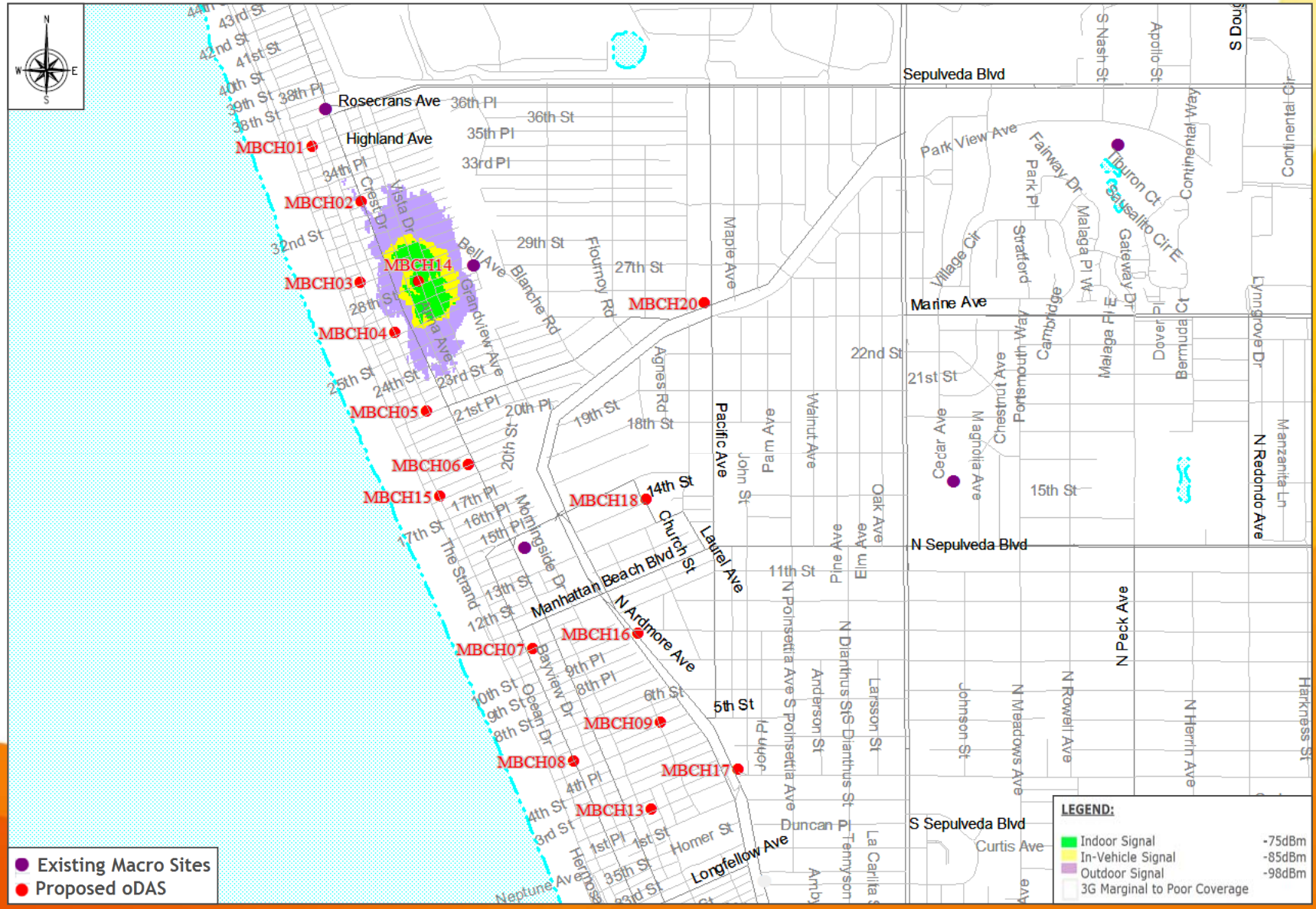
LTE 1900MHz Coverage of Proposed oDAS (MBCH14)



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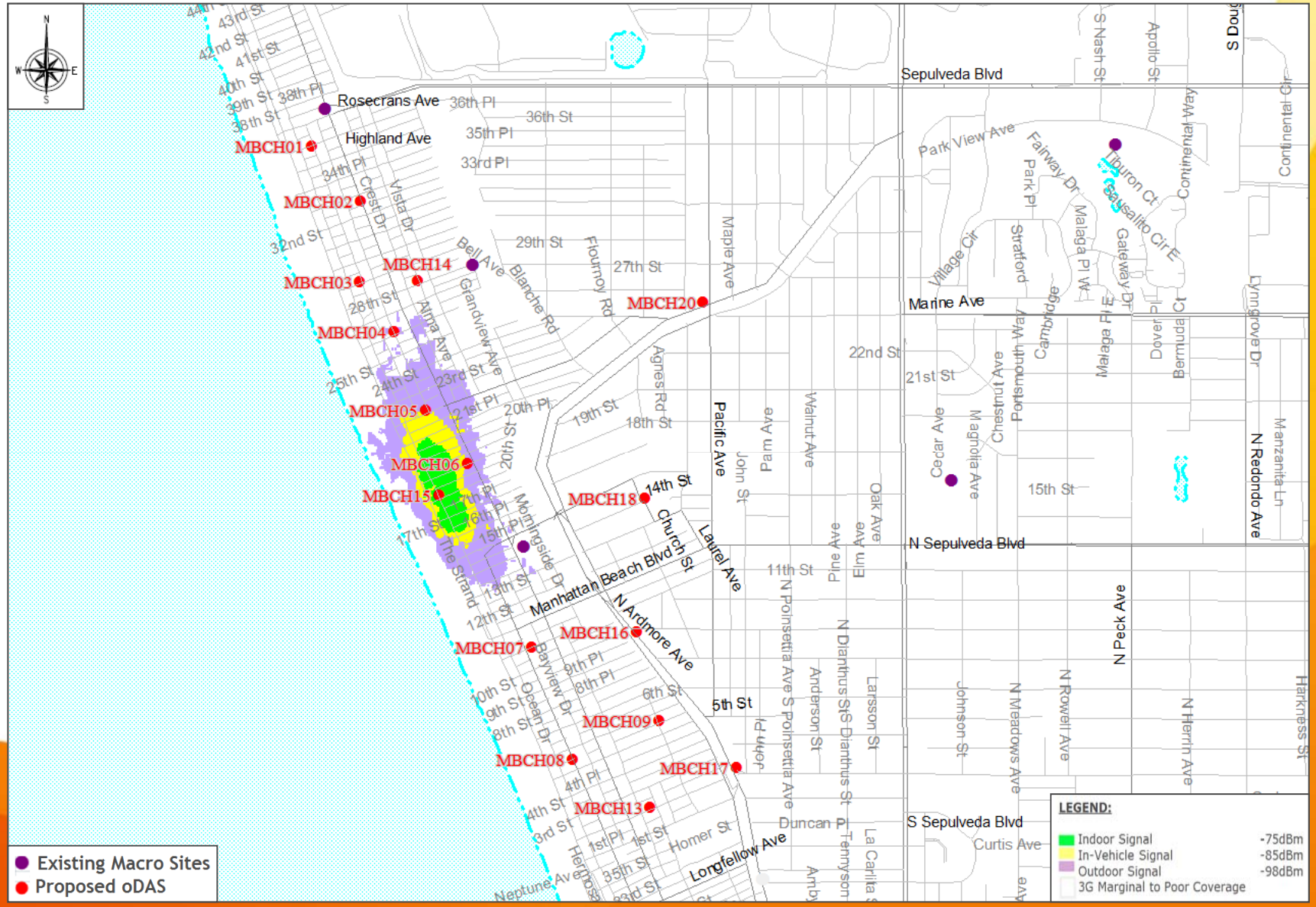
LTE 1900MHz Coverage of Proposed oDAS (MBCH15)



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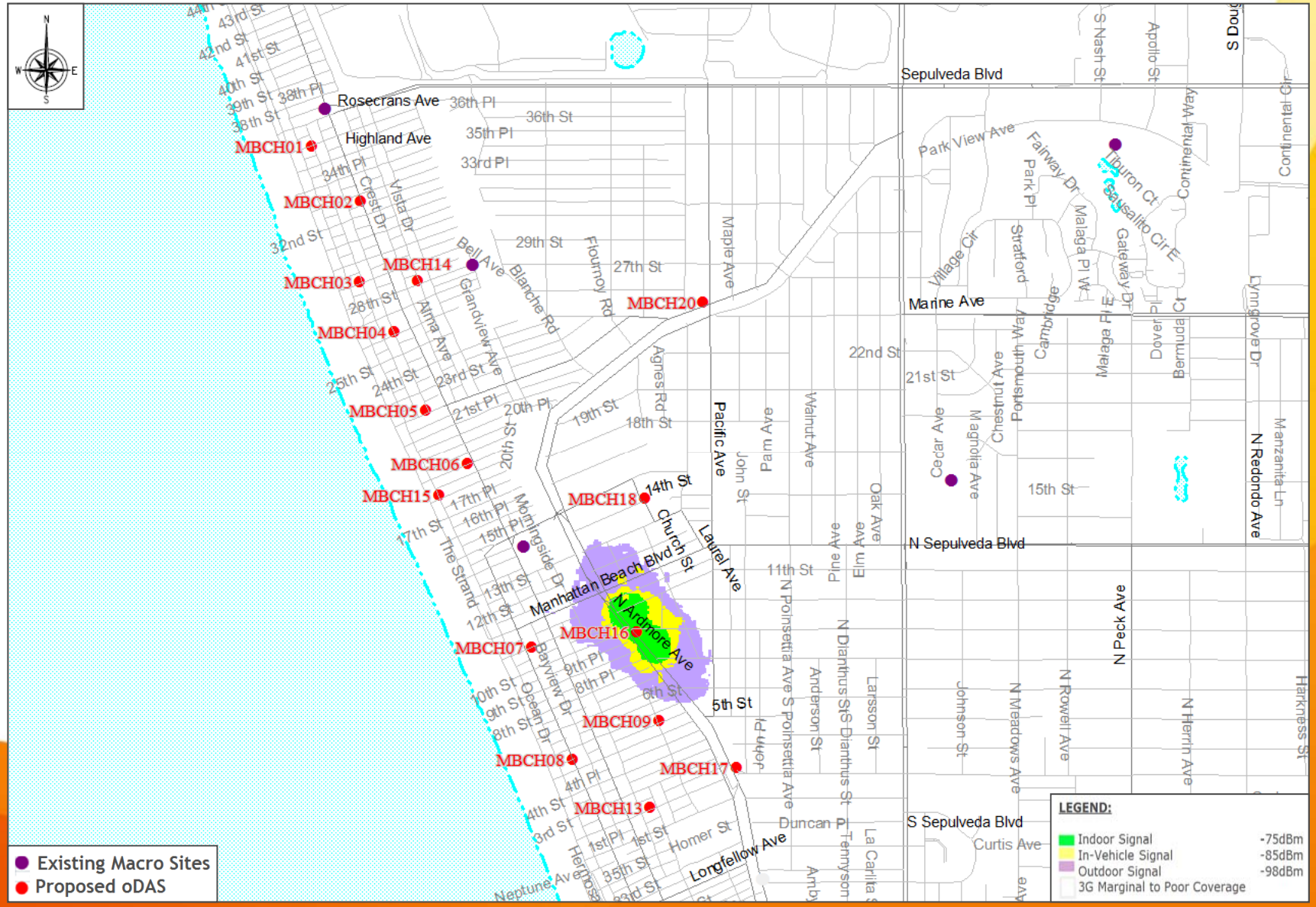
LTE 1900MHz Coverage of Proposed oDAS (MBCH16)



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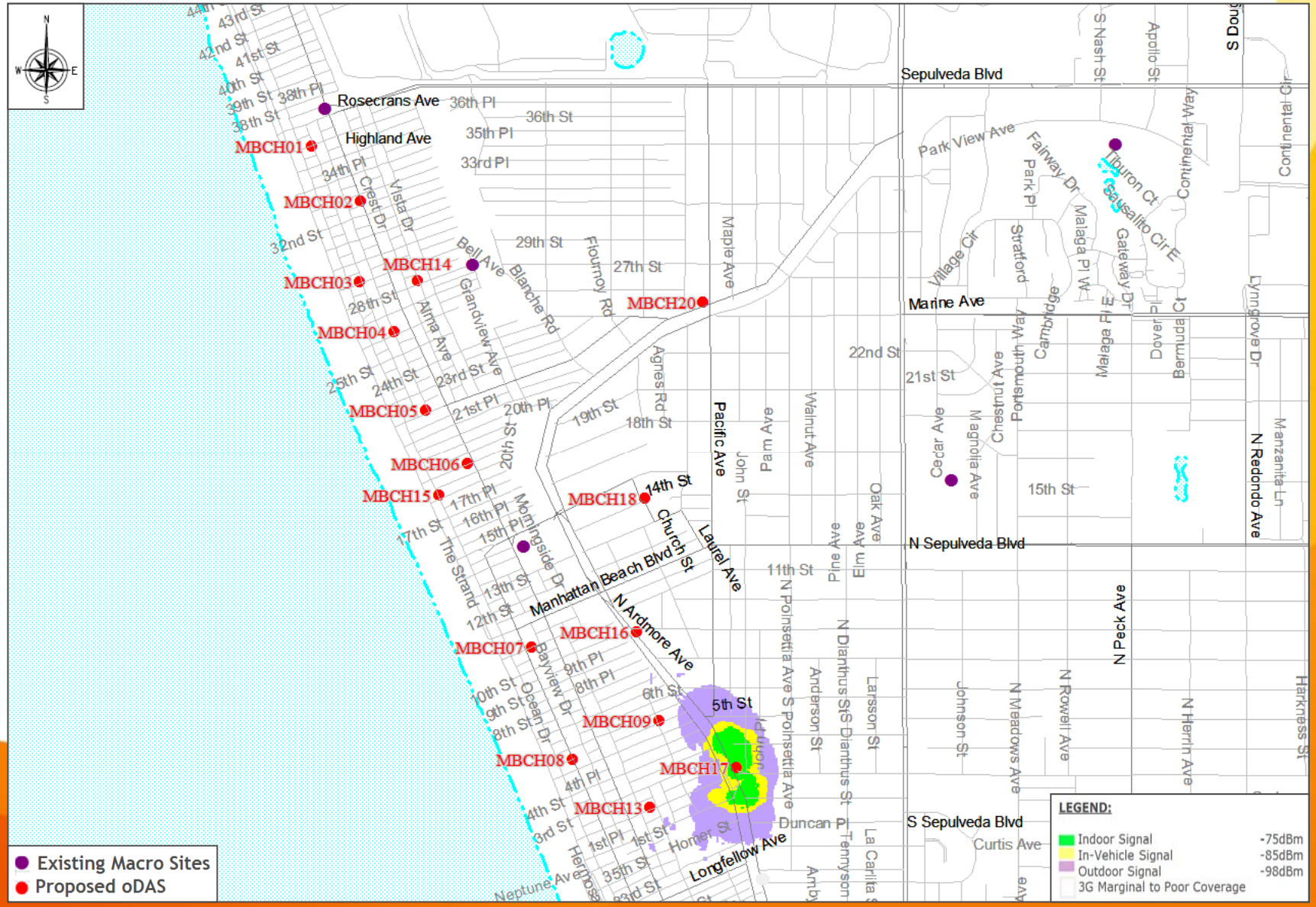
LTE 1900MHz Coverage of Proposed oDAS (MBCH17)



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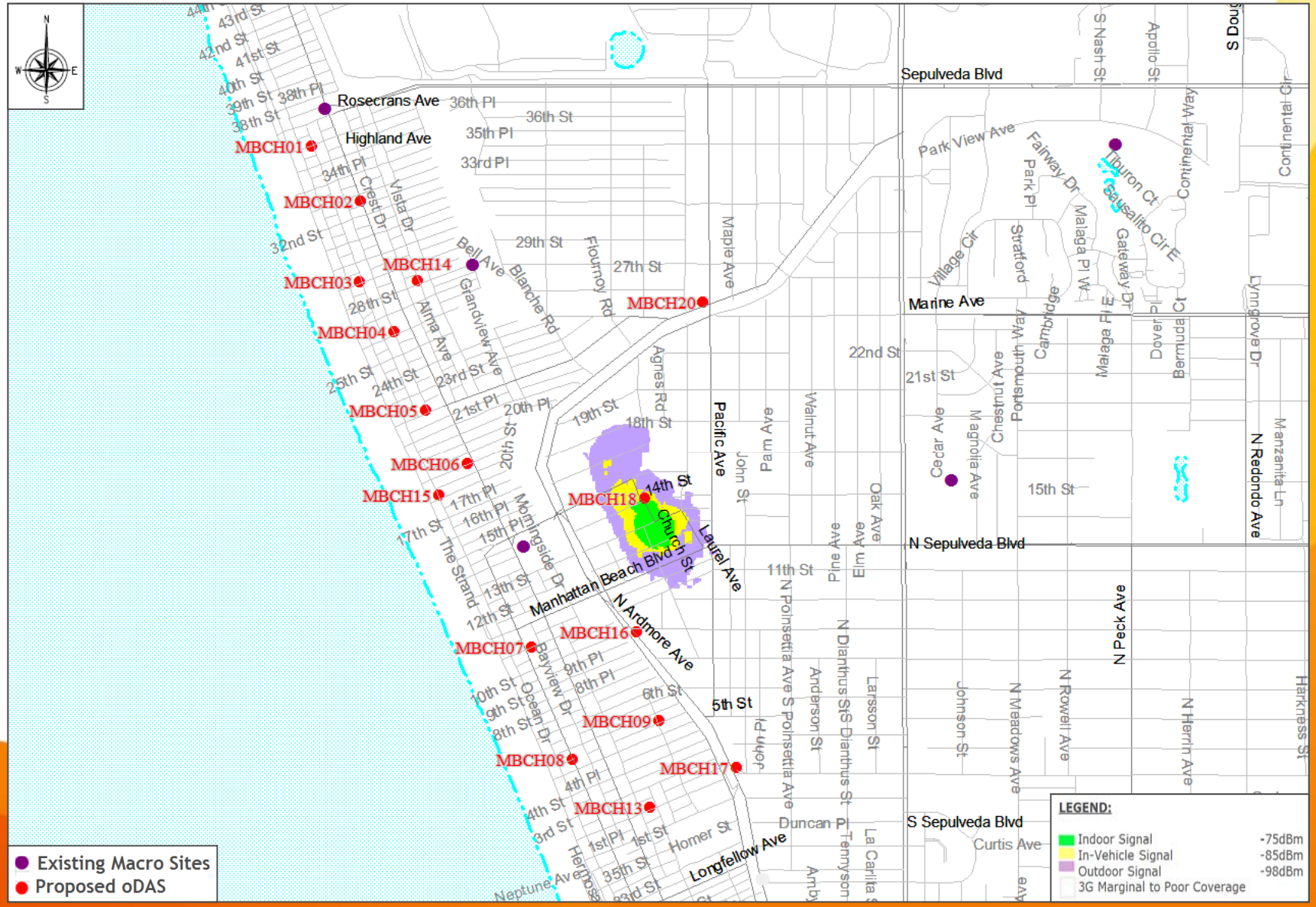
LTE 1900MHz Coverage of Proposed oDAS (MBCH18)



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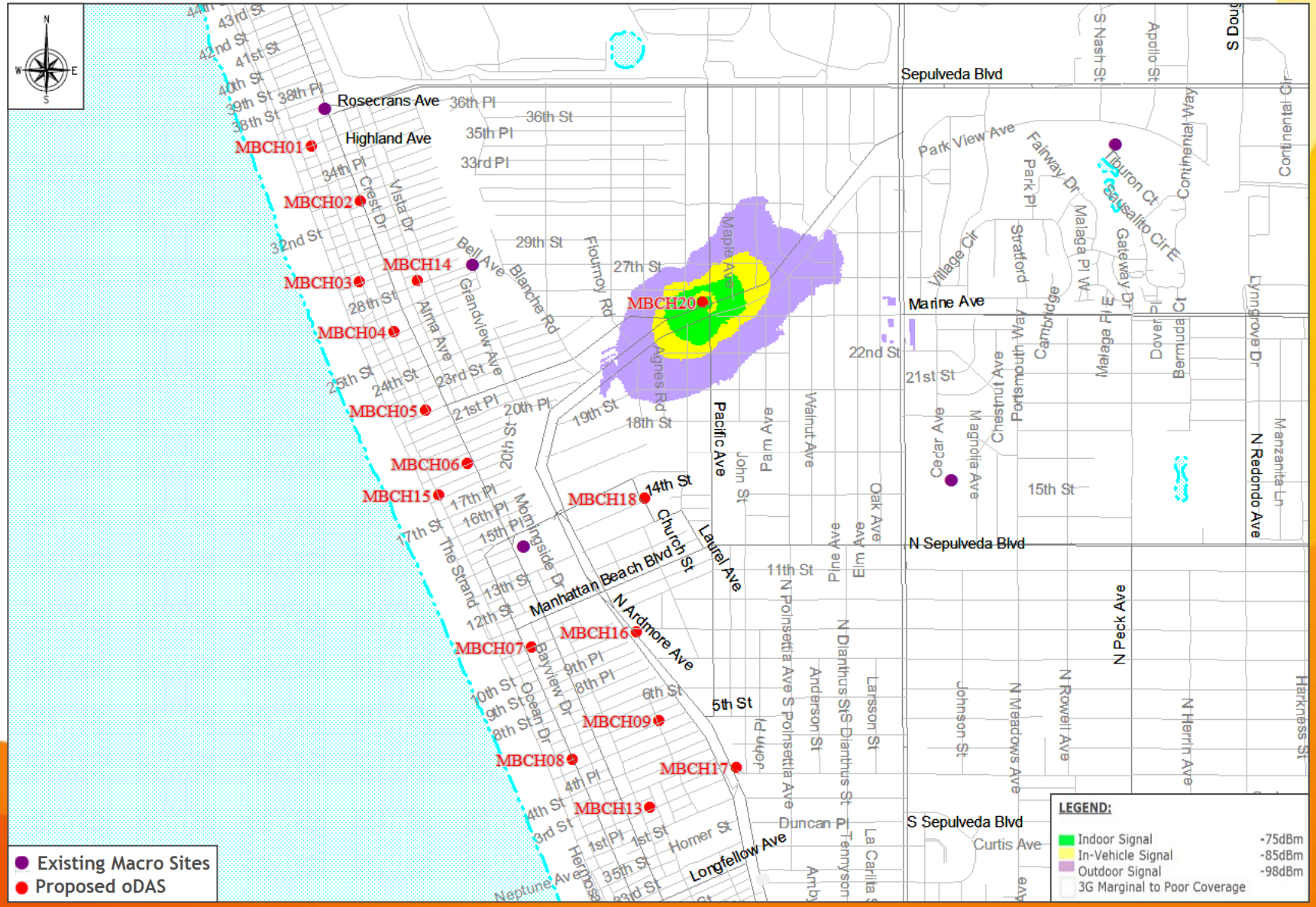
LTE 1900MHz Coverage of Proposed oDAS (MBCH20)



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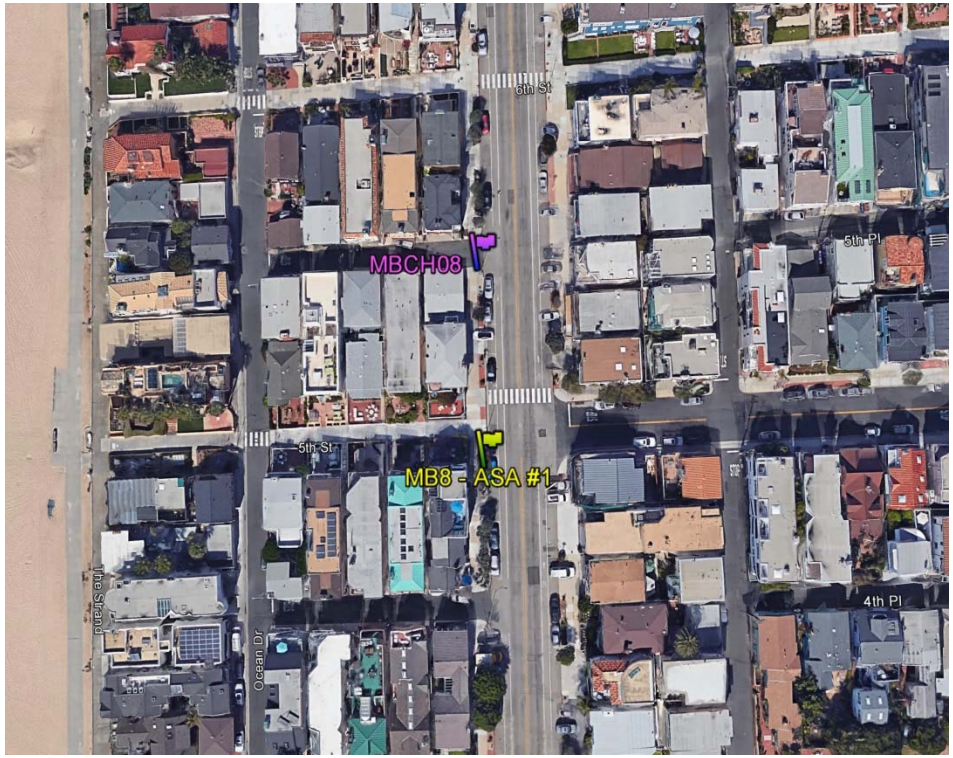
at&t

Rethink Possible®

Manhattan Beach oDAS – MBCH08
Alternative Sites Analysis

Map of Proposed oDAS node MBCH08 and Alternative Sites and Designs

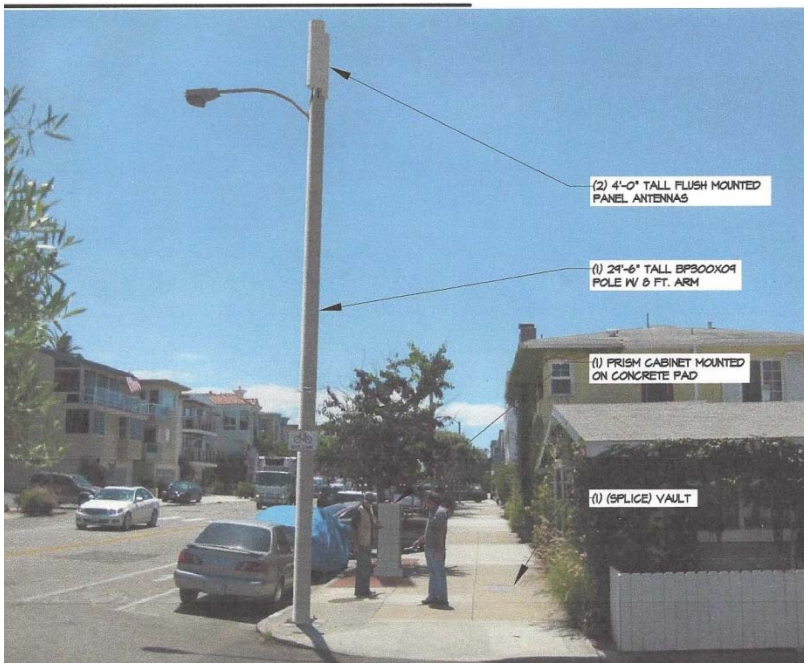


On this aerial map, AT&T's proposed oDAS node MBCH08 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH08

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH08 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH08



- Proposed oDAS Node MBCH08 is a concrete street light pole located in the public right-of-way at the southwest corner of Manhattan Ave. & 5th Place. However, the project scale and footprint has been reduced further by the use of a slim-line equipment cabinet in the ROW to meet ADA requirements as shown.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH08 – Alternative 1

- Alternative 1 to oDAS Node MBCH08 is the same concrete light pole located in the public right-of-way on at the southwest corner of Manhattan Ave & 5th Place. However, a larger equipment cabinet was proposed in the sidewalk. Now that the meter can be placed underground and the cabinet size reduced, this is not the preferred alternative.

- AT&T determined that it could reduce the size of the equipment cabinet and mount it directly to the pole. Thus, this alternative equipment cabinet location is more intrusive than the proposed location.

oDAS Node MBCH08 – Alternative 2

- Alternative 2 to oDAS Node MBCH08 is another Edison street light pole in the public right-of-way along Manhattan Ave. near its intersection with 25th Place.
- AT&T determined through field testing and input from City Staff that this location is not ideal. In addition, there are limited opportunities to place the equipment cabinet in the sidewalk area within the ROW and observe ADA and other requirements.
- This alternative more intrusive than the primary candidate.

Proposed oDAS Node MBCH08 - Conclusion

- Proposed oDAS Node MBCH08 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH08 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH08 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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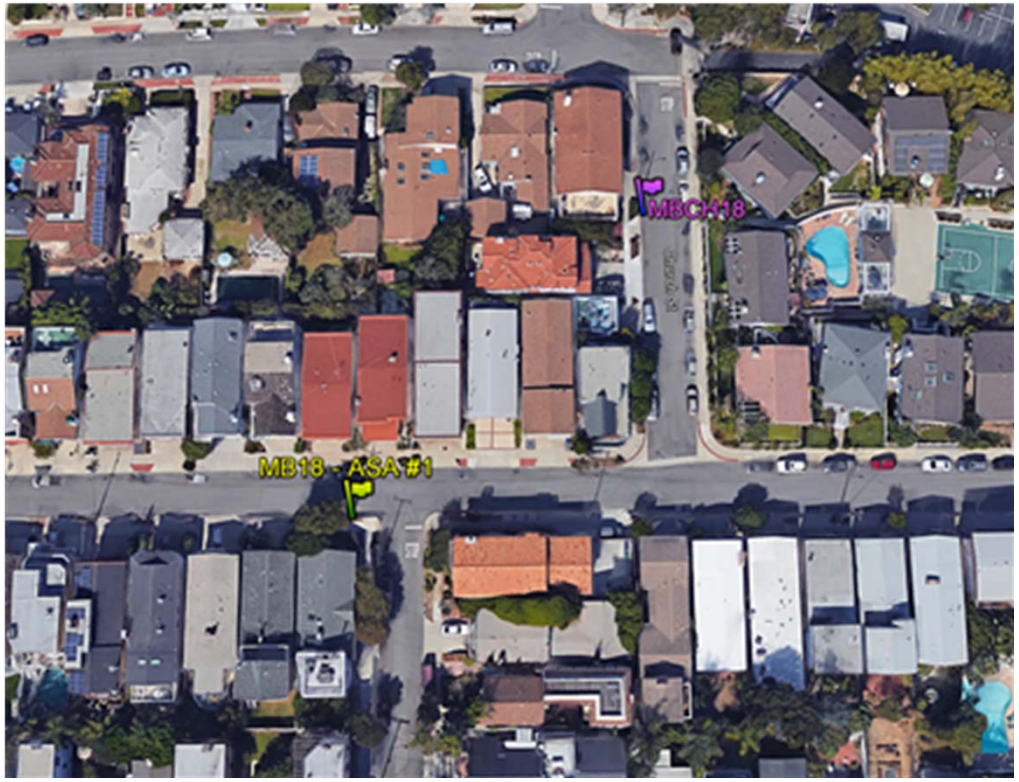
Manhattan Beach oDAS – MBCH18
Alternative Sites Analysis

Map of Proposed oDAS node MBCH18 and Alternative Sites and Designs

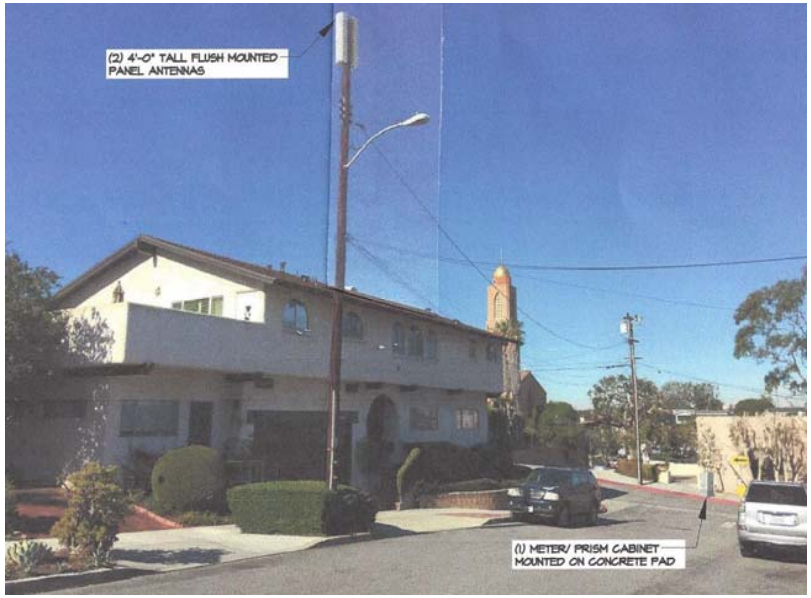


On this aerial map, AT&T's proposed oDAS node MBCH18 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH18

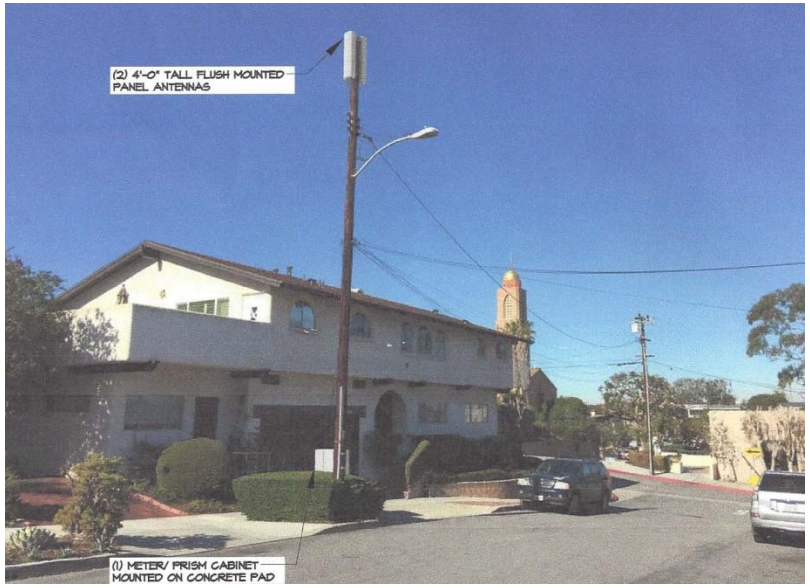
- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH18 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH18



- Proposed oDAS Node MBCH18 is a wooden street light pole located in the public right-of-way on Church Street near 13th Street. With input from City Staff, the equipment cabinet was relocated to a preferred right-of-way location down the street on 13th Street.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH18 – Alternative 1



- Alternative 1 to oDAS Node MBCH17 is the same street light pole located in the public right-of-way on Ardmore Drive near its intersection with 2nd Place (Edison Pole Number: 4351867E). This originally-proposed project had the equipment cabinet placed in the right-of-way adjacent to the subject pole.
- City Staff was not in favor of this location for the equipment cabinet.
- This alternative is more intrusive than the proposed node design.

oDAS Node MBCH18 – Alternative 2

- Alternative 2 to oDAS Node MBCH18 is a wooden street light pole in the public right-of-way at Morningside Drive and 2nd Street.
- AT&T determined through field testing and input from City Staff that this location is not ideal.
- This alternative is not less intrusive than the proposed location.

Proposed oDAS Node MBCH18 - Conclusion

- Proposed oDAS Node MBCH18 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH18 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH18 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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Manhattan Beach oDAS – MBCH17 Alternative Sites Analysis

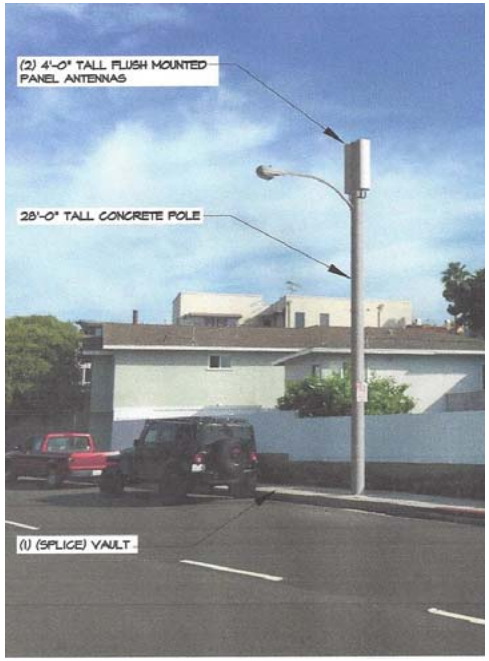
Map of Proposed oDAS node MBCH17 and Alternative Sites and Designs

On this aerial map, AT&T's proposed oDAS node MBCH17 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH17

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH17 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH17



- Proposed oDAS Node MBCH17 is a concrete street light pole located in the public right-of-way at the northwest corner of Ardmore Drive & 2nd Place. (Edison Pole Number: 4351867E). The project scale and footprint has been reduced from the original proposal by the use of a slim-line equipment cabinet in the ROW around the corner on 2nd Place.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative with the reduced cabinet size.

oDAS Node MBCH17 – Alternative 1

- Alternative 1 to oDAS Node MBCH17 is the same concrete street light pole located in the public right-of-way on Ardmore Drive near its intersection with 2nd Place (Edison Pole Number: 4351867E). A larger equipment cabinet was originally proposed in the ROW on 2nd Place, but now that the meter can be placed underground, this is not the preferred alternative.

- This alternative is more intrusive than the proposed node design.

oDAS Node MBCH17 – Alternative 2

- Alternative 2 to oDAS Node MBCH17 is a street light pole in the right-of-way of the street and the adjacent public parkway near Valley Drive and 2nd Street.
- City Staff does not prefer this alternative. In addition, AT&T and City Staff determined that this location is not ideal.
- This alternative is more intrusive than the proposed location.

Proposed oDAS Node MBCH17 - Conclusion

- Proposed oDAS Node MBCH17 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH17 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH17 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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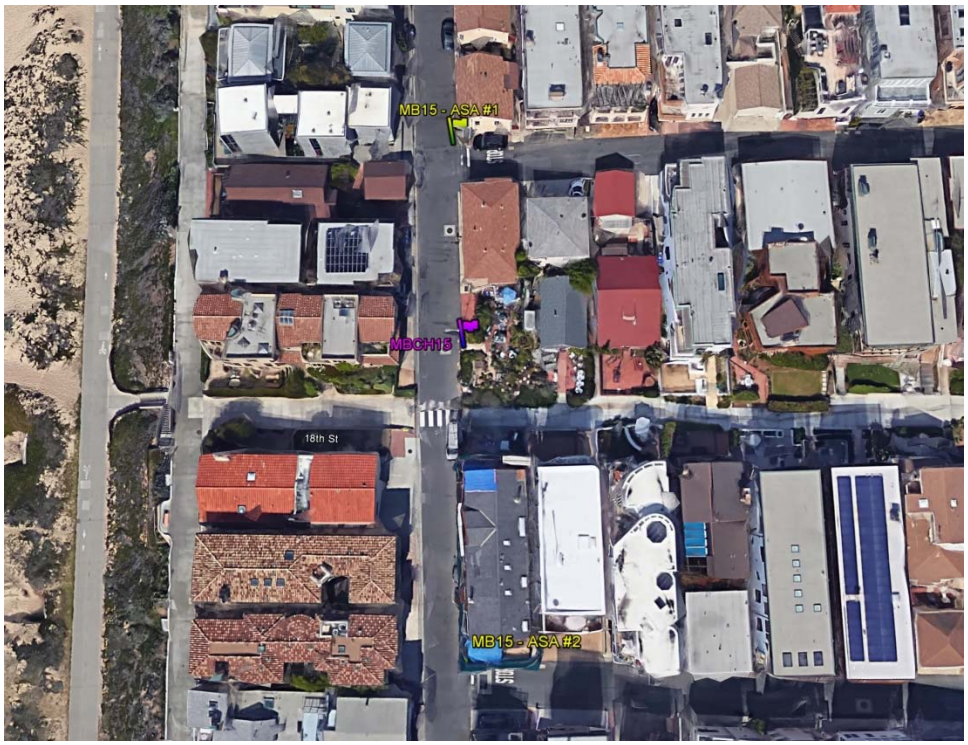
Manhattan Beach oDAS – MBCH15 Alternative Sites Analysis

Map of Proposed oDAS node MBCH15 and Alternative Sites and Designs



On this aerial map, AT&T's proposed oDAS node MBCH15 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH15

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH15 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH15

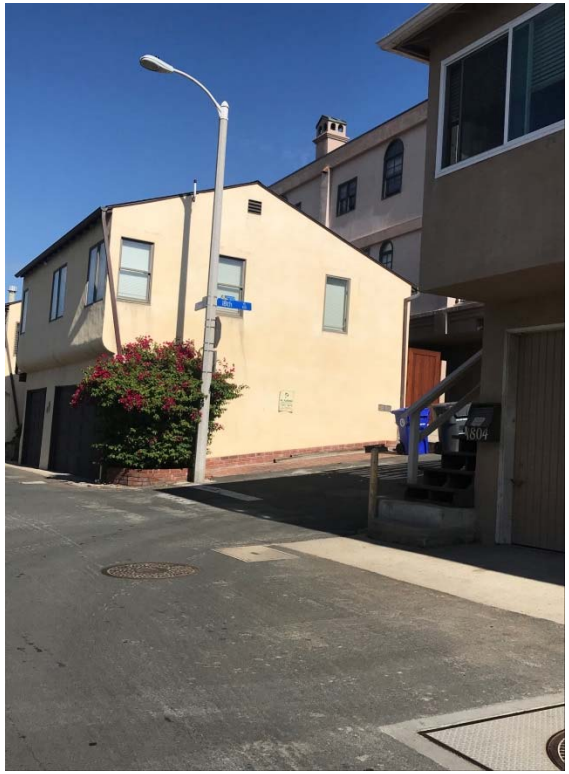
- Proposed oDAS Node MBCH15 is a concrete street light pole located in the public right-of-way near the intersection of Ocean Drive and 18th Place. The reduced-size equipment cabinet would be ground mounted near the base of the pole in an area of other utility cabinets.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH15 – Alternative 1

- Alternative 1 to oDAS Node MBCH15 is the same concrete street light pole located in the public right-of-way near the intersection of Ocean Drive and 18th Place. This larger equipment cabinet was originally proposed, but now that the meter can be place underground, this is not the preferred alternative.

- This alternative is more intrusive than the proposed node design.

oDAS Node MBCH15 – Alternative 2



- Alternative 2 to oDAS Node MBCH15 is another Edison street light pole in the public right-of-way along Ocean Drive near 18th Place.
- AT&T determined through field testing and input from City Staff that this location is not ideal. Also, there are limited opportunities to place the equipment cabinet in the sidewalk area within the ROW and observe ADA and other requirements.
- This alternative is not less intrusive than the proposed location.

oDAS Node MBCH15 – Alternative 3

- Alternative 3 to oDAS Node MBCH15 is another Edison street light pole in the public right-of-way along Ocean Drive near 18th Place.
- AT&T determined through field testing and input from City Staff that this location is not ideal. Also, there are limited opportunities to place the equipment cabinet in the sidewalk area within the ROW and observe ADA and other requirements.
- This alternative is not less intrusive than the proposed location.

Proposed oDAS Node MBCH15 - Conclusion

- Proposed oDAS Node MBCH15 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH15 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH15 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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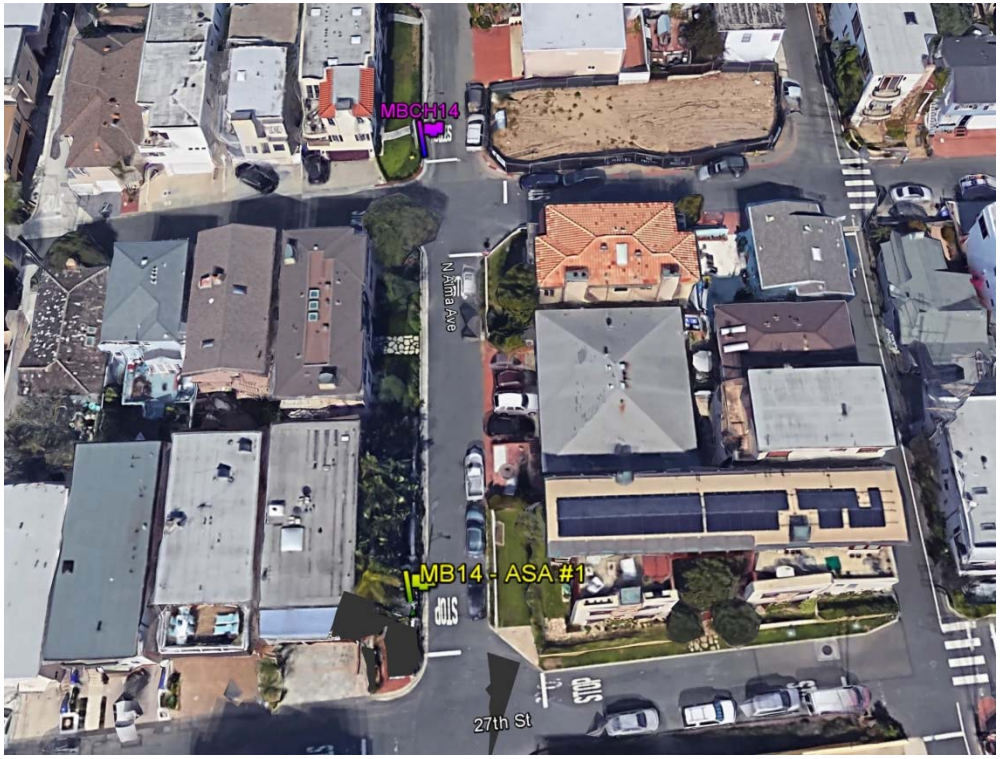
Manhattan Beach oDAS – MBCH14 Alternative Sites Analysis

Map of Proposed oDAS node MBCH14 and Alternative Sites and Designs



On this aerial map, AT&T's proposed oDAS node MBCH14 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

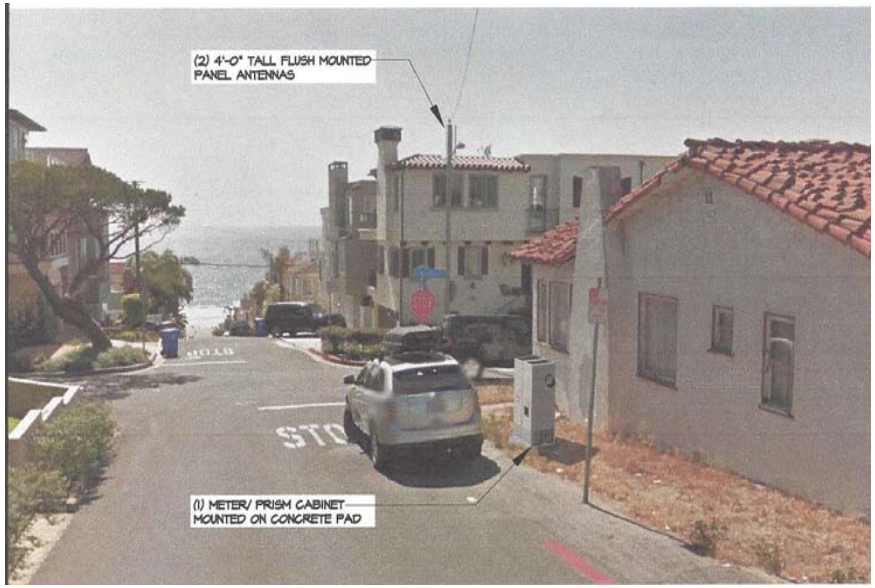
Proposed oDAS Node MBCH14

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH14 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH14

- Proposed oDAS Node MBCH14 is a concrete street light pole located in the public right-of-way near the intersection of Alma Ave & 28th Street. The reduced-size equipment cabinet would be ground mounted up the street in the ROW to the north as shown.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH14 – Alternative 1



- Alternative 1 to oDAS Node MBCH14 uses the same street light pole located in the public right-of-way near the intersection of Alma Ave & 28th Street. The ground mounted equipment cabinet would be placed in the ROW north of the subject pole up the street as shown.
- City Planning Staff identified a setback issue with the proposed cabinet location due to new construction. Thus, this alternative is more intrusive than the proposed node design.

oDAS Node MBCH14 – Alternative 2

- Alternative 2 to oDAS Node MBCH14 is another Edison street light pole in the public right-of-way along Alma Ave near its intersection with 28th Street.
- AT&T determined through field testing and input from City Staff that this location is not ideal. Also, there are limited opportunities to place the equipment cabinet in the sidewalk area within the ROW and observe ADA and other requirements.
- This alternative is not less intrusive than the proposed location.

Proposed oDAS Node MBCH14 - Conclusion

- Proposed oDAS Node MBCH14 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH14 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH14 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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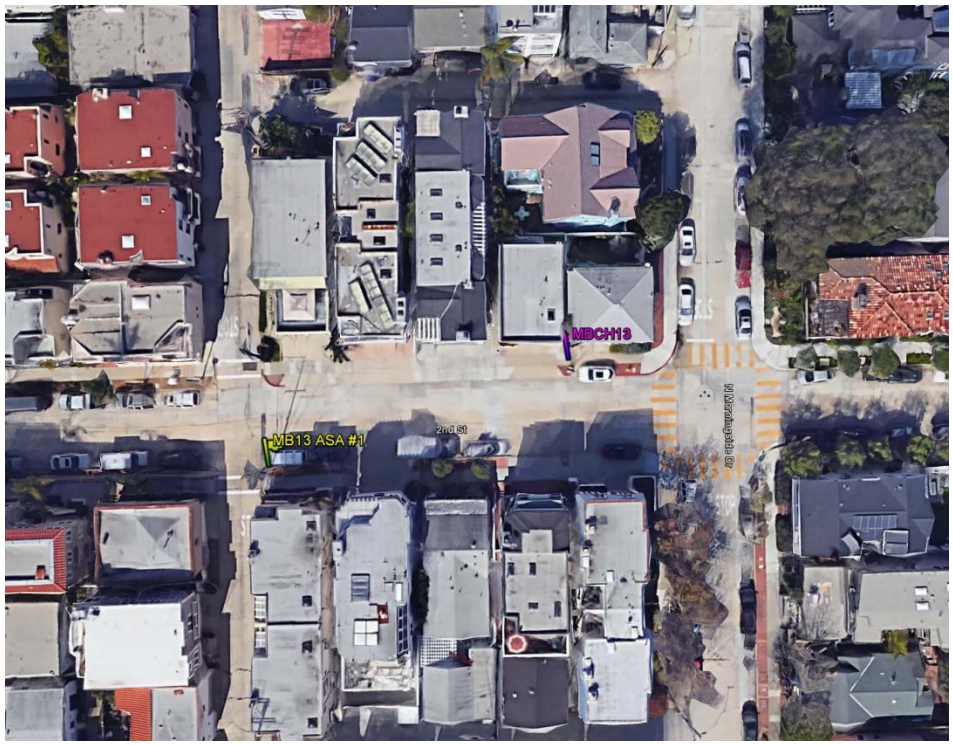
Manhattan Beach oDAS – MBCH13 Alternative Sites Analysis

Map of Proposed oDAS node MBCH13 and Alternative Sites and Designs

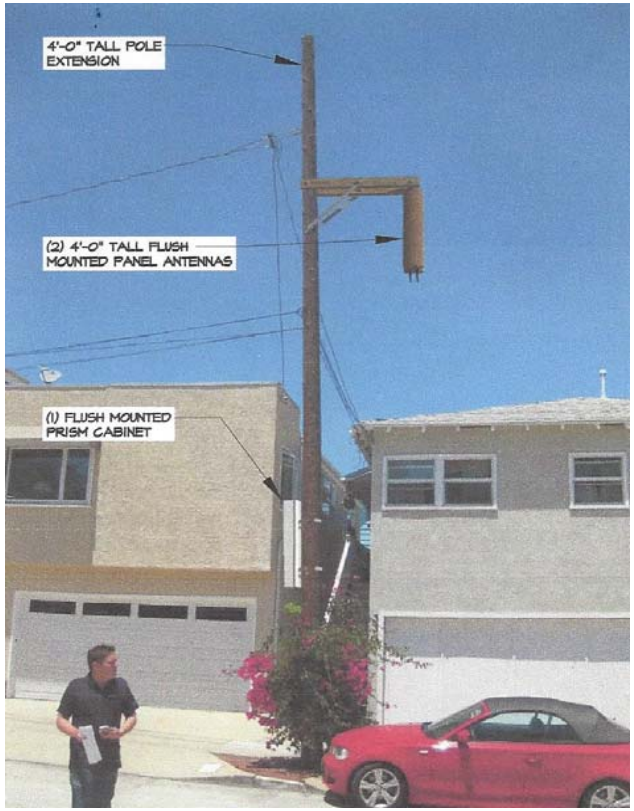


On this aerial map, AT&T's proposed oDAS node MBCH13 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH13

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH13 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH13



- Proposed oDAS Node MBCH13 is a replacement wooden street light pole located in the public right-of-way at the near the intersection of Morningside Drive & 2nd Place. (Edison Pole Number: 1231699E). This proposed design utilizes a reduced-size equipment cabinet that will be flush-mounted directly to the subject wooden pole.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH13 – Alternative 1

- Alternative 1 to oDAS Node MBCH13 is the same wooden street light pole located in the public right-of-way at the near the intersection of Morningside Drive & 2nd Place (Edison Pole Number: 1231699E), but with a previously-proposed, larger ground mounted cabinet and different antenna design.

- AT&T subsequently determined that it could place the Edison meter underground and thereby avoid use of a ground-mounted equipment cabinet. Thus, this alternative equipment cabinet location is more intrusive than the proposed location.

oDAS Node MBCH13 – Alternative 2

- Alternative 2 to oDAS Node MBCH13 is another Edison street light pole in the public right-of-way along Morningside Drive near its intersection with 2nd Place.
- This location is not suitable due to either lack of room on the pole for the antennas and lack of room in the ROW for the ground-mounted equipment.
- AT&T determined through field testing and input from City Staff that this location is not ideal.
- This alternative is not less intrusive than the proposed location.

Proposed oDAS Node MBCH13 - Conclusion

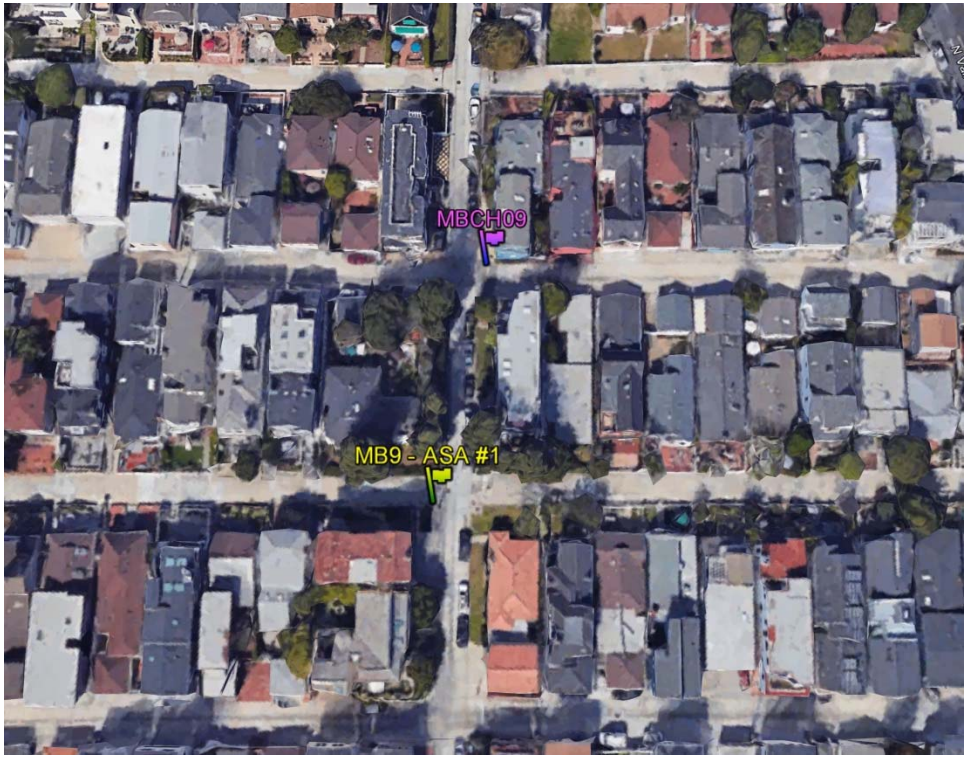
- Proposed oDAS Node MBCH13 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH13 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH13 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

Manhattan Beach oDAS – MBCH09
Alternative Sites Analysis

Map of Proposed oDAS node MBCH09 and Alternative Sites and Designs

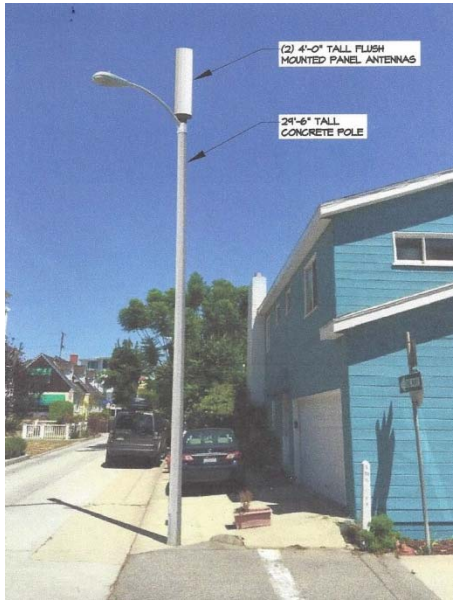


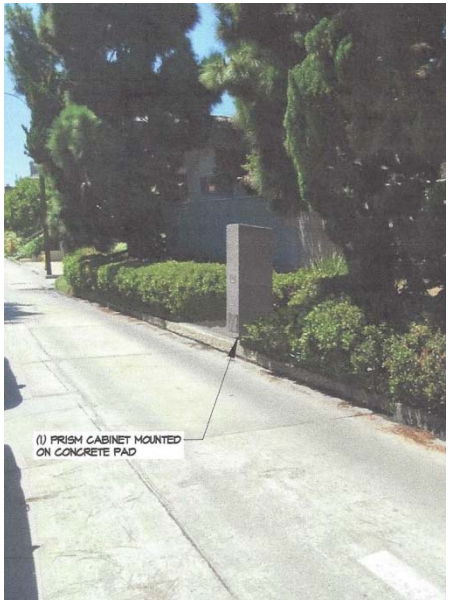
On this aerial map, AT&T's proposed oDAS node MBCH09 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH09

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH09 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

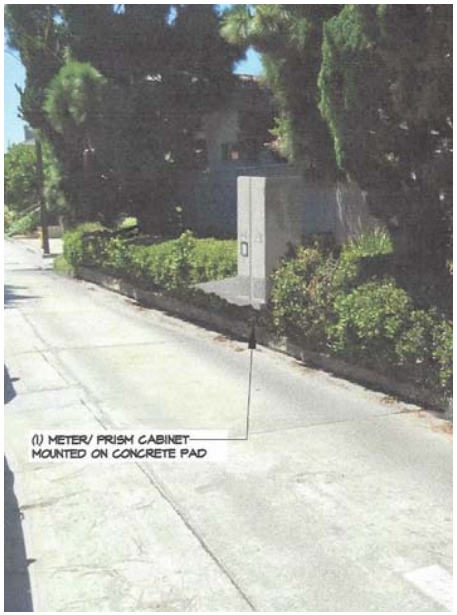
Proposed oDAS Node MBCH09





- Proposed oDAS NodeMBCH09 is a new concrete light pole (replacing an existing wooden utility pole) located in the public right-of-way at the southeast corner of Ingleside Drive & 5th Place. (Edison Pole Number: 2244644E). This final proposed design is the least intrusive in that it upgrades the existing utility pile and proposes a reduced-size equipment cabinet in the ROW.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH09 – Alternative 1



- Alternative 1 to oDAS Node MBCH09 is the same subject wooden street light pole located in the public right-of-way at the southeast corner of Ingleside Drive & 5th Place. (Edison Pole Number: 2244644E). The equipment cabinet is about twice as large as the equipment cabinet for the proposed node.
- AT&T determined that it could reduce the size of the equipment cabinet and mount it directly to the pole. Thus, this alternative equipment cabinet location is more intrusive than the proposed location.

oDAS Node MBCH09 – Alternative 2

- Alternative 2 to oDAS Node MBCH09 is a wooden street light pole in the public right-of-way along Ingleside Drive near the intersection with 5th Place.
- AT&T determined through field testing and input from City Staff that this location is not ideal.
- This alternative is not less than the proposed location.

Proposed oDAS Node MBCH09 - Conclusion

- Proposed oDAS Node MBCH09 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH09 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH09 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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Manhattan Beach oDAS – MBCH06 Alternative Sites Analysis

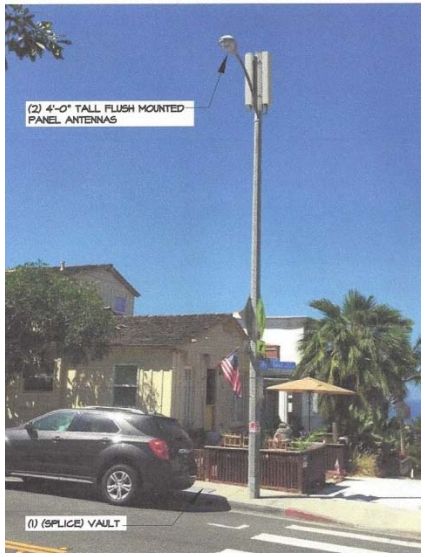
Map of Proposed oDAS node MBCH06 and Alternative Sites and Designs

On this aerial map, AT&T's proposed oDAS node MBCH06 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH06

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH06 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH06



- Proposed oDAS Node MBCH06 is a concrete street light pole located in the public right-of-way at the southwest corner of Highland Ave & 19th St. (Edison Pole Number: 2243880E). The reduced-size equipment cabinet would be ground mounted across the street in the ROW to comply with ADA requirements as shown.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective. AT&T will need to install a new pole to accommodate oDAS Node MBCH06.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH06 – Alternative 1

- Alternative 1 to oDAS Node MBCH06 is the same street light pole as the proposed location in the public right-of-way at the southwest corner of Highland Ave & 19th St. (Edison Pole Number: 2243880E), but with the equipment cabinet ground-mounted and placed in the ROW north of the subject pole up the street as shown.

- City Staff identified a setback problem with the cabinet location on the sidewalk, thus this equipment cabinet location is more intrusive than the proposed location.

oDAS Node MBCH06 – Alternative 2

- Alternative 2 to oDAS Node MBCH06 is an Edison street light pole in the public right-of-way along Highland Ave near its intersection with 19th Street.
- AT&T determined through field testing and input from City Staff that this location is not ideal. In addition, there are limited opportunities to place the equipment cabinet in the sidewalk area within the ROW and observe ADA and other requirements.
- This alternative more intrusive than the primary candidate.

Proposed oDAS Node MBCH06 - Conclusion

- Proposed oDAS Node MBCH06 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH06 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH06 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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Manhattan Beach oDAS – MBCH03
Alternative Sites Analysis

Map of Proposed oDAS node MBCH03 and Alternative Sites and Designs

On this aerial map, AT&T's proposed oDAS node MBCH03 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH03

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH03 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH03

- Proposed oDAS Node MBCH03 is a concrete street light pole located in the public right-of-way at the northwest corner of Manhattan Ave & 29th St. (Edison Pole Number: 4294508E). The prism cabinet would be mounted directly to the subject pole to avoid the use of a ground-mounted equipment cabinet.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective. AT&T will need to install a new pole to accommodate oDAS Node MBCH03.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH03 – Alternative 1

- Alternative 1 to oDAS Node MBCH03 is the same concrete street light pole located in the public right-of-way at the northwest corner of Manhattan Ave & 29th St. (Edison Pole Number: 4294508E). However, this node was originally proposed to have an above-ground equipment cabinet in the ROW as shown.

- While this subject pole is the least intrusive means to help close AT&T's significant service coverage gap in the area, the ground-mounted cabinet in the ROW is more intrusive than the proposed pole-mounted equipment.

oDAS Node MBCH03 – Alternative 2

- Alternative 2 to oDAS Node MBCH03 is an Edison street light pole in the public right-of-way along Manhattan Ave near its intersection with 29th Street.
- AT&T determined through field testing and input from City Staff that this street light pole is not as optimal as the proposed node location.
- AT&T determined that this location is not ideal and is not less intrusive than the primary candidate.

oDAS Node MBCH03 – Alternative 3

- Alternative 3 to oDAS Node MBCH03 is an Edison street light pole in the public right-of-way along Manhattan Ave near its intersection with 29th Street.
- AT&T determined through field testing and input from City Staff that this street light pole is not as optimal as the proposed node location.
- AT&T determined that this location is not ideal and is not less intrusive than the primary candidate.

Proposed oDAS Node MBCH03 - Conclusion

- Proposed oDAS Node MBCH03 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH03 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH03 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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Manhattan Beach oDAS – MBCH05 Alternative Sites Analysis

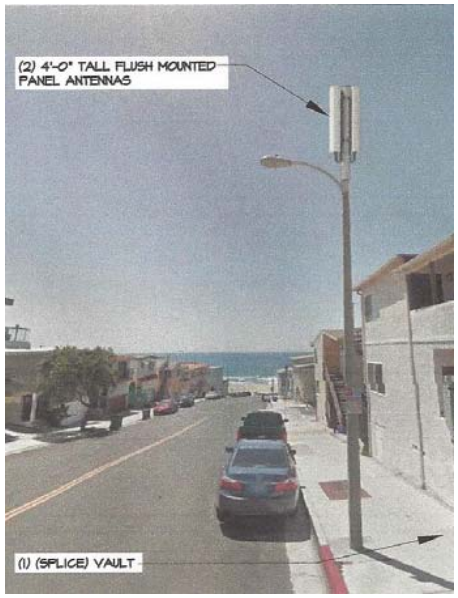
Map of Proposed oDAS node MBCH05 and Alternative Sites and Designs

On this aerial map, AT&T's proposed oDAS node MBCH05 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH05

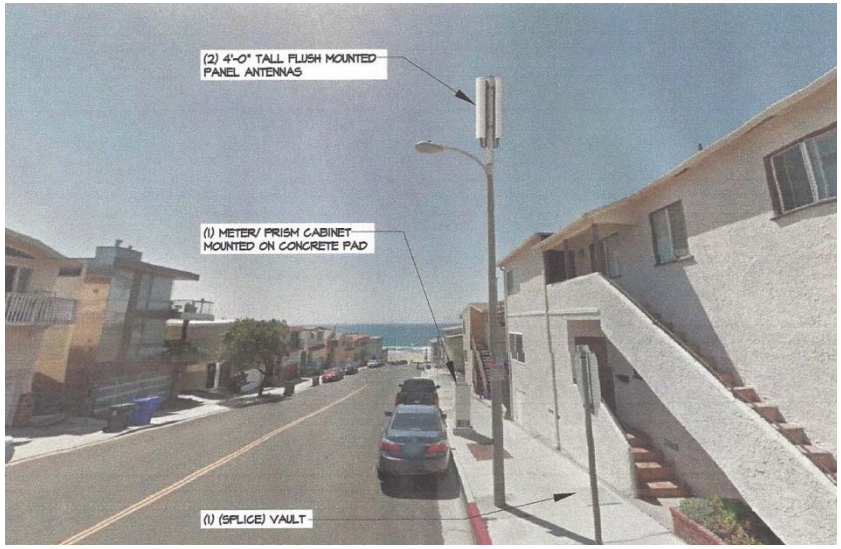
- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH05 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH05



- Proposed oDAS Node MBCH05 is a concrete street light pole located in the public right-of-way on Marine Place just east of its intersection with Manhattan Ave (Edison Pole Number: 4349157E). With input from City Staff, AT&T proposes to reduce the size of the equipment cabinet and relocate it to the east and across Marine Place in line with other existing utility cabinets.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective. AT&T will need to install a new pole to accommodate oDAS Node MBCH05.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH05 – Alternative 1



- Alternative 1 to oDAS Node MBCH05 is the same street light pole as the proposed location in the public right-of-way on Manhattan Ave near its intersection with Marine Place, but with the equipment cabinet ground-mounted on the same side of the street.
- City Staff did not prefer this location and configuration for the equipment cabinet.
- With input from City Staff, AT&T confirmed that this street light pole is the least intrusive location, but determined that this equipment location is more intrusive than proposed oDAS Node MBCH05.

oDAS Node MBCH05 – Alternative 2

- Alternative 2 to oDAS Node MBCH05 is a street light pole in the public right-of-way on Manhattan Ave near its intersection with Marine Place.
- AT&T determined through field testing and input from City Staff that this location is not ideal and is more intrusive than the primary candidate.

Proposed oDAS Node MBCH05 - Conclusion

- Proposed oDAS Node MBCH05 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH05 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH05 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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Manhattan Beach oDAS – MBCH02
Alternative Sites Analysis

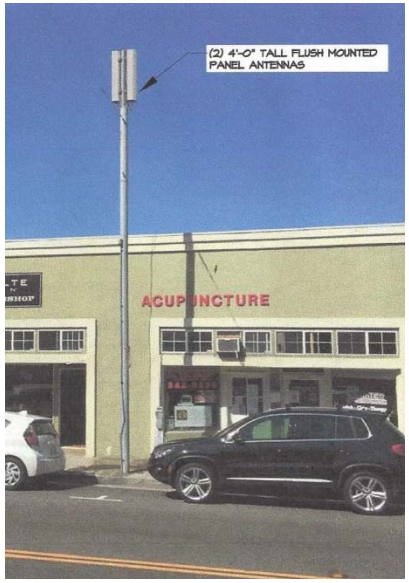
Map of Proposed oDAS node MBCH02 and Alternative Sites and Designs

On this aerial map, AT&T's proposed oDAS node MBCH02 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH02

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH02 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH02



- Proposed oDAS Node MBCH02 is a metal City-owned banner pole located in the public right-of-way on the west side of Highland Ave near its intersection with 32nd Street. Based on input from City Staff, the equipment cabinet will now be placed in the ROW across the street in the location of an unpermitted news stand as shown.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective. AT&T will need to install a new pole to accommodate oDAS Node MBCH02.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH02 – Alternative 1

- Alternative 1 to oDAS Node MBCH02 proposes to use the same metal City-owned banner pole as MBCH01 located in the public right-of-way on the west side of Highland Ave near its intersection with 32nd Street. The equipment cabinet was proposed to be located in the adjacent alleyway ROW near the pole.
- City Staff did not prefer this location for the equipment cabinet.

oDAS Node MBCH02 – Alternative 2

- Alternative 2 to oDAS Node MBCH02 is a street light pole in the public right-of-way along Highland Ave near its intersection with 32nd Street (Edison Pole).
- AT&T determined through field testing and input from City Staff that this street light pole is not as optimal as the proposed node location.
- AT&T determined that this location is not ideal and is more intrusive than the primary candidate.

Proposed oDAS Node MBCH02 - Conclusion

- Proposed oDAS Node MBCH02 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH02 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH02 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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Manhattan Beach oDAS – MBCH04
Alternative Sites Analysis

Map of Proposed oDAS node MBCH04 and Alternative Sites and Designs

On this aerial map, AT&T's proposed oDAS node MBCH04 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH04

- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH04 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH04

- Proposed oDAS Node MBCH04 is the same concrete street light pole located in the public right-of-way on 26th St just north of its intersection with Bayview Drive (Edison Pole Number: 4504977E). However, the project scale and footprint has been reduced further by the use of a slim-line equipment cabinet in the ROW in line with other utility cabinets.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective. AT&T will need to install a new pole to accommodate oDAS Node MBCH04.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH04 – Alternative 1

- Alternative 1 to oDAS Node MBCH04 proposes to use the same concrete street light pole as proposed MBCH04 located in the public right-of-way on 26th St just north of its intersection with Bayview Drive (Edison Pole Number: 4504977E). However, a larger equipment cabinet was proposed for the park's walkway area. Now that the meter can be place underground and the cabinet relocated, this is not the preferred alternative.

- City Staff did not prefer this location and configuration for the equipment cabinet.

- AT&T and City Staff determined that this equipment configuration is more intrusive than proposed oDAS Node MBCH04.

oDAS Node MBCH04 – Alternative 2

- Alternative 2 to oDAS Node MBCH04 is a street light pole in the public right-of-way along Highland Ave at its intersection with 26th Street.
- AT&T determined that this location is not ideal and is more intrusive than the primary candidate.

oDAS Node MBCH04 – Alternative 3

- Alternative 3 to oDAS Node MBCH04 is a street light pole in the public right-of-way along Highland Ave at its intersection with 25th Street.
- AT&T determined that this location is not ideal and is more intrusive than the primary candidate.

Proposed oDAS Node MBCH04 - Conclusion

- Proposed oDAS Node MBCH04 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH04 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH04 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

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Manhattan Beach oDAS – MBCH01
Alternative Sites Analysis

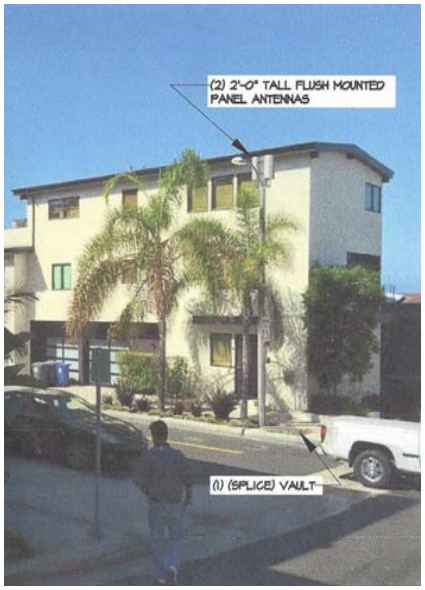
Map of Proposed oDAS node MBCH01 and Alternative Sites and Designs

On this aerial map, AT&T's proposed oDAS node MBCH01 is designated by a purple pin and the alternative sites/alternative designs are identified by yellow pins.

Proposed oDAS Node MBCH01

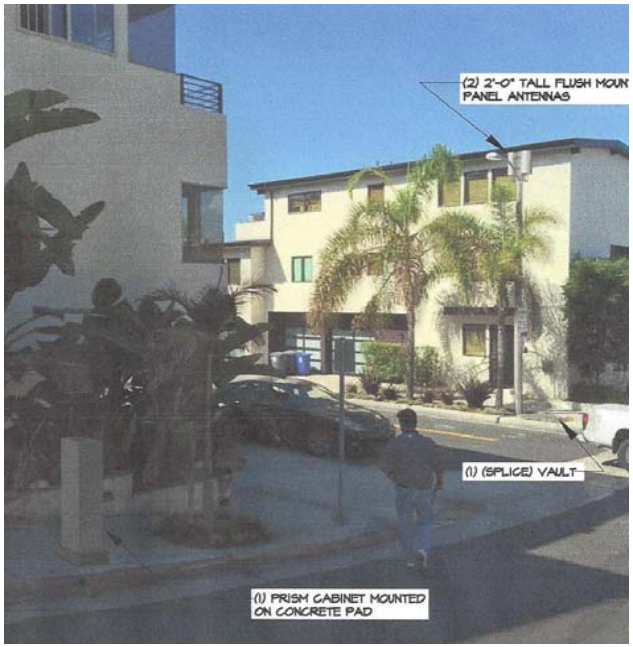
- AT&T is committed to providing wireless telecommunications services and faster data rates throughout Manhattan Beach, and is doing so by installing the least intrusive technology, with the least intrusive design, and at the least intrusive locations in the City.
- Rather than to construct several additional macro facilities throughout the dense multiuse districts of Manhattan Beach, AT&T is choosing to deploy an outdoor distributive antenna system or “oDAS,” consisting of several nodes that can be deployed on utility infrastructure in the public rights-of-way.
- An oDAS node is a low-powered cell site, which, when grouped with other oDAS nodes, can provide coverage in areas where traditional macro wireless facilities are discouraged.
- Although the signal propagated from each oDAS node spans over a shorter range than a conventional macro site, oDAS nodes can be effective tools to help close significant service coverage gaps with a minimal environmental and aesthetic footprint.
- oDAS node MBCH01 will help close AT&T’s significant service coverage gap in this portion of the City by the least intrusive means.

Proposed oDAS Node MBCH01



- Proposed oDAS Node MBCH01 is a concrete street light pole located in the public right-of-way at the southwest corner of Manhattan Ave. & 36th St. (Edison Pole Number: 4294505E). The equipment cabinet can be flush-mounted onto a replacement street sign pole down the street at Manhattan Ave. & 35th St.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area.
- AT&T determined that this location is viable in that necessary utilities are available and this location is feasible from a radio frequency perspective. AT&T will need to install a new pole to accommodate oDAS Node MBCH01.
- AT&T identified this as the least intrusive alternative.

oDAS Node MBCH01 – Alternative 1



- Alternative 1 to oDAS Node MBCH01 is the same concrete street light pole as the proposed location. The ground mounted equipment cabinet would instead be placed in the ROW across the 35th St. as shown.
- AT&T evaluated this site and nearby alternatives to identify the least intrusive means to help close AT&T's significant service coverage gap in the area for the pole, but City Planning Staff identified a setback problem with the proposed cabinet location on the sidewalk.
- AT&T determined that this equipment cabinet location is more intrusive than the final proposed node design.

oDAS Node MBCH01 – Alternative 2

- Alternative 2 to oDAS Node MBCH01 is a street light pole in the public right-of-way along Manhattan Ave near the intersection with 35th Street (Edison Pole Number: 9284509E). The above-ground equipment cabinet would be placed within the ROW.
- AT&T determined through field testing and input from City Staff that this street light pole is not as optimal as the proposed node location.
- This location is no less intrusive than the primary candidate.

Proposed oDAS Node MBCH01 - Conclusion

- Proposed oDAS Node MBCH01 is an integral part of an overall oDAS solution to help close AT&T's significant service coverage gap in Manhattan Beach.

- oDAS Node MBCH01 will provide wireless telecommunications services and faster data rates to the area businesses, residents and visitors.

- oDAS Node MBCH01 is the best available and least intrusive means to help close AT&T's significant service coverage gap in the surrounding areas, adding low-power, low- profile equipment onto utility infrastructure in the public right-of-way.

Martha Alvarez

From: Martha Alvarez
Sent: Monday, November 13, 2017 4:21 PM
To: Martha Alvarez
Subject: FW: Telecom Installation Comment 232 19th Street

Jason Masters
Assistant Planner
P: (310) 802-5515
E: jmasters@citymb.info

City of Manhattan Beach
1400 Highland Avenue, Manhattan Beach, CA 90266
www.citymb.info

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Martha Alvarez
Senior Deputy City Clerk
P: (310) 802-5059
E: malvarez@citymb.info

City of Manhattan Beach
1400 Highland Avenue, Manhattan Beach, CA 90266
www.citymb.info

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From: brian knights [mailto:srfnsgr8@yahoo.com]
Sent: Sunday, November 12, 2017 9:20 PM
To: Jason Masters <jmasters@citymb.info>; Jason Masters <jmasters@citymb.info>; Steve Napolitano <snapolitano@citymb.info>; Steve Napolitano <snapolitano@citymb.info>; David Lesser <dlesser@citymb.info>; Amy

Thomas Howorth <ahoworth@citymb.info>; Nancy Hersman <nhersman@citymb.info>; Richard Montgomery <rmontgomery@citymb.info>
Subject: Telecom Installation Comment 232 19th Street

Mayor, Mayor Pro-Tem, City Council Member, and Mr. Masters. Greetings

I am taking this opportunity to address the proposed AT&T Telecom installation. While my wife and I are against this for a variety of reasons aesthetic and otherwise, we are also proposing a reasonable solution.

I would imagine you are very busy. The variety of interest, community, financial, and administrative must be somewhat overwhelming. We thank you for your service. The upcoming meeting for the AT&T Telecom proposal must only add to that.

If you could take the time to read what we proposed it will be greatly appreciated. If you are familiar with my proposal it will same me time when I hope to address you at Thursday's City Council Meeting. We are a little flummoxed that health concerns are not considered but we feel there is ample aesthetic reasons to relocate this project. We did pay $30,000 for undergrounding and are very upset that this is on our door step.

Please see our proposal below. I will send a second word document incase photos make email too large.

Again thank you for your service. I hope to address you on Thursday

Brian and Julie Neitz

232 19th street

Manhattan Beach CA

90266

Rebuttal to AT&T Application for Cell Phone Antenna on Corner of 19th Street and Highland.

We are in OPPOSED

TO: Members of Manhattan Beach City Council, Mr. Jason Masters,
1400 Highland Ave,
Manhattan Beach, 90266 Nov 7
2017
(310) 802-5515

FROM: Richard (BRIAN) and Julie Neitz
232 19th Street
Manhattan Beach, 90266
(310) 561-3554, (310) 619-8326
srfnsgr8@yahoo.com

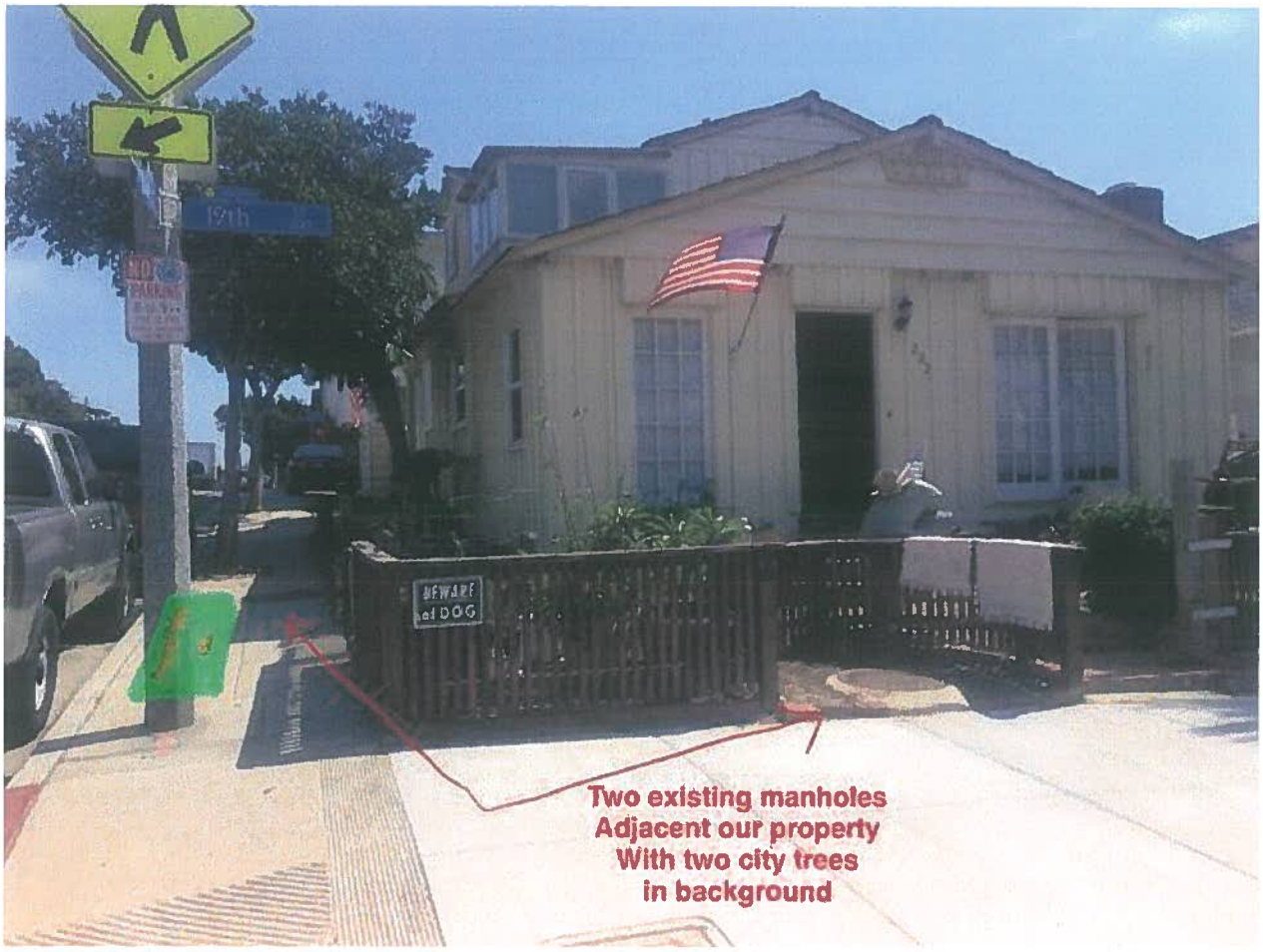
Hello to all concerned parties.
My wife Julie and myself would like to take this opportunity to address our concerns regarding AT&T's proposal for a telecom installation at the corner of 19th and Highland Manhattan Beach CA.

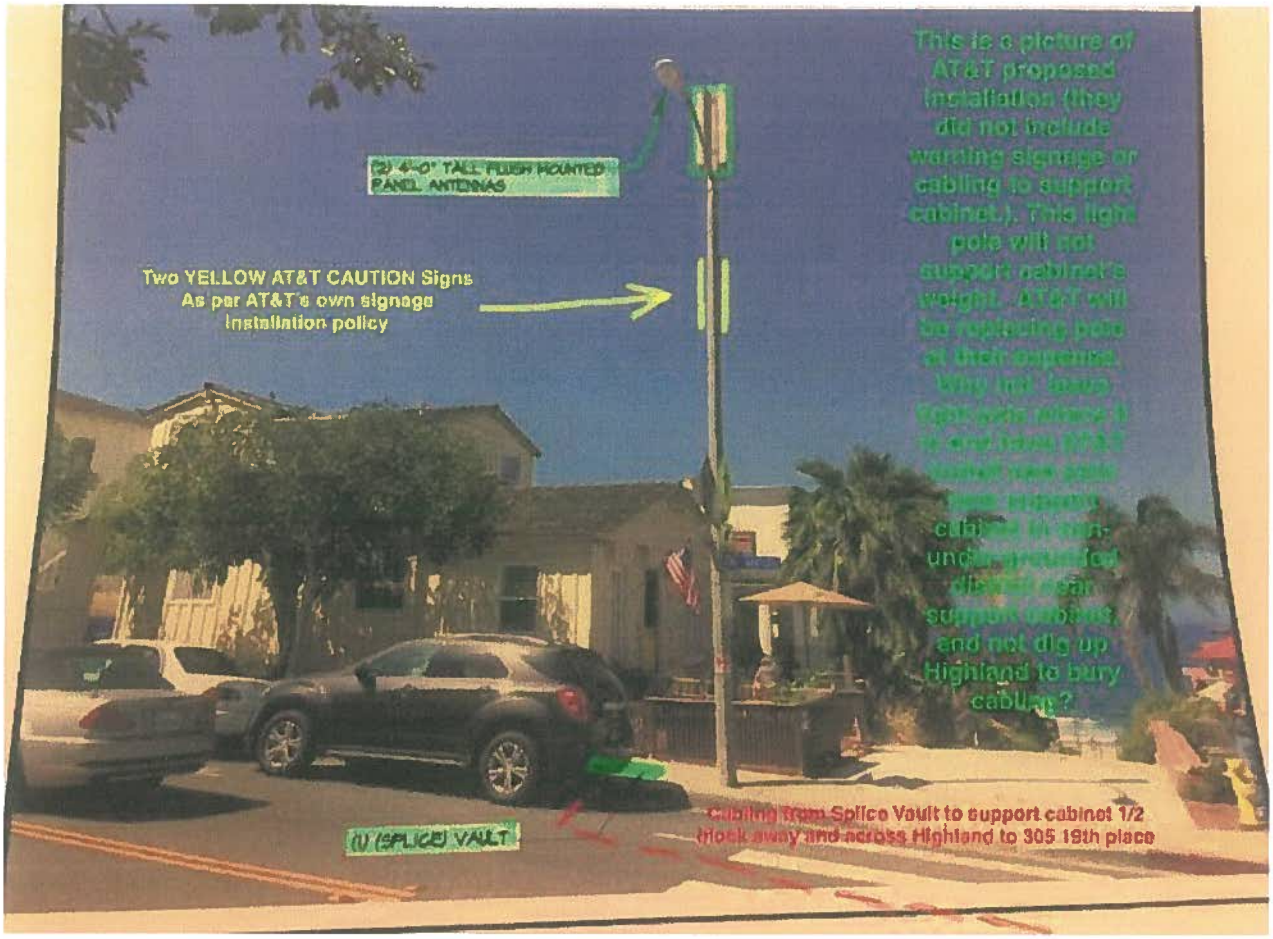
I talked with Mr. Jason Masters Tuesday, September 5, 2017 @ 11:30 AM, and met with him on October 25, 2017 at 11 AM. We discussed the project, the installation of the vault, the antenna, and the equipment cabinet locations. While we have many concerns about health and safety we understand that only aesthetic issues will be considered in this discussion.

Our aesthetic concerns regarding this project are as follows:

1. The burden of public utilities on or near our property is excessive.

   Our property at 232 19th Street already has a sewer line and manhole cover in our front yard (northside) easement. On the eastside (Highland sidewalk) of our property within 12' of the proposed installation is also a phone vault with another manhole cover in the sidewalk. We have two city owned trees we are required to maintain. This would be yet another public installation near our property. We feel we are unfairly over burdened with public utilities on or near or property. (SEE PHOTOs) The proposed AT&T installation will put a "splice vault" in the sidewalk adjacent Highland Ave in front of house, a 4-foot box on top of NEW light pole, and two yellow caution signs, all 18 feet (the new pole 12-feet) or less from our house. These installations will severely impact our view and the views of our neighbor, and lessen our property values.


19th
BEWARE
of DOG
Two existing manholes
Adjacent our property
With two city trees
in background



2. There will be a 4-foot box on top of a 29-foot streetlight pole 12 feet from my house. The minimum distance is of the pole is 10 feet from a dwelling. Health concerns aside it will block the view down the walk street for my neighbors who have spent millions of dollars on their homes. It will also affect my enjoyment of my property when I remodel in 2019. Not noted in the AT&T plan is the required installation of 2 YELLOW signs as per AT&T's signage installation policy, **two (2) AT&T YELLOW "Caution" Signs** are recommended for installation on opposite sides of the utility pole 3-5 feet below bottom of the antennas. Please reference "section 6" below. These YELLOW CAUTION sign installations will further bring down the aesthetic value of our properties.

In talking with Mr. Jason Masters, he has told me that the street light that AT&T will be placing the box on will be replaced as the current one will not support the box on top. Since the pole needs to be replaced there is no

need to have it 12 feet from my house. It can be moved at no expense to the city as AT&T is paying to put in a new pole. Not addressed in the AT&T plan is exactly how the new pole will appear. How do we know if the new pole will match the current aesthetic?

The cabinet that will serve this box is being move to a new location (different from original plan) on the east side of Highland Ave on or near 305 19th place next to a telephone pole. It is a half block away, and adjacent a dirt parking lot. If the current plan remains in place it will require digging a trench from the splice vault in front of

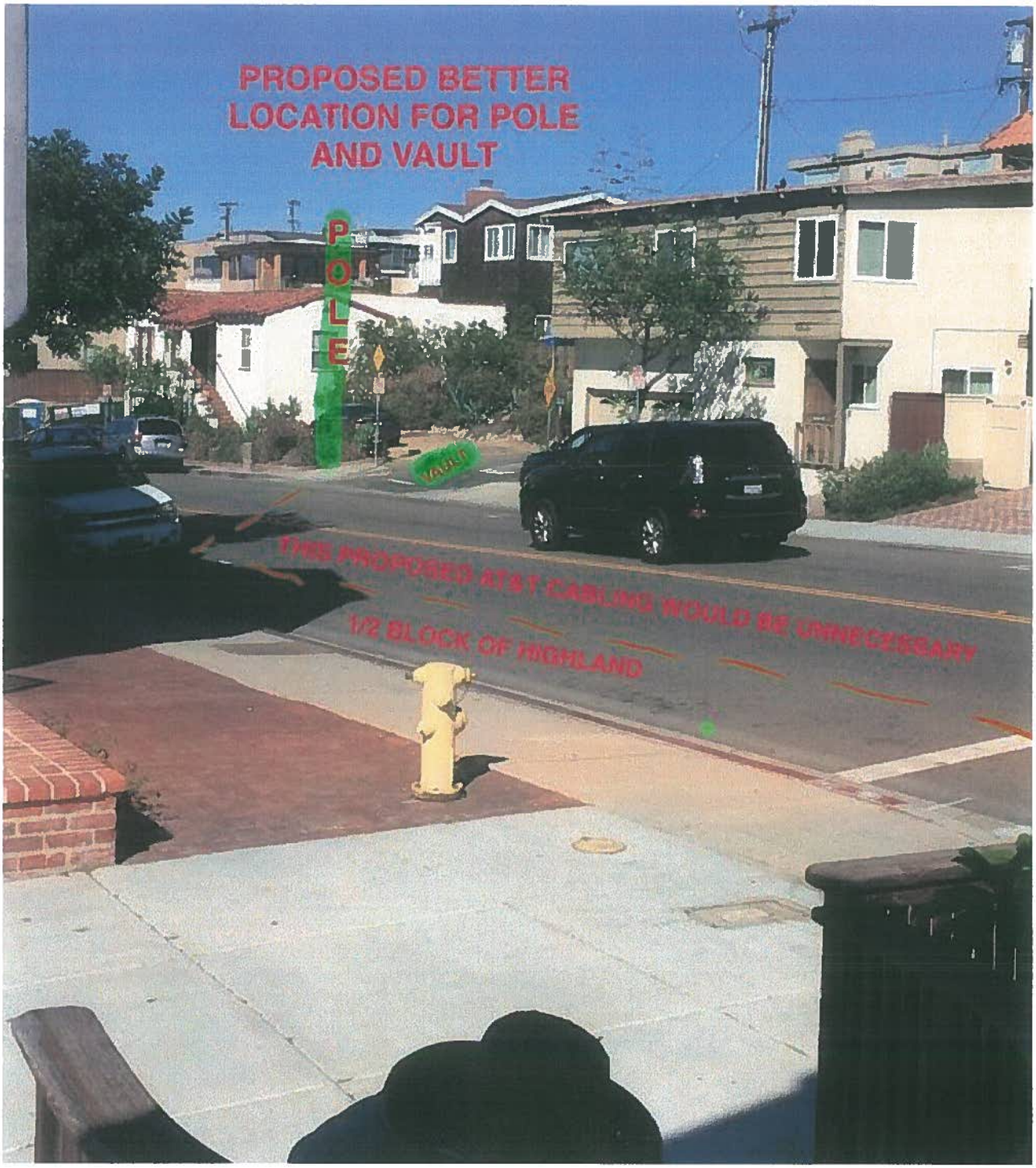
232 19th Street, along and across Highland Ave to this cabinet a half block away. This trenching would severely impact traffic for the duration of the installation on an already busy thoroughfare.

Why not have AT&T place the new pole in the public easement adjacent to this dirt lot at 1920 Highland Ave? We would not have to dig up Highland Ave and can maintain the current view. We would leave the current light pole in its location since it is needed for the crosswalk. A new pole would need to be built anyway so why not move it to a better location?

3. I would like to address the issue of undergrounding. My neighbors and I spent large sums of money to underground utilities in our district improve our views and increase our property values. Why then is the city allowing private companies to put them back? I spent close to $30,000 for my share to underground utilities in my district. We are now allowing AT&T to undo these improvements. What happens when Sprint, T-Mobile, and others want the same installations?

1. Here is my proposed alternate location. It would be on Northeast corner of Highland Ave and 19th Place, near 1920 Highland Ave. It is in a non-undergrounded district, in an alleyway, adjacent a dirt parking lot and near the required support cabinet. It would be installed at AT&T's expense and would not required the half block of trenching along and across Highland for the cabling to the "splice vault".


POLE
NO OUTLET
AT&T PROPOSED CABINET
VAULT
MY PROPOSED ALTERNATE LOCATION FOR POLE AND VAULT



2. Encroaching on already narrow sidewalks

How will this project encroach on already narrow sidewalks? We already have a manhole and two city trees on the sidewalk in front of 232 19th street. We constantly have to clean the sidewalk of leaves and trash to prevent a tripping or slipping hazard. A vault cover as depicted in AT&T proposal would add yet another hazard my family would be expected to maintain. Who will indemnify us when weather gets bad or someone hurts themselves? The city, AT&T? I saw in the proposal that AT&T would widen the sidewalk to comply with

American with Disabilities Act. That would mean the sidewalk would have to go into the easement in our front yard adding yet more burden to me and my family.

3. Health Ramifications.

I understand that we are not allowed to use this as a consideration of approving or denying this application. We could look at it as a side benefit however. The hazards are clear in the supporting documentation that AT@T offered. The EBI Consulting Report, "Radio Frequency Compliance Predictive Modeling Report" dated December 16, 2016 (obtained via public records request) states on page 5 section 3.0 "Utilities construction and maintenance staff and contractors requiring access to the elevated utility pole areas directly in front of the antennas should not access areas within 8 feet directly in front of the antennas and follow proper RF safety mitigation measures, including job planning to minimize RF exposures when accessing these locations. As per AT&T's signage installation policy, **two (2) AT&T YELLOW "Caution" Signs** are recommended for installation on opposite sides of the utility pole 3-5 feet below bottom of the antennas. Above this height, workers on the utility pole may be exposed to power densities above FCC Occupational limit." On page. 4 of the same report, "Workers that may be elevated in front of the antennas should maintain a minimum 8-foot horizontal setback from the antennas, based upon the antenna specifications pervaded for this analysis." "EBI has also evaluated the potential for RF emissions to EXCEED allowable levels at nearest adjacent structures to each node" (This would be the residential properties around and including 232 19th street.)

City workers needing to fix the street light would be exposed to hazardous levels of RF radiation while changing light bulbs or repairing the light. If the lights are not repaired in timely way (if AT&T is involved) it creates a safety and liability issue for the crosswalk at 19th and Highland. It is interesting that in Senate Bill 649 (SB 649) which the council was against and governor vetoed that firefighter's unions had an exemption not permitting these cell tower installations on top of fire departments do to health studies from long term exposure. Reference Mercury News article September 1, 2017. "California: Bill to ease permits for cell phone towers could affect health". http://www.mercurynews.com/2017/08/31/california-bill-to-ease-permits-for-cellular-antennas-could-impact-health/

Firefighters Local 1014 had the bill amended citing a "2004 brain scan study by a Los Angeles neurotoxicologist of a group of firefighters in Carpinteria who lived and slept inside a station near a large cell tower for five years. The study found brain abnormalities in all the men tested, including delayed reaction time, lack of impulse control and cognitive impairment". With the new cell installation on top of Manhattan Beach City hall I would be concerned if I worked there.

The proposed installation is within 18 feet of where my family lives and sleeps. What are the long-term impacts on my family's health and who will bear the liability if there are, as of now, unknown long-term health impacts? My daughter has already had many physical setbacks (immune-compromised.) I am an airline pilot. I cannot afford delayed reaction time or cognitive impairment. Remember I may be flying you and your family across the country. Who will take ownership if there are health issues as a result of this to my family or city workers? The city of Manhattan Beach? AT&T?

My wife and I would like to voice our opposition to this proposal as it stands. The aesthetic reasons to deny this project are demonstrated above. There are too many unanswered questions and inherent

liabilities. We feel we are overburdened by projects for the public good, and do not feel these projects are being fairly distributed. I have offered a simple solution to relocate this proposed installation which would avoid unnecessary trenching, associated traffic, maintain the current aesthetic values, prevent city workers and from dangerous RF exposures while maintaining streetlights, prevent exposure to my family and others, and lessen the time and liability by being able to service the streetlight in a timely fashion.

Thank you for your consideration

Richard (Brian), and Julie Neitz

Supporting picture from AT&T plans of proposed cabinet location

Martha Alvarez

From: Jason Masters
Sent: Monday, November 13, 2017 2:35 PM
To: Martha Alvarez
Subject: FW: Telecom Installation 232 19th Comment Word Document
Attachments: Rebuttal to AT&T1.docx

More public comments.

Jason Masters
Assistant Planner
P: (310) 802-5515
E: jmasters@citymb.info

City of Manhattan Beach
1400 Highland Avenue, Manhattan Beach, CA 90266
www.citymb.info

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From: B Neitz [mailto:srfnsgr8@yahoo.com]
Sent: Sunday, November 12, 2017 9:33 PM
To: Jason Masters <jmasters@citymb.info>; Steve Napolitano <snapolitano@citymb.info>; David Lesser <dlesser@citymb.info>; Amy Thomas Howorth <ahoworth@citymb.info>; Nancy Hersman <nhersman@citymb.info>; Richard Montgomery <rmontgomery@citymb.info>
Subject: Telecom Installation 232 19th Comment Word Document

Mayor, Mayor Pro-Tem, City Council Member, and Mr. Masters. Greetings

I am taking this opportunity to address the proposed AT&T Telecom installation. While my wife and I are against this for a variety of reasons aesthetic and otherwise, we are also proposing a reasonable solution.

I would imagine you are very busy. The variety of interest, community, financial, and administrative must be somewhat overwhelming. We thank you for your service. The upcoming meeting for the AT&T Telecom proposal must only add to that.

If you could take the time to read what we proposed it will be greatly appreciated. If you are familiar with my proposal it will same me time when I hope to address you at Thursday's City Council Meeting. We are a little flummoxed that health concerns are not considered but we feel there is ample aesthetic reasons to relocate this project. We did pay $30,000 for undergrounding and are very upset that this is on our door step.

Please see our proposal below. I will send a second word document incase photos make email too large.

Again thank you for your service. I hope to address you on Thursday

Brian and Julie Neitz
232 19th street
Manhattan Beach CA
90266

Rebuttal to AT&T Application for Cell Phone Antenna on Corner of 19th Street and Highland.

We are in OPPOSED

TO: Members of Manhattan Beach City Council, Mr. Jason Masters,
1400 Highland Ave,
Manhattan Beach, 90266 Nov 7 2017
(310) 802-5515

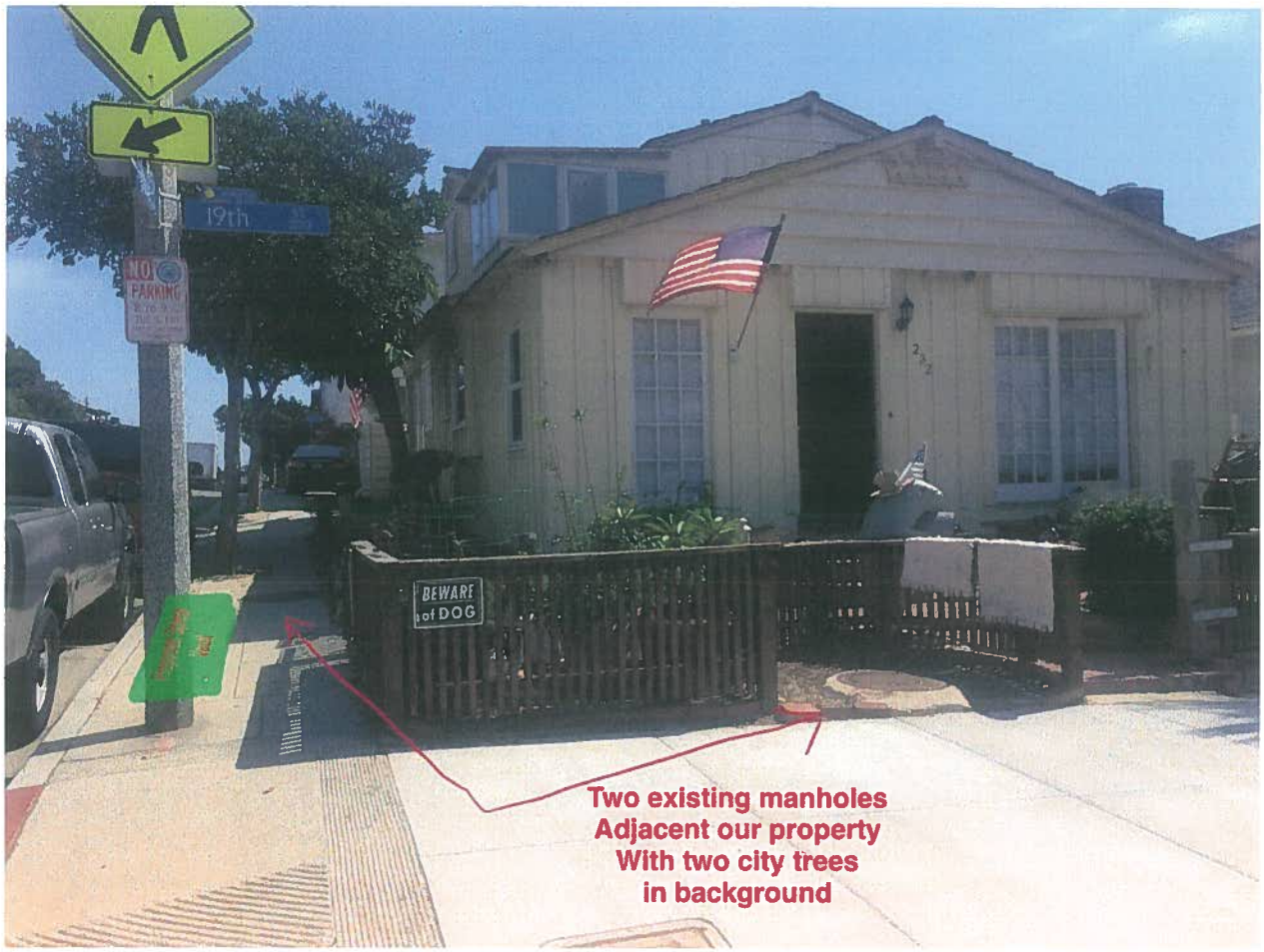
FROM: Richard (BRIAN) and Julie Neitz
232 19th Street
Manhattan Beach, 90266
(310) 561-3554, (310) 619-8326
srfnsgr8@yahoo.com

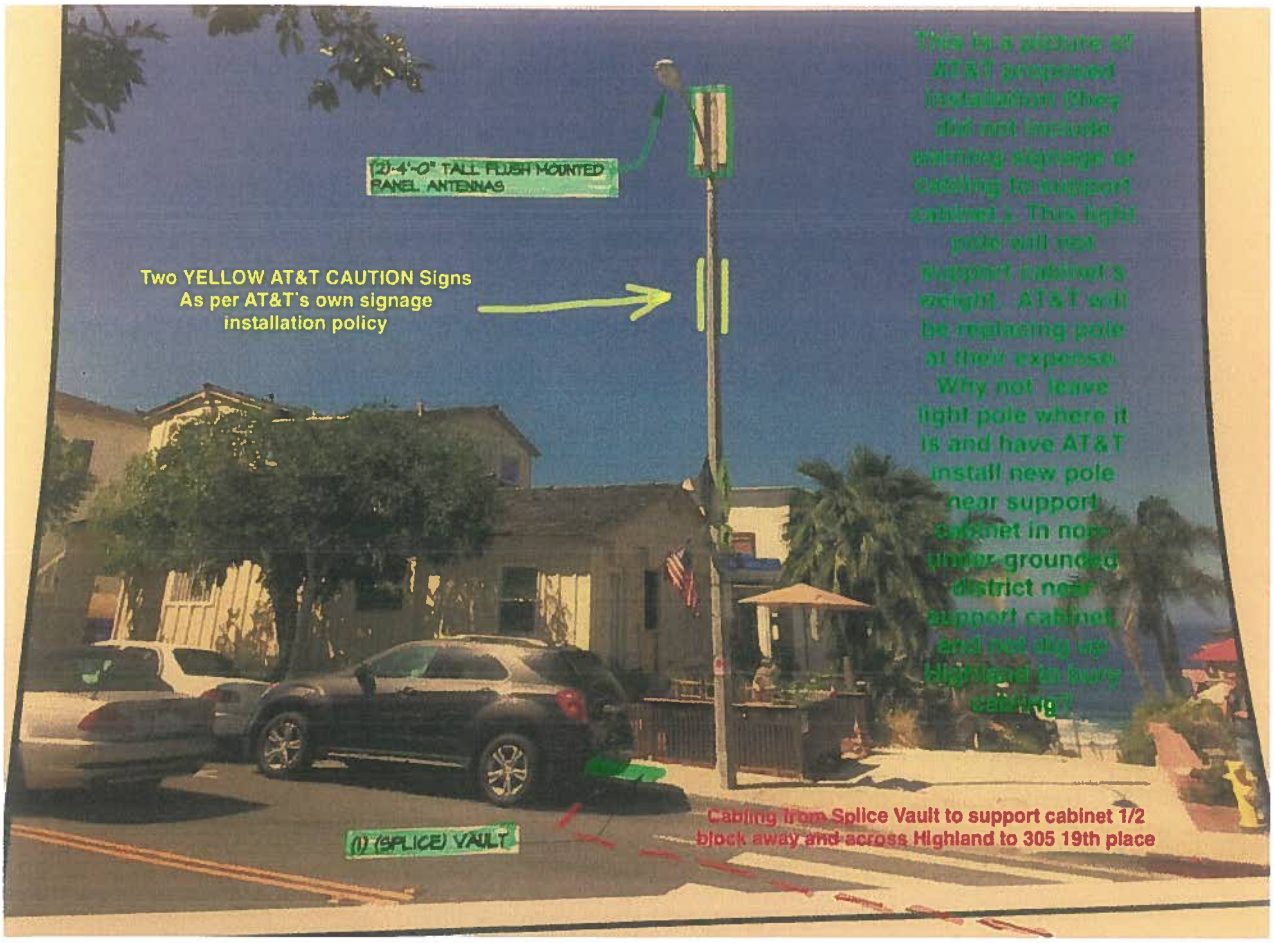
Hello to all concerned parties.
My wife Julie and myself would like to take this opportunity to address our concerns regarding AT&T's proposal for a telecom installation at the corner of 19th and Highland Manhattan Beach CA.

I talked with Mr. Jason Masters Tuesday, September 5, 2017 @ 11:30 AM, and met with him on October 25, 2017 at 11 AM. We discussed the project, the installation of the vault, the antenna, and the equipment cabinet locations. While we have many concerns about health and safety we understand that only aesthetic issues will be considered in this discussion.

Our aesthetic concerns regarding this project are as follows:

1) The burden of public utilities on or near our property is excessive.
Our property at 232 19th Street already has a sewer line and manhole cover in our front yard (northside) easement. On the eastside (Highland sidewalk) of our property within 12' of the proposed installation is also a phone vault with another manhole cover in the sidewalk. We have two city owned trees we are required to maintain. This would be yet another public installation near our property. We feel we are unfairly over burdened with public utilities on or near or property. (SEE PHOTOs) The proposed AT&T installation will put a "splice vault" in the sidewalk adjacent Highland Ave in front of house, a 4-foot box on top of NEW light pole, and two yellow caution signs, all 18 feet (the new pole 12-feet) or less from our house. These installations will severely impact our view and the views of our neighbor, and lessen our property values.


19th
NO PARKING
BEWARE of DOG
Two existing manholes
Adjacent our property
With two city trees
in background


(2)-4'-0" TALL FLUSH MOUNTED PANEL ANTENNAS
Two YELLOW AT&T CAUTION Signs
As per AT&T's own signage
installation policy
This is a picture of AT&T proposed installation (they did not include warning signage or cabling to support cabinet.) This light pole will not support cabinet's weight. AT&T will be replacing pole at their expense. Why not leave light pole where it is and have AT&T install new pole near support cabinet in non-under-grounded district near support cabinet and not dig up Highland to bury cabling?
(1) (SPLICE) VAULT
Cabling from Splice Vault to support cabinet 1/2 block away and across Highland to 305 19th place

2) There will be a 4-foot box on top of a 29-foot streetlight pole 12 feet from my house. The minimum distance is of the pole is 10 feet from a dwelling. Health concerns aside it will block the view down the walk street for my neighbors who have spent millions of dollars on their homes. It will also affect my enjoyment of my property when I remodel in 2019. Not noted in the AT&T plan is the required installation of 2 YELLOW signs as per AT&T's signage installation policy, **two (2) AT&T YELLOW "Caution" Signs** are recommended for installation on opposite sides of the utility pole 3-5 feet below bottom of the antennas. Please reference "section 6" below. These YELLOW CAUTION sign installations will further bring down the aesthetic value of our properties.

   In talking with Mr. Jason Masters, he has told me that the street light that AT&T will be placing the box on will be replaced as the current one will not support the box on top. Since the pole needs to be replaced there is no need to have it 12 feet from my house. It can be moved at no expense to the city as AT&T is paying to put in a new pole. Not addressed in the AT&T plan is exactly how the new pole will appear. How do we know if the new pole will match the current aesthetic?

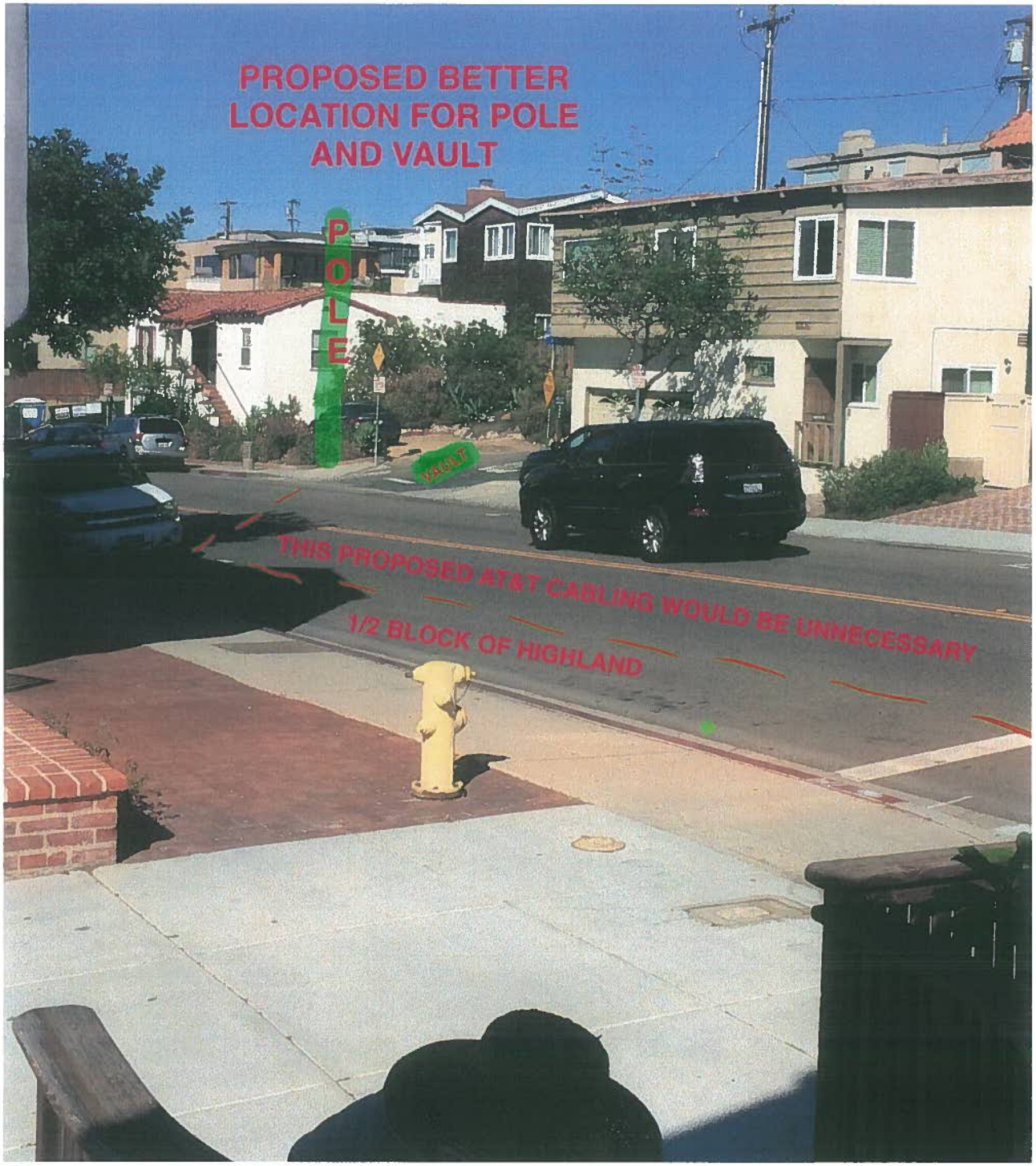
   The cabinet that will serve this box is being move to a new location (different from original plan) on the east side of Highland Ave on or near 305 19th place next to a telephone pole. It is a half block away, and adjacent a dirt parking lot. If the current plan remains in place it will require digging a trench from the splice vault in front of 232 19th Street, along and across Highland Ave to this cabinet a half block away. This trenching would severely impact traffic for the duration of the installation on an already busy thoroughfare.

   Why not have AT&T place the new pole in the public easement adjacent to this dirt lot at 1920 Highland Ave? We would not have to dig up Highland Ave and can maintain the current view. We would leave the current light pole in its location since it is needed for the crosswalk. A new pole would need to be built anyway so why not move it to a better location?

3) I would like to address the issue of undergrounding. My neighbors and I spent large sums of money to underground utilities in our district improve our views and increase our property values. Why then is the city allowing private companies to put them back? I spent close to $30,000 for my share to underground utilities in my district. We are now allowing AT&T to undo these improvements. What happens when Sprint, T-Mobile, and others want the same installations?

4) Here is my proposed alternate location. It would be on Northeast corner of Highland Ave and 19th Place, near 1920 Highland Ave. It is in a non-undergrounded district, in an alleyway, adjacent a dirt parking lot and near the required support cabinet. It would be installed at AT&T's expense and would not required the half block of trenching along and across Highland for the cabling to the "splice vault".


POLE
NO OUTLET
AT&T PROPOSED CABINET
VAULT
MY PROPOSED ALTERNATE LOCATION FOR POLE AND VAULT



5) Encroaching on already narrow sidewalks
How will this project encroach on already narrow sidewalks? We already have a manhole and two city trees on the sidewalk in front of 232 19th street. We constantly have to clean the sidewalk of leaves and trash to prevent a tripping or slipping hazard. A vault cover as depicted in AT&T proposal would add yet another hazard my family would be expected to maintain. Who will indemnify us when weather gets bad or someone hurts themselves? The city, AT&T? I saw in the proposal that AT&T would widen the sidewalk to comply with American with Disabilities Act. That would mean the sidewalk would have to go into the easement in our front yard adding yet more burden to me and my family.

6) Health Ramifications.

I understand that we are not allowed to use this as a consideration of approving or denying this application. We could look at it as a side benefit however. The hazards are clear in the supporting documentation that AT@T offered. The EBI Consulting Report, "Radio Frequency Compliance Predictive Modeling Report" dated December 16, 2016 (obtained via public records request) states on page 5 section 3.0 "Utilities construction and maintenance staff and contractors requiring access to the elevated utility pole areas directly in front of the antennas should not access areas within 8 feet directly in front of the antennas and follow proper RF safety mitigation measures, including job planning to minimize RF exposures when accessing these locations. As per AT&T's signage installation policy, **two (2) AT&T YELLOW "Caution" Signs** are recommended for installation on opposite sides of the utility pole 3-5 feet below bottom of the antennas. Above this height, workers on the utility pole may be exposed to power densities above FCC Occupational limit." On page. 4 of the same report, "Workers that may be elevated in front of the antennas should maintain a minimum 8-foot horizontal setback from the antennas, based upon the antenna specifications pervaded for this analysis." "EBI has also evaluated the potential for RF emissions to EXCEED allowable levels at nearest adjacent structures to each node" (This would be the residential properties around and including 232 19th street.)

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Firefighters Local 1014 had the bill amended citing a "2004 brain scan study by a Los Angeles neurotoxicologist of a group of firefighters in Carpinteria who lived and slept inside a station near a large cell tower for five years. The study found brain abnormalities in all the men tested, including delayed reaction time, lack of impulse control and cognitive impairment". With the new cell installation on top of Manhattan Beach City hall I would be concerned if I worked there.

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Thank you for your consideration

Richard (Brian), and Julie Neitz

Supporting picture from AT&T plans of proposed cabinet location

Martha Alvarez

From: Telecom AT&T
Sent: Monday, November 13, 2017 9:12 AM
To: Martha Alvarez
Subject: FW: AT&T cell towers and meeting

From: manbchstud@aol.com [mailto:manbchstud@aol.com]
Sent: Friday, November 10, 2017 7:01 PM
To: Telecom AT&T; Jason Masters
Subject: AT&T cell towers and meeting

Hi Jason
After reading materials both send via US post and online, I would like to see the photo simulations received on October 16th and 17th, 2017 that are mentioned.
Particularly, the photos that pertain to my corner at 29th & Manhattan Ave., and more specifically the proposed location of the cabinet.
Thanks, and I'll see you on Nov. 16.

Larry Levine

Telecom AT&T

P:
E: telecom-att@citymb.info

City of Manhattan Beach
1400 Highland Avenue, Manhattan Beach, CA 90266
www.citymb.info

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Martha Alvarez

From: Jason Masters
Sent: Monday, November 13, 2017 2:34 PM
To: Martha Alvarez
Subject: FW: Telecommunications installation Comment 232 19th Supporting Document
Attachments: Radio Frequency Report.pdf; ATT00001.txt

More public comments.

Jason Masters
Assistant Planner
(310) 802-5515
jmasters@citymb.info
City of Manhattan Beach, CA

Office Hours: M - Th 7:30AM - 5:30 PM | Alternate Open Fridays 8:00AM - 5:00 PM | Closed Alternate Fridays | Not Applicable to Public Safety

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-----Original Message-----
From: srfnsgr8@yahoo.com [mailto:srfnsgr8@yahoo.com]
Sent: Monday, November 13, 2017 11:41 AM
To: Jason Masters <jmasters@citymb.info>; Steve Napolitano <snapolitano@citymb.info>; David Lesser <dlesser@citymb.info>; Amy Thomas Howorth <ahoworth@citymb.info>; Nancy Hersman <nhersman@citymb.info>; Richard Montgomery <rmontgomery@citymb.info>
Subject: Telecommunications installation Comment 232 19th Supporting Document

Hello again Mayor, Mayor Pro-Tem, Council members, Mr Masters Here is a supporting document obtained by Public Records Act.

I reference this document in my rebuttal. Please note page. 6 section 3, and the bottom of page.4. This document was contracted by AT&T to evaluate the worst-case Radio Frequency (RF) emissions from proposed installations. Health impacts my not be decided on by the council but on page.6 the signage referenced opened it up because of its potential impact on the neighborhood aesthetic. If AT@T ignores installing safety signage per own internal policy and recommendation of its own contractor it would cause me to question AT&T's commitment to public health and safety with it proposed installations.
Again I feel safety signage impacts the aesthetic and opens it up to comment as to why safety signage would be needed.

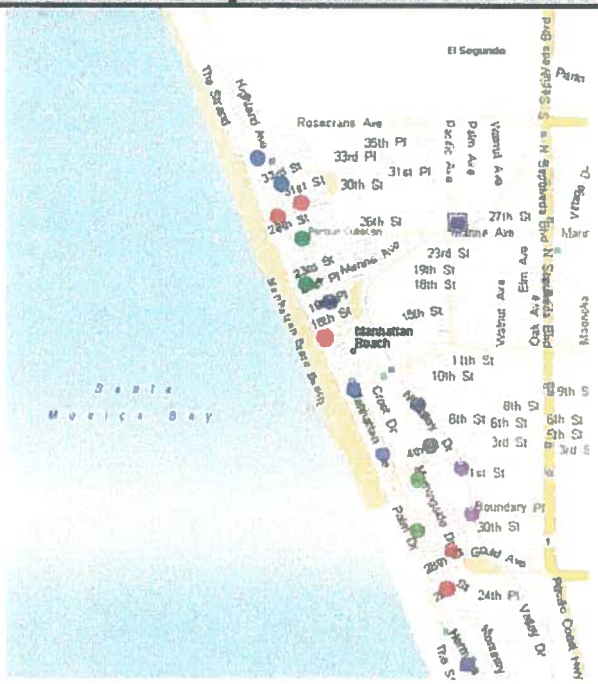
Thanks for your time but I just want to provide full back ground on my position.

Thank you

Brian and Julie Neitz

EBI Consulting
environmental | engineering | due diligence

Radio Frequency Compliance Predictive Modeling Report



Client:	**AT&T Mobility**
Site Address:	**Various Locations** **Manhattan Beach, CA**
Report Date:	**December 16, 2016**

PREPARED BY EBI CONSULTING FOR AT&T MOBILITY
CONTAINS PROPRIETARY AND CONFIDENTIAL INFORMATION

1. Introduction

The electromagnetic spectrum includes various forms of electromagnetic energy from extremely low frequency energy, with very long wavelengths, to x-rays and gamma rays, which have very high frequencies and short wavelengths. In between are radio waves, microwaves, infrared, visible light and ultraviolet, for example.

As depicted in Figure 1-1, the frequencies from telecommunications equipment emit non-ionizing energy. The effects of non-ionizing energy are non-cumulative. Non-ionizing energy can turn into heat, if absorbed. (By comparison, ionizing energy is generally cumulative and can cause chemical and biological changes).

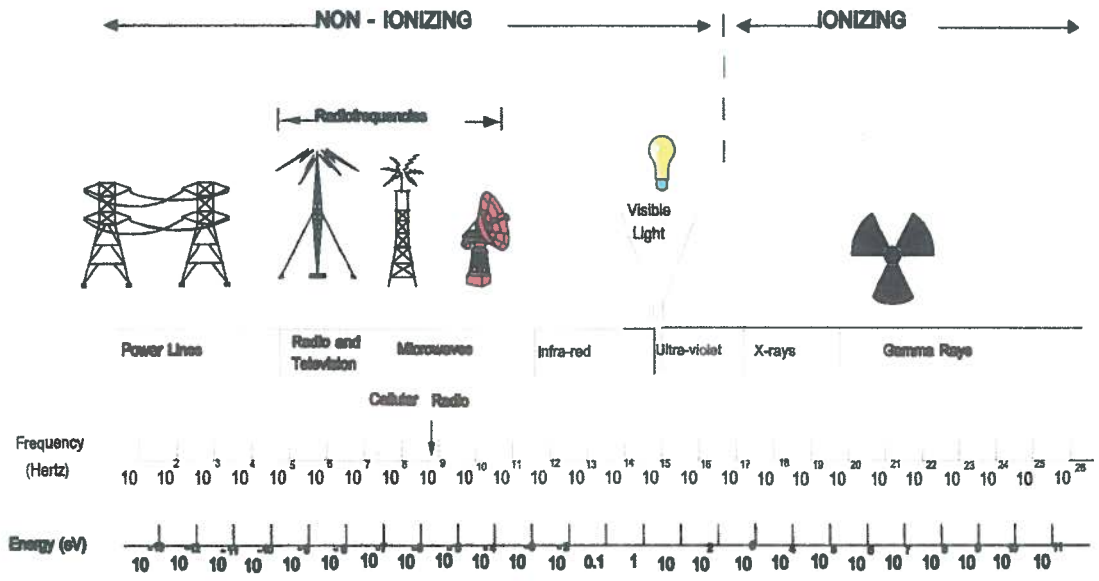


Figure 1-1.
(FCC OET Bulletin 56, Fourth Ed.)

1.0 Site Conditions/FCC RF-EME Compliance Summary

AT&T has installed and operates sixteen (16) outdoor Distributed Antenna System (DAS) antenna nodes at the locations included in Table 1 below:

SITE ID
Manhattan Beach, CA oDAS System

Facility Type:	Outdoor Distributed Antenna System (DAS)
Access Restriction(s):	None – Exterior, Publicly Accessible Locations
RF Signage	
Type(s):	None
Location(s):	See photos (Appendix C)
Facility Area Classification:	Uncontrolled
Recommended Mitigation Measures	See Section 3.0
Predictive Modeling Results	
Max RF Level in Accessible Areas :	9.4% of the FCC General Population MPE Limit
FCC Compliance Conclusion:	The site is in compliance with FCC limits and guidelines; recommended mitigation measures are provided

2.0 Maximum Predicted Emissions

EBI has performed theoretical modeling using RoofView® software to estimate the worst-case power density at the site ground-level resulting from operation of the antennas. RoofView® is a widely-used predictive modeling program that has been developed by Richard Tell Associates to predict both near field and far field RF power density values for roof-top and tower telecommunications sites produced by vertical collinear antennas that are typically used in the cellular, PCS, paging and other communications services. The models utilize several operational specifications for different types of antennas to produce a plot of spatially-averaged power densities that can be expressed as a percentage of the applicable exposure limit.

EBI has conducted predictive modeling on the installed antennas, utilizing data provided by the AT&T Mobility. For purposes of this modeling, the antennas were modeled assuming simultaneous operation of the LTE 700

MHz frequency, GSM 850 MHz frequency, PCS 1900 MHz frequency, and AWS 2100 MHz frequency, with a maximum total Effective Radiated Power (ERP) of 653 watts per node, divided as indicated below:

- 700 MHz: 123 Watts
- 850 MHz: 148 Watts
- PCS 1900 MHz: 200 Watts
- AWS 2100 MHz: 123 Watts

This analysis included a total of sixteen (16) individual DAS antenna nodes, at the locations and heights indicated in Table 1 below. The worst-case predicted Maximum Permissible Exposure (MPE) level for each node is also provided in Table 1. Modeling specifications are shown in the RoofView export files for the site provided in Appendix B.

Table 1: Node Locations/Maximum Predicted RF Emissions

Node	Lat (N)	Long (W)	Address	Azimuths	Z[1]	Max. Predicted MPE [2]
MBCH01	33.89943	-118.41821	Manhattan Ave-36th Street	160/340	22.75	7.1%
MBCH02	33.89779	-118.41638	Highland Ave-32nd Place	160/340	26.75	5.1%
MBCH03	33.89566	-118.41672	Manhattan Ave-29th Street	160/340	23.75	6.5%
MBCH04	33.89426	-118.41481	Bayview Drive-26th Street	160/340	22.75	7.1%
MBCH05	33.89135	-118.41451	Marine Ave-Bayview Drive	160/340	24.75	6.0%
MBCH06	33.89018	-118.41269	Highland Ave-19th Street	160/340	28.33	4.6%
MBCH07	33.88467	-118.4109	Manhattan Ave-4th Street	160/340	19.75	9.4%
MBCH08	33.88055	-118.40869	Manhattan Ave-5th Place	160/340	23.16	6.9%
MBCH09	33.88114	-118.40506	Ingleside Drive-5th Place	160/340	24.25	6.2%
MBCH13	33.87888	-118.40601	Morningside Dr-2nd Street	160/340	23.75	6.5%
MBCH14	33.89659	-118.41492	Alma Ave-28th Street	160/340	23.75	6.5%
MBCH15	33.88793	-118.41313	Ocean Drive-18th Street	160/340	22.83	7.2%
MBCH16	33.88375	-118.40601	N. Valley Drive-9th Place	290/130	34.58	3.4%
MBCH17	33.87967	-118.40271	2nd Street-N. Ardmore Ave	160/340	23.75	6.5%
MBCH18	33.874289	-118.40337	13th Street-Church Street	160/340	36.75	3.3%
MBCH20	33.895337	-118.40295	Pacific Ave/Valley Drive	70/250	22.66	9.0%

(1) The Z dimension references the height of the antennas above ground level used for modeling
(2) Expressed as a % of the FCC's Maximum Permissible Emission (MPE) Limit for members of the general public

Workers that may be elevated in front of the antennas should maintain a minimum 8-foot horizontal setback from the antennas, based upon the antenna specifications provided for this analysis.

EBI has also evaluated the potential for RF emissions to exceed allowable levels at the nearest adjacent structures to each node. There are no areas at the antenna face height on these adjacent structures that exceed the FCC's most stringent limit to protect members of the general public.

3.0 Recommended RF Signage and RF Hazard Mitigation Measures

There are no areas at ground level requiring any RF safety mitigation measures, as there are no publicly-accessible areas that exceed the applicable FCC RF safety limit to protect members of the general public. Utilities construction and maintenance staff and contractors requiring access to the elevated utility pole areas directly in front of the installed antennas should not access areas within 8 feet directly in front of the antennas and follow proper RF safety mitigation measures, including job planning to minimize RF exposures when accessing these locations. As per AT&T's signage installation policy, two (2) AT&T Yellow "Caution" Signs are recommended for installation on opposite sides of the utility pole, 3-5 feet below the bottom of the antennas. Above this height, workers on the utility pole may be exposed to power densities above the FCC Occupational limit. Workers that may be elevated in front of the antennas should be informed of the recommended setback measures and the locations of RF hazard signage.

4.0 Statement of Compliance

Based on onsite RF measurements as well as worst-case predictive modeling, there are no modeled exposures on any accessible ground-level walking/working surface related to the installed equipment in the area that exceed the FCC's occupational and/or general public exposure limits at this site. As such, the facility project is in compliance with FCC rules and regulations; recommended RF mitigation measures are provided in Section 4.0.

5.0 Certification

This report was prepared for AT&T Mobility and serves as certification for compliance of the existing wireless telecommunications facility. The analysis and information provided herein is based on applicable FCC regulations concerning RF safety and the control of human exposure to RF emissions. The information and analysis contained in this report are accurate and complete to the best knowledge and belief of the undersigned.

Report Prepared by:

_____ December 16, 2016

Kevin McManus
Senior Program Director

Preparer Certification

I, Kevin McManus, state that:

- I am an employee of EnviroBusiness Inc. (d/b/a EBI Consulting), which provides RF-EME safety and compliance services to the wireless communications industry.
- I have successfully completed RF-EME safety training, and I am aware of the potential hazards from RF-EME and would be classified "occupational" under the FCC regulations.
- I am familiar with the FCC rules and regulations as well as OSHA regulations both in general and as they apply to RF-EME exposure.
- I have reviewed the data provided by the client and field survey personnel and incorporated it into this Site Compliance Report such that the information contained in this report is true and accurate to the best of my knowledge.

References

- FCC OET Bulletin 65 "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields," (Edition 97-01, dated August 1997).
- FCC OET Bulletin 56 "Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields," (Fourth Edition, dated August 1999).
- FCC "Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation", ET Docket 93-62, Report and Order, FCC 96-326, adopted August 1, 1996. 61 Federal Register 41006 (1996).
- Federal Communications Commission (FCC), Telecommunication Act of 1996, Title VII, Section 704, Facilities Siting; Radio Frequency Emissions Standards.
- National Council on Radiation Protection and Measurements (NCRP), "Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields", NCRP Report No. 119, 1993.
- American National Standards Institute (ANSI), "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1-1992 (previously issued as IEEE C95.1-1991).
- American National Standard Institute (ANSI), "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, (300 kHz to 100 GHz), ANSI C95.1-1982.

Appendix A
FCC Policy on Human Exposure to RF Emissions

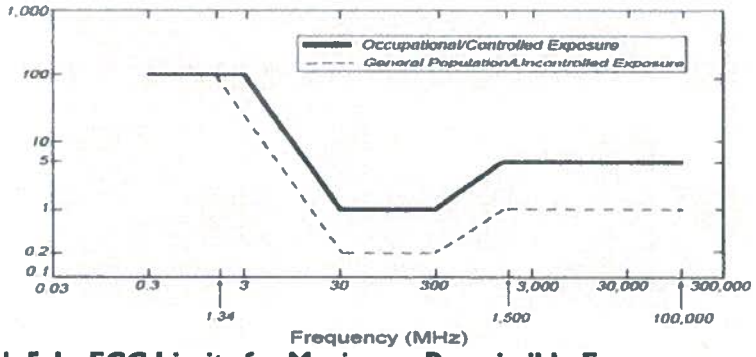
Appendix A: FCC Policy on Human Exposure to RF Emissions

The FCC guidelines for human exposure to RF emissions were derived from the recommendations of two expert organizations, the National Council on Radiation Protection and Measurements ("NCRP") and the Institute of Electrical and Electronics Engineers ("IEEE"). The exposure guidelines are based on thresholds for known adverse effects and they incorporate an appropriate margin of safety. The federal health and safety agencies such as the Environmental Protection Agency ("EPA"), the Food and Drug Administration ("FDA"), the National Institute on Occupational Safety and Health ("NIOSH") and the Occupational Safety and Health Administration ("OSHA") have also been actively involved in monitoring and investigating issues related to RF exposure.

The FCC's Maximum Permissible Exposure ("MPE") limits are based on exposure limits (over a wide range of frequencies) recommended by the NCRP and the exposure limits developed by the IEEE and adopted by the American National Standards Institute ("ANSI"). The limits for localized absorption are based on the recommendations of both the ANSI/IEEE and the NCRP. The potential hazard associated with the RF electromagnetic fields is discussed in OET Bulletin No. 56 "Questions and Answers about the Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields". This document can be obtained on the FCC website at www.fcc.gov. The table and the graph below represent the FCC limits for both occupational and general population exposures to different radio frequencies:

Frequency Range (f) (MHz)	Occupational Exposure (mW/cm^2)	General Public Exposure (mW/cm^2)
0.3 – 1.34	100	100
1.34 - 3.0	100	$180 / f^2$
3.0 - 30	$900 / f^2$	$180 / f^2$
30 – 300	1.0	0.2
300 – 1,500	f / 300	f / 1500
1,500 – 100,000	5.0	1.0

Table 5-1. FCC Limits for Maximum Permissible Exposure



Graph 5-1. FCC Limits for Maximum Permissible Exposure

Discussion of Safety Criteria

Energy levels associated with the RF radiations are not great enough to cause the ionization of atoms and molecules. "Ionization" is a process by which electrons are stripped from atoms and molecules. This process can produce molecular changes that can lead to damage in biological tissue including effects on DNA, the genetic material. This process requires interaction with high levels of electromagnetic energy. Those types of electromagnetic radiation with enough energy to ionize biological material include x-radiation and gamma radiation. Therefore, x-rays and gamma rays are examples of ionizing radiation (see Section I for additional information).

RF energy is a type of non-ionizing radiation. Other types of non-ionizing radiation include visible light, infrared radiation and other forms of electromagnetic radiation with relatively low frequencies. Often the term "radiation" is used to apply to ionizing radiation associated with nuclear power plants. Ionizing radiation should not be confused with the lower-energy, non-ionizing radiation with respect to possible biological effects.

The RF emissions from antennas used for wireless telecommunications typically result in exposure levels at the site that are well below the limits recommended by the FCC. These limits were adopted by the FCC based on the recommendations of expert organizations and endorsed by agencies of the Federal Government responsible for health and safety.

Other antennas, such as those used for radio and television broadcast transmissions, use power levels that are generally higher than those used for wireless antennas. Therefore, in some cases, there could be a potential for higher levels of exposure on the site. However, all broadcast stations are also required to demonstrate compliance with the FCC guidelines.

Appendix B
RoofView Export File

StartMapDefinition

Roof Max Y	Roof Max X	Map Max Y	Map Max X	Y Offset	X Offset	Number of envelope	
200	170	200	190	0	20	1	$AE$21:GAE$21:$GR$220

StartSettingsData

Standard	Method	Uptime	Scale Facto	Low Thr	Low Color	Mid Thr	Mid Color	Hi Thr	Hi Color	Over Color	Ap Ht Mult	Ap Ht Method
4	2	1	1	1	1	100	5	1000	2	3	1.5	1

StartAntennaData

It is advisable to provide an ID (ant 1) for all antennas

ID	Name	(MHz) Freq	Trans Power	Trans Count	Coax Len	Coax Type	Other Loss	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	(ft) Aper	dBd Gain	BWdth Pt Dir	Uptime Profile	ON flag
Node 01 MBCH	ATT-DAS 1A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	22.75	panel	4.5	11.85	65;160		OFF
Node 01 MBCH	ATT-DAS 1A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	22.75	panel	4.5	11.85	65;160		OFF
Node 01 MBCH	ATT-DAS 1A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	22.75	panel	4.5	14.35	65;160		OFF
Node 01 MBCH	ATT-DAS 1A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	22.75	panel	4.5	14.35	65;160		OFF
Node 01 MBCH	ATT-DAS 1B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	22.75	panel	4.5	11.85	65;340		OFF
Node 01 MBCH	ATT-DAS 1B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	22.75	panel	4.5	11.85	65;340		OFF
Node 01 MBCH	ATT-DAS 1B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	22.75	panel	4.5	14.35	65;340		OFF
Node 01 MBCH	ATT-DAS 1B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	22.75	panel	4.5	14.35	65;340		OFF
Node 02 MBCH	ATT-DAS 2A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	26.75	panel	4.5	11.85	65;160		OFF
Node 02 MBCH	ATT-DAS 2A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	26.75	panel	4.5	11.85	65;160		OFF
Node 02 MBCH	ATT-DAS 2A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	26.75	panel	4.5	14.35	65;160		OFF
Node 02 MBCH	ATT-DAS 2A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	26.75	panel	4.5	14.35	65;160		OFF
Node 02 MBCH	ATT-DAS 2B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	26.75	panel	4.5	11.85	65;340		OFF
Node 02 MBCH	ATT-DAS 2B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	26.75	panel	4.5	11.85	65;340		OFF
Node 02 MBCH	ATT-DAS 2B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	26.75	panel	4.5	14.35	65;340		OFF
Node 02 MBCH	ATT-DAS 2B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	26.75	panel	4.5	14.35	65;340		OFF
Node 03 MBCH	ATT-DAS 3A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	11.85	65;160		OFF
Node 03 MBCH	ATT-DAS 3A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	11.85	65;160		OFF
Node 03 MBCH	ATT-DAS 3A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	14.35	65;160		OFF
Node 03 MBCH	ATT-DAS 3A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	14.35	65;160		OFF
Node 03 MBCH	ATT-DAS 3B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	11.85	65;340		OFF
Node 03 MBCH	ATT-DAS 3B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	11.85	65;340		OFF
Node 03 MBCH	ATT-DAS 3B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	14.35	65;340		OFF
Node 03 MBCH	ATT-DAS 3B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	14.35	65;340		OFF
Node 04 MBCH	ATT-DAS 4A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	22.75	panel	4.5	11.85	65;160		OFF
Node 04 MBCH	ATT-DAS 4A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	22.75	panel	4.5	11.85	65;160		OFF
Node 04 MBCH	ATT-DAS 4A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	22.75	panel	4.5	14.35	65;160		OFF
Node 04 MBCH	ATT-DAS 4A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	22.75	panel	4.5	14.35	65;160		OFF
Node 04 MBCH	ATT-DAS 4B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	22.75	panel	4.5	11.85	65;340		OFF
Node 04 MBCH	ATT-DAS 4B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	22.75	panel	4.5	11.85	65;340		OFF
Node 04 MBCH	ATT-DAS 4B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	22.75	panel	4.5	14.35	65;340		OFF
Node 04 MBCH	ATT-DAS 4B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	22.75	panel	4.5	14.35	65;340		OFF
Node 05 MBCH	ATT-DAS 5A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	24.75	panel	4.5	11.85	65;160		OFF
Node 05 MBCH	ATT-DAS 5A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	24.75	panel	4.5	11.85	65;160		OFF
Node 05 MBCH	ATT-DAS 5A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	24.75	panel	4.5	14.35	65;160		OFF
Node 05 MBCH	ATT-DAS 5A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	24.75	panel	4.5	14.35	65;160		OFF
Node 05 MBCH	ATT-DAS 5B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	24.75	panel	4.5	11.85	65;340		OFF
Node 05 MBCH	ATT-DAS 5B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	24.75	panel	4.5	11.85	65;340		OFF
Node 05 MBCH	ATT-DAS 5B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	24.75	panel	4.5	14.35	65;340		OFF
Node 05 MBCH	ATT-DAS 5B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	24.75	panel	4.5	14.35	65;340		OFF
Node 06 MBCH	ATT-DAS 6A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	28.33	panel	4.5	11.85	65;160		OFF
Node 06 MBCH	ATT-DAS 6A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	28.33	panel	4.5	11.85	65;160		OFF
Node 06 MBCH	ATT-DAS 6A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	28.33	panel	4.5	14.35	65;160		OFF
Node 06 MBCH	ATT-DAS 6A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	28.33	panel	4.5	14.35	65;160		OFF
Node 06 MBCH	ATT-DAS 6B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	28.33	panel	4.5	11.85	65;340		OFF
Node 06 MBCH	ATT-DAS 6B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	28.33	panel	4.5	11.85	65;340		OFF
Node 06 MBCH	ATT-DAS 6B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	28.33	panel	4.5	14.35	65;340		OFF
Node 06 MBCH	ATT-DAS 6B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	28.33	panel	4.5	14.35	65;340		OFF

Node 07 MBCH	ATT-DAS 7A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	19.75	panel	4.5	11.85	65;160	OFF
Node 07 MBCH	ATT-DAS 7A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	19.75	panel	4.5	11.85	65;160	OFF
Node 07 MBCH	ATT-DAS 7A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	19.75	panel	4.5	14.35	65;160	OFF
Node 07 MBCH	ATT-DAS 7A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	19.75	panel	4.5	14.35	65;160	OFF
Node 07 MBCH	ATT-DAS 7B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	19.75	panel	4.5	11.85	65;340	OFF
Node 07 MBCH	ATT-DAS 7B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	19.75	panel	4.5	11.85	65;340	OFF
Node 07 MBCH	ATT-DAS 7B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	19.75	panel	4.5	14.35	65;340	OFF
Node 07 MBCH	ATT-DAS 7B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	19.75	panel	4.5	14.35	65;340	OFF
Node 08 MBCH	ATT-DAS 8A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	23.16	panel	4.5	11.85	65;160	OFF
Node 08 MBCH	ATT-DAS 8A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.16	panel	4.5	11.85	65;160	OFF
Node 08 MBCH	ATT-DAS 8A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	23.16	panel	4.5	14.35	65;160	OFF
Node 08 MBCH	ATT-DAS 8A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.16	panel	4.5	14.35	65;160	OFF
Node 08 MBCH	ATT-DAS 8B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	23.16	panel	4.5	11.85	65;340	OFF
Node 08 MBCH	ATT-DAS 8B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.16	panel	4.5	11.85	65;340	OFF
Node 08 MBCH	ATT-DAS 8B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	23.16	panel	4.5	14.35	65;340	OFF
Node 08 MBCH	ATT-DAS 8B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.16	panel	4.5	14.35	65;340	OFF
Node 09 MBCH	ATT-DAS 9A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	24.25	panel	4.5	11.85	65;160	OFF
Node 09 MBCH	ATT-DAS 9A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	24.25	panel	4.5	11.85	65;160	OFF
Node 09 MBCH	ATT-DAS 9A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	24.25	panel	4.5	14.35	65;160	OFF
Node 09 MBCH	ATT-DAS 9A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	24.25	panel	4.5	14.35	65;160	OFF
Node 09 MBCH	ATT-DAS 9B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	24.25	panel	4.5	11.85	65;340	OFF
Node 09 MBCH	ATT-DAS 9B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	24.25	panel	4.5	11.85	65;340	OFF
Node 09 MBCH	ATT-DAS 9B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	24.25	panel	4.5	14.35	65;340	OFF
Node 09 MBCH	ATT-DAS 9B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	24.25	panel	4.5	14.35	65;340	OFF

StartSymbolData

Sym	Map Marker	Roof X	Roof Y	Map Label	Description (notes for this table only)
Sym		5	35	AC Unit	Sample symbols
Sym		14	5	Roof Access	
Sym		45	5	AC Unit	
Sym		45	20	Ladder	

StartMapDefinition

Roof Max Y	Roof Max X	Map Max Y	Map Max X	Y Offset	X Offset	Number of envelope		List Of Areas
200	170	200	190	0	20	1	$AE$21:GAE$21:$GR$220	$AE$21:$GR$220

StartSettingsData

Standard	Method	Uptime	Scale Facto	Low Thr	Low Color	Mid Thr	Mid Color	Hi Thr	Hi Color	Over Color	Ap Ht Mult	Ap Ht Method
4	2	1	1	1	1	100	5	1000	2	3	1.5	1

StartAntennaData

It is advisable to provide an ID (ant 1) for all antennas

ID	Name	(MHz) Freq	Trans Power	Trans Count	Coax Len	Coax Type	Other Loss	Input Power	Calc Power	Mfg	Model	(ft) X	(ft) Y	(ft) Z	Type	(ft) Aper	dBd Gain	BWdth Pt Dir	Uptime Profile	ON flag
Node 13 MBCH	ATT-DAS 13A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	11.85	65;160		OFF
Node 13 MBCH	ATT-DAS 13A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	11.85	65;160		OFF
Node 13 MBCH	ATT-DAS 13A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	14.35	65;160		OFF
Node 13 MBCH	ATT-DAS 13A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	14.35	65;160		OFF
Node 13 MBCH	ATT-DAS 13B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	11.85	65;340		OFF
Node 13 MBCH	ATT-DAS 13B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	11.85	65;340		OFF
Node 13 MBCH	ATT-DAS 13B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	14.35	65;340		OFF
Node 13 MBCH	ATT-DAS 13B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	14.35	65;340		OFF
Node 14 MBCH	ATT-DAS 14A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	11.85	65;160		OFF
Node 14 MBCH	ATT-DAS 14A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	11.85	65;160		OFF
Node 14 MBCH	ATT-DAS 14A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	14.35	65;160		OFF
Node 14 MBCH	ATT-DAS 14A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	14.35	65;160		OFF
Node 14 MBCH	ATT-DAS 14B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	11.85	65;340		OFF
Node 14 MBCH	ATT-DAS 14B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	11.85	65;340		OFF
Node 14 MBCH	ATT-DAS 14B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	14.35	65;340		OFF
Node 14 MBCH	ATT-DAS 14B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	14.35	65;340		OFF
Node 15 MBCH	ATT-DAS 15A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	22.83	panel	4.5	11.85	65;160		OFF
Node 15 MBCH	ATT-DAS 15A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	22.83	panel	4.5	11.85	65;160		OFF
Node 15 MBCH	ATT-DAS 15A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	22.83	panel	4.5	14.35	65;160		OFF
Node 15 MBCH	ATT-DAS 15A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	22.83	panel	4.5	14.35	65;160		OFF
Node 15 MBCH	ATT-DAS 15B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	22.83	panel	4.5	11.85	65;340		OFF
Node 15 MBCH	ATT-DAS 15B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	22.83	panel	4.5	11.85	65;340		OFF
Node 15 MBCH	ATT-DAS 15B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	22.83	panel	4.5	14.35	65;340		OFF
Node 15 MBCH	ATT-DAS 15B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	22.83	panel	4.5	14.35	65;340		OFF
Node 16 MBCH	ATT-DAS 16A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	34.58	panel	4.5	11.85	65;290		OFF
Node 16 MBCH	ATT-DAS 16A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	34.58	panel	4.5	11.85	65;290		OFF
Node 16 MBCH	ATT-DAS 16A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	34.58	panel	4.5	14.35	65;290		OFF
Node 16 MBCH	ATT-DAS 16A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	34.58	panel	4.5	14.35	65;290		OFF
Node 16 MBCH	ATT-DAS 16B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	34.58	panel	4.5	11.85	65;130		OFF
Node 16 MBCH	ATT-DAS 16B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	34.58	panel	4.5	11.85	65;130		OFF
Node 16 MBCH	ATT-DAS 16B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	34.58	panel	4.5	14.35	65;130		OFF
Node 16 MBCH	ATT-DAS 16B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	34.58	panel	4.5	14.35	65;130		OFF
Node 17 MBCH	ATT-DAS 17A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	11.85	65;160		OFF
Node 17 MBCH	ATT-DAS 17A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	11.85	65;160		OFF
Node 17 MBCH	ATT-DAS 17A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	14.35	65;160		OFF
Node 17 MBCH	ATT-DAS 17A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	23.75	panel	4.5	14.35	65;160		OFF
Node 17 MBCH	ATT-DAS 17B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	11.85	65;340		OFF
Node 17 MBCH	ATT-DAS 17B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	11.85	65;340		OFF
Node 17 MBCH	ATT-DAS 17B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	14.35	65;340		OFF
Node 17 MBCH	ATT-DAS 17B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	23.75	panel	4.5	14.35	65;340		OFF
Node 18 MBCH	ATT-DAS 18A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	36.75	panel	4.5	11.85	65;160		OFF
Node 18 MBCH	ATT-DAS 18A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	36.75	panel	4.5	11.85	65;160		OFF
Node 18 MBCH	ATT-DAS 18A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	36.75	panel	4.5	14.35	65;160		OFF
Node 18 MBCH	ATT-DAS 18A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	36.75	panel	4.5	14.35	65;160		OFF
Node 18 MBCH	ATT-DAS 18B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	36.75	panel	4.5	11.85	65;340		OFF
Node 18 MBCH	ATT-DAS 18B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	36.75	panel	4.5	11.85	65;340		OFF
Node 18 MBCH	ATT-DAS 18B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	36.75	panel	4.5	14.35	65;340		OFF
Node 18 MBCH	ATT-DAS 18B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	36.75	panel	4.5	14.35	65;340		OFF
Node 20 MBCH	ATT-DAS 20A 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	60	22.66	panel	4.5	11.85	65;70		OFF
Node 20 MBCH	ATT-DAS 20A 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	60	22.66	panel	4.5	11.85	65;70		OFF
Node 20 MBCH	ATT-DAS 20A PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	60	22.66	panel	4.5	14.35	65;70		OFF
Node 20 MBCH	ATT-DAS 20A AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	60	22.66	panel	4.5	14.35	65;70		OFF
Node 20 MBCH	ATT-DAS 20B 700	700	0	0	0	0	0	8.1	8.1	KMW	AM-X-CD-14-65-00T-RET	60	62	22.66	panel	4.5	11.85	65;250		OFF
Node 20 MBCH	ATT-DAS 20B 850	850	0	0	0	0	0	9.7	9.7	KMW	AM-X-CD-14-65-00T-RET	60	62	22.66	panel	4.5	11.85	65;250		OFF
Node 20 MBCH	ATT-DAS 20B PCS	1900	0	0	0	0	0	7.3	7.3	KMW	AM-X-CD-14-65-00T-RET	60	62	22.66	panel	4.5	14.35	65;250		OFF
Node 20 MBCH	ATT-DAS 20B AWS	2100	0	0	0	0	0	6.7	6.7	KMW	AM-X-CD-14-65-00T-RET	60	62	22.66	panel	4.5	14.35	65;250		OFF

StartSymbolData

Sym	Map Marker	Roof X	Roof Y	Map Label	Description (notes for this table only)
Sym		5	35	AC Unit	Sample symbols
Sym		14	5	Roof Access	
Sym		45	5	AC Unit	
Sym		45	20	Ladder	