



DESIGN REVIEW BOARD Staff Report

Planning and Environmental Services
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AGENDA ITEM M-3

DATE: June 22, 2010
TO: Goleta Design Review Board
FROM: Shine Ling, Assistant Planner
SUBJECT: 10-051-DRB; NextG Networks; Various locations within City Rights-of-Way and utility easements across public and private parcels

APPLICANT: NextG Networks Inc.
5720 Thornwood Drive
Goleta, CA 93117

PROJECT DESCRIPTION:

This is a request for *Conceptual* review. The proposed project involves the modification of three existing nodes and the addition of two new nodes to the existing NextG Networks radiofrequency transport service system within City rights-of-way (ROWs) and utility easements over various public and private properties city-wide. The three existing nodes are located at the following intersections: (1) Cathedral Oaks Rd./Winchester Canyon Rd.; (2) Phelps Rd./Pacific Oaks Rd; and (3) Cathedral Oaks Rd./Los Carneros Rd. The two new nodes are located at: (1) Hollister Ave./Patterson Ave.; (2) Cambridge Dr./Cathedral Oaks Rd.

Each node would include an omnidirectional antenna and supporting equipment cabinet below the antenna mounted on an existing utility pole, traffic signal, or street light. Each node would be connected by fiber-optic cable installed either on existing utility poles, in joint conduit, or through shallow trenching within City streets. Support equipment for each node would be installed at a minimum height above existing grade of nine (9) feet, in an above-ground equipment cabinet, or underground. All antennae and supporting equipment would be non-reflective in color and materials. The electrical power supply for each node would be provided from existing utility lines installed on either existing utility poles or in joint conduit. No new utility poles for the supply of electrical power to any of the nodes are proposed. The project was filed by HP Communications, agent, on behalf of NextG Networks, applicant. Related cases: 10-051-CUPAM.

BACKGROUND:

The project was submitted on April 1, 2010. The DRB granted Final approval for the original 19-node NextG radiofrequency transport service system on October 27, 2009 (09-039-DRB). The current request includes the following modifications and additions to the existing Goleta network:

- Relocation of Node GOLN001 from a power pole to a proposed traffic signal at Cathedral Oaks/Winchester Canyon Rd
- Installation of SCE utility boxes mounted above-ground for two nodes on new street light poles:
 - GOLN002 (Phelps Rd and Pacific Oaks Rd)
 - GOLN012 (Cathedral Oaks Rd and Los Carneros Rd)
- Addition of two new nodes to the network in Goleta:
 - GOLN011 (Hollister Ave and Patterson Ave) (telephone pole-mounted)
 - GOLN042 (Cambridge Dr and Cathedral Oaks Rd) (telephone pole-mounted)

NextG Networks is a fiber based, carrier neutral radiofrequency transport service provider operating under a statewide franchise from the California Public Utilities Commission (CPUC). NextG is not a cellular service provider; rather it uses antennae to receive/transmit radiofrequency (RF) signals from cellular customers and converts such transmissions to fiber optic signals and vice versa which are relayed to the actual cellular providers NextG has contracted to serve. This type of RF transport service system network is designed and intended to provide extended telecommunication service capacity and close existing gaps in service, potentially reducing the need for construction/installation of new larger, more traditional cellular/telecommunication facilities sites. As a member of the Southern California Joint Pole Committee under CPUC regulation, NextG has a vested right to attach its facilities to existing utility poles within City ROWs and utility easements throughout the City.

The proposed project represents a relatively new type of telecommunication technology to the City. Basically, the “nodes” of the system are comprised of antennae that receive and transmit RF signals to cellular customers, a multiplexor to convert the RF signals to fiber optic signals and vice versa contained within a metal cabinet mounted below the antennae on the supporting utility pole, traffic signal, or street light, electrical power supply with possibly a transformer to reduce voltage as necessary, and a system of fiber optic cable to attach each node to the overall RF transport service system network. The actual types of antennae and supporting equipment that comprise each node differ somewhat depending on the nature of the mounting pole and the power supply.

ANALYSIS:

Zoning Consistency:

Standard	Required	Proposed	Compliant
Setbacks	None if mounted on utility pole	All antennae and support equipment to be mounted on operational utility poles or similar structures	Yes
Exclusion of the public	General public to be excluded from the facility and facility posted	All equipment mounted 9' above grade on utility poles, or underground, or in locked equipment cabinets, and posted per conditions of CUP approval	Yes
Federal Communication Commission (FCC) compliant	All telecommunication facilities shall comply with all FCC regulations	The system will operate well below the FCC Maximum Permissible Exposure (MPE) level as well as comply with all other FCC regulations	Yes
Access/parking	All telecommunication facilities shall have adequate access and parking for maintenance purposes	Access to all proposed telecommunication nodes will be provided from City streets Parking will be provided from City ROWs where parking is allowed	Yes
Facility lighting	Antenna lighting shall be shielded and directed downward where required and equipment cabinets shall be illuminated with minimal lighting over the cabinet doorway	No lighting for any element of the proposed network is proposed	Yes
Location within Airport Clear Zone	Prohibited unless approved by the FAA/airport operator	No elements of the proposed network are located within any Clear Zone of the SBMA	Yes
Visible support facilities	All visible support facilities shall be non-reflective	All proposed system support equipment will have non-reflective surfaces	Yes

<p>Mounting structure surface colors/materials</p>	<p>All mounting structures (utility poles, light standards, signal lights, etc) shall be non-reflective</p>	<p>No change in reflectivity of existing utility poles and traffic signals</p> <p>New mounting structures at Pacific Oaks/Phelps and Los Carneros/Cathedral Oaks will use new street light poles that are non-reflective</p>	<p>Yes</p>
<p>Most diminutive technology</p>	<p>The most efficient and diminutive telecommunication technology shall be utilized to minimize visual impacts and number of telecommunication facilities needed to serve the area</p>	<p>Small omnidirectional antennae with minimal support facilities designed to fit within the profile of the utility poles on which they are mounted are proposed.</p> <p>Two nodes (GOLN002 and GOLN012) include proposed above-ground mounted utility boxes for SCE equipment</p>	<p>No</p>
<p>Primary power source</p>	<p>The primary power source for telecommunication facilities shall be provided from a public utility and power line extensions beyond 50' in length shall be undergrounded</p>	<p>The primary power source for the proposed network nodes will be provided from existing Southern California Edison power lines</p> <p>No overhead power line extensions/new power poles are proposed</p>	<p>Yes</p>
<p>Co-location</p>	<p>Co-location shall be required except for certain circumstances pursuant to the ordinance</p>	<p>With exception for the two proposed nodes at Los Carneros/Cathedral Oaks and Pacific Oaks/Phelps, all nodes would be mounted on existing utility poles and/or traffic signals</p> <p>Nodes at Los Carneros/Cathedral Oaks and Pacific Oaks/Phelps would be located on new street lights meeting City standards</p>	<p>Yes</p>
<p>Max of three (3) co-located facilities</p>	<p>No more than three telecommunication facilities shall be co-located on the same structure</p>	<p>Only one node per mounting structure is proposed</p>	<p>Yes</p>

Undergrounding of support facilities, if feasible	Support telecommunication facilities shall be undergrounded if feasible to reduce visual impacts	Two nodes (GOLN002 and GOLN012) include proposed above-ground mounted utility boxes for SCE equipment	No
Visibility from scenic highways	No telecommunication facility shall be located so as to silhouette against the sky if visible from a designated public scenic view corridor/state highway	All proposed nodes visible from any public designated view corridor or state highway/roadway would be located on existing utility poles, below the top of the pole, and of a sufficiently minimal size/volume to minimize visual impacts from scenic corridors or highways/roadways	Yes
Location on exposed ridgelines	No telecommunication facility shall be located on any exposed ridgeline unless it is designed to blend into the existing environment to the extent that it is not substantially visible	None of the proposed nodes would be located on any exposed ridgeline	Yes
Two (2) mile separation of substantially visible facilities	No telecommunication facility substantially visible from a public viewing area shall be located closer than two miles from any other substantially visible facility from a public viewing area	All proposed nodes visible from any public view as designated pursuant to the City's GP/CLUP will be mounted on existing utility poles thereby avoiding substantial visual impacts from these viewing areas	Yes

Requirements for substantially visible facilities from public viewing areas	Telecommunication facilities that could be substantially visible from public viewing areas shall be sited below ridgelines, depressed, or located behind berms—Such facilities shall also be designed to blend in with the natural environment and be visually compatible with the surrounding area	None of the proposed nodes would be located on any new mounting structures that would be substantially visible from any public viewing areas	Yes
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As noted above, the proposed project is consistent with all applicable requirements of the Telecommunications Facilities Regulations of the City’s Inland Zoning Ordinance (Section 35-292h, Chapter 35, Article III, Goleta Municipal Code), with the exception of two requirements (use of most diminutive technology and undergrounding of support facilities).

ISSUES:

Ground-Mounted Utility Equipment Boxes

The applicant has proposed above-ground utility equipment boxes for electric meters for the two nodes that are proposed to be mounted on new streetlight poles (GOLN002 and GOLN012). Staff has been in discussions with Southern California Edison regarding equipment design for these two nodes and has been notified that an underground solution for the electrical support equipment is feasible. However, the City must provide SCE with a condition of approval that ground-mounted equipment boxes are not allowed. In staff’s opinion, requirement of an underground design should be a requirement for the two nodes in order to find the project consistent with the two provisions of the Telecommunications Facilities Regulations regarding undergrounding of support facilities and use of the most diminutive technology available.

New facilities design

As part of this application, staff also seeks input on the proposed traffic signal pole design for the node at Cathedral Oaks Road/Winchester Canyon Road and the two new nodes to be mounted on existing telephone poles.

ATTACHMENTS:

1. Node Table
2. Reduced 11"x17" plans of the 5 subject nodes

ATTACHMENT 1 Node Table

Existing Nodes to be Modified

<i>Node No.</i>	<i>Location</i>	<i>Type</i>
GOLN001	7820 Winchester Canyon Rd. (at Cathedral Oaks Rd.)	Install antenna and equipment on modified traffic signal pole. <ul style="list-style-type: none"> • Antenna: 26" omni, placed at 32' height
GOLN002	Pacific Oaks Rd./ Phelps Road (northeast corner)	New streetlight pole <ul style="list-style-type: none"> • Antenna: 24" Dual Band Omni • Power cabinet pedestal, above-ground
GOLN012	Los Carneros Rd./ Cathedral Oaks Rd. (southwest corner)	New streetlight pole <ul style="list-style-type: none"> • Antenna: 24" Dual Band Omni • Power cabinet pedestal, above-ground

New Nodes to Network

<i>Node No.</i>	<i>Location</i>	<i>Type</i>
GOLN011	5300 Hollister Ave.	Install antenna and equipment on wood telephone utility pole <ul style="list-style-type: none"> • Antenna: 26" omni, placed at 32' height
GOLN042	Adjacent to 5594 Cathedral Oaks Road (at Cambridge Dr.)	Install antenna and equipment on wood telephone utility pole <ul style="list-style-type: none"> • Antenna: 26" omni, placed at 32' height