



Purpose and Need

The purpose of this Telecommunications Plan is to identify appropriate types and locations of telecommunications infrastructure and services within Grand Canyon National Park in order to provide sufficient and reliable cellular and internet/wireless coverage, two-way radio communications, and data network capacity to meet the needs of visitors, the National Park Service, and park partners within developed areas of the park.

Action is specifically needed at this time to:

- address substantial cellular service and bandwidth deficiencies within developed areas of the park that currently inhibit National Park Service operations as well as the activities of visitors and park partners and
- develop guidance for the types and locations of telecommunications infrastructure within the park that minimizes impacts to park resources.



Proposed Action - Towers

Location and Height: There are five general locations where towers could be sited, with maximum heights associated. Four of the five sites currently have radio towers in close proximity.

Type: The preference is for monopoles, particularly close to the rim, but lattice towers may be necessary.

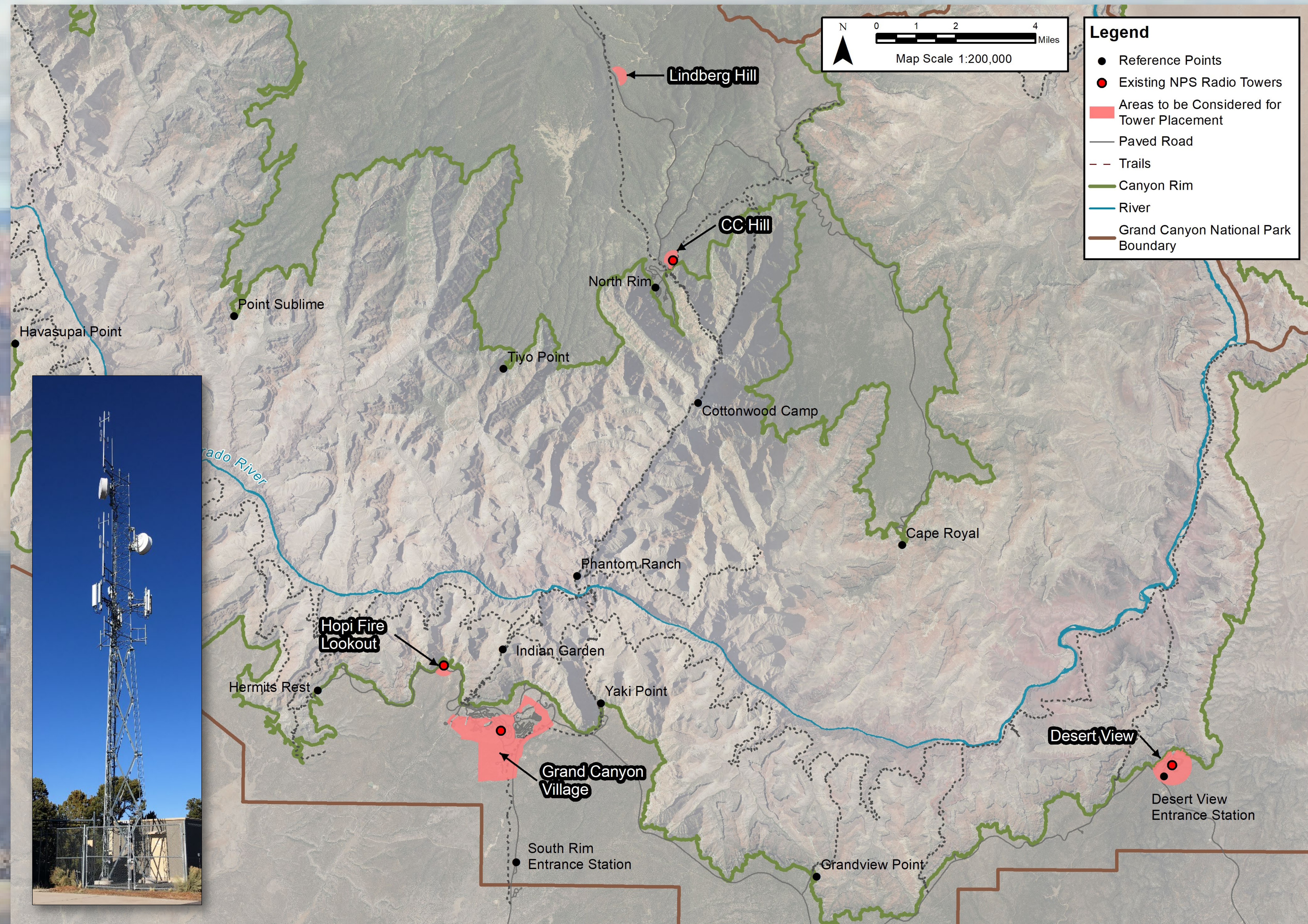
Shared Equipment: All the equipment on and off a tower would be co-located and would utilize shared equipment.

Parameters:

- Within or near disturbed areas
- Outside sensitive areas (historic districts, migratory bird routes, etc.)
- Designed to blend into surroundings
- Shielded from backcountry
- No tower lighting unless required for safety purposes

Other Considerations:

- Village Tower could be relocated outside historic district.





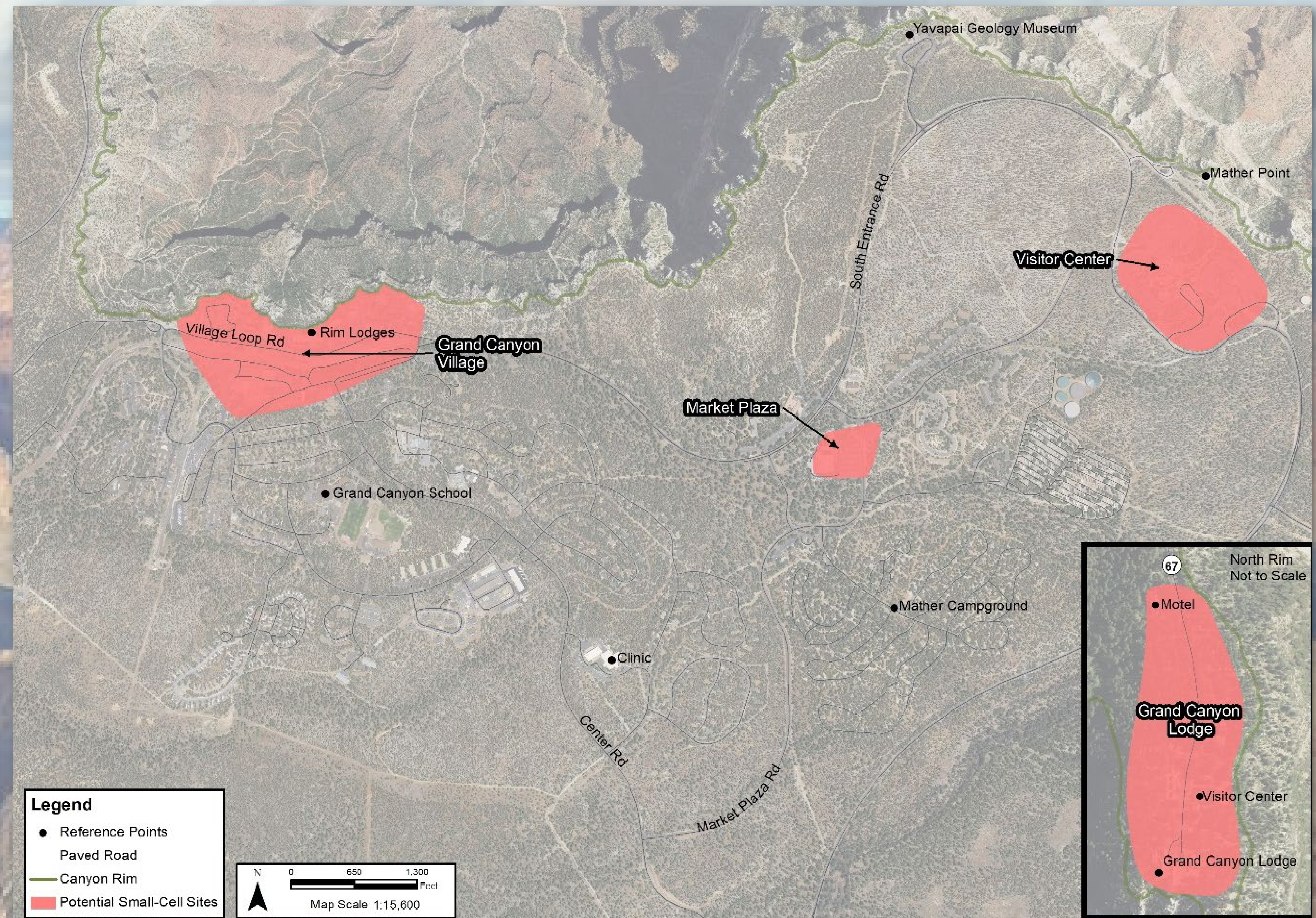
Proposed Action – Small Cell Nodes

What it is: Small-cell technology enhances coverage, both in terms of speed and capacity, in congested areas and where towers are not practical.

Location: Consider allowing the placement of small-cell sites in particularly high visitor use areas where existing capacity does not meet visitor demands in regards to speed and capacity.

Parameters:

- Accommodate multiple carriers
- Mounted to existing structures
- Fiber backhaul
- Located out-of-sight in historic districts
- Latest technologies





Proposed Action – Backhaul (Antenna and Fiber)

Microwave Antenna

Location: On existing towers.

Parameters: Shared between equipment to reduce heights and profiles of towers.

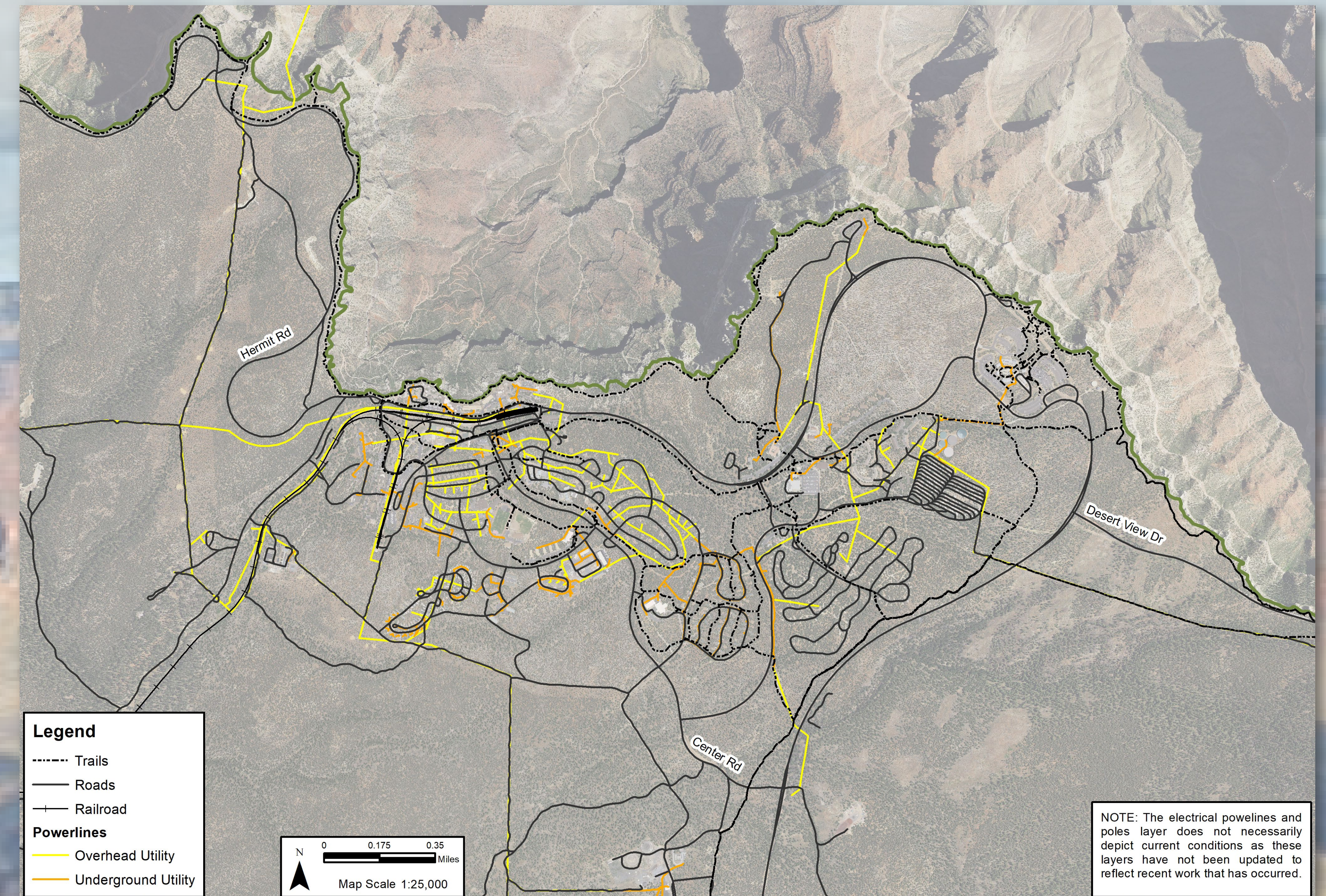
Fiber Optic Communications Cable

Location: Park boundary to Village and then dispersed from village out to developed areas in the park, including Hopi Fire Lookout and Desert View.

Parameters:

- All along existing corridors
- Buried

Note: Will still need some microwave.





Initial Resource Concerns



Scenic



Cultural



**Visitor
Experience**



Planning Process

Public Review and Comment

The public is encouraged to review and comments on the Telecommunication Plan during Public Scoping.

We are listening. Comments will be used to inform any needed refinements in preparation of the Environmental Assessment.

Open House Schedule

July 30, 2019 | 4:00-6:00PM MST | Grand Canyon Village, South Rim Shrine of Ages

August 6, 2019 | 12:00-1:00PM MST | Webinar

How to Submit Comments

- ✓ On the Internet at parkplanning.nps.gov/GCTelecommunications
- ✓ At an open house
- ✓ Mail to Superintendent, Attn: Telecommunications Plan EA, Grand Canyon National Park, P.O. Box 129, Grand Canyon, AZ 86023



Next Steps in the Planning Process

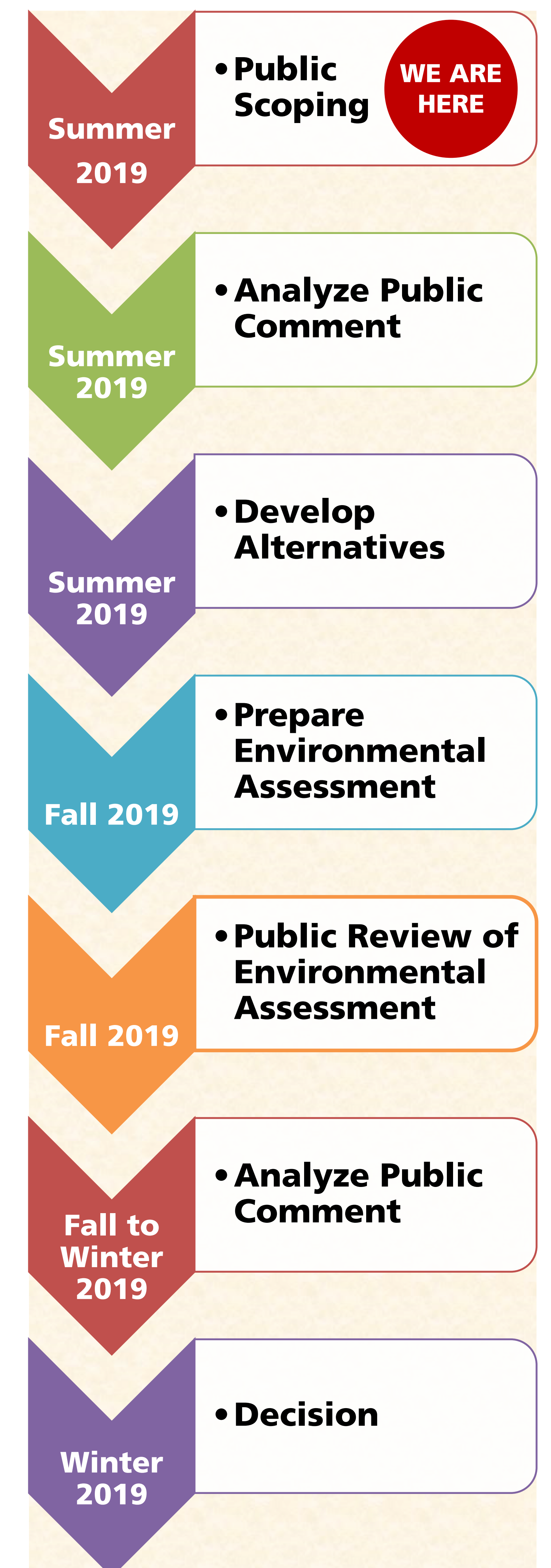
Comments will be accepted for 21 days, ending on August 11, 2019.

The planning team will evaluate public comments for consideration in the preparation of the Environmental Assessment. The public will have an opportunity to review and comment on the Environmental Assessment when it is complete.

The NPS intends to make a decision on this planning effort by the end of the calendar year.

For more information visit: <https://parkplanning.nps.gov/GCTelecommunications>

Planning Schedule





We Welcome Your Input and Comments!

Comments will be accepted until midnight on August 11, 2019

Comments can be submitted during this open house. Comment forms available at the sign-in table.

Online by visiting <https://parkplanning.nps.gov/GCTelecommunications>.

Comments can also be sent to the address below:

Superintendent
Attn: Telecommunications Plan EA
Grand Canyon National Park
P.O. Box 129
Grand Canyon, AZ 86023