

February 26, 2014

**VIA ELECTRONIC DELIVERY**

Ms. Marlene Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Room TW-A325  
Washington, DC 20554

**Re:** *Comment Sought on Draft Program Comment to Govern Review of Positive Train Control Facilities under Section 106 of the National Historic Preservation Act, WT Docket 13-240*

In response to inquiries from the Federal Communications Commission (“FCC”) and filings in the above-referenced docket, the Association of American Railroads (“AAR”) submits the following information:

**PTC Wayside Pole Height**

No railroad will be deploying PTC wayside poles that are taller than 65 feet, which formed the basis for the original request for providing this height as the upper limit for inclusion in any program alternative drafted by the FCC. After assessing their deployment strategies, several of the railroads realized that they would be deploying poles featuring top-mounted antennas that could potentially exceed this height by approximately 5 feet. Although the railroads do not anticipate any pole exceeding 70 feet in height from its base to the top of the antenna, an upper limit of 75 feet will ensure that all small PTC wayside poles can be included in the Program Comment.

**Mechanism for PTC Wayside Pole Installation**

All PTC wayside poles will be installed on the railroads’ rights of way, which varies in size but rarely extends beyond fifty feet on either side of the railroad track. Installation of poles will take place either from an existing service road that runs along the track within the rights of way, or from the track itself using a modified truck that runs on the rails.

**Trenching and Power Source for PTC Wayside Poles**

Although the methods used for supplying PTC wayside poles with power varies among railroads, in general minimal trenching will be required. As examples,

- Canadian Pacific Railway: Approximately half the sites deployed by Canadian Pacific Railway will use solar panels as the power source, with no external power feed to the antenna, and no trenching required. For the other sites, power is already connected to the wayside bungalow, and will be connected to the PTC antenna pole using a shallow conduit between 2 ½ and 3 feet deep. *See* attachment at Appendix A.
- CSX: CSX will be deploying PTC antennas on wayside poles connected by a coaxial cable buried 18-30 inches deep to a radio located inside existing bungalows located on the rights of way. In many locations existing power is nearby, and new bungalows constructed for PTC will receive power from that source. Any trench that will be constructed will typically be 30 inches deep.
- Canadian National Railway: Power to Canadian National’s PTC wayside poles is drawn from the nearest service pole, which requires the installation of a short run of armored cable or cable in a crush proof duct located 18-24 inches below the ground surface.
- Union Pacific Railroad: Union Pacific will connect PTC wayside poles in the rights of way to a power source by hand digging a trench approximately 18 inches deep that in most cases will extend 8 feet. *See* attachment at Appendix B.
- Norfolk Southern Railway: Norfolk Southern uses short trenches a few feet long and approximately 1 ½ to 2 feet deep to connect PTC wayside poles to a power source.
- BNSF Railway: For an illustration of the PTC wayside pole installation process, *see* attachment at Appendix C.
- Kansas City Southern Railway: Where necessary to connect an antenna to a power source, Kansas City Southern Railway generally hand digs a trench approximately 2 feet deep that extends 15-20 feet.

#### Response to the Comments of the National Park Service (“NPS”)

The NPS filed in the docket an aggregation of comments from various regional offices and parks.<sup>1</sup> Several of these commenters were supportive of the Program Comment, noting that they had “few concerns” about potential adverse direct effects as long as all PTC construction takes place on the railroad rights of way. *See* Comments of the National Park Service at 5 (Southeast Archeological Center Staff Comments); *id.* at 11 (Salinas Pueblo Missions National Monument Comments). Other commenters acknowledged that the areas where PTC poles would be installed were already subject to other visual effects. *See id.* at 11 (Bighorn Canyon National Recreation Areas (BICA) Comments).

Several NPS commenters suggested that the FCC require the installation of PTC wayside poles in alternate locations, or encourage the collocation of antennas on existing poles, as an avoidance or mitigation measure. *See id.* at 4, 7, 14 (National Capital Region Comments; Indiana Dunes National Lakeshore Comments; Fossil Butte National Monument). As the AAR has discussed extensively with the FCC, the specific public safety function of the PTC wayside poles means

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<sup>1</sup> Comments of the National Park Service, WT Docket No. 13-240 (filed Feb. 12, 2014).

that their location generally cannot be changed. However, the AAR and its members are fully committed to collocating PTC poles on existing infrastructure wherever possible.

At least one NPS commenter recommends that “[a]ll installation, repair, and servicing of [PTC] poles needs to be from the railroad property.” *Id.* at 6 (Indiana Dunes National Lakeshore Comments). As noted above, the installation of PTC wayside poles will take place using equipment either on an existing service road, or on the rail track itself.

Please contact me if you have any additional questions.

*/s/ Michele C. Farquhar*

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## APPENDIX A

# Canadian Pacific System PTC

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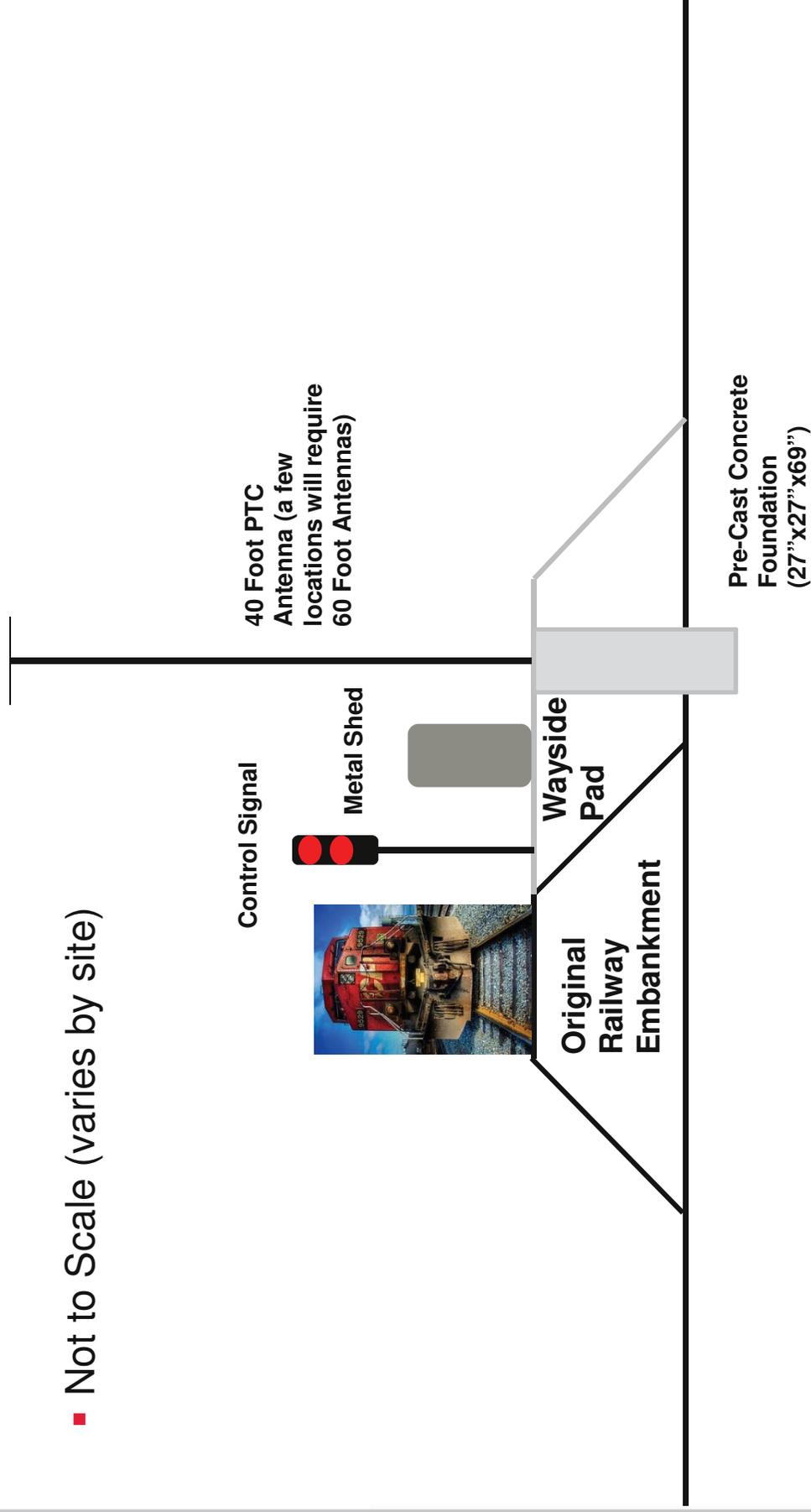
**CANADIAN PACIFIC**

TSX/NYSE | CP 14

# POSITIVE TRAIN CONTROL OVERVIEW

## Centralized Traffic Control (CTC) Wayside Antenna

- Not to Scale (varies by site)



## POSITIVE TRAIN CONTROL OVERVIEW

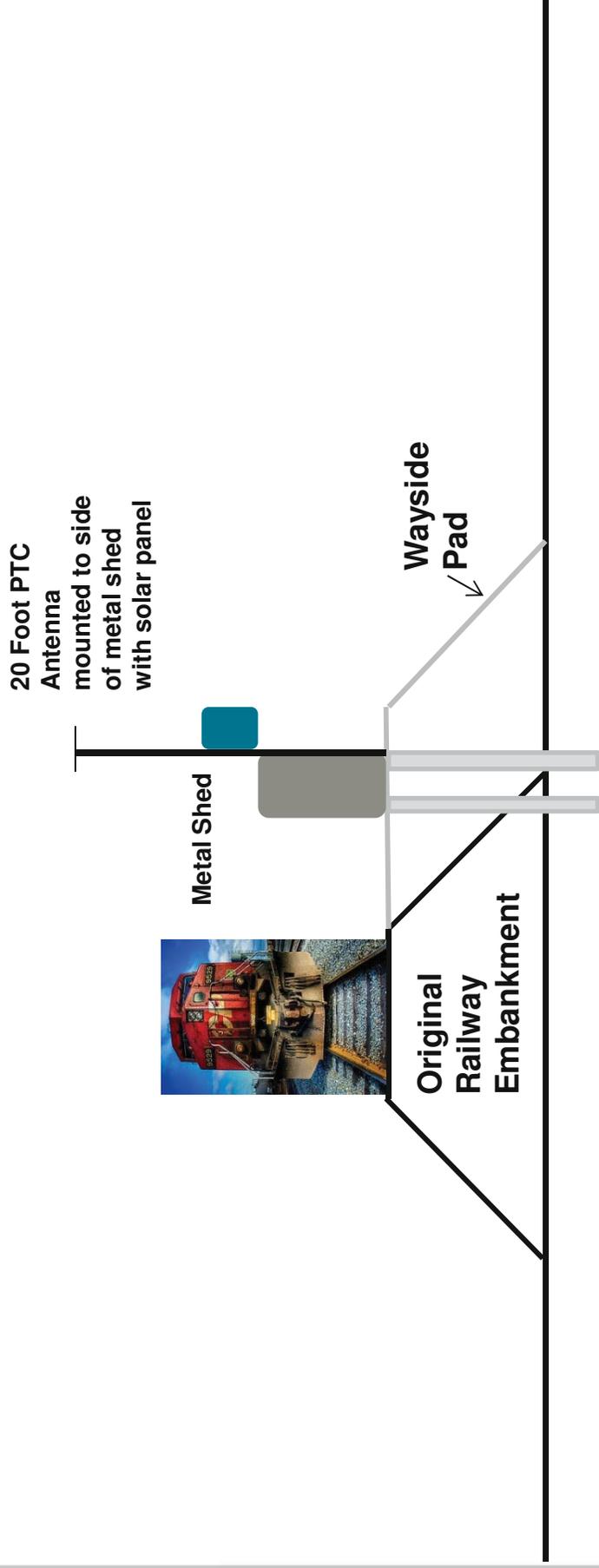
Centralized Traffic Control (CTC) Wayside Antenna Examples



# POSITIVE TRAIN CONTROL OVERVIEW

## Track Warrant Control (TWC) Wayside Antenna

- Not to Scale (varies by site)



## **POSITIVE TRAIN CONTROL OVERVIEW**

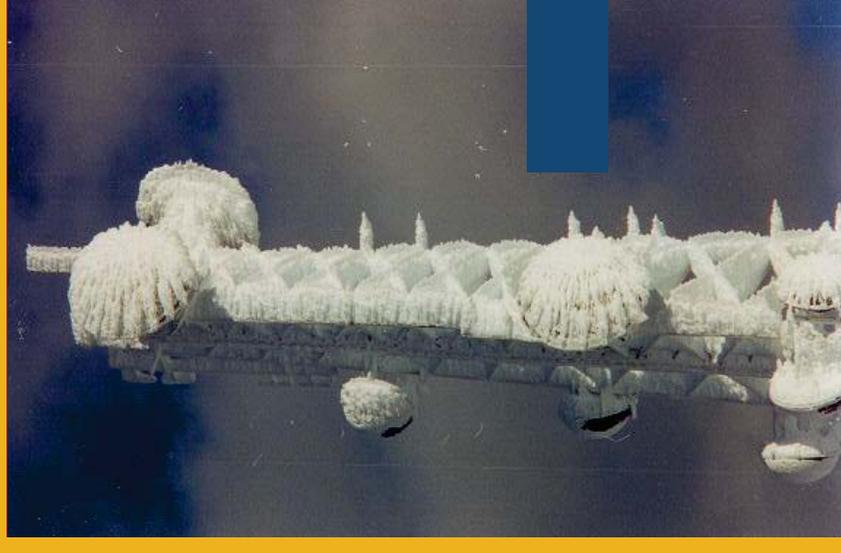
Track Warrant Control (TWC) Wayside Antenna



## APPENDIX B

# PTC Wayside Pole Installation and Trenching on Union Pacific Railroad Property

February 26<sup>th</sup>, 2014



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# Trenching Process

- Once the pole has been installed, a trench is hand dug for approximately eight feet out away from the base of the pole at a depth of approximately 18 inches.
- At the farthest point of the trench, a ground rod is installed and a copper wire is attached to it. The other end of the wire is attached to the grounding of the pole.
- A second trench is hand dug towards the equipment building to a point where the existing building grounding is located. A second wire is installed, connecting the building grounding to the base of the pole.

# Power and Transmission Line

- The power for the building exists prior to the installation of the pole and therefore, no new trenching takes place.
- The transmission line from the equipment building to the pole and antenna is installed overhead, directly from the pole to the building at a height of approximately 7 feet.
- No other trenching takes place for the installation of the PTC wayside pole.

# Pole Installation Process

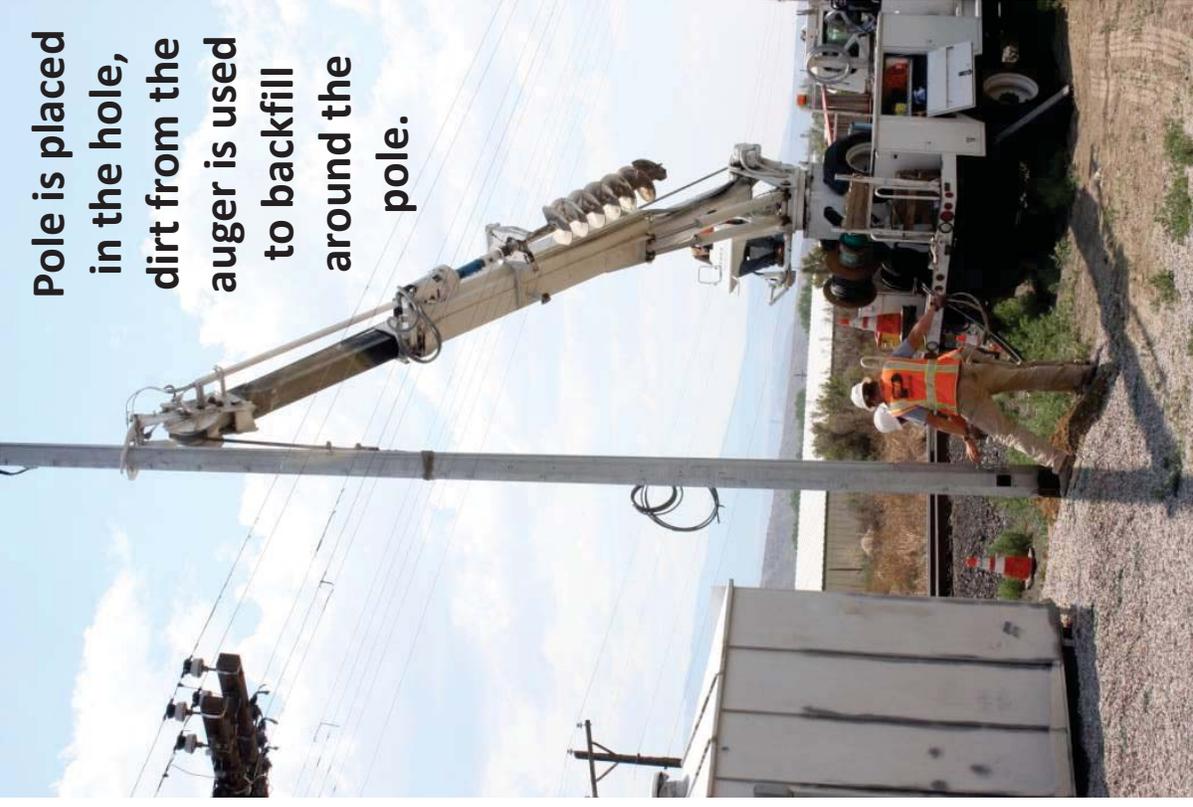
Location is marked.  
Auger is used to  
Dig the hole.



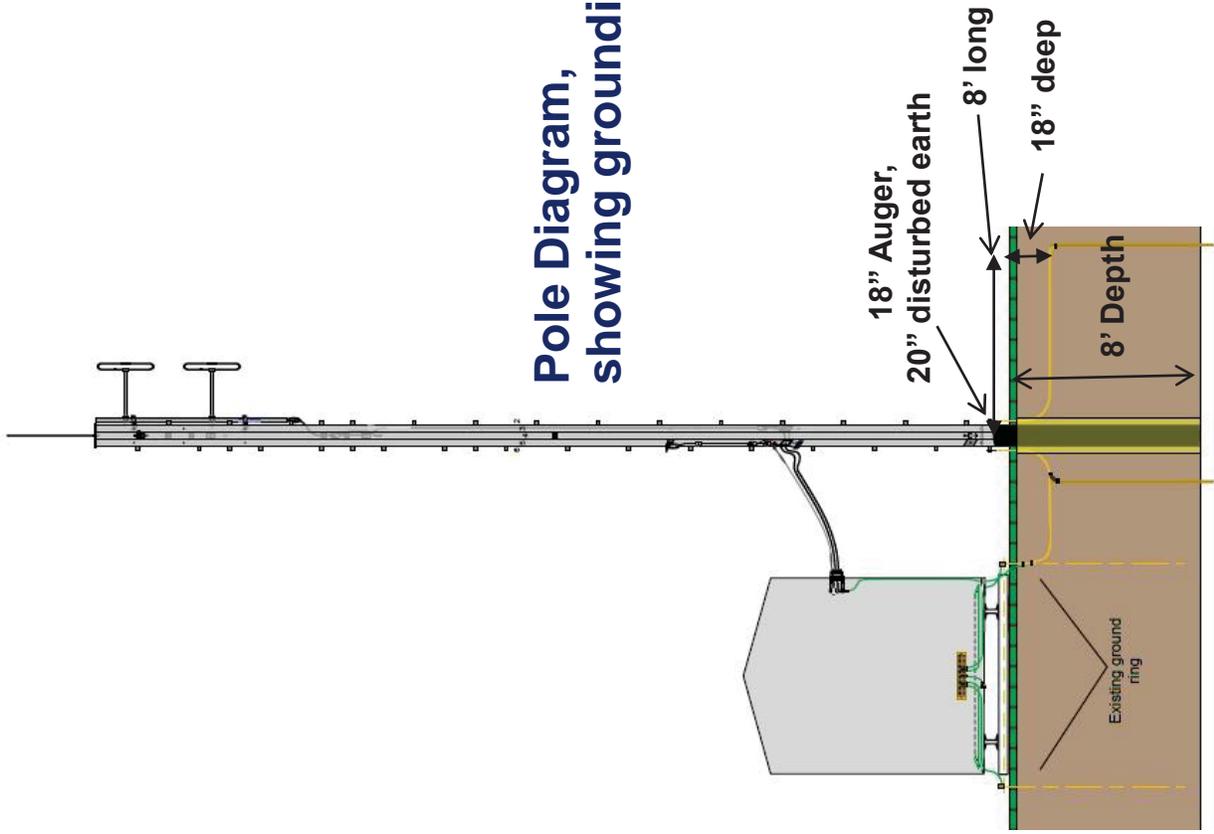
A sling is placed around  
the pole for lifting  
purposes.



Pole is placed  
in the hole,  
dirt from the  
auger is used  
to backfill  
around the  
pole.



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## APPENDIX C







