



GIS Day 2025 University of Idaho Using GIS for Distribution Design

Eric Hildebrand CPC WPM (WSDOT CZ Mitigation)

Introduction

- Eric Hildebrand CPC WPM (WSDOT CZ Mitigation)
- 4.5 Years at Avista
 - 3.5 Contractor
 - One year as FTE
- 17 Years in the Electric Utility Field

What is WSDOT CZ Mitigation

- Establish a strategy to reduce traffic fatalities and serious injuries along state highways.
- Determine CZ Distance
 - Slope Ratio
 - Determine slope condition
 - Follow steps on condition to get CZ distance
- Above steps determine minimum distance objects need to be from fog line.
 - Avista adds 2ft for safety

Steps in Design Process

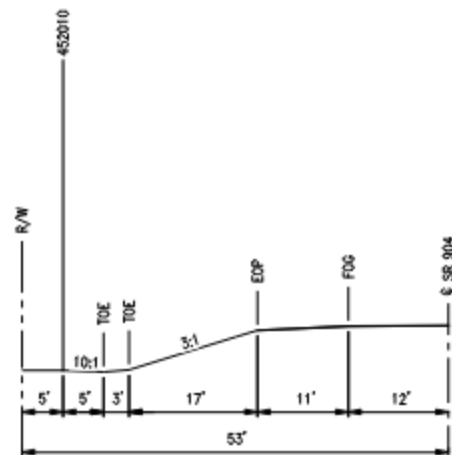
- Initial Survey
- Drafting Plan and Profiles
- Other Factors Affecting the Design
- Changeout and Place Facilities Using Designer Tools
- Run CPC Electric Extract Tool
- Stake New Pole Locations Using Points from Electric Extract Tool and Final Steps

Initial Survey

- Send Request to Surveyor
 - Import .txt File into Map
 - Use Snap Tool to Measure Distance for New Pole Placement
 - Since it's important to be accurate with pole placements we use real world placement of existing poles to design from.

Drafting Plan and Profiles

- Use P&P's to Determine Pole Placement



PROFILE - MP 13.63
POLE 452010

SCALE: 1" = 10' HORIZ
NTS VERT

POLE 452010 CONTROL ZONE CALCULATIONS

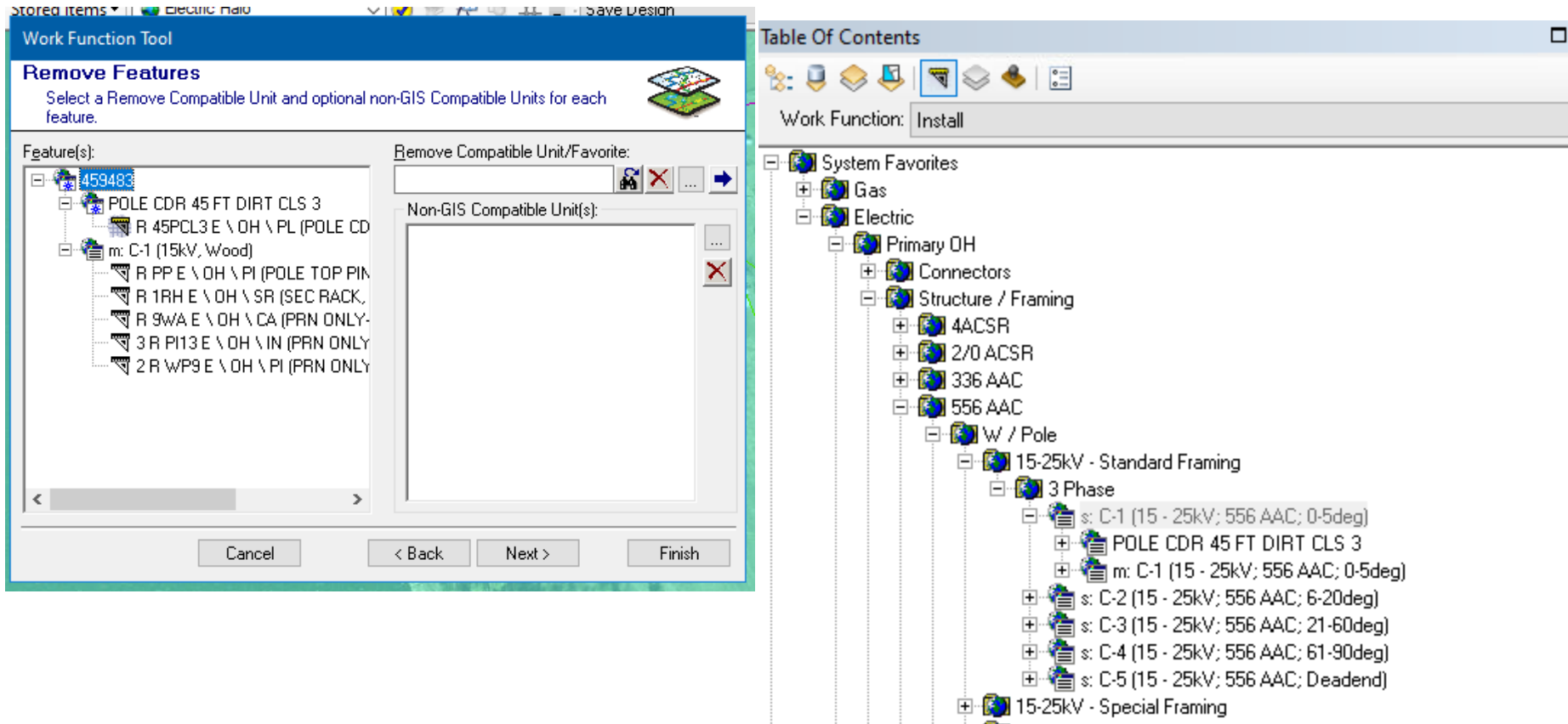
MP = 13.63
POSTED SPEED = 55 MPH
ADT = 17000
SLOPE 3:1
USE CASE 6 - FILL SECTION
CRITERIA READ DIRECTLY FROM CZ TABLE
CONTROL ZONE = 42'
POLE OFFSET = 36' (ACTION NEEDED)

Other Factors Affecting the Design

- State ROW or Private Property
- Avian Protection
 - Avian Layer on
 - Poles Inside Layer Require Avian Protection
- Wildfire Area
 - Turn on Wildfire Layer
 - Requires Fire Wrap or Metal Poles on High Importance Poles (Road Crossings)
- Wood Pole Inspections
 - Different Group
 - May meet WSDOT needs but could still be a bad pole or parts

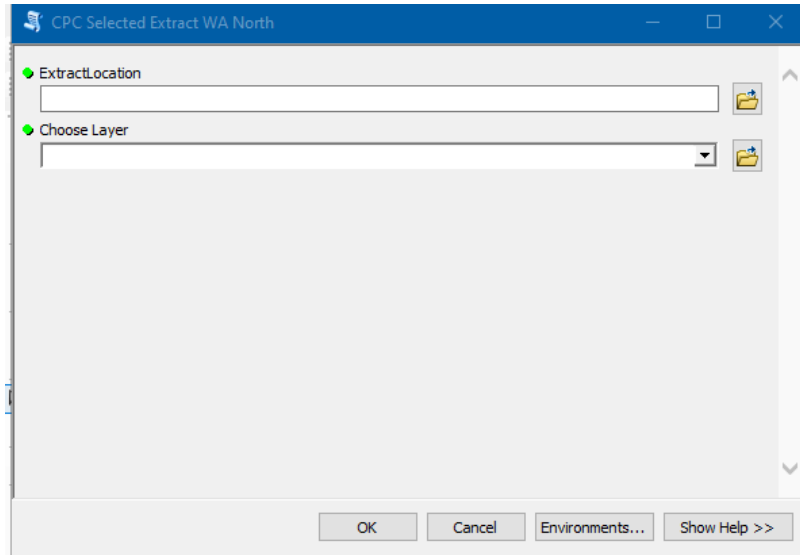
Changeout and Place Facilities Using Designer Tools

- Demonstration Using Designer



Run CPC Electric Extract Tool

- Demonstration Using CPC Extract Tool



Stake New Pole Locations Using Points from Electric Extract Tool and Final Steps

- Upload New Northing and Easting Points into Handheld Device
- Stake Points
- Final Survey
- Compare Survey Points to Design Points
- Final Plan and Profiles for Permit

Q&A

Thank You for Your Time and Attention