VIRTUAL CORRIDOR

AIRBORNE PHOTOGRAMMETRY

MOBILE LiDAR

STATIC LiDAR

3D AS BUILT MODEL

MATERIALS TESTS

EVERYTHING ELSE

Inspection Reports

Overlay/Link to Design & Construction Data
The long and windy road to success
Linear Reference System

Geospatial Position
Oregon Coordinate Reference System

Representative extents of the 39 OCRS zones

[Map showing the Oregon Coordinate Reference System zones with city names and geographical regions labeled.]
Topcon IP-S2

Leica Pegasus:Two
360° Images + Survey Grade 3D Point Cloud

Central Server

Highway Assets

Asset Databases

DTM & Asset Extraction in CAD

360° DVL + Accurate Measurement Tools

Virtual Highway
Proof of Concept

Transcend: Road Analyzer
Virtual Geomatics: Virtual Navigator
Inspector Positioning Tablet Hardware/Software Details

- DT Research DT391GS tablet
  - Hemisphere GNSS survey grade receiver
  - Windows 7 - Rugged
  - Internal cell modem - Camera

- MicroSurvey FieldGenius Software
  - Easy to use - Graphic interface
  - Connects to the Oregon Real Time Network
  - Import/Export options
Inspector Positioning Tablet

- Rugged Tablet with built-in GNSS antenna +/- 2cm accuracy
- Can be used “handheld” or with an external antenna and rod
  - Software to display and use XML files for alignment, surface and design files
Contact Information

- ODOT Engineering Automation Section
  - Engineering Technology Advancement Unit
    - Christopher Harris, P.E.
      - 503-986-5367
      - Christopher.Harris@odot.state.or.us
  - Geometronics Unit
    - Christopher Glantz, PLS
      - 503-986-3540
      - Christopher.Glantz@odot.state.or.us

http://www.oregon.gov/ODOT/ETA