

# Primm Land Surveying, Inc.

1340 NE 4th  
P.O. Box 1322  
Hermiston, OR 97838

**Phone:** (541) 564-7887

**Fax:** (541) 567-8020

Email: [pls@oregontrail.net](mailto:pls@oregontrail.net)

[www.primmlandsurveying.com](http://www.primmlandsurveying.com)

## Key Executives:

Brit L. Primm, PLS

Keith P. Primm, PLS

---

**Primm Land Surveying, Inc.** is locally owned and operated by brothers; Brit and Keith Primm. Both principals have obtained an extensive and formal education through the U.S. Army Defense Mapping Agency in Virginia and each hold a B.S. in Surveying and an A.E. in Engineering from Oregon Institute of Technology in Klamath Falls, Oregon.

Each have obtained experience in both field and office environments by working on Rectangular, Construction, Seismic, GPS, and Hydrographic survey projects throughout the Northwest and Alaska.

Primm Land Surveying, Inc. is licensed and qualified to provide professional services on a wide range of surveying projects.

With over 24 years of conventional surveying experience, we utilize state of the art equipment and procedures to include:

- \* Real Time Kinematic GPS
- \* Total Stations
- \* Automatic Precise Levels
- \* AutoCAD Drafting

We are completely automated through electronic data collection.

---

## Recent Projects:

**Brown & Kysar, Inc.**  
**Engineering & Consulting**  
**P.O. Box 1720**  
**Battle Ground, WA 98604**

**Contact: Richard Rosenberg P.E. Senior Engineer**  
**(360) 687-3966**

**Project: 69/115 kv Transmission Line Upgrades**  
**Columbia Power Cooperative Association**  
**Umatilla & Wheeler Counties**

Pilot Rock Oregon - Ukiah Oregon

The Pilot Rock - Ukiah line segment is roughly 26 miles in length and consists of wood pole structure with average span lengths of approximately 400 ft. The first 12 miles South of Pilot Rock consists of hilly grazing lands. The next 7 miles consists of mountainous terrain and moderate pine forest. The last segment to Ukiah is primarily grazing with sparse pine. The majority of the transmission line route is cross country with access by public roads. The transmission line right-of-way is secured through "blanket easements" on mostly private land. The line likely crosses some public lands. The line does cross a portion of the Umatilla National Forest.

#### **Fossil Oregon – Service Creek Oregon**

The Fossil – Service Creek line segment is roughly 25 miles in length and consists of wood pole structures with average span lengths of approximately 400 ft. The majority of the route is in somewhat rugged terrain and moderate pine forest. The line is essentially cross country with little access from public roads. The transmission right-of-way is secured through "blanket easements". There may be locations where the line crosses public lands. The line route begins at BPA Fossil sub station just East of Fossil and then runs East to Kinzua, then Southeasterly to Service Creek sub station located on Highway 19 about a half mile East of Alder Creek Road, on the North side of the John Day river.

Initial topography was collected utilizing LIDAR aerial survey, upon completion of the LIDAR areal survey the ground surveying of these 2 segments consisted of preliminary and final field staking. Preliminary staking entailed establishing horizontal & vertical control in Oregon North Zone State Plane Coordinates NAD 83/91 within each corridor, staking the center of each pole structure and collecting topography where engineering was needed, the final staking entailed revising the location of each pole structure based on engineering, staking the guys, anchors and offsets for each pole and writing legal description where easements where needed.

**Aubrey Silvey Enterprises, Inc.  
Wind Division  
12901 SE 97<sup>th</sup> Avenue, Suite 450  
Clackamas, OR 97015**

**Contact: Gene A. Anderson, General Manager  
(503) 496-3255**

#### **Project: 64.4 MW Echo Turbine Farm, Echo, Oregon**

Contracted with Aubrey Silvey Enterprises, Inc. for the surveying and consultation on the Echo Wind Turbine project.

The consultation on this project was devising a plan and executing it on how to best suit the needs of the adjoining land owners yet still meet the needs of the proposed transmission line and keeping the project on schedule and to review the title report and correct any discrepancies in order to execute the ALTA survey.

There were 4 surveying tasks that were required by Aubrey Silvey Enterprises, Inc. for this project and those are as follows:

The initial surveying task was to map and cross section 18 miles of state highway right of way for the engineering and design of the proposed transmission line from the project site to the substation north of the Umatilla River; this entailed recovering all property corners and right of way monuments. In addition numerous easements were created for this proposed transmission line as well as access routes for ingress and egress to the project boundaries.

The second surveying task was the construction surveying which predominately entailed staking in 37 turbines, staking in 37 crane pads, staking in all service roads on the project site and staking in the on site substation.

The third surveying task was to create legal descriptions of the entire project boundaries as well as the sub easements, prior to creating the legal descriptions all rectangular corners had to be either found and/or calculated.

The fourth surveying task was to perform a ALTA survey made in accordance with the "Minimum Standard Detail Requirements for a ALTA/ACSM Land Title Survey," jointly established and adopted by ALTA and NSPS in 2005, and includes Items 1,2,5,9,10,11 and 16 of table A thereof. The ALTA survey encompassed 16 square miles.

RTK GPS procedures were utilized on this project with a Topcon Hyper system with a Lagacy H receiver and a Trimble R8 receiver, running Oregon North Zone State Plane Coordinates.

**Swaggart Brothers, Inc.**  
**31989 Feedville Road**  
**Stanfield, OR 97875**

**Contact: Ben Swaggart, Manager**  
**(541) 564-9000**

**Pacific Ethanol, Inc.**  
**31375 Great Western Drive**  
**Windsor, CO 80550**

**Contact: Michael PJ O'Donoghue, Construction Manager**  
**(559) 662-0553**

**Project: Pacific Ethanol Plant, Boardman, Oregon**

Contracted with Swaggart Brothers, Inc. for the surveying and consultation on the Pacific Ethanol Plant.

The consultation under this contract was how to best execute the staking needs and time frame in order to keep the project on schedule.

Under the Swaggart Brothers contract the initial surveying task was to stake out all underground utilities to include water, sewer & electric. In addition we staked out all building pads and storm swales.

Contracted with Pacific Ethanol, Inc. for additional surveying and consultation needs on the Pacific Ethanol Plant.

The consultation under this contract was reviewing the title report in order to execute the ALTA survey.

Under the Pacific Ethanol contract the surveying services included staking in all roads along with blue tops and minor as-builts as the construction phase progressed. In addition a ALTA survey was performed, made in accordance with the "Minimum Standard Detail Requirements for a ALTA/ACSM Land Title Survey," jointly established and adopted by ALTA and NSPS in 2005, and includes Items 1,2,5,9,10,11 and 16 of table A thereof.

The RTK GPS unit utilized on the project was a Topcon Hyper system with a Lagacy H receiver.

**Swaggart Brothers, Inc.**  
**31989 Feedville Road**  
**Stanfield, OR 97875**

**Contact: Ben Swaggart, Manager  
(541) 564-9000**

**Project: Calbee RDO Potato Processing Plant, Boardman, Oregon**

Contracted with Swaggart Brothers, Inc. for the surveying and consultation on the Calbee RDO Potato Processing Plant.

The consultation under this contract was how to best execute the staking needs and time frame in order to keep the project on schedule and meet the needs of the numerous crafts on site in regards to staking requests.

The primary surveying task was to stake out all underground utilities to include water, sewer & electric. In addition we staked out all building pads, storm swales, site grading, retention ponds, roads & curbs.

The RTK GPS unit utilized on the project was a Topcon Hyper system with a Lagacy H receiver.

The optical unit utilized on the project was a Trimble S6 robotic total station with a Trimble TSC2 control.

**Diamond N Construction  
5096 Forest Ridge Rd. N.E.  
Silverton, OR 97381-9777**

**Contact: Todd Humphreys, Operations Manager  
(503) 874-9510**

**Project: Boat Ramp, Parking and related facilities- Northeast and Central, Oregon**

Boardman, Oregon  
Boat dock and parking areas

The surveying consisted of establishing site horizontal and vertical control on a local datum, the layout of the parking area, entry ramp for boat dock and pilings for a boat dock on the Columbia river, worked closely with the Oregon Marine Board Engineers.

Foster Reservoir, Oregon  
Boat dock, parking areas and related facilities

The surveying consisted of establishing site horizontal and vertical control on a local datum, establishing clearing limits, the layout of the parking areas, boat dock and rest room facilities on Foster Reservoir. Worked closely with the Oregon Marine Board Engineers.

Wickiup Reservoir, Oregon  
Boat docks and parking areas.

The surveying consisted of establishing site horizontal and vertical control on a local datum, the layout of the parking areas, entry ramp for boat dock and boat dock and rest room facilities on Wickiup Reservoir. Worked closely with United States Forest Service Engineers.

**ConAgra Foods – Lamb Weston  
P.O. Box 705  
Hermiston, OR 97838**

**Contact: Kerri Deal, Team Leader Process Water**

**Project: Groundwater Monitoring Wells, Umatilla & Morrow, Counties**

Established horizontal & vertical positions on numerous monitoring wells located in Umatilla & Morrow counties. Horizontal datum was Oregon North Zone State Plane NAD 83/91 coordinates & vertical datum was NAVD 88 and converted to NGVD 29 utilizing US Army Corps of Engineers software Corpscon 6.0.1.

The data generated complied with all DEQ August 24 1992 draft regulation requirements for "Guidelines for Groundwater Monitoring, Well Drilling, Construction, and Decommissioning, Section 5.6 Location and Elevation Survey. Which states the following:

Survey the location, elevation of the land surface, and the elevation of the top of the casing of each well. The location survey should have a horizontal accuracy of 0.5 foot, the land surface elevation should have a vertical accuracy of 0.1 foot, and the top of well casing elevation should have a vertical accuracy of 0.01 foot. Use a registered land surveyor to perform the survey.

Use the National Geodetic Vertical Datum of 1929 for vertical elevation control and the Oregon State Plane Coordinate System (ORS 93.330) for horizontal control.

Provide latitude-longitude coordinates for the well, accurate to the nearest one-tenth of a second.

Mark the well casing with a permanent reference point for water level measurements, such as a notch filed in the top of the casing or other similar recognizable and labeled mark.

**Umatilla County**  
**P.O. Box 1126**  
**3920 Westgate**  
**Pendleton, OR 97801**

**Contact: David H. Krumbein, Umatilla County Surveyor**

**Project: Rectangular Surveys, Umatilla, County**

Township 5 North, Range 27 East of the Willamette Meridian, Umatilla County, Oregon.

Surveying consisted of recovering, locating and or establishing all GLO corners within the above mentioned Township. Oregon North Zone State Plane Coordinates where reported in NAD 83/91. A plat of the surveyed Township along with a corner restoration form on all corners recovered or established was provided to Umatilla County.

Township 1 North, Range 29 East & Township 1 North, Range 30 East of the Willamette Meridian, Umatilla County, Oregon.

Surveying consisted of recovering, locating and or establishing all GLO corners at a 2 mile interval within the above mentioned Townships. Oregon North Zone State Plane Coordinates where reported in NAD 83/91. A plat of the surveyed Townships along with a corner restoration form on all corners recovered or established was provided to Umatilla County.

**CITY OF HERMISTON**  
**180 N.E. 2<sup>nd</sup> Street**  
**Hermiston, OR 97838**

**Contact: Ivan Anderholm, City of Hermiston Parks and Recreation Director**

**Project: McKenzie Park Plaza**

Mapping survey of the existing conditions of the 4 acre City of Hermiston McKenzie Park Plaza, this survey was in turn used to create a new design of the park to include new walkways, restrooms, gazebo, cook shack and a bell tower dedicated during the centennial celebrations for the City of Hermiston in July 2007.

**Moore Excavation, Inc.**  
**17090 NE San Rafael**  
**Portland, OR 97294**

**Contact: Brian Bogle, General Manager**  
**(503) 252-1180**

**Project: Water System Improvements, Heppner, Oregon**

Contracted with Moore Excavation, Inc. for the surveying and consultation on the Water System Improvements in Heppner, Oregon.

The consultation on this project was informing Moore Excavation, Inc. that the initial control file provide by themselves was in error and that a new closed traverse would need to be executed in order to facilitate the layout of the new water lines.

There were 2 surveying tasks that were required by Moore Excavation, Inc. for this project and those are as follows:

The initial surveying task was to run a closed traverse and perform a least squares adjustment for the primary control.

The second surveying task was the construction staking of 25875 linear feet of water lines, stake out 14 new manholes, stake out 63 connects & stake out 113 valves and fittings.

RTK GPS procedures were utilized on this project with a Topcon Hyper system with a Legacy H receiver.

**Aspens Phase One**  
**Cook Development Corporation**  
**1001 S.E. Water Street, Suite 350**  
**Portland, OR 97214**

**Contact: Terry Cook**

**Project: Aspens Phase One, Hermiston, Oregon**

Construction of 48 affordable housing units located on 6.34 acres, surveying consisted of recovering the exterior boundary monuments, staking all underground utilities, staking all roads, buildings, parking areas, curbs, gutters, storm water retention basins, lighting structures, and coordinating with clients legal counsel on creating legal descriptions for storm water basin easements.

**Dunn Construction, Inc.**  
**1223 NW Eastwood**  
**Gresham, OR 97030**

**Contact: Dan Johnston, General Manager**  
**(503) 408-7601**

**Project: Sewer Conversion, Irrigon, Oregon**

Contracted with Dunn Construction, Inc. for the surveying and consultation on the Sewer Conversion Project in Irrigon, Oregon.

The consultation on this project was informing Dunn Construction Inc. the proper procedures and methods for staking in sewer lines as required by the city of Irrigon, Oregon.

There were 2 surveying tasks that were required by Dunn Construction, Inc. for this project and those are as follows:

The initial surveying task was to stake the appropriate offsets to 63 manholes to include all laterals and clean outs, in addition quality control was provided during the construction aspect.

The second surveying task was providing a complete as-built survey of the entire project for the city of Irrigon, Oregon as outlined in the specifications.

RTK GPS procedures were utilized on this project with a Topcon Hyper system with a Lagacy H receiver.

For the Layout of the manholes a Trimble S6 robotic total station with a Trimble TSC2 control was utilized.

**Hoffman Construction Company**  
**805 SW Broadway, Suite 2100**  
**Portland, OR 97205**

**Contact: Steve Raether, Project Superintendent**  
**(541) 962-3279**

**Project: Eastern Oregon University Dormitories, La Grande, Oregon**

Contracted with Hoffman Construction Company for the surveying on the Eastern Oregon University Dormitories in La Grande, Oregon.

There were 3 surveying tasks that were required by Hoffman Construction Company, Inc. for this project and those are as follows:

The primary surveying task was to stake out all utilities to include water, sewer & electric.

The second surveying task was staking out the footprint of the dormitories.

The third surveying task was providing grid lines on the finished top of slab for the numerous crafts to facilitate the construction process.

The optical unit utilized on the project was a Trimble S6 robotic total station with a Trimble TSC2 control.

Additional projects and information can be obtained at our website: [www.primmlandsurveying.com](http://www.primmlandsurveying.com).