

# RANGER

ENGINEERING CONSULTING

## 2026 SERVICES PACKET

Ranger Engineering is the industry leading engineering firm in top tier GPS construction layout and machine control models. This Services Packet will detail new project submittals, typical turnaround time, standard deliverables, optional deliverables, dirt quantity takeoffs, major GPS file types, delivery of files, standard pricing for models, and vendor setup and payment.

As an engineering firm, we ensure that all models are correct, complete, and clear. Each model is reviewed by the model builder, the Engineer of Record and President (Chad G Cooper, P.E.), and one of our review technicians. This system of review combined with the signed/sealed *Machine Control Model Design Report* (MCMDR) sets us apart from all other model builders and creates the standard of excellence in the model building industry.

**NEW PROJECT SUBMITTALS** - All project submittals should be emailed to [pm@rangerengineer.com](mailto:pm@rangerengineer.com) and [chad@rangerengineer.com](mailto:chad@rangerengineer.com). Each submittal needs the current construction plans (PDF format, including any revisions), all CAD files provided by the design engineer (any format of AutoCAD, Civil3D, or Microstation), and potential project scope beyond the Standard Deliverables.

**STANDARD DELIVERABLES** – GPS Models will have the following standard deliverables:

- FINISH GRADE surface and its associated 3D linework of the proposed site improvements
- Background 2D linework from the engineer's CAD files
- Background 2D utility linework from the engineer's CAD files
- Centerline alignments (HAL and VAL) for all proposed alignments
- Signed/sealed MCMDR detailing the plan conflicts, plan typos, and project notes

**TYPICAL TURNAROUND TIME** – We work to schedule GPS model completion *based on your needs*. Ranger employees a large staff of full time, in-house model builders – all model builders are actual employees of Ranger, ensuring only the best quality of models. Our team strives to move quickly and efficiently to complete models in a timely manner *to help meet your timing needs*.

**OPTIONAL DELIVERABLES** – GPS Models can have the following optional deliverables added to the scope:

1. Surface and 3D linework: **Temporary Erosion Control (ESC)**
2. Surface and 3D linework: **Utility Network to invert of Pipe (STM, WTR, SAN)**
3. Surface and 3D Linework: **Existing/original ground based on survey contours**
4. Surface and 3D linework: Subgrade to top of Dirt (DIRT)
5. Surface and 3D linework: Subgrade to top of Sub ballast or Aggbase (SUBL or AGGB)
6. Surface and 3D linework: Bridge or Retaining Wall to top or bottom of Footing (WALL)
7. Surface and 3D linework: Temporary Rough Mass Grade (MASS)
8. Surface and 3D linework: Bridge Deck or Beam (BRDG)
9. Surface and 3D linework: Bridge Deflection (DEFL)
10. Surface and 3D linework: Building Foundation to top or bottom of Footing (FNDN)
11. Construction Layout: **Curb, sidewalk, and/or paving machine control alignment files**
12. Construction Layout: Building Foundation and Footing linework
13. Construction Layout: Utility Pipe and Structure elevated linework and points
14. Special Requests: All other special scope needs can be requested with the project manager

**DIRT QUANTITY TAKEOFFS** - Surface to surface dirt quantity takeoff (without subgrade adjustments), or full quantity dirt takeoff (including all subgrade depths). Topsoil removal/replacement upon request. All takeoff's include a cut/fill color map. Additional cost for need to digitize plans (ie. no CAD available).

**MAJOR GPS EQUIPMENT FILE TYPES** - Following are the major GPS file types that we provide:

- TOPCON: Standard deliverable is a TOPCON project (.tp3) file. Linework (.ln3), surface (.tn3), control (.gc3), alignment (.rd3), and/or point (.pt3) files are available upon request.
- CHC NAV/UNICONTROL/LEICA: Standard deliverables are linework (.dxf), surface (.xml), and alignment (.xml) files.
- TRIMBLE: Standard deliverables are the TRIMBLE SCS900 linework (.dxf) and surface (.ttm), GCS900 v12.3 linework (.svl) and surface (.svd), and the Business Center (.vce) file. Siteworks (.vcl) file available upon request.
- OTHER: Any other file types, such as AutoCAD, can be requested with the project manager.

**DELIVERY OF FILES** – All project files are emailed in a Dropbox link, with the Dropbox folder organized by equipment type. All MCMDR reports are uploaded to this Dropbox folder.

**STANDARD PRICING FOR MODELS** – As the Nation's leading GPS model engineering firm, we want our prices to still be competitive and within the means of all our customers coast to coast. Our pricing range is based on project size and complexity. For both new and existing customers, we are always happy to provide either a Rough Order of Magnitude (ROM) estimate or a detailed quote before the model is built. Please reach out to our Project Manager ([pm@rangerengineer.com](mailto:pm@rangerengineer.com)) and our VP of Finance McKell Bradshaw ([mckell@rangerengineer.com](mailto:mckell@rangerengineer.com)) and our team can provide you competitive pricing on quality models that are catered to your needs.

**VENDOR SETUP AND PAYMENT** - New customers will receive a Vendor Setup email from the project manager. The invoice for the model will be sent by email and/or a hard copy in the mail. *Payment terms is net 21 days.* Payment is by check, or by request: credit/debit card or bank transfer.