



P. O. Box 5412 | 100 McCamey Road | Knoxville, Tennessee 37918
Phone: (865) 978-6510 | Fax: (865) 978-6523
Email: info@landtechco.com | Web: www.landtechco.com

7. QUESTIONS ABOUT CIVIL ENGINEERING SERVICES

Why do I need to hire a civil engineer to plan my proposed development?

Hiring a good civil engineer to plan your project offers the following benefits:

- Good civil engineering design generally results in lower construction bid prices, fewer construction change orders, and lower lifetime maintenance expenses.
- Regulatory entities, such as the State of Tennessee, cities and counties, require construction drawings and design documents to be prepared by a licensed professional engineer to obtain the necessary permits for construction.
- Civil engineers provide advice to other land development professionals to assist with providing better design solutions.

What is the process for engaging LandTech to provide civil engineering services?

The typical process to engage professional services includes the following general steps:

- We will meet with you at our office or yours to discuss the goals for your project and any relevant existing conditions, such as zoning, property boundaries and area, regulatory restrictions, topography, etc. You should bring with you to the meeting any relevant reports, drawings, or documents that you may have available for us to review.
- After the initial meeting we can visit the site to observe any factors or conditions that could potentially impact the project.
- Based on these investigations, we will prepare an initial “scope of services” document that will describe the professional services to be provided, including a description of the project, tasks to be performed, and a schedule of project deliverables. The scope of services will include meetings with regulatory entities and client meetings at intervals desired by the client.
- The initial scope of services document will be submitted to you for your review to confirm all requested services are included. After any revisions to the initial scope of service have been made, we will prepare a final written proposal/agreement with the total professional service fee.
- Once you have accepted and signed the proposal/agreement, we will immediately schedule the start of the professional services.



P. O. Box 5412 | 100 McCamey Road | Knoxville, Tennessee 37918
Phone: (865) 978-6510 | Fax: (865) 978-6523
Email: info@landtechco.com | Web: www.landtechco.com

How are your service fees structured?

We can provide professional services on an hourly rate basis, an hourly rate not-to-exceed basis, or a fixed fee basis. We usually invoice on a monthly basis or upon reaching certain milestones in the progress of the project.

Hourly rates vary according to the type and level of the professional performing the service, such as Project Manager, Engineer, Surveyor, or Designer. We also sometimes charge a lower rate for travel time. All of the applicable rates, and certain pass-through expenses such as application fees, printing, copying and mailing costs, will be set out in the written agreement between you and LandTech. The total service fees are based on the number of hours worked for each category.

Our work under an hourly not-to-exceed fee is charged according to hourly rates as explained above, but the total fee is limited to an agreed “not-to-exceed” amount. Under this arrangement, you will be invoiced on a monthly basis for the actual hours spent on the project up to a total amount not greater than the not-to-exceed limit.

Under a fixed fee arrangement, you and LandTech agree on a fixed fee that covers all work under the scope of services. There are no other charges under a fixed fee arrangement, except when unforeseen circumstances create the need for additional work outside of the original scope.

How do you address changes to the scope of service during the project?

We always strive to develop an accurate and comprehensive scope of service document prior to engagement so that the need for changes during the design phase of the project is minimized. However, sometimes small additions to the scope of services are necessary, which would be designated as additional work under our not-to-exceed and fixed fee agreement, charged at set hourly rates. If the nature of a project changes significantly during the design phase, we will discuss the issues with you as soon as we become aware of the change. We will then prepare a written amendment to the proposal/agreement describing the change in the scope, fee adjustments, and scheduling, if any. We will not initiate any additional work or changes in the scope or fees until we have agreed in writing to all changes.

What can I expect during the course of the design project with LandTech?



P. O. Box 5412 | 100 McCamey Road | Knoxville, Tennessee 37918
Phone: (865) 978-6510 | Fax: (865) 978-6523
Email: info@landtechco.com | Web: www.landtechco.com

A typical design project consists of a series of sequential stages: land surveying, site investigation, preliminary design, final design, and document submittal and review by government regulatory agencies.

A topographic and boundary survey map will show the existing conditions of the site, such as the limits of the property, building setback limits, and existing physical features such as buildings, structures, vegetation, and ground surface elevations. Site investigation will include a site visit by the engineer to observe the existing conditions and issues which may have come to light in the course of the survey. Some projects may require the services of a sub-consultant, such as subsurface soil investigations and stream and wetlands delineations.

The preliminary design stage will include communications with you to revisit your goals for the project and sketch the proposed new site features, such as locations for roads, buildings, parking lots, sidewalks, and utility lines. Based on the information we have gathered and our discussions with you, we will prepare a preliminary site design drawing (sometimes called a “concept plan”) for your review. Once we have the design concept settled, we will use this as the basis for preparing the final site development construction documents, including drawings and specifications.

We will then submit the final site development plans to the appropriate regulatory review agencies for review, and ultimately permitting the project for construction. The submittal documents may include plan drawings, calculations, specifications, and permit applications. The regulatory agencies with regulatory oversight of your project may include city and/or county governments, the state departments of transportation and environmental protection, and the U.S. Army Corps of Engineers.