



MESH Consulting, LLC is a consulting company for land developers, civil engineers and site work contractors. We offer a large range of services including three dimensional Value Engineering, Quality Control and Constructability Reviews, GPS machine control data preparation, and GPS consulting and training. What differentiates us is our unique experience with both engineering design and site work construction.

Our Services Include:

- Value Engineering (Three Dimensional)
- Quality Control and Constructability Reviews
- GPS 3D Machine Control Data Preparation
- GPS Machine Control Consulting and Training
- Site Work Cost Estimates/Takeoffs

Value Engineering/Quality Control/Constructability Reviews

We can Value Engineer your project during the initial planning stages, this includes:

- Concept Grading (three dimensional)
- Utility Layout (three dimensional)
- 3D Renderings and Analysis
- Balancing the Site, Sequencing the Site
- Full Site Work Budgets

MESH can complete preliminary three dimensional grading and utility design on larger projects, providing a thorough framework that takes in account many design aspects that are typically overlooked in the early stages. It is important to begin these projects in the right direction regarding earthwork balancing, earthwork staging, and value engineering before they get too far into the approval process and hard design.

MESH can also assist with Quality Control and Constructability Reviews at any point during the process. Today's engineering approval process is becoming increasingly complicated.

There is an increased focus by developers and their consultants on just getting the projects approved. Unfortunately, a byproduct of this is the decreased focus on the actual detailing of the plans and the constructability of these designs.

Many times, there is a significant gap between the design engineer and the construction of the project. This gap leads to problems during the construction process and change orders to the developer. A significant amount of these can be avoided.

MESH Consulting has the experience on both the design consultant side and the construction side. With this experience, we can provide thorough reviews of the design plans during the approval process. This is important because often, the developer does not receive any value engineering ideas or quality reviews until after the approvals when a contractor is hired. Typically, it is too late for any "major" changes to the plan which would require further approvals. This is unfortunate because many of these ideas would save considerable amounts of money for the developer.

Most design professionals and developers do not have the construction experience or know enough about the means and methods of constructing their designs to provide this service during the design and approval process. These reviews can also be in the form of 3D models to identify problem areas.

GPS 3D Machine Control Data Preparation

In order for site contractors to get the most efficient and profitable use of their GPS technology, an accurate 3D computer model needs to be built from the traditional data provided by the engineer. This involves taking the design provided in the "two dimensional" paper plan format and building a "three dimensional" model of the site.



We will convert the plan (either a CADD file and/or a paper set of plans) into a workable and accurate 3D computer model that can be used for machine control and rover use. We are experienced with preparing complex grading including rough and fine road and pad grading, utilities, stormwater basins, and swales.

MESH can also provide the data necessary for all stakeout including utilities, curbing, and other miscellaneous site improvements.

Most importantly, while completing the model, we will review the plans for accuracy, point out any discrepancies/conflicts and we will work with the contractor and the design engineers to correct these design/constructability problems, all while holding the intent of the design. All of this will be completed long before any of these problems cause delays during the construction of the project.

Who We Are

MESH is owned and managed by Steve Thomas and Steve Narducci. Mr. Thomas is a registered professional engineer with experience on both sides of the industry; twelve years with a civil engineering design firm and four years in the GPS/Surveying/Engineering department of a Large Heavy/Highway contractor.

During his experience with the design consultant, Mr. Thomas was responsible for the design and approval of numerous large

commercial and residential developments.

While employed by the contractor, he completed construction data preparation, stakeout setup, and value engineering for projects ranging from small residential subdivisions to \$100+ million highway projects.

The GPS/Surveying/Engineering department supported and provided data preparation for over 70 machine control systems and 30 rovers. In addition, Mr. Thomas has provided quality control and constructability reviews for over 1000 engineering land development plans.

Steve Narducci has over 20 years of experience in the Construction Industry, including 17-years with a Top 50 Heavy and Highway Contractor where he served on their elite, six-member Senior Management Team. This team was responsible for the policies and direction of their company.

Throughout his career, his job titles include: Surveyor, Excavating Foreman, Estimator, Superintendent, and Global Positioning Systems Manager. As the GPS Manager, Steve was responsible for the strategy, implementation, and management of their GPS program, including personnel management, training, profit/loss analysis, and technical support to field employees. This successful program is recognized as one of the largest in the Construction Industry.

Please contact us to see how MESH Consulting can provided value and profitability to your land development project.