

# GRADING ANALYSIS



The **Murow Development Consultants** team of experienced professionals can provide a detailed earthwork grading analysis grading plan, rough grading plan, precise grading plan, preliminary grading plan, tentative tract map or a final site plan. Our earthwork team is comprised of team members with 40+ years of grading experience and will provide a detailed grading analysis summary sheet that entails all the earthwork quantities (i.e. such as a raw, cut and fill map), accompanied by a 3D image of the proposed grading design, and quantification of all remedial quantities.

We work with our in-house engineering geologist who provides assistance and confirmation to our team regarding our interpretation of the geotechnical data available for any given project. We utilize AutoCAD and IntellCAD technology for 3D earthwork volumetric takeoffs and also 2D rough grading square area footage exhibits. Our earthwork 3rd party services are a great fit for any civil engineering firm. We work alongside the civil engineering firms in order to assist them with balancing the site and also help them better understand the intricacies involved in the full-on grading analysis for their project they are designing.

After considering all the earthwork, we then identify if the project is an import, export or a balanced project. After discovering if the project is an import or export site our team runs multiple scenarios on how to balance the site accordingly and in collaboration with the civil engineer's potential adjusted design. Our team works across all product types including residential tract homes, industrial, commercial tilt-ups, multifamily, etc.

## **Our Earthwork Grading Analysis Services include but are not limited to the following:**

- Provide an accurate Raw Grading (Cut & Fill) Map per the Plan Design
- Analyze and Interpret all Geotechnical Data and Associated Reports
- Calculate All Remedial Grading Volumes per the Geotechnical Recommendations
- Provide a Complete Grading Analysis Summary Sheet detailing all Volume Calculations
- Assist on Balancing the Site with the Civil Engineering Firm
- Assist in running different grading scenarios in order to accurately balance the site
- Provide an Actual "Crew-Up" Unit Cost/Cost Estimate on all the Earthwork
- Identify potential red flags that may affect grading operations which would increase the cubic yardage price in the overall development. I.E. encountering water, rock, contaminated soils, highly expansive soils, liquefaction potential and how we can possibly mitigate this in order to save the client costs in the development of the project.

*To learn more with regards to these services, please contact Noel Smith, Manager of Budgets & Cost Estimates, at 949.336.4837 or by email at [nsmith@murowcm.com](mailto:nsmith@murowcm.com).*