



FIFTY-TWENTY ENGINEERING
50 20 ENGINEERING
RESOURCE GROUP INCORPORATED

BACKGROUND

5020 Engineering Resource Group is pleased to submit this proposal for services to support the design of a parking area in Orange Beach. I, Wade Burcham, have provided engineering services for millions in similar projects throughout the southeast. I am associated with a group of resources in various companies with similar capabilities, providing me the bandwidth to take on even the most complex services.

I understand that The City of Orange Beach wishes to construct a parking area containing a maximum of approximately 152 parking spaces on its property adjacent to the water tank. The number of parking spaces will reduce, or the property will increase to accommodate ADA, stormwater management, landscaping, and other requirements. This work will include the expansion of an ALDOT existing driveway and a potential connection to Publix's existing driveway. US Army Corps of Engineers regulated wetlands exist within the property and are considered avoidable. Therefore, this proposal assumes that there will be no impact on the existing wetlands.

Note that this is a recommended scope, schedule, and fee. Additions or deletions can be made to the City's Budget or Expectations. Also, I have attached an Order of Magnitude Opinion of Probable Cost based on RSMMeans 2022 Construction Cost Data.

SCOPE

1. Site Visit: obtain photos, observe the site, observe the roadway connections, obtain manning's n supporting data.
2. Hydraulics and Hydrology Analysis: Obtain stream stats data, watershed area/data, time of concentration, SCS web soil survey for the watershed, hydrologic soil group information, land use land cover information, precipitation frequency data, flow estimates, inlet design, outfall design, storm pipe design, stormwater management design.
3. Pollution Prevention: Provide recommended measures to reduce pollutants from draining off the site. This may include hydrodynamic separation units, infiltration, pervious pavement, or other methods to reduce, but not eliminate, all potential pollutants.
4. Survey:
 1. Existing site elevations on roughly a twenty-five foot grid, including off-site elevations within twenty-five feet of the property. Contour lines shall be shown at a contour interval of one foot.
 2. A tree survey showing the location, species, and size of all on-site protected trees and off-site protected trees within twenty-five feet of proposed construction and earthwork.
 3. Heritage Trees will be located. Heritage trees are healthy, with a diameter at breast height equal to or greater than thirty inches or seven feet and ten-inch circumference, whichever dimension is less.
 4. Surface visible utilities and utility marks will be surveyed.
 5. A line locate will be requested, and it will be documented on the survey.
 6. Redbuds and dogwoods with a diameter at breast height (DBH) equal to or greater than four inches, long leaf pine trees equal to or greater than eighteen inches DBH and all other trees with a DBH equal to or greater than six inches are protected trees and will be located with the exception of the following:

Chinese Tallow (Popcorn Tree)	Silk Tree (Mimosa) Albizia Julibrissin
Sapium Sebiferum	Paper Mulberry Broussonetia Papyrifera
Chinaberry Melia Azedarach	All pine trees other than the Long Leaf Pine
Tree of Heaven (Chinese Sumac)	Other recognized nuisance and/or invasive species
Ailanthus Altissima	

5. Geotechnical:
 1. We plan to explore the subsurface soils within the proposed parking area by making soil test borings and performing physical laboratory soil mechanics tests on selected soil samples recovered from the borings. These soils explorations will be performed under the supervision of a licensed engineer. The soils explorations results will be evaluated, engineering analyses will be made, and our opinions and geotechnical engineering recommendations will be developed for the project.
 2. Specifically, we plan to evaluate soils and provide recommendations for the proposed parking areas and make recommendations for any special ground preparations that we find may be required for the project. An asphalt pavement section design will be provided based upon anticipated traffic loading and soil conditions. A report of our findings, opinions, and recommendations will be prepared by the licensed engineer for this project, and this engineer will be available to provide additional consultation and review the project plans prior to construction. Our professional services for this project will be performed, our findings obtained, and our recommendations prepared in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied.
 3. We propose to make a minimum of eight shallow auger borings to a depth of at least 5 ft within the proposed new pavement areas. We plan to core the existing pavement of Cotton Bayou Trail in at least one location to determine asphalt pavement thickness and base material type. We plan to perform dynamic cone penetrometer testing to an approximate depth of 3 ft at each of the borings performed to evaluate the condition and density of existing subgrade materials within proposed paved areas. Groundwater depths will be measured within the boreholes and then the boreholes will be backfilled with soil cuttings. Engineers will select the boring locations and personnel will stake the borings in the field using a submeter GPS unit.
 4. The soil samples will be field logged, retained in moisture-tight plastic bags and transported to the laboratory for additional visual examination as a quality control measure. Logs of Boring will be prepared for these soil test borings.
 5. Physical laboratory soil mechanics tests will be performed on selected soil samples recovered from the borings. The number and type of these tests will depend on the apparent types and conditions of soils encountered by the borings. We anticipate that these laboratory tests may include moisture content, grain size, and Atterberg limits tests. These tests will be performed in general accordance with the applicable laboratory testing standards.
6. General Plans: Provide grading, drainage, pavement, landscaping, lighting, irrigation, erosion control, and detail plans.
7. Landscaping:
 1. A ten-foot wide landscaping strip containing one tree for every thirty-five linear feet shall be included. Trees, hedge material, ground cover, irrigation, and interior planting areas.
 2. Design of Tree Protective Radius and Barricades in accordance with the ordinance.
 3. Replacement of Protected and Heritage Trees.
 4. New Planting of Protected Trees.
 5. Tree Removal and Site Clearing Permit.
8. Plan Phases: Plans will be provided at the schematic, preliminary, 65%, and 100% phases.
9. Contract: An EJCDC Based Construction Contract, Alabama DCM, or one the city provides will be utilized. The City will provide all bonding, insurance, and other contract requirements or utilize provided default requirements.
10. Specifications: Plans will show the locations of proposed improvements, and the specifications will detail their requirements. Specifications will be based on ADLOT or Master Specification Format.
11. Supplemental Conditions: Modifications of the standard contract requirements may be provided in supplemental conditions.
12. Prepare an engineer's opinion of the probable cost: Using the above information, historical cost data, and my judgment, estimate the cost to implement the plans.
13. ALDOT Access Permit: Prepare and submit an ALDOT Permit.

In preparing this proposal, the following assumptions and exceptions have been applied. Please advise if the inclusion of these services or correction of the assumptions is necessary.

- A. The exact fee for a survey and Geotech has yet to be obtained. This proposal assumes a cost of less than \$20k for both combined.
- B. No impact to wetlands, utilities, subsurface utility engineering, value engineering, or flood zone management (such as LOMA, LOMR, OPA, or certifications).
- C. Retaining wall design is not required.
- D. The property is appropriately zoned with all land entitlements necessary.
- E. Changes in substance will not be required from previously presented phases.
- F. Each phase will include two weeks of city review time. Subsequent steps will address all comments in written form.
- G. Stormwater management facilities can be fitted in the available land using conventional methods.
- H. The Client will identify a single lead point-of-contact authorized to make decisions and provide project direction and management upon Notice to Proceed.
- I. Changes in applicable regulations will require contract review and may result in possible changes.
- J. The price shall be subject to an equitable adjustment if actual conditions or circumstances vary from the assumptions.
- K. Three in-person client/regulatory meetings are assumed, with travel costs for one team member included in the budget estimate. A new scope/budget will be proposed if additional face-to-face meetings are required.
- L. This proposal does not include post-design support for items such as contractor selection, bid walk, construction kick-off meeting, or engineering oversight during construction.
- M. All work products will be in PDF format (no hard copies).
- N. It is assumed that the project will not include public meetings or the development of general educational information.
- O. The Client will provide site access. Off-Site agreements will be negotiated by the Client and will be obtained promptly.
- P. The locations of onsite utilities will be provided before the initiation of fieldwork.
- Q. Proposal costs only include permit application and agency permit processing fees as specifically included in the scope.
- R. Cost estimates are estimates only and do not represent a guaranteed amount or a budget.
- S. Up to eight hours addressing comments from AHJ.
- T. The scope of work and budget do not include any effort that may be necessary to comply with the terms of an offsite access agreement.
- U. Should conditions be encountered that require additional or fewer services than has been estimated, we will adjust our total fees for the actual work done. Your permission will be obtained before doing additional work that will cause our total fees to be greater than we have estimated.
- V. During the construction phase of the project, engineering technicians will provide construction materials testing services and engineers will provide geotechnical support. We anticipate performing soils, concrete, aggregate and asphalt testing for the required installation of drainage structures, fill soils, base and paving materials and concrete curb and gutter construction. Field testing services would be provided on an on-call basis. We will develop a budget for the required construction phase testing/engineering services be developed for this project after the project plans have been completed.
- W. The estimated costs represent the minimum credible scope of work that would likely be acceptable to AHJ. Costs will be higher for the reasonable "worst case" scenario if the agency stringently enforces the regulatory standards.
- X. This proposal is valid for sixty days, unless both parties agree to an extension.

SCHEDULE

I will provide an updated schedule when the owner offers an estimated notice to proceed with a date. Lacking such please note the following comfortable schedule. An expedited schedule can also be provided upon request.

FEE

I propose to stay within the fee of **\$99,000** on a time and material basis for the scope of the work contained herein. The terms and conditions of the work will be per our Professional Services Contract.

CONCLUSION

Thank you for allowing me the opportunity to work on this project. I await your authorization to proceed and look forward to working with you.

If you have questions on this proposal, please get in touch with me at your convenience by email at Burcham.wade@gmail.com or by phone at (251) 402-4146.

I appreciate your consideration,



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AUTHORIZATION

By its signature below and authorizing 5020 Engineering Resource Group Incorporated to proceed following this Proposal, the owner accepts and agrees to the Scope, Schedule, and Fee described above in accordance with our Professional Services Contract.
