

DAVIS & FLOYD

SINCE 1954

November 19, 2014

D. Mack Kelly, Jr., PE, PLS, CFM
Director of Public Works
County Engineer
Oconee County
13022 Wells Highway
Seneca, South Carolina 29678

Re: Road Project – Additional Services (Stone Pond Subdivision)

Dear Mr. Kelly:

Davis & Floyd, Inc. is pleased to provide this proposal for additional engineering services for the subject project. We understand that the ultimate goal of the project is to improve roads in Stone Pond Subdivision to meet Oconee County public road standards, with the exception of Devonhurst Drive. Devonhurst Drive will be improved, but not to the extent of meeting Oconee County standards and will be maintained by others at the conclusion of the project. Our understanding of the additional scope of services required for this project is outlined below and is based upon our summary letter dated November 11, 2013 which outlined numerous existing deficiencies within the subdivision when compared to the Oconee County ordinance. If our understanding of the scope is inconsistent with yours please inform us as soon as practical so that we may enter into discussion to ensure we provide all services required.

The scope of services required for this project will include the following:

TASK ONE: PLAN EXHIBITS AND PUBLIC HEARING

This task will include the development of no more than four plan view exhibits showing the worst case grading scenario which will be required to improve the roads to meet county road ordinance. The plan view will show the limits of the back slope and impact on the individual lots. Our efforts will also include modeling of the worst case roadway scenarios at two intersections and two cul de sacs. We will print the final exhibits in color and mount to foam boards for display at a public meeting. A Davis & Floyd representative will attend a public hearing to review the exhibits and explain the impacts on the properties due to the proposed development. **(\$16,520.00)**

TASK TWO: COST ESTIMATING

This task will include the development of an opinion of probable construction costs once the modeling is completed and will be prepared and presented as part of the public hearing. The cost estimate will include the development cost to grade the roads onto private property as an option and also include the construction of retaining walls at the right of way line so that no construction activities will take place on private property. This will provide the county and homeowners association cost information for the construction so that an educated decision can be made to proceed with moving forward with the project. **(\$4,900.00)**

TASK THREE: UPDATE AND FINALIZE PLANS

Based on our initial design services, we documented numerous road and drainage conditions which are not in compliance with the Oconee County Road Ordinance. These noncompliant conditions include pipes not constructed of RCP and too small, road slopes which exceed 12%, road splits which need to be eliminated, cul de sacs with inadequate radius, substandard road sections,

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inadequate road widths, inadequate intersections and improper horizontal alignments. Our current plans address the pipe sizing, road splits, road thickness and width. Being mindful of the project budget and gaining a better understanding of the development impact to bring the subdivision into compliance with the road ordinance, we summarized our findings in a letter to the county dated November 11, 2013. The most impactful construction required to meet the subdivision ordinance will be to reduce all road slopes to 12% maximum and flatten out the intersections. This effort will require the redesign of the roads and intersections with additional cuts from 2' to 12' in depth and fill up to 5' in order to meet ordinance. Our plans will indicate the limits of excavation which will extend into each lot impacted by this construction. Our plans will also increase the cul de sac radius from their current condition to 40'. Additional plans will include more detailed driveway tie-ins and construction sequencing to determine home accessibility throughout the course of construction. **(\$38,100.00)**

TASK FOUR: PERMITTING

It came to our attention after commencement of our design efforts that a land disturbance construction permit was never issued for the original construction of this project. This will require additional efforts on our part to coordinate and permit this project with South Carolina Department of Health and Environmental Control. We anticipate that we will be required to analyze the entire development before any construction took place and compare predevelopment versus post development stormwater runoff. This will also require pond calculations to determine its capacity to provide required detention. Based on our previous investigations, the existing dam is experiencing seepage and is heavily vegetated on the back slope leading to our recommendation the pond be converted from a wet pond to a dry pond. **(\$10,000.00)**

TASK FIVE: UTILITY COORDINATION

This task will include additional coordination with the utility providers due to the more intensive utility relocation work which will be required to accommodate the modified road construction and back slopes. **(\$4,500.00)**

TASK SIX: PROJECT SPECIFICATIONS

This task will include developing both technical and front end specifications necessary based on the proposed improvements and may include earthwork, paving, storm drainage, demolition, clearing and grubbing. The front end specifications will include general conditions, bid forms, bond requirements and other sections as coordinated with Oconee County. **(\$4,000.00)**

TASK SEVEN: COMMUNITY MEETINGS

This task will include our attendance at up to two meetings during the final stages of plan development in support of the county in presenting the proposed improvements to the homeowners association. These meetings will take place in Oconee County. We will provide drawings at these meetings showing impacts to each property to accommodate the proposed roadway improvements. **(\$6,030.00)**

TASK EIGHT: PROJECT BIDDING

This task will include advertising the project, submitting bid documents to interested general contractors, conducting a prebid conference, addressing questions during the bid process, producing addendums as necessary, conducting a bid opening and submitting to the county certified bid tabulation. **(\$7,305.00)**

TASK NINE: CONSTRUCTION ADMINISTRATION

This task will include conducting a preconstruction conference with the selected bidder to review the contract requirements including erosion control requirements. We will also review and approve

change order requests, Request for Information and pay requests. Upon completion of construction, we will provide a Certified Final Project Cost for Special Purpose Tax District Collection. **(\$7,680.00)**

TASK TEN: REPLACE PROPERTY CORNERS

Research public records and obtain copies of available plats. Perform a detailed search for all road front property corners prior to construction. Property corners that are found prior to construction and destroyed during construction will be set in the same location as they were found. Road front property corners that are not found prior to construction will be set based on adjoining front and rear property corners. **(\$4,150.00)**

TASK ELEVEN: AS-BUILT SURVEY

The as-built will include survey of the newly constructed road including locations of driveways, mailboxes, pipes and any other features that may be within the right of way. The resulting as-built plan will show all items surveyed with periodic measurements of the pavement width and invert elevations of storm drain pipes. **(\$7,700.00)**

TASK TWELVE: FULL TIME CONSTRUCTION SERVICES

This task will include providing full time construction and inspection services using an SCDOT certified senior inspector over a forty-eight week, forty-hour per week construction schedule. We will monitor the contractor's daily activities for compliance with project specifications and provide accurate and timely documentation of these activities. We will monitor all construction activities including demolition, pavement repairs, culvert pipe installation, road construction, grading, pavement surface overlay and concrete work as may be required.

This task will also include providing a CBPSCI certified inspector to provide the mandatory erosion control inspections required by the DILEC permit specifically to inspect the installation, condition and maintenance of the installed erosion control features. Each visit will be documented by an inspection report noting the overall condition of the site, deficient items and corrective measures. Any deficiencies will be noted onsite with the contractor so that needed repairs can be implemented prior to the next week's erosion control inspection. **(\$192,000.00)**

Reimbursable expenses include mileage, subsistence and printing cost associated with our design efforts. These expenses are shown on the individual spreadsheets and will be invoiced separately from our survey, design and construction administration fees. The total not to exceed amount for these additional services for the project including reimbursable expenses is **\$318,865.00**.

See attached cost spreadsheet for hourly estimate.

If we are authorized to commence with our services on or before December 1, 2014, the following would be the approximate project schedule:

TASK	START	END
1	12/01/14	01/30/15
2	1/19/15	1/30/15
3	2/1/15	4/24/15
4	4/27/15	6/29/15

5	4/1/15	4/24/15
6	5/1/15	5/29/15
7	2/1/15	4/24/15
8	6/1/15	6/30/15
9	7/1/15	6/30/15
10	7/31/15	7/31/15
11	7/31/15	7/31/15
12	7/1/15	6/30/15

Davis & Floyd, Inc. appreciates the opportunity to provide this proposal and looks forward to working with Oconee County on this project. The procurement of our services will be according to the Professional Services Agreement dated March 21, 2012 titled Category C Roadway and Bridge Services. We are ready to commence with our design services immediately. Please do not hesitate to call if you have any questions or comments.

Very truly yours,
DAVIS & FLOYD



Brent P. Robertson, PE
Vice President

Attachments: Engineering Cost Estimate for Stone Pond Subdivision



CLIENT: Coones County
 PROJECT: Stone Pond Submission-Revised Design Efforts

D&F JN: 110.00
 CALC BY: BPR
 DATE: 11/13/14

Scope of Engineering Services:

Task		
1 Exhibits and Public Meeting	9	Construction Administration
2 Cost Estimating	10	Replace Property Corners
3 Update and Finalize Plans	11	As Built Survey
4 Permitting	12	Full Time Inspection Services
5 Utility Coordination	13	
6 Project Specifications	14	
7 Community Meetings		
8 Project Bidding		

Engineering Cost Estimate

Task	Principal	Proj. Mng.	Engr.	Engr. Intern	Sr. Design	Survey Crew	Sr. Inspector	Designer	Clerical
1	8		24		120				
2	4	8	18	18					
3		96	240						
4		12	80						
5		24	12						
6	4	18							18
7		18	24					12	
8	8	22	13						32
9	6	32	22						
10		40				70			
11		4				40		24	
12							1820		
13									
14									
15									
16									
Total	28	274	431	18	120	110	1820	28	48

Principal	28	@	\$ 175.00 / hour =	\$ 4,900.00
Project Manager	274	@	\$ 135.00 / hour =	\$ 36,990.00
Engineer	431	@	\$ 105.00 / hour =	\$ 45,255.00
Engineer Intern	18	@	\$ 90.00 / hour =	\$ 1,640.00
Senior Designer	120	@	\$ 105.00 / hour =	\$ 12,600.00
Survey Crew Chief	110	@	\$ 70.00 / hour =	\$ 7,700.00
Survey Field Technician	110	@	\$ 65.00 / hour =	\$ 6,050.00
Senior Inspector	1820	@	\$ 100.00 / hour =	\$ 182,000.00
Designer	28	@	\$ 90.00 / hour =	\$ 2,540.00
Clerical	48	@	\$ 80.00 / hour =	\$ 3,840.00

In-House Labor Sub Total = \$ 313,055.00
 Sub-contracted work, Lump Sum =
 Total Labor = \$ 313,055.00
 Expenses = \$ 5,810.00
 Grand Total = \$ 318,865.00