

SAMPLE OF NARRATIVE

PROJECT DESCRIPTION

(Consultant's Name) is proposing to review alternative alignments, perform a geotechnical investigation, attend public meetings, and prepare complete Right-of-Way and Construction plans. It is our understanding that bridges will be designed by others. We are only to coordinate our work with the Virginia Department of Transportation Project Manager and this project is being developed for the Virginia Department of Transportation. The following is a more detailed discussion of the services we are proposing to provide under each element.

190 Preliminary Engineering Location Corridor Studies

PRELIMINARY DEVELOPMENT

We will review three or four alternative alignments for the proposed project. This will include preliminary horizontal and vertical designs and quantity take-offs for each alignment. We will also make preliminary investigations of key issues, such as intersecting roadways, drainage issues, and existing utilities and structures which may be impacted by the proposed alignments. This information along with the base map and survey data will be submitted to the project manager thirty days prior to the Field Review.

CITIZEN PARTICIPATION / CITIZEN INFORMATION MEETING

We propose to have the Senior Engineer and the Project Manager attend and participate in the two information meetings: one with the general public and one with special interest groups (or VDOT). We will also prepare the 8 1/2" x 11" location map for the project advertisement, the information brochure to be made available to the public, typical sections of the proposed roadway, and two large mosaics with special interest areas overlaid. Comments from the information meetings will be reviewed and incorporated into the design as appropriate.

220 Scope Project / Preliminary Field Review

FIELD REVIEW AND RECOMMENDATION

We will prepare and submit a report to VDOT based on the information prepared in section 190 and from any additional discussion or information as a result of the Field Review with VDOT. The Consultant will also attend and participate in the Field Review. Other proposed participants include Senior Engineer, Hydraulic Engineer, Project Surveyor, and (Geotechnical Engineer, if included in the project).

223 Photogrammetry

We will perform photogrammetric project planning; prepare flight and target maps. We will provide aerial, terrestrial, and oblique photography: photo processing, printing, indexing and mosaic generation. We will perform analytical aerotriangulation; scanning of imagery; planimetric and digital terrain model (DTM) data compilation; and generation of orthophotos. We will provide quality control checks on all phases of the photogrammetry workflow to insure that the National Map Accuracy Standards are met. We will perform data editing and post processing; and deliver the necessary products in a timely manner. All negatives will be returned to the Department for labeling, numbering and storage.

260 Prepare / Hold Location Hearing

PREPARATION FOR LOCATION HEARING

Sixty days prior to the Location Public Hearing we will provide the 8 1/2" x 11" location map, for project advertisement, and forty-five days prior to the Location Public Hearing we will provide the hearing brochure, handouts, two sets of mosaics, mapping, typical sections, and other appropriate drawings. It is our objective that by this time we will have refined the project alternatives to the point where we will present, for citizen comment, at least three alternatives.

At least three weeks before the hearing, we will submit a video script for VDOT approval. Other activities include participating in an informal review meeting prior to actual participation in the public hearing.

270 Adopt Corridor (Location)

Subsequent to the hearing, we will review the citizen's comments and the District's recommendations and prepare a recommendation, to be presented to the Commonwealth Transportation Board for consideration, of a location of development. Approved suggestions will be incorporated for further development.

313 Conduct Location Survey

SURVEY

We will perform the necessary research of public records and prepare a list of owners affected by the project. Each owner will be notified by mail that a survey crew will enter their property.

We will establish project horizontal and vertical control in compliance with the VDOT Survey Manual. This will include recovering existing control and establishing new control monuments. Terrain for design and quantities may be

done photogrammetrically and supplemented by ground surveys when necessary. Edge of pavement and concrete items will be located by conventional methods.

360 Plan Design / Field Inspection

IN DEPTH STUDY REVIEW AND RECOMMENDATION

We will perform an in-depth study and preliminary construction plan, utilizing the base mapping, based on one alignment including VDOT's comments as a result of the Field Review, as well as citizens concerns. This alignment may be one of the previous alternatives or a new alternative. Services are to include preliminary plan and profile design, location of major drainage structures, any anticipated off site outfalls, potential stormwater management locations, and quantity takeoffs. The Senior Engineer and Hydraulics Engineer will attend and participate in the In-Depth Field Review and comments from this meeting will be incorporated into the plans.

CITIZEN PARTICIPATION / INFORMATION MEETING

We propose to have the Senior Engineer and the Project Manager attend and participate in two informal meetings; one with the general public and one with special interest groups (or to VDOT). We will also prepare the 8 1/2" x 11" location map for project advertisement, the information brochure to be made available to the public, typical sections of the proposed roadway, and two large mosaics with special interest areas overlaid. Comments from the information meetings will be reviewed and incorporated into the design plans as appropriate.

PRELIMINARY DESIGN

We will finalize the preliminary design for the chosen alternative. This service is to include finalizing the horizontal and vertical geometrics, utilizing IGrds and MicroStation, and checking for VDOT compliance. Also included are preparation of the title sheet, drafting of the design features, general notes, determination of Right-of-Way requirements and preparing the Right-of-Way Data Sheet, establishing plan sheets, tabulation of quantities, traffic maintenance sheets, and 55% of the drainage design. This should complete the preliminary construction plan preparation. These plans will be submitted to VDOT at least thirty days prior to the Field Inspection (plans in hand).

FIELD INSPECTION

We will attend and participate in the Field Inspection with VDOT staff. Personnel proposed to attend include the Project Manager and the Hydraulic Engineer. This service includes the discussion of unusual situations and requesting additional survey, if necessary. We will write a report of the Field Inspection comments and submit it to VDOT.

We will incorporate VDOT staff comments, as a result of the Field Inspection, into the plans. We will also adjust the Right-of-Way lines due to design changes and update the computerized construction estimates.

362 Hydraulic Plan Design / Field Inspection

HYDRAULIC DESIGN

We will perform a hydrologic and hydraulic analysis for the area within the limits of the project.

We will design an appropriate drainage system for the project which will include, but not be limited to, enclosed storm drain systems, drop inlets, culverts, ditches and channels.

We will provide a stormwater management plan for the project which meets the requirements of the Virginia Stormwater Management Regulations and VDOT's Annual Stormwater Management Standards and Specifications as approved by the Department of Conservation and Recreation.

We will provide an erosion and sediment control plan for the project which meets the requirements of the Virginia Erosion and Sediment Control Regulations and VDOT's Annual Erosion and Sediment Control Standards and Specifications as approved by the Department of Conservation and Recreation.

We will determine the required location of, and provide adequate outfalls for, underdrain outlet pipes. Providing an adequate outfall for the outlet pipe may require modifications to the roadside ditch and / or storm sewer system or designing a separate underdrain outfall system.

The hydrologic and hydraulic analysis and development of the detail drainage plans will be commensurate with the development of the road design details. Plans and computations will be submitted for review at various milestone stages of the project, i.e., Field Inspection, Right-of-Way, Construction, or other times as directed. A copy of the final drainage computations and other documents will be provided to the Department for their files upon completion of the project.

All analysis and design will be done in accordance with the policies, procedures and criteria contained in VDOT's Drainage Manual, Road Design Manual, Technical Supplements, Instructional and Informational Memoranda and other directives, as appropriate.

372 River Mechanics Project Studies

RIVER MECHANICS

We will perform a hydrologic and hydraulic analysis at all sites where the roadway construction will cross or infringe on major streams or rivers (number of sites to be determined at the scope meeting) using accepted river mechanics procedures.

All analysis and design will be done in accordance with the policies, procedures and criteria contained in VDOT's Drainage Manual, Road Design Manual, Technical Supplements, Instructional and Informational Memoranda and other directives, as appropriate.

373 Major Structure / Bridge Survey

We will perform the necessary research of public records and prepare a list of owners affected by the project. Each owner will be notified by mail that a survey crew will enter their property.

We will establish project horizontal and vertical control in compliance with the VDOT Survey Manual. This will include recovering existing control and establishing new control monuments, establish alignments, collect topography data including utility designation, securing DTM data or cross sections and conducting plan base and bridge situation preparation according to the Metric Survey Manual.

400 Minor Structure Data

We will indicate on a set of plans the structures (sound walls, retaining walls, and/or culverts (90mm/36" or larger) which will require foundation data. This information is to be used by the Geotechnical consultant to secure this data or provided to the Project Manager for the data to be requested from the Materials Division.

432 Hydraulic Plan Design / Right-of-Way

We will make any revisions or redesign to the drainage and/or stormwater management facilities required by revisions to the roadway plans due to approved Public Hearing recommendations. We will also finalize any drainage design that will have any affect on the Right-of-Way plan.

470 Approve Willingness

WILLINGNESS APPROVAL

Thirty days prior to the advertisement / posting of a Willingness to hold a Public Hearing Notice, we will prepare the 8 1/2" x 11" location map for project advertisement.

Subsequent to the expiration of the notice we will meet, if necessary, with any concerned citizens to review and resolve their comments / concerns and incorporate suggestions into final project design as applicable.

480 Conduct Location / Design Public Hearing

DESIGN HEARING / COMBINED HEARING

Sixty days prior to the design / combined hearing we will prepare the 8 1/2" x 11" location map for project advertisement and 45 days prior to the hearing we will prepare the hearing brochure, handouts, two sets of mosaics, mapping, typical sections, and other appropriate drawings.

At least sixty days before the hearing, we will submit a video script for VDOT approval. Other activities include participating in an informal review meeting prior to the actual participation in the public hearing.

510 Furnish Approved Right of Way Plans

RIGHT-OF-WAY PLANS

We will update plans to incorporate any changes approved by the Commonwealth Transportation Board, and revise the estimate for Right-of-Way submission the month following approval by the Commonwealth Transportation Board.

512 Hydraulic Review for Construction

We will review the final drainage design for Quality Assurance. We will also incorporate any revisions, redesign or design required due to plan revisions.

650 Complete Roadway Plans

FINAL DESIGN

After the approval by the Commonwealth Transportation Board, we will finalize the construction plans including the construction sequence, drainage, grading plan, and retaining wall plan. This service also includes locating the

appropriate construction safety devices into the plans and processing any necessary Right-of-Way revisions.

SUMMARY TAKEOFFS

We will finalize the summarization tables and review the plans for completeness.

ASSEMBLY AND CHECKING OF CONSTRUCTION PLANS

We will complete the final assembly, checking and incorporating all plans into the final construction documents. We will provide the final design Quality Control / Quality Assurance check and furnish the plan assembly, an updated construction estimate and a completed copy of the Quality Control Checklist to the Project Manager.