# COUNTY OF FAIRFAX DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES ENGINEERING PROPOSAL DOCUMENT

## **Civil Engineering (Horizontal Projects)**

The basic surveying and engineering services to be provided to Fairfax County, “County,” by the Consultant Engineer, “Engineer,” comprise the following phases of work; and must be prepared and signed, sealed, and dated by the individual(s) in charge in accordance with the current APELSCIDLA Regulations and all applicable provisions of the Code of Virginia:

1. Survey Phase
2. Preliminary Design Phase
3. Intermediate Design Phase IV. Final Design Phase

The work to be performed by the Engineer under each of these phases or tasks is outlined below:

**I. Survey Phase** *Special Requirements*

***Prior to preparing the cost proposal, a meeting shall be conducted with the County Surveyor to discuss the survey requirements, available information, special requirements, and the type and format of the survey information to be provided to the County. The Engineer shall prepare written minutes of this meeting to clearly define all agreements and understandings related to the survey phase. A copy of these meeting minutes shall be included in the cost proposal that is submitted to the County.***

1. Assemble and review all available data from existing records relative to utilities, properties, topography, streets, and land use, which may affect the engineering design of the project.

1. Make field surveys of existing conditions. The surveys shall provide all data that may be required for the preparation of the final plans, construction contract drawings, and record plats. The surveys shall include but not be limited to the following information:

* 1. A field referenced traverse with stations referenced and identified (note object used as a traverse station; Iron Pipe, Rebar and Cap, P.K., spike, etc., including computations and coordinate tables, with a maximum error of closure of 1 part in 35,000. For surveys conducted using global positioning systems, the maximum permissible positional uncertainty based on the 95% confidence level of any independent property monument shall not exceed the positional tolerance of 0.07 feet (or 20mm + 50ppm). The Virginia State Plane Coordinate System, North Zone, (NAD 83 and NGVD 29) shall be utilized. The traverse symbols and the coordinate table shall be shown on the deliverable hard copy. The Engineer’s Surveyor should contact the Land Survey Branch, Utilities Design and Construction Division, at 703-324-5111,

to determine the survey control available. In some cases, the County will permit a deviation from the Virginia State Plan Coordinate System, North Zone, per ordinance requirements.

However, any such deviation from the utilization of the Virginia State Plan Coordinate System, North Zone requirements shall be resolved and documented, in writing, to the County by the Engineer prior to submitting the proposal.

* 1. Unless otherwise specified, topography is to be 1” = 25 ft, with a 2 ft contour interval for all projects with the exception of sanitary sewer projects where the topography shall be 1”=50’, with a 2 ft contour interval.

* 1. Sufficient property corner ties shall be made to permit 1) accurate computation of all property lines on, adjacent to, and departing from the entire area of the survey; 2) the preparation of all plats of easement, right-of-way or acquisition as required; and 3) the accurate (re)establishment of these lines in the field.

* 1. A “Cadastral Base Hard Copy” of the boundary and property computations signed, sealed, and dated by the Land Surveyor in responsible charge shall be provided. Apparent voids or overlaps in deeds shall be noted and shown. All deeds, with any disclosures noted, shall be labeled with Deed Book and Page and/or Subdivision designation on the hard copy. All monumentation found shall be shown on the hardcopy, along with the land surveyor’s determinations of monuments held and the distance and direction of field to deed deltas (or double off set distances) for every other monument in the survey. Any monuments, which are not honored by the land surveyor, shall be shown as “NOT HELD” and the cause for this determination shall be noted on the face of the hard copy. At corners where the field search failed to uncover the monument, place the notation “LFNF” to signify looked for, not found. The traverse symbols and table plus monument symbols, and the coordinate table of found monuments shall be shown on the deliverable hard copy. The purpose of this information is to allow the Engineer or County to set or reset property corners without further surveying required in areas disturbed during construction.

* 1. A bound copy of all deed research, including instruments and plats, of the recorded land records used to determine the limits of property, existing easements, and rights-of-way.

* 1. A bound copy of the survey field book and notes.

* 1. A series of referenced elevation benchmarks with a maximum distance of 300 feet apart, minimum second order level results on NGVD 1929 datum (Vertical Control Benchmarks are available from the County Surveyor’s office or may be obtained by GPS survey and reported on NGVD 1929 datum).

* 1. Strip topography to be run for the entire length of the project area as follows:

* + 1. Minimum width of 150 ft or twice the proposed right-of-way width, whichever is greater, or generally from face of house to face of house for road or community improvement projects.

* + 1. Minimum width of 100 ft on sanitary sewer, storm sewer, and storm sewer outfalls.

* + 1. Additional topography as required to complete the project.

* + 1. If traffic signals are involved, the entire intersection must be included.

* + 1. Minimum width of 50 ft for sidewalk and trail projects. At locations along an existing road, this width shall extend from existing edge of pavement, except at intersections where are the entire intersection must be included to a distance at least 25 ft beyond curb returns. The following is to be included for all projects:

* + 1. As-built of gravity utilities (storm and sanitary) shall include complete information for all structures within the survey area and one structure beyond in each direction. Inspection shall be made for any gravity utilities, which may cross the survey area without a structure within the area. For this case, include as-built for one structure outside the survey area in both directions.

* + 1. The horizontal and vertical location of underground sanitary sewer, sanitary systems, drain fields, storm drainage, etc., shall be located by the field survey.

* + 1. Visible evidence of septic systems shall be located and identified during the survey. Septic field, holding tank, and distribution box locations must be checked from available records provided by Fairfax County and field located.

* + 1. All surface evidence of utilities and/or rights and interests of others on or through the subject property and within 10’ of the limit of the survey area including but not limited to: poles, cables, down guys, switches, transformers, relays pedestals, gas and water valves, hydrants, etc.

* + 1. Where an area is totally wooded, or there are large groups of trees forming a continuous canopy, the tree trunk line and drip line need to be clearly shown and labeled. Individual trees within a totally wooded area or within a large group of trees are not required to be individually shown on the improvement plan unless a particular tree is of significant size or possesses some other outstanding feature.

* + 1. If there are individual trees standing apart from the wooded area, or from any large group of trees, then any such freestanding individual trees and any caliper planted landscape trees will be shown on the improvement plan. All trees identified are to be accurately located on the plans and shall be labeled as to size, type, and diameter of drip line. Any standing dead trees 8” dbh or larger shall be located and identified on the survey.

* + 1. Individual shrubbery shall be shown with size and type in developed areas. Shrubbery lines shall be shown and type indicated inside the outline area.

* + 1. All improvements to the real property inside the scope of the survey shall be located and identified, including but not limited to signs, fences, mailboxes, other structures and roof drains appurtenant to the structures and landscaped areas within the limits of topography should be shown and identified.

* + 1. Marked gravesites and any visible evidences of unmarked gravesites shall be located and labeled.

* + 1. Wetland delineations may be required to be located as a part of the scope of survey. In cases when this will be required, the County will advise that such service is required.

* + 1. Pavement markings to include lane markings, stop bars, and cross walks and parking stripes. Individual width of stripes is not required, only the centerline of the stripes. Locations of turn arrows or text messages in the pavement are not required.

* + 1. All residences: First floor and/or basement elevations to be provided for sanitary sewer improvement projects.

* 1. Underground utilities consisting of, but not limited to, conduits, water, telephone, electric, gas, oil, cable TV, fiber optics, etc., shall be complied into a standalone AutoCAD file based on the County prototype by the County’s Underground Utility Locating and Designating consultant. This AutoCAD file must prepared on the County prototype and have proper units to be suitable to directly reference into the Survey files. For projects being administered by the Fairfax County Department of Transportation, Transportation Design Division

(TDD), the Engineer shall contact the TDD assigned Utility Engineer, at 703877-5600, to coordinate the location of underground utilities. For all other projects, the Engineer shall coordinate with the assigned Project Manager at 703-324-5800. All utility pole identification numbers shall be recorded and indicated adjacent to the located pole. The vertical location of underground utilities, including underground conduits, sanitary sewer, sanitary systems, drain fields, storm drainage, etc., will be determined by any method other than boring and excavation. Horizontal location of utilities from available records and plans shall only be used to verify field locations. The County is to act as the liaison to the utility companies for the Engineer during field location of the utilities. Location of utilities as described above is the responsibility of the County.

* 1. Perform all office work required to plot the above information and prepare the base map(s) needed for the base design drawings. Prepare electronic plan base sheet(s) showing the topography, property lines, utilities, right-of-way, easements, and horizontal and vertical control information. The horizontal and vertical control will include, but will not be limited to, the following:

### a. Horizontal

1. Plot the traverse on the base sheet, and survey data sheet, with bearings and distances shown.

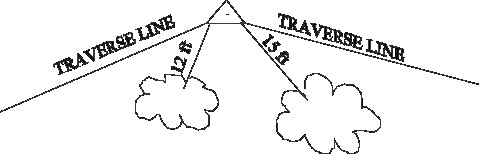
1. Tie traverse stations to centerline of proposed construction or control stations with bearings and distances (sidewalk and trail projects may be set up with a baseline tied to the traverse and offset distances provided from the baseline). This information can be shown on the survey data sheet in order to clarify the plans.

1. Show coordinates of traverse stations, control stations, and all property corners located adjacent to the route of proposed construction on the base sheet.

1. Reference traverse stations on base sheet, i.e., designation of object

used as a traverse station; Iron Pipe, P.K., Rebar, Spike, etc.

1. Tie traverse stations to a minimum of two permanent reference marks.



1.

5

“

AS

H

2

"

C

E

D

A

R

NOTE: IDENTIFY MARK, I.E., P.K. TACK AND TAPE, ETC.

b. Vertical

(1) Describe B.M. on base sheet

### B.M. # Elev. = 256.95

Chiseled "X" on top of curb-inlet west side of Main Street

(2) Plot at least two B.M. on each base sheet at proper locations, i.e.

B.M. ELEV

256.95 M

CATCH BASIN

1. The use of aerial photography for design survey may be used upon written request and permission by the County.

For projects using photogrammetry as one of the methods to complete the survey, include contact prints of aerial photography and one color rectified orthophotograph of the site mounted for public display. Scale and limits to be agreed upon by both the Engineer and the County.

1. An initial letter notifying all area residents of the survey will be sent by the County prior to the start of the fieldwork. The survey crew will make a special effort to advise the property owners of their presence prior to entering upon a property to perform the survey work. This notification procedure should be especially adhered to on all property that will require the cutting or trimming of trees, brush, undergrowth, etc. Notification can be accomplished by telephone or by the survey personnel directly informing each resident. The Engineer is responsible for any damages to private property by the survey crew.

The survey crew shall avoid setting traverse and control points within the proposed construction area, or any other area that will be disturbed or inaccessible during construction. All efforts shall be made to locate benchmarks and traverse stations in the right-of-way to minimize property disturbance.

#### II. Preliminary Design Phase

1. Develop preliminary designs and computations and prepare preliminary drawings and/or graphics showing the extent and scope of the project in detail suitable for use in public meetings. The preliminary design will be of sufficient detail to reasonably ensure the future construction of the project as well as the acquisition of any required design waivers.

1. In addition to the normal engineering graphics, one photo rendering is to be provided. The rendering shall include a 24-inch x 24-inch photograph of existing conditions and a second photograph showing the improved conditions. The cost for the photo rendering should be shown as a lump sum item within the total cost of the contract.

1. Perform, or cause to be performed, the required geotechnical investigation necessary to determine the required pavement section and for the design of any retaining walls anticipated on the project. The Engineer shall develop a report of Geotechnical Exploration. This Geotechnical report should include the following basic information:

* + Site location plan.
  + Boring location plan.
  + Boring records that identify a visual soil description and penetration in blows per foot.
  + Laboratory testing:

Soil classification

Percent finer than 200 sieve

Percent natural moisture

Atterburg limits

Compaction test for optimum moisture, percent

CBR test results, Virginia Highway Council UTM 8 Core samples of existing pavement

Borings shall be spaced at 200 - 400 ft intervals. When borings indicate poor material and the probability of an undercut situation during construction exists, the County shall be notified immediately for direction concerning additional boring locations. The geotechnical reports shall define and include recommendations concerning, but not limited to, the following:

Limits of undercut

Placement of underdrains

Use and placement of Geotextile Fabric

Analysis of the best pavement section

Use of soil cement, lime, or other soil stabilization materials Presence and treatment of naturally occurring asbestos

1. Prepare an estimate of the construction quantities based on the cost-estimating format provided by the County.

1. Determine the limits of property, existing easements, and rights of way by a detailed review of the recorded land records. A determination is to be made on the need for additional rights of way or easements required for the construction of the project, along with advising the County of such requirements.
2. Attend all meetings and conferences with the County and participate in citizens' meetings. Meeting minutes of all such meetings are to be forwarded to the County within five working days.

1. All road projects will meet all current Virginia Department of Transportation (VDOT) design criteria and subsequent updated VDOT criteria throughout the term of the contract unless otherwise specified in writing by the County.

The preliminary 25% plan submission should include the following items:

## GENERAL

Aerial photograph. See Section I

Standard Department of Public Works and Environmental Services cover sheet with vicinity map

Cover sheet with key to plan sheets and Design criteria to be indicated

Street name, route number, and functional classifications

Standard Department of Public Works and Environmental Services

General Notes sheets

Scale 1” = 25’ horizontal; 1” = 5’ vertical on plan and profile sheet North arrow on each sheet; note grid north, true, magnetic, etc.

Minimum lettering size shall be 0.1”

Horizontal location of all underground and aerial utilities

Location of existing utility easements

Benchmark elevations on each plan sheet

Traverse stations

Sanitary sewer, house lateral locations and septic field locations

Typical sections, super elevation

Tax map grid numbers shown on each sheet

House numbers, subdivision names, Lot Numbers

Face of curb and/or edge of pavement designation for both existing and proposed features

Note on the typical section the point being used as grade in profiles.

Centerline station every 100’, street intersections, super elevation length

& rate, PT, PC, PRC, PCC, PVT, PVC, PVI, with elevations Project limits shown with station identification existing and proposed

right of way with estimated limits of grading

Centerline curve data

Pedestrian facilities

Profiles of existing street connections

Profiles of critical driveways

Lane direction arrows

Proper length of vertical curve shown in profile, show "K" values

Properly label existing and proposed rights of way and easements

## DRAINAGE

Drainage divides shown for inlets, on-site and offsite drainage

with contributing areas for each inlet

All natural drainage divides honored

Location of all streams and swales shown in plain view

End sections or endwalls provided at terminus of system

Typical section of drainage way provided for all outfall improvements

Paved ditches shown in profile and stationing provided in plan and profile

Driveway culverts shown where appropriate

Existing and proposed drainage easements Preliminary storm water management facilities

## UTILITIES

All existing utilities shown in plan:

1. Electric; show poles with identification numbers, underground facilities
2. Telephone; show poles with identification numbers, underground facilities
3. Gas; show type and size information
4. Waterlines; show type and size information
5. Cable television facilities, aerial, and underground
6. Transmission pipelines, type and size
7. Sanitary sewers; show size, top and invert elevations, and laterals
8. Existing streetlights

## CROSS-SECTIONS

All critical sections should be drawn as described in Section III.D Show existing and proposed right of way, construction centerline, and easements

Show any building structures within 25’ of proposed grading

### III. Intermediate Design Phase

1. Intermediate design will not be initiated without written authorization by the County.

1. Develop 50 percent intermediate design plans and computations and prepare drawings and/or graphics showing the extent and scope of the project in detail suitable for use in the Design Field Inspection and Utility Field Inspection. The intermediate design will be of sufficient detail to reasonably ensure the future construction of the project as well as the acquisition of all rights of way and easements.

* 1. The County, or its designated agent(s), may obtain the detailed horizontal and vertical location via the use of test holes of all underground utilities that cross the proposed facilities that are being designed by the Engineer. The Engineer shall cooperate with the County or its designated agent(s) in providing any information that is required to dig the test holes. In addition, the Engineer if providing survey services shall provide the required centerline stakeout data in the area(s) of the test holes for use by the designated agent. The locating contractor will then provide the precise location (plus and off set) of the test hole(s) to the County for distribution to the Engineer and the utility companies.

* 1. Upon receipt of the test-hole data, the engineer shall evaluate and advise the County of the extent of utility conflicts. The Engineer shall then redesign the proposed facilities at the direction of the County in order to minimize any conflicts.

1. A street lighting plan may be prepared by the County using the preliminary plans prepared by the Engineer. This plan will be forwarded to the Engineer for coordination and inclusion into the intermediate plans prior to a utility field inspection meeting.
2. Prepare cross-sections at 25’ intervals for the length of the improvements. All cross- sections shall be plotted at a scale of 1” = 10’ horizontal and 1’ = 5’ vertical, unless otherwise approved by Fairfax County.

1. Prepare an individual record plat for each affected property, including dedication to public street purposes and temporary construction or grading easements, which will be required for the construction of the project. Include all existing easements of record on the individual record plat. Plats shall be prepared in accordance with the current Department of Public Works and Environmental Services, Utilities Design and Construction Division, Land Survey Branch, Plat Standards as follows:

Fairfax County, Virginia

Department of Public Works and Environmental Services

Utilities Design and Construction Division

Land Survey Branch

# PLAT STANDARDS

Revised December 2016

## Required Minimum Information

Typical examples for the title block information for Subdivision (Lots), Acreage (Parcels), and Condominiums, respectively, as follows:

Plat Showing Dedication for

Public Street Purposes & Easements

(include easement type, list permanent easements first)

Through Lot 221

POLO FIELDS, Section 3A

D.B. 1234, PG. 999

Property (or Lands) Being in the Name of

JOHN W. SMITH and MARY H. SMITH

D.B. 1375, P.G. 1234

Sully District, Fairfax County

Scale: l”=25’ Date: 9/3/16 Drawn By: J. Doe Sheet 1 of 1

Plat Showing Dedication for

Public Street Purposes & Easements

(include easement type, list permanent easements first)

Through the Property (or Lands) of

JOHN W. SMITH and MARY H. SMITH

D.B. 1375, PG. 1234

Sully District, Fairfax County

Scale: l”=25’ Date: 9/3/16 Drawn By: J. Doe Sheet 1 of 1

Plat Showing Dedication for

Public Street Purposes & Easements

(include easement type, list permanent easements first)

Through the Property Being

THE HAPPY HILLS CONDOMINIUM

### AS DECLARED AND RECORDED AT

D.B. 1925, PG. 1744

Sully District, Fairfax County

Scale: l”=25’ Date: 9/3/16 Drawn By: J. Doe Sheet 1 of 1

These PLAT STANDARDS represent general best practices and minimums required for successful completion of platting and recordation. Variances may be necessary as required by specific projects and circumstances. These variances are professional determinations and are the responsibility of the Licensed Land Surveyor sealing the plat. All plats must meet the Standards for Plats issued by The Library of Virginia as current at the date of seal on the plat. All plats must be sealed and signed as required by the Code of Virginia.

Required Minimum Information

1. Show in title block, the current owner, deed book (or liber) and page of acquisition, and the subject property, whether subject is a subdivision or acreage. For a subdivision lot, list the deed book and page where the subdivision lot was created (first page of record document) in the title block.

1. Prepare plats using the record deed as the base for the property. Lot line distances match the record information, though the bearings may be rotated to fit a common project north orientation such as VCS83, North Zone, North.

1. Include name and address of Land Surveyor or registered business.

1. Original plats will be the same scale as project plans, when appropriate. Allowable plat size requirements (see #26) and avoidance of easement breaks (see #30) may result in different scales.

1. Include the subject parcel or lot number within the body of the plat.

1. Separate plats should be prepared for each affected property, with exceptions as agreed upon by Land Survey Branch, Land Acquisition Division, and the Office of the County Attorney. In instances where the same owner owns several properties, one plat is acceptable provided the area tabulation is broken down to show the square footage of the land rights required on each property.

1. Identify adjacent properties by subdivision name and lot number with deed book and page of subdivision recordation, or for parcels not in a subdivision “N/F Owner’s Name” with deed book and page of acquisition. Adjacent properties identification may include the Tax ID number as supplemental information.

1. Label names of roads with route numbers and right-of-way widths, railroads, and other abutting rights of way.

1. Show distance from a corner of the subject property to the nearest intersection.

1. On road projects with available construction alignments of design, such as centerline or construction baseline, show one reference tie (distance from property line to the centerline of construction) and bearing of centerline or construction baseline. The reference tie must have a station on the centerline or baseline.

1. On plats involving street dedications, label the area to be dedicated as follows: “Hereby Dedicated for

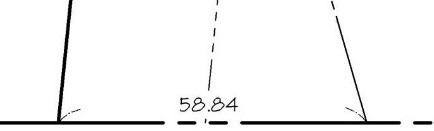
Public Street Purposes.” A notation stating merely “Dedicated for Public Street Purposes” or “To Be Dedicated to Public Street Purposes” is not acceptable. The title in the title block and in the area tabulation shall be “Dedication for Public Street Purposes”.

1. Identify all existing easements on a property with deed book and page number. If the existing easement is adjacent to the proposed easement/dedication and is relevant, i.e., existing sanitary sewer easement adjacent to a proposed sanitary sewer easement, include all bearings and distances (if available from existing information and doing so will not create overlap/gap situations).

1. Indicate bearings and distances of all property and easement/dedication lines to the nearest ten seconds (as minimum precision, on a clockwise rotation). Label bearings for easement boundaries; labels on easement centerline are optional. However, for a simple consistent width easement, bearings for an easement centerline in lieu of an easement boundary may be used. In this case, the centerline must be tied to the property or to existing easement; widths and relationship to the centerline must be clearly shown.

1. Indicate distances of all property and easement/dedication lines to the nearest 0.01 feet. Distances for an easement centerline in lieu of an easement boundary may be used when the centerline defines the easement.

1. Display boundary line and easement line annotation with bearings running clockwise. Where possible ambiguity or space constraints necessitate, attach annotation and/or tag labels, running clockwise, to the corresponding lines or curves by crow’s feet.



1. List all curve data, other than for “ties” in call-out and table format including curve number, radius, delta, arc length, tangent, chord, and chord bearing. Arc and Radius is acceptable for ties only. It is also acceptable to use call-out and curve table format for ties at preparer’s discretion.

1. Compute easement and/or dedication areas to be acquired to nearest square foot and show in tabular format. If the plat has more than one sheet, the total area to be acquired may be shown only on one sheet, typically, the first sheet, or for clarity the full tabulation may be repeated on each sheet. If the plat for one lot has two individual (physically separate) easements conveying identical land rights (i.e.: two separate sanitary sewer easements), the area tabulation shall include the areas associated with each individual easement as well as the total easement area.
2. Include a page number on each sheet (for example, Sheet 1 of 2).

1. Reference (tie) all easements/dedications to a property corner for field stakeout.

1. Show north arrow with source of meridian stated. If using Virginia State Coordinate System Grid North, provide pairs of state plane coordinates on two corners of subject property for properties within two kilometers of a public or private monumented horizontal control station of second-order class II or better quality. For properties not within two kilometers of such horizontal control stations, the preparer may elect to assign project coordinates to two corners and label as (PROJECT) immediately below the coordinate call-out.

1. Show project name and number above the title block. Note tax map reference directly above the project name and number. Additionally, tax map number may be shown in the subject parcel in the body of the plat.

1. For plats compiled from existing deed information, shall contain the following statement: “The information shown on this plat was compiled from existing land records and does not represent the result of an actual field run boundary survey”.

1. If the plat is prepared without the benefit of a title report, include the following statement: “This plat was prepared without the benefit of a title report; therefore not all encumbrances to the property are necessarily shown hereon.”

1. Plats shall contain the following statement “All previously recorded rights-of-way, easements, or other interests of the county shall remain in full force and effect unless otherwise specifically shown hereon.”

1. Plats shall contain the following statement “ The land shown on this plat is now held as noted in the title block hereon and recorded among the land records of Fairfax County; all easements and dedications for public street purposes are within the bounds of the original tract, as described and recorded therein. (alternative: and shown on this plat)

1. Plat sizes: Allowable sizes are 8-1/2”x 11”, 8-1/2” x 14”, 11” x 17”, or 18” x 24”. On plats greater than 8-1/2” x11”, include centering marks and 8-1/2”sheet “tic” marks as per the Library of Virginia Standards for Plats. These centering marks are used during scanning/filming process.

1. Minimum lettering size: 0.1”; Maximum lettering size: 0.5” Minimum line weight: 0.013”; Maximum line weight: 0.05”. A minimum of 1/4” margin outside the borderline required on all sides. All plats must meet the Library of Virginia Standards for Plats current at the date of seal on the plat.

1. Standard line styles are:

Existing Property Line

Existing Easement

Dedication

Permanent Easement

Temporary Easement

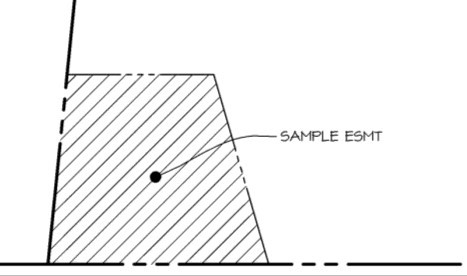
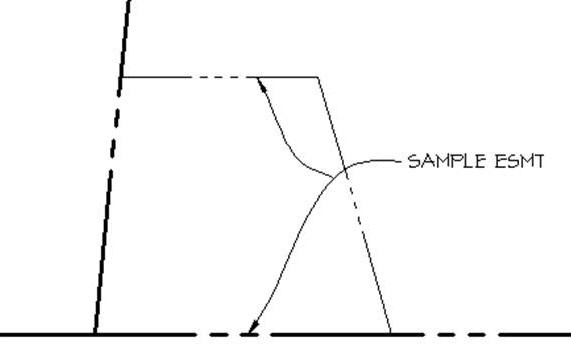
1. Prepare all plats for recordation as original live signed, and drafted with ink on Mylar. Mylar sepias (copies) are not acceptable. Paper originals are not acceptable.

1. Generally, breaks in proposed easements are not acceptable. In special cases, match lines may be used when over-sized plats will not fit on one sheet; however, easement line breaks using the short break symbol (—*N*—) are not permitted under any circumstance. Breaks in property lines using the symbol are permitted provided the break is not along an easement boundary or within the easement area.

1. Seal and sign all plats as required by the Code of Virginia.

1. No plat shall be revised after the initial sealing, except by consent and action of the professional whose seal is affixed thereto. Dates on the face of plat inside the professional’s seal shall constitute the final revision date.

1. Use dual leader lines to label the extents of an easement or dedication area. The use of single leader lines is not acceptable, except when using a ball leader with hatched areas.



1. The agreements listed below are the ones frequently used by the Department of Public Works and Environmental Services when acquiring land rights for County projects. There may be specialized agreement titles not listed herein. In case of a private design firm contract, County staff will coordinate with the surveyor or engineer to determine the correct easement titles required on the plans. Ensure that the platted land rights are properly labeled using the approved titles below.

ACCESS EASEMENT

ANCILLARY/PUBLIC UTILITY EASEMENT *[“Ancillary” Easements are sometimes used to provide additional area, adjoining existing roadways, to accommodate the relocation of County easements, as necessitated by roadway modifications.*]

BUS STOP FACILITIES EASEMENT

CONSERVATION EASEMENT

DEED OF DEDICATION AND CONVEYANCE

DETENTION POND AND STORM DRAINAGE EASEMENT

FAIRFAX COUNTY WATER AUTHORITY DEED OF EASEMENT

FLOOD PLAIN AND STORM DRAINAGE EASEMENT

GRADING AGREEMENT AND TEMPORARY CONSTRUCTION EASEMENT

INGRESS-EGRESS [*or* Ingress-Egress/Public Access *or* Public Access] EASEMENT

LANDSCAPE EASEMENT

MAINTENANCE ACCESS EASEMENT AGREEMENT

PERPETUAL STREET EASEMENT

PUBLIC ACCESS EASEMENT

QUITCLAIM DEED (A)

REFORESTATION EASEMENT

RESOLUTION

RESTRICTIVE PLANTING EASEMENT

RETAINING WALL EASEMENT

SANITARY SEWER FORCE LATERAL EASEMENT

SANITARY SEWER LATERAL EASEMENT

SANITARY SEWER EASEMENT

SIDEWALK EASEMENT

SIGHT DISTANCE EASEMENT

SLOPE EASEMENT AGREEMENT

STORM DRAINAGE EASEMENT \* STORM SEWER EASEMENT

TEMPORARY ACCESS EASEMENT

TEMPORARY CONSTRUCTION EASEMENT

TEMPORARY CONSTRUCTION ACCESS EASEMENT

TEMPORARY TURNAROUND RIGHT-OF-WAY EASEMENT

(for the purpose of constructing and maintaining, a road…)

TRAFFIC SIGNAL EQUIPMENT EASEMENT

TRAIL EASEMENT

VEGETATED BUFFER EASEMENT

\* This is used for open and closed storm water systems and is the preferred title.

Suggested number of copies for plats:

One (1) original sealed signed Mylar plat for each recordation

For each recordation of the plat, two (2) copies

Example, plat with Dedication for Public Street Purposes and a Storm Drainage Easement = two (2) recordations from a single plat = two (2) live signed, sealed originals, plus four (4) copies

If plans are prepared utilizing CADD, provide one copy of the plans on computer disk(s) in both AutoCAD Land Development Desktop (LDD) Release 2005 or later, and Microstation formats. County understands that the automated conversion (translation) of information and data from the system and format used by the Engineer to an alternate system or format may result in the introduction of abnormalities. County agrees to assume all risks and verification of suitability for its use associated therewith.

G. Provide an updated estimate of the construction quantities based on the cost- estimating format provided by the County.

The intermediate 50 percent plan submission should include the following items in addition to those items shown in preliminary design:

## GENERAL

Driveway entrance types, CG 9A, CG 10A, etc., with width and centerline station noted and type of surface material noted

Driveway profiles

Curb cut ramps (CG-12) as required with station and offset

Guardrail where required with appropriate end treatments with station and off set at beginning and end

Proposed grade, with computed elevations every 50 ft.

Proper horizontal, vertical and stopping sight distance provided

Locations of septic fields and wells

Curve super elevation, maximum rate, transition lengths and stations

Utility pole location table

Complete land acquisition plats

Signing and pavement striping plan

Limits of grading

Limits of cut and fill

Suggested maintenance of traffic plan

Intersection sight distance lines

Intersection grading plan showing transitional slope

Erosion and sediment control plans

Erosion and sediment control standard details

VDOT Insertable sheet details

Preliminary Traffic Signal Design sheets and details (if applicable) Preliminary Traffic Maintenance Plan and details (if applicable)

## DRAINAGE

Profile of streams that parallel or cross proposed improvements

All natural drainage divides honored

Limits of existing and proposed floodplains and easements

Storm sewer plan and profile shown on the same sheet where possible

1. Profile of existing ground at construction centerline.
2. Profile of finished grade at construction centerline.
3. Percent grade shown on all storm sewers.
4. Size and type of proposed pipes and structures.
5. Specify top, invert, throat elevations for all proposed structures.
6. Show all existing stream crossings.
7. Specify type, structure number.

Invert elevations for culvert inlet and outlet shown in profile Provide size and type of proposed driveway culverts.

Hydraulic grade line on any surcharged systems

Stormwater management facilities

Wetlands and impacted areas delineated Wetland mitigation, if required

## SURVEY

Survey sheet provided showing overall layout of traverse, road centerline data, properties, and proposed improvements Traverse stations shown graphically and in table form with

coordinates. Traverse references provided Coordinate list with point locations noted Benchmark elevations provided on each plan sheet

Construction centerline or alignment of proposed improvements with station information

Sufficient information shown to stake the project in the field; i.e. station and offset, dimensions, coordinates

## CROSS-SECTIONS

See Section III.D

### IV. Final Design Phase

1. No work will be initiated on final design until written authorization is received from the County.

1. Develop complete final design plans and computations, and prepare final contract drawings showing all proposed construction in sufficient detail to ensure:

* 1. The granting of all necessary approvals and permits by all regulatory agencies.

* 1. The proper execution of the work by a construction contractor.

1. Prepare and reference any special provisions on the plans only. Contract documents will be prepared by the County.

1. Prepare a final quantity takeoff of construction. The format for this quantity takeoff shall be consistent with the Fairfax County or VDOT Cost Estimating format, as specified by the County.

1. Prepare final Land Acquisition Plats. **Note:** The submission schedule for plats will be independent of the plans.

1. Final design plans shall include standard Department of Public Works and Environmental Services (DPWES) cover sheet with vicinity map, general note sheet with erosion/sedimentation control plans and narrative, a work area map, design computations, along with plan/profile and detail sheets. Liberal use of details is encouraged. All sheets, except DPWES cover sheets, shall have Fairfax County title block and Engineer's title block.

1. Attend all conferences and briefings with the County. Participate in citizens' meetings. Prepare all exhibits, graphics and handouts for use in citizens' meetings. Duplication of handouts will be performed by the County. Meeting minutes of all meetings are to be forwarded to the County within five working days.

1. Prepare a profile for all intersecting streets, driveways, and entrances connecting to the project.

1. Prepare final cross-sections as outlined in Section III.D.

1. Plans must be submitted by a Professional Engineer registered in Virginia, with a signed and dated seal on any sheet on which the engineer performs design, including the Project cover sheet and cross sections. The standard Fairfax County General Note sheet does not require to be signed, sealed, and dated.

1. Prepare all necessary permit applications and supporting documents for acquisition of permits required by the Virginia Marine Resource Commission, the Army Corps of Engineers and all other regulatory agencies. Application will be made by the County.

1. All sheets are to be 24-inch by 36-inch standard D size drawings. Any sheets other than this size will not be acceptable to Fairfax County.

1. If plans are prepared utilizing CADD, provide one copy of the plans on computer disk(s) in both AutoCAD LDD and Microstation formats. Provide one copy of plans in TIFF format.

1. A separate pre-final plan submission shall be made for review by all agencies.

1. Prepare a red-lined composite plat for submission to VDOT for street acceptance package if applicable.

The final plan submission shall include all items listed in the preliminary and intermediate submissions, in addition to the following items:

## GENERAL

Each sheet numbered

Station, offset and elevation for curb return PC and PT and tie in to existing curb Curb return profiles

Proposed grade with elevations computed every 50 ft on tangent sections and every 25 ft on vertical curves. Identify station and elevation of all low and high points

Super elevation table

## DRAINAGE

Analysis of all drainage outfalls; i.e. capacity, erosion, velocity

Computations for all existing and proposed structures, pipes, culverts Storm sewer plan and profile shown on the same sheet where possible Storm sewer shown in profile with the following required information:

1. Specify bedding material if different from standard.
2. Specify compaction requirements for storm sewer to be placed on fill.
3. Specify type, structure number, station, and off set for all proposed structures.
4. Pipe type, size, and grade.
5. All inverts, throat and top elevations.

Details provided for modified or special design structures

Special pipe provided for unusual loading conditions

Appropriate erosion protection provided

Paved ditch grades shown in profile and stationing provided in plan and profile

Transition details of paved ditches to inlets and culverts provided Complete culvert design computations provided; i.e. inlet control, outlet control, etc.

Station and offset provided for culvert stake out

Provide size and type of proposed driveway culverts

Drainage easements

Stormwater management facilities

Approved VDOT Traffic Signalization Plans and Details (if applicable) Approved VDOT Traffic Maintenance Plan and Details (if applicable)

## UTILITIES

Proposed street lights Test-hole data sheet

SURVEY

See requirements as specified in Section III Intermediate Design Phase.

## CROSS-SECTIONS

All cross-sections

Show existing and proposed rights of way, construction centerline, and easements

### V. Subsurface Soil Investigation

Prior to submitting a proposal for this project, the Engineer shall field review the project site along with any available soil information to determine the extent of the geotechnical investigation required to design and/or construct the proposed improvements. The cost to perform the geotechnical investigation should be included as part of the proposal. A copy of the detailed scope and approach for the geotechnical investigation shall be included as an attachment to the proposal.

If the Engineer determines that a geotechnical investigation of the project site is not required, the costs associated with Item II-B shall be deleted and indicated accordingly in the proposal.

### VI. Transportation Management Plan

Prior to submitting a proposal for this project, the Engineer shall field review the project site to determine if a traffic maintenance plan is required to construct the proposed improvements. (Note: Most roadway improvement projects will require a Traffic Maintenance Plan). The cost to prepare the traffic maintenance plan should be included as part of the proposal. The scope of this task shall be determined jointly with Fairfax County prior to submitting the proposal and should include sufficient time to obtain the Virginia Department of Transportation's (VDOT) review and concurrence of the plan. A copy of the detailed scope and approach for the traffic maintenance plan shall be included as part of the proposal.

### VII. ADA Compliance Requirement

All new construction, alterations, and physical changes to facilities must comply with 28 Code of Federal Regulations Part 35.151, as detailed in the Department of Justice Title II ADA Regulations and the 2010 ADA Standards for Accessible Design. New construction and alterations to street level intersections of pedestrian walkways with streets, roads, and highways

must provide sloped surface or curb cut ramps that comply with the Uniform Federal Accessibility Standards (UFAS) or the 2010 ADA Standards for Accessible Design.

### VIII. Engineering Services During Construction

Unless specifically requested by the County, engineering services during construction are not required in this proposal.

**VIX. Materials to be Transmitted to Fairfax County Include:**

1. A monthly progress report briefly describing the work accomplished is to be submitted with all invoices.

1. Plans for County review plus five additional advance sets of plans on each submission required to obtain County and/or VDOT review and/or approval.

Preliminary Submission sets 35

Intermediate Submission sets 35

Utility Field Inspection sets 35 Pre-Final sets 35

Final Submission sets 35

Sanitary sewer and sidewalk and trail projects shall require 25 sets of plans for each County review.

1. Original mylars of record plats signed, sealed, and dated by land surveyor licensed in

the State of Virginia.

1. Original mylars of plans signed, sealed, and dated by an engineer registered in the State of Virginia (See Item IV.J).

1. Computer disk(s), or other digital storage media approved by Fairfax County, containing the final plan drawing files(s) and/or record plats (AutoCAD LDD or approved compatible format). Drawing files must be accompanied by all associated special fonts not supplied with AutoCAD LDD and any cross-referenced (XREF) files used to produce the final plan drawings. Include a README file containing a schedule of the XREF drawings and the proper linkages. Include a layer schedule and any conversions necessary to use the files appropriately.

1. Computer disc(s) with one complete set of plan sheets in either TIF or Adobe Acrobat format.

1. Two clean copies of the special provisions.

1. One copy of the final Engineer's construction quantity takeoff.

1. One bound and referenced copy of all design calculations, assumptions, etc.

1. One copy of all survey information, data, computations, files, and plats as identified in Section I Survey Phase.

1. **Materials to be Provided by Fairfax County Include:**

* 1. 1"=200' five-foot contour topographic map(s), property identification map(s), and available aerial photography maps.

* 1. Available soils data.

* 1. Available plans and information on any sanitary sewer, house laterals, septic fields, wells, storm sewer, walkway, or road project(s) in the area.

* 1. AutoCAD LDD files of the Department of Public Works and Environmental Services, Capital Facilities standard cover sheet, general notes sheet, test hole summary sheet, right of way summary sheet, and revision data sheet.

* 1. Standard Fairfax County Department of Public Works and Environmental Services plat template in AutoCAD LDD format and Uniform Plat standards.

* 1. List of property owners by tax map number with deed book and page.

* 1. One copy of the Department of Public Works and Environmental Services cost estimating format.

* 1. Set of standard plan sheets.

* 1. Copy of pertinent proffer information.

* 1. Designation of existing utility facilities within the project area.

* 1. Test hole information, as required, to accurately determine the horizontal and vertical location of existing utilities in the project area that may potentially be in conflict with the proposed improvements.

1. **Administrative Information to be Included in the Proposal**:

* 1. The total estimated engineering cost for each phase and the total project, along with an hourly rate fee schedule, must be included for the different job classifications that will be assigned to the project. Individual employee salaries are not required. A summary, by task, of the staff-hours projected for each job classification to be assigned to the project shall also be included along with a statement that the fee schedule shall remain valid for the length of the contract. In addition, include a proposed sheet listing. State in the proposal that the total estimated engineering cost is a lump sum and that amount will not be exceeded without prior written authorization from the County. Increases or decreases in the scope of the project may result in an adjustment to the approved lump sum fee. Authorization to increase the approved lump sum fee will not be considered unless it can be clearly established that actual work is required beyond the currently approved scope of work. The work associated with the total project shall be divided into various project tasks, along with the estimated cost for each task identified.

* 1. A time schedule in bar graph form from the notice to proceed to completion of the various tasks must be outlined in the proposal, as well as a statement requiring that your firm obtain written approval from the County prior to proceeding into the Intermediate and Final Design phases. A statement establishing the length of the contract shall also be specified in the proposal.

* 1. In addition to the material specified above, the Consultant Total Price Summary shall be completed and attached to the proposal. A copy of the Consultant Total Price Summary along with instructions for completing this form is attached to this Engineering Proposal Document.

* 1. Members of staff who will be assigned to this project and their job classification. Personnel substitutions of key personnel will not be made without prior written approval of the County.

* 1. Qualifications of any engineering firm that will perform work on the project on a subcontract basis, i.e., surveying, geotechnical, etc. Fairfax County approval of all subcontractors is required, along with the scope of work to be performed on this project. The written subcontract arrangement, a copy of which shall be included in the cost proposal, shall include a statement that the engineering firm or subconsultant agrees to and will comply with the provisions contained in Item XII.Q Ownership, Use of Documents, and Copyrights.

* 1. A description of your proposed approach and methods of operation for accomplishing this work.

* 1. Include a statement that all work on the project shall be performed in accordance with the provisions in this document unless otherwise noted.

* 1. Indicate an estimated maximum number of plats that will be required and the fee per plat. Include a statement that the final fee for this task will be adjusted based on the actual number of plats.

* 1. Indicate the lump sum fee for preparation of the photo rendering.

* 1. Include for the Engineer and all sub-consultants a list of primary and secondary personnel that can be contacted, if necessary, after normal business hours to address possible emergency situations that could occur on the project. The contact information should include telephone numbers (normal telephones and cell phones), pagers, etc.

* 1. Please include the following signature block on the last page of the proposal following your signature:

Approved:

Ronald N. Kirkpatrick, Deputy Director Date

Department of Public Works and Environmental Services

Capital Facilities

* 1. Provide a certified accounting and justification of all overhead rates. This may be in the form of a certified audit by a CPA or an audit by a Federal or State agency.

* 1. Profit is to be clearly stated by the consultant on the proposal.

* 1. Unless otherwise noted, the original and three (3) copies of the proposal shall be submitted to the Department of Public Works and Environmental Services. Original signatures must appear on all copies of the proposal submitted.

### XII. Payment

A. The method of payment shall be lump sum with monthly billings based on work performed on each task. Progress reports must be submitted with each payment request stating work completed and the status of the various project tasks. Payment requests shall correspond directly with the project tasks as outlined in the proposal. Some items not required in the design process will not be billed and the lump sum amount will decrease accordingly. The following provisions shall be applicable to these payments:

1. Progress payments will be made up to 95 percent of the total contract lump sum amount.

1. The remaining five percent of the total lump sum amount will be paid following final acceptance of the completed design package by the Fairfax County Department of Public Works and Environmental Services.

1. At such time that either the payment request or the actual work completed reaches 50 percent of the total amount, the Engineer and the County shall meet to review the project status and projected completion schedule. The County reserves the right to meet with the Engineer at any point in the design to review the project status.

1. The following statement is to be included on all invoices:

"I certify that the amount of this invoice is just and correct, and in accordance with the terms of the contract, and that payment thereof has not been previously received."

Signature: Date:

1. Invoices requesting payment will be reviewed and processed for payment upon receipt. The County will endeavor to provide payment to the Engineer within 30 days from the date the invoice was received by the County. Payment will be made by check from the County mailed directly to the Engineer.

### XIII. Terms and Conditions

The following terms and conditions are included as part of the proposal:

1. **Termination for Default**: The County, without prejudice to any other rights or remedy it may have, may give seven (7) days notice to the Engineer to terminate the employment of the Engineer and its right to proceed as to the entire surveying and engineering services, "Work" as to any portion thereof, and the County may take possession of the Work and complete the Work by contract or otherwise as the County may deem expedient if, in the opinion of the County:

* 1. The insolvency, bankruptcy or financial condition of the Engineer will hinder or impede the Engineer's fulfillment of all contractual obligations, including completion within the Contract time; and/or

* 1. The Engineer refuses to staff the Work with the proper number and expertise of design professionals or support staff; and/or

* 1. The Engineer refuses or fails to prosecute the Work or any part thereof with such diligence to insure its completion within the time frame allowed by the project schedule, or fails to complete the work within said period; and/or

* 1. The Engineer fails or refuses to regard laws, permits, ordinances, resolutions or the instructions of the County, or otherwise be in material breach of this Contract; and/or

* 1. The Engineer is in violation of any material provision of this agreement.

Such notice of termination shall be issued after notification to the Engineer that termination is being considered and the specific reasons for such termination, and after affording the Engineer a reasonable time to correct such reasons that are cited. Upon such termination, all finished or unfinished documents, data, studies, surveys, drawings, maps, models and reports prepared by the Engineer under this contract shall, at the option of County, become its property for its use as it requires and shall be delivered to the County upon request.

If the County so terminates the employment of the Engineer, the Engineer shall be entitled to receive payment for the amount of the Work completed.

1. **Termination for Convenience**: The performance of Work under this Contract may be terminated by the County in whole or in part whenever the County shall determine that such termination is in its best interest. Any such termination shall be affected by delivery to the Engineer of a Notice of Termination specifying the extent to which performance of the Work under the Contract is terminated, and the date upon which such termination becomes effective. After receipt of a Notice of Termination, the Engineer shall submit to the County its termination claim in a prompt manner, but in no event later than three (3) months from the effective date of termination or it shall be deemed waived. The Engineer's sole and exclusive remedy upon termination under this Section shall be to receive payment of: (a) the pro rata share of the total fee earned to the date of termination; and (b) any bona fide expense of terminating the agreement of any consultant; and (c) any out-of-pocket expenses or other costs necessary to close out this contract, provided that such costs are approved in advance in writing by the County. In no event shall the Engineer be entitled to lost profits or consequential damages. In the event that termination for default is found to have been improper, such termination shall automatically be converted to a termination for convenience as the Engineer's sole and exclusive remedy.

In the event of such Termination for Convenience and where County requests copies of Engineer’s uncompleted and unstamped works, it is with the understanding that such documentation and work (collectively Documentation) are in various stages of completion. County further understands that the Documentation has not been reviewed under Engineer’s QA/QC programs and must be reviewed in detail by appropriate and qualified engineers before any reliance is given thereto. In addition, such documentation is released as is with no representations, warranties, guarantees of fitness for any particular purpose whatsoever and that use and/or modification of such Documentation on this or any other project is at County’s sole risk.

1. **Criminal Background Information**: Fairfax County reserves the right to conduct a Criminal Background Information Investigation on any employee that is working on this project for the Engineer or sub-consultant(s). Fairfax County may require that any employee working on this project for the Engineer or sub-consultant(s) be removed from the project team for reasons that may include the results of the Criminal Background Investigation. The Criminal Background Investigation may require fingerprinting of employees. The Criminal Background Investigation requirement shall be exercised at the sole discretion of Fairfax County.

1. **Subletting of Contract or Contract Funds**: The Engineer shall not assign, transfer, convey, sublet, or otherwise dispose of this contract or of his right, title, or interest therein, or of the power to execute such contract, to any other person, firm, or corporation, without the previous written consent of the County. In no case shall such consent relieve the Engineer from his obligations or change the terms of the contract.

1. **Safeguarding of Information**: Any materials given to or prepared by the Engineer under this contract shall not be sold or otherwise made available to any individual or organization without prior approval of the County.

The preceding restriction shall not apply to information, which is in the public domain, was previously known to Engineer, and was acquired by Engineer from others who have no confidential relationship to County with respect to it or which, through no fault of Engineer, come into the public domain. Engineer shall not be restricted in any way from releasing information, including proprietary information, in response to a subpoena, court order, or other legal process. Engineer shall not be required to resist such subpoena, court order, or legal process, but shall promptly notify County in writing of the demand for information before Engineer responds to such demand. County may, at its sole discretion, seek to quash such demand.

1. **Auditing**: In progress and post auditing may be performed by the appropriate agency of the County or its agent. Post auditing, if any, shall be completed within 3 years of completion of this contract.

1. **Nondiscrimination**: During the performance of this contract, the Engineer agrees to the following:

* 1. The Engineer will not discriminate against any employee or applicant for employment because of race, religion, color, disabilities, sex, national origin, or other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Engineer. The Engineer agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

* 1. The Engineer, in all solicitations or advertisements for employees placed by or on behalf of the Engineer, will state that such Engineer is an equal opportunity employer.

* 1. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this provision.

* 1. The Engineer will include the provisions of paragraphs 1, 2, and 3 above in every subcontract or purchase order so that the provisions will be binding upon every subcontractor or vendor.

1. **Conflict of Interest**: Each Engineer shall certify, upon signing a proposal, that to the best of his or her knowledge no Fairfax County official or employee having official responsibility for the procurement transaction, or member of his or her immediate family, has received or will receive any financial benefit of more than nominal or minimal value relating to the award of this contract. If such a benefit has been received or will be received, this fact shall be disclosed with the bid or proposal or as soon thereafter as it appears that such a benefit will be received. Failure to disclose the information prescribed above may result in suspension or debarment, or rescission of the contract made, or could affect payment pursuant to the terms of the contract.

Whenever there is reason to believe that a financial benefit of the sort described in the prior paragraph has been or will be received in connection with a proposal or contract, and that the contractor has failed to disclose such benefit or has inadequately disclosed it, the County Executive, as a prerequisite to payment pursuant to the contract, or at any other time, may require the contractor to furnish, under oath, answers to any interrogatories related to such possible benefit.

1. **Prohibition of Contingent Fees**: The Engineer shall include the following statement in the proposal:

* 1. We certify that we have not employed any company or person other than a bona fide employee working for us to secure this agreement and we have not paid or agreed to pay any person, company or corporation, individual or firm other than a bona fide employee working solely for us any favor, commission, percentage, gift or any other consideration contingent upon or resulting from the award of making this or any other agreement. It is our understanding that in the event of a breach or violation of the provision, the County shall have the right to terminate this or any other agreement with our firm or individual without liability and at its discretion, to deduct from the contract price or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

* 1. Immigration Reform and Control Act of 1986:

By signing this bid or proposal, the bidder/offerer certifies that it does not and will not during the performance of this contract violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

1. The Engineer shall indemnify, keep and save harmless the County, its agents, officials, employees and volunteers against claims of injuries, death, damage to property, patent claims, suits, liabilities, judgments, cost and expenses which may otherwise accrue against the County in consequence of the granting of a contract or which may otherwise result therefrom, if caused by any errors, omissions, or negligent acts of the Engineer or his or her employees or their agents, or that of subconsultants or his or her employees or their agents, if any; and the Engineer shall, at his or her own expense, appear, defend and pay all charges of attorneys and all costs and other expenses including cost of investigation arising therefrom or incurred in connection therewith; and if any judgment shall be rendered against the County in any such action, the Engineer shall, at his or her own expense, satisfy and discharge the same. Engineer expressly understands and agrees that any performance bond or insurance protection required by this contract, or otherwise provided by the Engineer, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County as herein provided.

1. The execution of this contract by the Engineer shall obligate the Engineer to comply with the foregoing indemnification provisions.

1. Payment of costs and expenses shall be payable only to the extent that the County prevails in the dispute which gave rise to costs and expenses incurred.

1. **Contractual Disputes**: All disputes related to this Agreement will be decided in accordance with Article 4, Section 5 of the Fairfax County Purchasing Resolution.

Any dispute concerning a question of fact, which is not disposed of by the project engineer’s determination shall be decided by the Deputy Director, DPWES, who shall reduce his decision to writing and mail or otherwise forward a copy thereof to the engineer within thirty (30) days. The decision of the Deputy Director shall be final and conclusive unless the engineer files a claim with the Fairfax County Board of Supervisors pursuant to VA Code. Following the decision of the Board on the claim, the Engineer may institute legal action in the Circuit Court of Fairfax County.

1. The Engineer will comply with the provisions for insurance requirements as outlined in Appendix 1. The County will specify the estimated value of construction.

1. **Design Contract Compensation**: The Engineer will comply with the design contract compensation procedures as outlined in Appendix 2.

1. **Ownership, Use of Documents, and Copyrights**: Subsequent to making the final payment to the Engineer for all specified contractual financial compensation, Fairfax County shall retain complete and sole ownership of all “documents” prepared by the Engineer. Documents shall include, but are not limited to, data, surveys, studies, drawings, plans, specifications, special provisions, maps, models, and reports prepared by the Engineer, whether or not sealed by the Engineer or his agent. Ownership of the documents shall convey to the County any and all copyrights in the documents and the right to use the documents as the County deems necessary. This provision shall also be applicable to any engineering firm or subconsultant who performs work on the project on a subcontract basis to the Engineer (see Item IX.D).

For projects involving the use of Federal and State funds, the Engineer expressly acknowledges and agrees that the County shall have the right to transfer the ownership of all “documents” prepared by the Engineer to a third party governmental agency. Such a transfer of ownership will include the conveyance of all rights to use the documents as stipulated in this section. The transfer of ownership and copyrights for the documents to a third party governmental agency (as well as the County) shall in no way relieve the Engineer of their responsibility for their professional services as specified in Appendix 1, Insurance Requirements.

Notwithstanding anything to the contrary all such drawings, plans, maps, photographs, data, and copies have been prepared for the exclusive use of County and are intended for use as an integrated set for this particular project and are not suited for partial use on this project or for use in whole or in part on any other project. Modification or use of said documents on this or any other project without Engineer’s prior express written consent shall be at County’s sole risk. The Engineer agrees that the contract with the County shall be governed by the statutes and regulations of the Commonwealth of Virginia, including, but not limited to Va. Code Ann. Section 54.1-404 (“Regulations; code of professional practice and conduct”) and Title 18 VAC 10-20-740 (“professional responsibility”).

1. **Purchase of Building Materials**: The purchase of building materials, etc., from an Architect or Engineer is prohibited. The following provisions are applicable to this requirement:

* 1. No building material, supplies, or equipment from any building or structure constructed by or for the County shall be sold or purchased from any person employed as an independent contractor by the County to furnish architectural or engineering services, but not construction, for such building or structure; or from any partnership, association or corporation in which such architect or engineer has a personal interest as defined in Section 2.1-639.2 of the Code of Virginia.

* 1. No building material, supplies, or equipment for any building or structure constructed by or for the County shall be sold or purchased from any person that has provided or currently providing design services specifying a sole source of material, supplies, or equipment to be used in such building or structure to the independent contractor employed by the County to furnish architectural or engineering services in which such person has a personal interest as defined in Section 2.1-639.2 of the Code of Virginia.

1. **Drug Free Workplace**: During the performance of a contract, the Engineer agrees to (I) provide a drug-free workplace for the Engineer’s employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Engineer’s workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Engineer that the Engineer maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract of over $10,000, so that the provisions will be binding upon each subcontractor or vendor. For the purposes of this section,

“drug- free workplace” means a site for the performance of work done in

conjunction with a specific contract awarded to an Engineer, the employees of who are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

1. **County Living Wage**: Fairfax County is committed to paying a living wage to all qualified County employees and encourages contractors and subcontractors involved in all County programs, services and activities to pay a living wage to their employees.

1. **Force Majeure**: The respective duties and obligations of the parts hereunder (except the Owner's obligation to pay the Engineer such sums as may become due from time to time for services rendered by it) shall be suspended while and so long as performance thereto is prevented or impeded by strikes, disturbances, riots, fire, severe weather, government action, war acts, acts of God, acts of the Owner, or any other cause similar or dissimilar to the foregoing which are beyond the reasonable control of the party from whom the affected performance was due.

1. **Asbestos or Hazardous Substances**: If the Engineer encounters hazardous substances in any form at the site, or reasonably believes that hazardous substances are present, the Engineer will stop his work in the affected portions of the Project and notify the Owner for authorization to conduct testing to determine the extent of the problem and recommend the necessary remedial measures to be implemented.

If the Engineer encounters asbestos at the site, or reasonably suspects’ asbestos is present, the Engineer will stop his work in the affected portions of the Project and notify the Owner for authorization to manage testing to determine the extent of the problem and the asbestos assessment activities using a qualified subcontractor.

The scope of work and costs associated with testing, evaluation and remedial measures associated with asbestos and/or hazardous material remediation are not included in the payment/compensation procedures of this document, the term of the agreement and the Engineer's compensation shall be adjusted equitably to accommodate such testing, evaluation and remedial measures.

1. **Engineer's personnel at Project site**: The presence of the Engineer's personnel at a project site, whether as on site representatives or otherwise, does not make the Engineer or the Engineer's personnel in any way responsible for those duties that belong to the Owner and/or other entities. The Engineer is completely responsible for their employees in connection with their work or for any health or safety precautions and for inspecting or correcting the health or safety deficiencies of the Engineer's own personnel. This includes, but is not limited to, the provision of the necessary personal protection equipment (hard hats, work shoes, safety vests, etc.), and training (confined spaces, open trench safety, etc.) for on-site safety as required or recommended by the Occupational Safety and Health Administration. The Engineer assumes all responsibility and liability for any injuries incurred by their employees on or off the Project site. The presence of the Engineer's personnel at a project site is for the purpose of determining the integrity of the design provided to the County and is acceptable and in accordance with current design and safety standards.

1. **Safety Provision**: All work performed under the contract by the Engineer and all subconsultants will conform to this section and adhere to the current Occupational Safety and Health Administration (OSHA) and Virginia Occupational Safety and Health Administration (VOSH) Standards. The Engineer shall ensure that all personnel performing work in, or adjacent to, locations subject to vehicular traffic receive appropriate training, including periodic update refresher courses, and comply with all current requirements for “Work Zone Training (WRZ) and “Work Zone Traffic Control (WZTC).”

The Engineer agrees to incorporate an ongoing work safety program for all new and existing employees working on this contract. All personnel with the limits of

Fairfax County contract work are required to wear appropriate clothing and Personal Protective Equipment (PPE) including but not limited to hard hats, safety shoes, high visibility vests and eye protection as appropriate. The Engineer agrees to notify Fairfax County in writing within five working days of receipt of any safety violation involving work on the County’s project.

1. **Goods and Services Provided to Fairfax County**: The Engineer agrees that the goods and/or services provided to Fairfax County pursuant to this contract are for the benefit of Fairfax County and that Engineer shall not undertake any actions or efforts stemming from or related to the contract that shall inure to the detriment of Fairfax County. Any information provided to the Engineer for the performance of this contract shall not be used for any other purpose without the written consent of Fairfax County.

**XIV**. **For Housing and Community Development projects, the following supplemental** **Terms and Conditions are applicable and shall be adhered to:**

1. **Equal Employment Opportunity**: During the performance of the contract, the

Consultant agrees to comply fully with Title VI of the Civil Rights Act of 1964 (PL88 352); Title VIII of the Civil Rights Act of 1968 (PL90 284); Section 109 of the Housing and Community Development Act of 1974; Chapter 11, Human Rights, of the Code of the County of Fairfax, Virginia, and all other federal civil rights and equal opportunity regulations.

1. **Audit**: The Consultant shall maintain adequate records in such a manner that they may be audited within five years of completion of the study. A simple ledger sheet showing disbursement by line item is preferred.

1. **Federal Community Development Block Grants**: In accordance with the Federal Community Development Block Grant regulations:

1. No employee, officer or agent of Fairfax County shall participate in selection or in the award or administration of a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when:

* 1. The employee, officer, or agent;
  2. Any member of his immediate family;
  3. His or her partner; or
  4. Any organization, which employs or is about to employ, any of the above, has a financial or other interest in the firm selected for award.

**NOTE: The provisions contained in this Engineering Proposal Document, and any modifications indicated in the letter requesting the proposal are not to be retyped as part of your proposal. However, the Engineering Proposal Document, and the accompanying letter requesting the proposal, must be referenced in, and included as, an attachment to your proposal.**

# APPENDIX 1

**Insurance Requirements**

**(Updated August 10, 2017)**

1. The Architectural/Engineering (A/E) service firm shall be responsible for its professional services.

The A/E firm assumes all risk of damage or injury to its property or persons employed by the firm or in connection with the work contracted for, and of all damage or injury to any person or property, resulting from A/E errors, omissions or negligent act(s).

1. The A/E shall, during the continuance of all work under the Contract, provide the following:

* 1. Maintain statutory Workers’ Compensation and Employer’s Liability insurance in limits of not less than $100,000 to protect the A/E from liability or damages for any injuries (including death and disability) of its employees, including liability or damage which may arise by virtue of statute or law in force within the Commonwealth of Virginia.

* 1. The A/E agrees to maintain Commercial General Liability insurance in the amount of $1,000,000 per occurrence to protect the A/E, and the interest of the County, its officers and employees against any and all injuries to third parties, including bodily injury and personal injury. Completed operations liability endorsement shall continue in force for three years following completion of the construction of the project.

* 1. The A/E agrees to maintain Commercial Automobile Liability insurance in the amount of $1,000,000 per occurrence to include owned, non-owned, and hired Automobile Liability insurance, including property damage, covering all owned, non-owned, borrowed, leased, or rented vehicles operated by the A/E.

* 1. The A/E agrees to maintain Professional Liability insurance as indicated in the Professional Liability Insurance Requirements Matrix. In the event that the coverage in effect upon execution of this contract is terminated for any reason prior to the third year after completion of construction of the project, the A/E agrees to initiate new coverage in accordance with the matrix unless otherwise specified by the County (see attached Professional Liability Insurance Requirements Matrix).

Any such new coverage will contain a provision which provides Prior Acts coverage to protect the A/E from claims caused by errors, omissions, or negligent acts which occurred during the time frame the A/E’s liability was covered by the former insurance carrier.

* 1. Liability Insurance “Claims Made” basis:

If the liability insurance purchased by the A/E has been issued on a “claims made” basis, the A/E must comply with the following additional conditions. The limits of liability and the extensions to be included as described previously in these provisions remain the same. The A/E must either:

* + 1. Agree to provide certificates of insurance evidencing the above coverages for a period of two years after final payment for the professional services contract. This certificate shall evidence a “retroactive date” no later than the beginning of the A/E’s or sub-consultant’s work under this contract, or

* + 1. Purchase the extended reporting period endorsement for the policy or policies in force during the term of this contact and evidence the purchase of this extended reporting period endorsement by means of a certificate of insurance or a copy of the endorsement itself.

* 1. Liability insurance may be arranged by General Liability and Automobile Liability policies for the full limits required, or by a combination of underlying Liability polices for lesser limits with the remaining limits provided by an Excess or Umbrella Liability policy.

* + 1. The A/E agrees to provide insurance issued by companies admitted within the Commonwealth of Virginia, with the Best’s Key Rating of at least A:VI.

* + 1. European markets including those based in London, and the domestic surplus lines markets that operate on a non-admitted basis are exempt from this requirement provided that the A/E’s broker can provide financial data to establish that a market’s policyholder surpluses are equal to or e3xceed the surpluses that correspond to Best’s A:VI Rating or better.

* 1. Hold-harmless and Indemnification: Shall be provided as set forth in the Additional Terms and Conditions section of the Agreement.

1. No change, cancellation, or non-renewal shall be made in any insurance coverage without a 30-day written notice to the County. The A/E shall furnish a new certificate prior to any change or cancellation date. The failure of the A/E to deliver a new and valid certificate will result in suspension of all payments until the new certificate is furnished.

1. Compliance by the A/E and all sub-consultants with the foregoing requirements as to carrying insurance shall not relieve the A/E and all sub-consultants of their liabilities provisions of the Contract.

1. Contractual and other Liability insurance provided under this Contract shall not contain a supervision, inspection or engineering services exclusion that would preclude the County from supervising and/or inspecting the project as to the end result.
2. Nothing contained in the specifications shall be construed as creating any contractual relationship between any sub-consultants and the County. The A/E shall be as fully responsible to the County for the acts and omissions of the sub-consultants and of persons employed by them as it is for acts and omissions of person directly employed by it.

1. Precaution shall be exercised by the A/E at all times for the protection of persons (including employees) and property under their control.

1. The A/E and all sub-consultants are to comply with the Occupational Safety and Health Act of 1970, Public Law 91-956, as it may apply to this Contract.

1. The A/E will provide an original, signed Certificate of Insurance and such endorsements as prescribed herein.

* 1. The A/E will secure and maintain all Certificates of Insurance of its sub-consultants which shall be made available to the County on demand.

* 1. The A/E will provide on demand certified copies of all insurance coverages related to the Contract within ten business days of demand by the County. These certified copies will be sent to the County from the A/E’s insurance agent or representative.

* 1. The County of Fairfax, the Fairfax Park Authority, its employees and officers shall be named as an additional insured in the Automobile and General Liability policies and it shall be stated on the Insurance Certificate with the provision that this coverage is primary to all other coverage the County may possess.

# PROFESSIONAL LIABILITY INSURANCE REQUIREMENTS

## **(per claim)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| **Construction**  **Value (CV)** |  | **High Risk\*** |  | **Medium**  **Risk\*\*** |  | **Low**  **Risk\*\*\*** |
| Over $20M CV |  | 10% of CV |  | 7 ½ % of CV |  | 5% of CV |
| $10M – $20M CV |  | 10% of CV or $1M whichever is greater |  | 7 ½ % of CV or $1M whichever is greater |  | $1,000,000 |
| Less than $10M CV |  | $1,000,000 |  | $1,000,000 |  | $1,000,000 |

\* High Risk: Bridges, parking garages (3 or more levels), office buildings (3 or more levels), structures requiring extensive geotechnical analysis and foundation design, large special use facilities such a recreational facilities with a pool, wastewater treatment plant systems, wastewater and stormwater pump stations, dams.

\*\* Medium Risk: Road Projects, local jails, large office use facilities less than three levels, medium public use facilities such as libraries, medium special use facilities such as police and fire and rescue stations, storm and sanitary sewers, stormwater detention systems, rehabilitation of facilities involving HVAC, mechanical and electrical systems.

\*\*\* Low Risk: Residential projects, low public use facilities such as wildlife reserves, channel improvements, rip rap stabilization, trails, small culvert systems, sidewalks.

# APPENDIX 2

FAIRFAX COUNTY

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES DESIGN

CONTRACT COMPENSATION PROCEDURES

A. General: Compensation for design contracts will be quantified and negotiated in terms of component costs and documented on the attached Consultant Total Price Summary sheet (Exhibit A). A Summary of Negotiations prepared by the

Department of Public Works and Environmental Services (DPWES) Project Manager will accompany this form. The following procedures describe individual component costs and how each is to be handled and documented by the contract negotiator:

1. Direct Labor - Block 1

* 1. After A/E selection, but prior to the start of negotiations, the A/E and its subconsultants must provide a Notice of Labor Classification Schedule showing their labor classifications and the average hourly rates, which may be paid for each classification expected to work on the project. Typically, this schedule will not disclose employee names. Such notice will be provided by an officer of the prime A/E and each subconsultant (Exhibit B). Salary increases, if any, which span the estimated contract duration will be incorporated into the hourly rates for each labor classification and will remain in effect for the life of the contract. Task order or basic ordering agreements will incorporate salary increases only if an individual Task Order duration exceeds one year. Acceptability of the rates initially proposed in the Notice of Labor Classification Schedule, negotiation of hourly rates and incorporation of any salary increases (and methodology used for determining salary increases) will be documented in the Summary of Negotiations prepared by the DPWES Project Manager.

* 1. Direct Labor costs are defined as actual salaries and wages paid principals and employees for time directly chargeable to the project. Direct Labor costs do not include fringe benefits such as social security contributions, unemployment, excise and payroll taxes, workmen’s compensation, health and retirement benefits, sick leave, vacation, holiday pay, etc.

* 1. Quantification of man-hours for each classification will be negotiated based on the scope of work and clarifications to the scope of work, which typically occur during the early part of negotiations. Highlights of this negotiation will be documented in the Summary of Negotiation as part of the Fee Evaluation Form or in a separate memorandum. The Summary of Negotiation should include the A/E’s initial man-hours proposed along with any significant clarifications and/or modifications to the scope of work, and final number of man-hours per labor classification.

1. Indirect Costs (Overhead) - Block 2

* 1. After selection, but prior to the start of negotiations, the A/E and its subconsultants (for subcontracts greater than $10,000 in value) must provide an audit of their overhead expenses covering the most recent 12- month business year and a resultant nonbinding overhead rate. Ideally, this audit will have been prepared by a federal, state, or local government agency. Acceptability of this overhead rate will be documented in the Summary of Negotiations. In the absence of such an audit, the A/E and its subconsultants or their Certified Public Accountant (CPA) firm must prepare and submit “provisional” overhead expenses covering the last 12 month business year. A non-binding overhead rate will be derived by the A/E or the CPA as a ratio of overhead expenses to direct labor. The provisional overhead rate and the overhead expenses upon which the rate is developed will be prepared in accordance with generally accepted accounting principles and practices. An officer of the prime A/E firm and each subconsultants preparing such data will certify that the overhead information is complete, current, and accurate as of the date submitted. Overhead data and rates prepared by a CPA will be supported by a standard CPA certification. The contract negotiator will advise the A/E that the provisional overhead rate is subject to County audit and adjustment and that this stipulation is a part of the contract. If the certified overhead expenses are determined by the County not to have been complete, current, and accurate as of the date certified, then the A/E is liable for recoupment by the County up to three years after completion of the design contract. When contracts are expected to exceed $100,000 in value, the contract negotiator should transmit the A/E’s overhead data to Office of Internal Audit for review, especially in cases where a non- audited rate has been submitted. That office will validate allowable expenses via either audit or clarification of questionable expenses. Although not a specific requirement, the DPWES Project Manager should request from the A/E overhead information that was prepared and audited in accordance with the Federal Acquisition Regulations (FAR Part 31) if available. An exception to the requirement for submission of A/E overhead data is geotechnical work. In these situations, unit prices may be used and validation of these prices should be documented in the Summary of Negotiations. The total cost for geo-technical subcontracts is to be entered in Block 4C.

* 1. Overhead expenses shall include fringe benefits, indirect salaries and wages, plus general and administrative expenses. Since overhead expenses are based on historical data, indirect salaries, which are identified as an overhead expense must be scrutinized to assure no duplication with direct labor costs proposed by the A/E in the contract being negotiated. For example, if indirect salary costs are identified as overhead for the past 12 months business year and the A/E also proposes direct costs involving secretarial, administrative, principal time, etc., in the contract being negotiated, then a possible duplication exists. The negotiator must eliminate such duplication and document it in the Summary of Negotiation. Whenever possible, indirect salaries such as secretarial and administrative should be eliminated or minimized as an overhead expense and the projected cost of such labor should be identified in Block One as a Direct Labor Cost.

* 1. Overhead expenses shall not include the following disallowable costs: Bad debts, contingencies (unless actually expended during the past 12 months business year, and if so, the specific expenditure(s) must be identified), donations, entertainment, fines and penalties, interest expense, marketing and promotion, legislative lobbying costs, defense of fraud, alcoholic beverages, and dividend distribution to employees. However, bonuses are generally allowed (contact Internal Audit to verify the acceptability of specific bonuses). Indirect salaries must be salaries paid only to active employees and principals. During negotiations, the A/E will be advised of the above disallowables.

It should be noted that when the allowable overhead rate is so high that the compensation factor (multiplier) exceeds 3.00, such rate typically should not be utilized. For example, given an allowable overhead rate of 1.80 and a profit of 10%, yields a compensation factor of 3.08 as follows:

Direct Labor 1.00

Overhead +1.80

2.8

0

Profit X .10%

.2

8

+2.80 (Direct Labor + Overhead) 3.08 (Direct Labor + Overhead + Profit)

In this example, the compensation factor is 3.08 overhead and/or profit can be negotiated at the discretion of the contract negotiator to reduce the compensation factor to 3.00.

d. The estimated cost of overhead will be developed by multiplying the single overhead rate by the total estimated cost of Direct Labor in Block One. Acceptability of A/E’s overhead rate and/or efforts expended by the contract negotiator and/or the County Auditor to validate and/or adjust the overhead rate will be documented in the Summary of Negotiations.

1. Profit - Block 3

* 1. The profit for A/E contracts shall be 10% unless the consultant tasks are of unusual difficulty or have a high degree of risk. Profit above 10% requires approval by the Deputy Director of DPWES (Contracting Officer). This also applies to the profit for all subconsultants.

1. Other Direct Costs - Block 4

* 1. Travel: The costs of travel and transportation (County mileage rates) will be entered in Blocks 4a (1) and (2). These items will be broken down into separate costs and rates associated with each item (i.e., mileage rates, airfare cost, vehicle rental fees, lodging and/or meal rates, County per diem, etc.). Lodging and/or meal rates shall be consistent with the

County’s current Travel Policy in effect at the time of negotiations.

* 1. Equipment, Materials, & Supplies: Block 4b - Typically, these items involve reproduction costs, computer time-sharing, computer hardware and/or software if purchased specifically for the project, and any other items purchased exclusively to complete the project.

* 1. Subcontracts: Block 4c - All subcontracts will be identified in Block 3c to include the total cost for each. A separate Price Summary Sheet will be documented and attached for each subcontract with a cost greater than $10,000.

* 1. Other: Block 4d - Any other direct costs not listed in Paragraphs 4a, b, or c shall be identified in this block.

1. Tot al Price - Block 5 is the summation of Blocks 1, 2, 3, 4a, b, c, and d.

1. The certification and audit clauses shown at Exhibit C must be incorporated into each contract. These clauses are in addition to the certified Notice of Labor Classification and overhead data, which the A/E provides prior to the start of contract negotiations.

1. Component costs for AIA contracts will be quantified and documented as described above on both the attached Price Summary Sheet and the Summary of Negotiation. Billable rates for use in AIA contracts may be derived from these component costs;

however, the methodology used shall be documented in the Summary of Negotiation.

1. The Summary of Negotiation will be signed by the contract negotiator and approved by the appropriate Branch Chief, Deputy Director, and Division Director.

# EXHIBIT - A

CONSULTANT TOTAL PRICE SUMMARY

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. DIRECT LABOR (Specify labor categories) | Estimated  HOURS | HOURLY  RATE | ESTIMATED COST | TOTALS |
|  |  | $ | $ |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| DIRECT LABOR TOTAL |  |  |  | $ |
| 2. INDIRECT COSTS (SPECIFY INDIRECT COST POOLS) | RATE | X BASE = | ESTIMATED COST |  |
|  | $ |  | $ |
|  |  |  |  |
| DIRECT COST TOTAL |  |  |  | $ |
| 3. PROFIT (BLOCKS 1 & 2) X % |  |  |  | $ |
| 4. OTHER DIRECT COSTS |  |  |  |  |
| a. TRAVEL |  |  | ESTIMATED  COST |
| (1) TRANSPORTATION |  |  | $ |
| (2) PER DIEM |  |  | $ |
| (check current County Travel Policy) |  |  |  |
| TRAVEL SUBTOTAL |  |  | $ |
| b. EQUIPMENT, MATERIALS, SUPPLIES (Specify categories) | QTY | COST | ESTIMATED COST |
|  |  | $ | $ |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| EQUIPMENT SUBTOTAL |  |  | $ |
| c. SUBCONTRACTS |  |  | ESTIMATED COST |
|  |  |  |  |
|  |  |  |  |
| SUBCONTRACT SUBTOTAL |  |  |  |
| d. OTHER (Specify categories) |  |  | ESTIMATED COST |
|  |  |  | $ |
|  |  |  |  |
| OTHER SUBTOTALS |  |  | $ |
| OTHER DIRECT COSTS TOTAL |  |  |  | $ |
| 5. TOTAL PRICE |  |  |  | $ |

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# EXHIBIT – A-1

SUBCONSULTANT TOTAL PRICE SUMMARY

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *1. DIRECT LABOR (Specify labor categories)* | *Estimated*  *HOURS* | *HOURLY*  *RATE* | *ESTIMATED COST* | *TOTALS* |
|  |  | *$* | *$* |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| *DIRECT LABOR TOTAL* |  |  |  | *$* |
| *2. INDIRECT COSTS (SPECIFY INDIRECT COST POOLS)* | *RATE* | *X BASE =* | *ESTIMATED COST* |  |
|  | *$* |  | *$* |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |  |
| *DIRECT COST TOTAL* |  |  |  | *$* |
| *3. PROFIT (BLOCKS 1 & 2) X %* |  |  |  | *$* |
| *4. OTHER DIRECT COSTS – Printing & Scanning for VDOT Package* |  |  |  |  |
| *a. TRAVEL* |  |  | *ESTIMATED COST* |
| *(1) TRANSPORTATION* |  |  | *$* |
| *(2) PER DIEM* |  |  | *$* |
|  |  |  |  |
| *TRAVEL SUBTOTAL* |  |  | *$* |
| *b. EQUIPMENT, MATERIALS, SUPPLIES (Specify categories)* | *QTY* | *COST* | *ESTIMATED COST* |
|  |  | *$* | *$* |
|  |  |  |  |
| *EQUIPMENT SUBTOTAL* |  |  | *$* |
| *c. SUBCONTRACTS* |  |  | *ESTIMATED COST* |
|  |  |  |  |
|  |  |  |  |
| *SUBCONTRACT SUBTOTAL* |  |  |  |
| *d. OTHER (Specify categories)* |  |  | *ESTIMATED COST* |
|  |  |  | *$* |
|  |  |  |  |
| *OTHER SUBTOTALS* |  |  | *$* |
| *5. CONTINGENCY FUNDS* |  |  |  | *$* |
| *5. TOTAL PRICE* |  |  |  | *$* |

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# EXHIBIT B

## **(example)**

### Classification From To Average Range Rates

Drafter \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

Engineer \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

Admin/Clerical \_\_\_\_\_\_ \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

I , Vice President of certify that the

above wage rates are complete, current, and accurate as of the date submitted.

### Key Staff Actual Rates & Names

Principal

Senior Associate

Project Manager

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# EXHIBIT C

CERTIFICATION:

The Architect/Engineer certifies that the cost and pricing data submitted to Fairfax County for the purpose of establishing equitable costs and fees under this contract are complete, current, and accurate as of the date of such submittal. If this cost and pricing data is determined by Fairfax County at some future date not to have been complete, current, and accurate as of the date above, the contract price may be subject to adjustment and/or recoupment as determined by Fairfax County.

AUDITING:

In-progress and post-auditing may be performed by the appropriate agency of the County of its agent. Post-auditing, if any, shall be completed within three years of final payment.

Firm’s Name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature/Title Date

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**EHHIBIT D PROJECT:**

**MANHOURS BREAKDOWN – CIVIL ENGINEERING & RELATED SERVICES**

**Date Prepared:**

**A/E File/Project #**

**County Project & Subproject #:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Work Tasks |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Phase  Total  Hours | Reimbursibles | Calculated Phase  Total Cost With  Un-Burdened  Hourly Rates | Calculated  Phase Total  Cost With  Burdened  Hourly Rates |
| Unburdened Labor Rate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0 |  | $ - | $ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $ - | - $ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $ - | - $ |
| Subtotal Hours | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  | - |
| Subtotal Cost | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |  |  | $ - |  |
| Indirect Cost Total (see cell B34 below) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $ - |  |
| Profit (Blocks 1 & 2) x (percentage noted in cell B35) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $ - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $ - | $ |
| Reimbursables |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Printing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total reimbursables and ODCs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $0.00 | $0.00 | $0.00 |
| Total Task Order # | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |  | $ - | $ |
| 10% Contingency - OPTIONAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |
| Total Not-to-Exceed Fee |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $ - | $ |

-

**Notes:**

Method of computing Billable Rate = Hourly Rate, Overhead Rate for X year and Y% profit

Indirect costs = Rate ((1+value in B34) (1+0.1))

Billable rate = Subtotal Cost + Indirect Costs + Profit

**Overhead Rate = 154.51%**

Edit/update only. DO NOT move/relocate the information in cell B34

**Profit Rate - 10.00%**

Edit/update only. DO NOT move/relocate the information in cell B35

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**EXHIBIT E**

**Certification Regarding Ethics in Public Contracting Form**

Project/Contract Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

By signing this form, the Engineer (or Architect as appropriate) acknowledges that they have given a payment, loan, subscription, advance; deposit of money, services or anything of more than nominal or minimal value to a public employee or official having official responsibility for a procurement transaction, and received consideration in substantially equal or equal or greater value in exchange.

This form is to be submitted prior to execution of the Agreement.

Please complete the following:

Recipient: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date of Gift: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Description of the gift and its value:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Description of the consideration received in exchange and its value:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Printed Name of Engineer/Consultant/Bidder/Offeror Representative:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature/Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Company Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Company Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

City/State/Zip: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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