Standards Committee Meeting

April 2, 2025

WVDOH Standards Committee Meeting
Wednesday, April 2, 2025
Meeting Location: 1900 Kanawha Blvd. E., Building 5, Room 820, Charleston, WV

Also meeting virtually via Google Meet. Email distribution includes instruction.

Old Business: Standards discussed at the February 2025 meeting are below.

ITEM	Champion

2nd time to Committee. Discussed in February.
Structure Directive (SD)
• *SD2090-Jointless Bridge Abutments*
  ○ Revision to entire SD. The SD now provides guidance on when integral abutments and semi-integral abutments can be used and DOH's design and detailing expectations. The SD also includes a new section discussing semi-integral abutment conversions.
  ○ Approval is expected in April.
• *SD2110-Piers*
  ○ SD has been modified to add limits to the acceptable amount of reinforcing steel in pier caps, added requirements for second-order analysis on pier columns to avoid oversizing slender elements, and codify when more thorough investigation of pier configurations would be warranted. The SD also includes a new section discussing the expectations for evaluation of existing pier and foundation elements that may be subject to changes in loading due to various rehabilitation activities.
  ○ Approval is expected in April.
	B. Neeley

2nd time to Committee. Discussed in February.
Design Directive (DD)
• *DD814-On Job Training*
  ○ To clarify that On Job Training (OJT) applies to federally funded projects only, update to Division name, and update necessary documents needed for the OJT request.
  ○ DD-814 has been updated since February. It has been updated to include a link to the On-The-Job Training Inclusion Request Form.
  ○ Approval Expected in April.
	D. Ballard

New Business: Items discussed for the first time at the committee meeting are listed below:

ITEM	Champion
Design Directive (DD) • *DD 201-Public Involvement Process* ○ The DD updates language for a virtual public meeting.	R. Epperly
• *DD 701-Contract Plan Presentation* ○ The revision includes the Environmental Permit Impact Commitments (EPIC) Sheet. The EPIC Sheet serves a crucial role in the integration of environmental compliance into construction planning. By including the EPIC sheet in construction plans, project developers ensure that environmental commitments from the NEPA and permitting processes are properly tracked and incorporated into the project lifestyle.	K. Hastings

DRAFT

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE DIRECTIVE 2090
JOINTLESS BRIDGE ABUTMENTS
May 4, 2022
First Edition

Fully integral and semi-integral abutments shall be used whenever possible to eliminate deck expansion joints. ~~See Standard Details Volume III~~Jointless bridge abutments serve to reduce maintenance and construction costs, improve aesthetics and long-term serviceability of a structure. Integral abutments are the preferred jointless bridge abutments and shall be used when the anticipated thermal movement is two (2) inches or less~~ and the skew is 30º or less. If the grade exceeds five percent (5%), the lower grade abutment for a single span bridge shall be fixed and for a multi-span configuration, the pier(s) or lower abutment shall be fixed.~~ Semi-integral abutments may be used for instances that are not appropriate for integral abutments. ~~Both types are assumed to be pinned and shall be designed in accordance with the following guidelines~~Steel diaphragms or cross frames at bearings are not required for superstructures with integral or semi-integral abutments. If required for construction stability, temporary bracing may be placed adjacent to the abutment and removed after the concrete has cured.

2090.1-CRITERIA FOR INTEGRAL ABUTMENTS

Integral abutments refer to short stub-type abutments connected rigidly to the bridge deck without joints. This rigid connection allows the abutment and the superstructure to act as a single structural unit. As a result, the bridge superstructure, abutment, and foundation piles are all subjected to cyclic loading.

2090.1.1-Approach Slabs: Approach slabs are encouraged for all integral abutments and are required for integral abutments having a total anticipated thermal movement exceeding ½ inch. Approach slabs shall be anchored to the abutment by reinforcing steel bars and detailed to accommodate appropriate thermal movements. Approach slabs shall be twenty (20) feet unless geometrically constrained. In such cases, the length of the approach slab should be maximized. Approach slabs shall be in accordance with SD 2140 and the most recent Standard Details Book, Volume III.

2090.1.2-Expanded Polystyrene (EPS): Integral abutments shall utilize a minimum six (6) inch thick expanded polystyrene material behind the abutment to reduce earth pressure forces generated by thermal movement. Refer to the most recent Standard Details Book, Volume III for expanded polystyrene detailing behind approach slabs. Omission of expanded polystyrene material shall require Project Manager's approval and supplemental structural and geotechnical design outside of the scope of this directive.

2090.1.3-Bridge Length: The maximum bridge length for which integral abutments are recommended shall be 400 feet and 600 feet for steel and concrete superstructures respectively.

These bridge lengths are based on past experience with jointless bridges which did not show serious construction or maintenance problems.

When economically feasible, the use of integral abutments on bridges with lengths exceeding the limits specified herein should be investigated. Special design considerations and details may be necessary for integral abutments on bridge lengths exceeding those specified.

The ratio between the span lengths in the bridge shall be chosen such that no net negative beam reaction is produced at any limit state unless approved by the Project Manager. No net negative force shall be allowed on any pile at any limit state.

2090.1.4-Skew Angle: Earth pressure acts in a direction perpendicular to the abutments. For skewed bridges, the earth pressure forces on the abutments produce a torque that causes the bridge to twist in plan. This twisting can cause cracking at the ends of the deck. Limiting the skew angle reduces this effect. The maximum allowable skew angle is:

A. 20° for integral abutments without approach slabs.
B. 20° for multiple span structures with adjacent end spans greater than 140 feet.
C. 30° for multiple span structures with adjacent end spans less than 140 feet.
D. 30° for single span steel structures less than 140 feet or single span concrete structures between 140 feet and 90 feet.
E. 45° for single span concrete structures less than 90 feet.

Integral abutments for simple span structures should be skewed at the same angle. Different skew angles are allowed for multiple span structures but shall not differ by more than 10°. Superstructures may be skewed greater than the above limits with the State Bridge Engineer's approval and supplementary calculations and detailing, as required, to limit transverse movement.

2090.1.5-Horizontal Alignment: Straight beams should be used with integral abutments. Curved superstructures utilizing straight beams may be used when centrifugal forces are considered in the integral abutment's design. Horizontally curved beams are discouraged but are allowed if they meet all the following criteria:

A. Beams are concentric.
B. Bearing lines are not skewed more than 10° from radial.
C. The stiffnesses of all beams is similar in both planes.
D. The span eccentricity does not exceed 2.5 percent of the span length.
E. Crossframes or diaphragms are designed as primary members and installed at spacing not to exceed 25 feet for steel I-Beam superstructures.
F. Appropriate centrifugal forces are considered in the integral abutment's design.

Integral abutments outside of the above limits may be used with the State Bridge Engineer's approval and supplementary calculations and detailing as required.

2090.1.6-Vertical Alignment: Integral abutments may be used on bridges with vertical curvature. The grade between the abutment and nearest fixed support should not exceed five percent (5%). Integral abutments on steeper slopes may be used with additional design considerations.

2090.1.7-Geometric Constraints: Integral abutments measured from the top of deck to bottom of pile cap shall not exceed ten (10) feet. A taller integral abutment may be allowed with supplementary calculations and thicker expanded polystyrene layer with the Project Manager's approval. The berm elevation should be approximately constant along the front face of the integral abutment to avoid uneven earth pressure during contraction of the bridge.

The height of the pile cap section shall be minimized to avoid developing high passive earth pressures or premature failure of the expanded polystyrene. The pile cap portion of the integral abutments shall be no less than three (3) feet by three (3) feet.

Wingwalls should be cantilevered and shall not extend more than six (6) feet from the edge of the abutment transversely nor extend more than twelve (12) feet longitudinally. Wingwalls shall have a minimum thickness of twelve (12) inches. The wingwalls may be tapered as needed for aesthetics and constructability. Cantilevered wingwalls shall be connected to the abutment using a one (1) foot chamfer. Refer to Figure 2090.A.

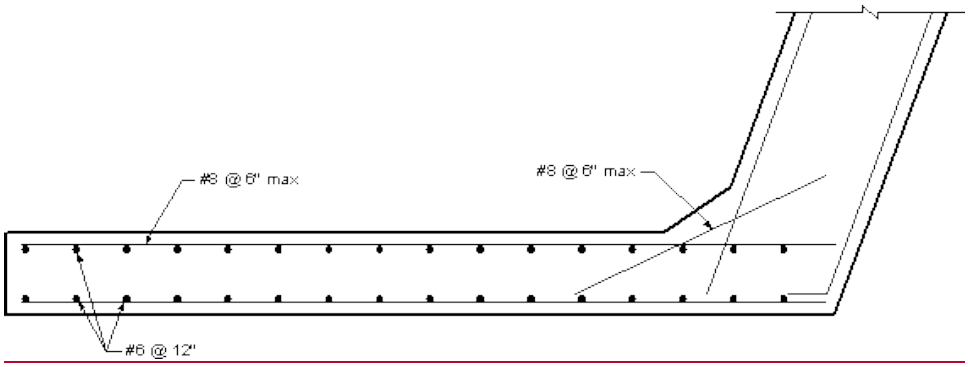

Figure 2090.A

Structurally isolated wingwalls may be used for instances that are not appropriate for cantilevered wingwalls. Appropriate preformed joint material shall be used between the integral abutment and structurally isolated wingwalls to allow unhindered thermal movement. The use of structurally isolated wingwalls with integral abutments requires approval from the Project Manager.

2090.1.8-Piling Constraints: Piles shall be a single row of steel H-Piles aligned so that the flanges are parallel to the direction of thermal movement. Piles shall be HP12 or HP14 sizes unless otherwise approved by the Project Manager. All piles shall be embedded into the pile cap a minimum of two (2) feet. Additional embedment may be necessary for integral abutments with large thermal movements. The distance from the side of any pile to the nearest edge of the abutment shall not be less than nine (9) inches. Pile spacing shall not exceed ten (10) feet unless approved by the Project Manager. Piling lengths of ten (10) feet minimum to fifteen (15) feet shall be predrilled to the top of rock. Piling lengths greater than fifteen (15) feet shall be predrilled a minimum of fifteen (15) feet. Pre-drilling shall be in accordance with Section 616 of the Specifications. Pile points are permitted but are not considered a substitute for pre-drilling integral abutment piling. Piling shall not be allowed under wingwalls.

It is good practice to position piles directly under bridge beams for load transfer. Where this is not practical, the distance between the centerline of any given beam to the centerline of the nearest pile should not exceed the effective shear depth (d_v) of the pile cap. If this requirement cannot be satisfied the pile cap shall be designed using the Strut-and-Tie Methodology. For adjacent box beam bridges the pile cap may be designed assuming superstructure forces are distributed uniformly across the abutment's width. A minimum of four (4) piles shall be used unless otherwise approved by the State Bridge Engineer. Piles shall be evenly spaced using the same pile size.

2090.1.9-Closure Pour: To reduce cracking in integral abutments, a closure pour consisting of the backwall, and an adjacent "X" feet minimum of deck shall not be placed until all other deck pours have been placed and cured. The distance "X" is equal to 0.5 feet + the effective slab length measured from the front face of the abutment.

2090.1.10-Scour and Drainage: Protective countermeasures are recommended around all integral abutments to avoid erosion. Protective countermeasures are required around all integral abutments for which any of the following criteria are satisfied:

A. Water surface elevations from the design storm reaches the abutment.
B. Water surface elevations from the check storm reaches the bottom of the beams.
C. The toe of the abutment fill falls within ordinary high water.
D. The abutment fill slope exceeds 4:1.
E. Scuppers are present near the abutment or along the abutment's fill slope.

Design and check storms are defined within the West Virginia Department of Transportation, Division of Highways Drainage Manual. Integral abutments supporting bridges in scour prone areas shall be evaluated for structural stability after scour has occurred. The evaluation shall show the bridge does not incur damage that hinders its ability to be operational after the roadway fill has been re-established.

2090.2-DESIGN OF INTEGRAL ABUTMENTS

Integral abutments and piles shall be designed to resist all applicable force effects. Integral abutments are assumed to act as pinned connections. Flexural forces between the pile cap and closure pour shall be evaluated by modeling the frame action for integral abutments that do not meet the requirements of SD 2090.1.4 – SD 2090.1.8.

2090.2.1-Loads and Load Combinations

2090.2.1.1-Permanent Loads: All permanent loads on the abutment including beam dead load, wearing surface, approach slabs, abutment self-weight, attached wingwalls, down drag, etc. shall be considered. Permanent loads that are not transferred through the bridge beams, excluding those from cantilevered wingwalls, may be assumed to act uniformly across the abutment width. Self-weight of cantilevered wingwalls may be assumed to act as point loads at the ends of the abutment pile cap. Permanent loads carried by the approach slab should be applied to the abutment assuming the approach slab acts as a simple span beam between the abutment and sleeper slab.

2090.2.1.2- Live Loads: All live loads on the abutment including truck loads, lane loads, pedestrian loads and impact forces shall be considered. Impact forces may be omitted or reduced for the design of the piles in accordance with AASHTO LRFD Bridge Design Specifications.

For the design of the integral abutment and the piles, live loads are assumed equally distributed to all beams in the cross section due to the high rigidity of the abutment. Multiple presence factors shall be omitted for abutments carrying more than two (2) design lanes to avoid underestimation of pile forces on wide bridges where the length-to-depth ratio of the abutment beam is relatively high. The total live load on the abutment shall be determined assuming the largest number of traffic lanes that may be allowed as defined within AASHTO LRFD Bridge Design Specifications. For the design of integral abutments, the live load reaction of any beam may be computed as follows:

$$R_V = \frac{R_{BRG} N_L}{g_{INT} N_B}$$

Where:

R_V = Beam reaction for integral abutment design
R_{BRG} = Interior beam reaction from the beam design program
g_{INT} = Interior beam shear distribution factor from the beam design program
N_B = Number of beams in the cross section
N_L = Maximum number of traffic lanes allowed by the bridge clear width

Live load from the approach slab shall be considered and applied assuming the approach slab acts as a simple span beam between the abutment and sleeper slab. It is unlikely the position of the design vehicle that produces maximum beam reactions will concurrently produce significant live load on the approach slab therefore, in absence of more thorough analysis, only lane load needs be applied to the approach slab for integral abutment design.

Centrifugal forces shall be applied to integral abutments that lie within horizontal curves. The centrifugal forces may be applied as an increase in vertical live load from rotation of the superstructure as a rigid body.

Braking force shall be applied to the integral abutment for the design of the closure pour, backwall, and pile cap. Thermal movement controls the design of the piles therefore braking forces should not be considered in their design.

2090.2.1.3-Wind Loads: Wind uplift on the superstructure and transverse wing loads on the superstructure and on live load should be considered in the design of integral abutments for large multiple span bridges. The magnitude of wind forces on small bridges does not often control the design of integral abutments and may be omitted based on engineering judgement.

2090.2.1.4-Other Transverse Loads: The load combination for which water and ice loads are investigated does not often control the design of integral abutments and may be omitted based on engineering judgement.

2090.2.1.5-Thermal Movements: The integral abutment thermal movement due to uniform temperature change shall be computed as:

$$\Delta = \alpha \Delta t_{max} L$$

Where:

Δ	=	Thermal movement due to uniform temperature change
α	=	Coefficient of thermal expansion of the bridge material
Δ_{tmax}	=	Uniform temperature difference (Δ_{tmax} = 115°F for steel superstructure) (Δ_{tmax} = 85°F for concrete superstructure)
L	=	Distance from abutment centerline and point of fixity

The design thermal movement at the abutment shall be based on the difference in temperatures specified in SD 2012.1.6 and temperature at which the pile cap is made integral with the superstructure. The structural deck concrete shall be poured and allowed to cure between 45°F and 85°F therefore the design thermal deflection shall be calculated from a uniform temperature difference (Δt_{max}) of 115°F and 85°F for steel and concrete superstructures respectively.

The length between centerline of abutment bearing and nearest point of fixity (L) shall be used to compute the thermal deflection. The point of fixity shall be defined as the location on the bridge which does not move longitudinally during changes in temperature. Appropriate stiffnesses shall be considered in determining the point of fixity.

The distance to fixity (L) should be equal to half of the span length for simple spans with approximately constant width and height with integral abutments at both ends. For simple spans with differing widths or heights with integral abutments at both ends, the distance to fixity (L) for integral abutments may be estimated as:

$$L_{A1} = L_{BRIDGE}\left(\frac{W_{A2}H_{A2}}{W_{A1}H_{A1} + W_{A2}H_{A2}}\right) \geq 0.4L_{BRIDGE}$$

$$L_{A2} = L_{BRIDGE} - L_{A1} \geq 0.4L_{BRIDGE}$$

Where:

L_{A1}	=	Distance from Abutment 1 to the point of fixity
L_{A2}	=	Distance from Abutment 2 to the point of fixity
L_{BRIDGE}	=	Bridge length
W_{A1}	=	Abutment 1 width
H_{A1}	=	Abutment 1 average height
W_{A2}	=	Abutment 2 width
H_{A2}	=	Abutment 2 average height

The distance to fixity (L) should be equal to the span length for simple spans with integral abutment at only one end. The distance to fixity (L) is defined as the distance from the abutment to the nearest fixed bearing for continuous structures where the fixed bearing is founded on a stiff substructure. For all other configurations the thermal movement for the subject integral abutment shall be calculated as:

$$\Delta_i = \frac{F}{k_i}$$

$$F = k_{eq}\Delta_{tmax}$$

$$\frac{1}{k_{eq}} = \sum_{1}^{n} \frac{1}{k_i}$$

Where:

Δ_i	=	Design deflection of the i-th abutment
F	=	Force required to deflect bridge the design movement (Δt_{max})
k_i	=	Spring stiffness of the i-th substructure unit
k_{eq}	=	Equivalent spring stiffness of springs in series
n	=	Number of substructure units
Δt_{max}	=	Uniform temperature difference

The spring stiffness of each substructure unit shall be determined with consideration of bearing movement, pier deflections, pile deflection, etc. as appropriate. For horizontally curved bridges the consideration of out of plane thermal deflection should be considered as needed. The pile flanges shall be oriented parallel to the assumed direction of thermal movement for horizontally curved bridges. See Figure 2090.B.

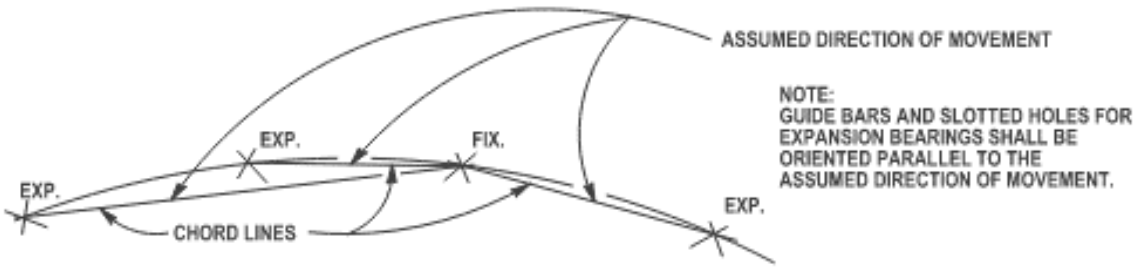

Figure 2090.B

2090.2.1.7-Other Loads: Secondary load effects from creep and shrinkage shall be considered. Other secondary loads may be evaluated at the engineer's discretion.

2090.2.2-Abutment Design: The components of the abutment are made up of the combined closure pour and backwall, pile cap, piles and wingwalls. Longitudinal forces shall be considered

for design of the abutment for out of plan flexure and bi-axial bending. Passive earth pressure shall be computed in accordance with code requirements. Earth pressure forces may be reduced for integral abutments using expanded polystyrene but shall not be less than 40 PCF equivalent fluid pressure.

2090.2.2.1-Closure Pour: Reinforcing steel within the closure pour shall match standard deck details. Refer to Figure 2090.C.

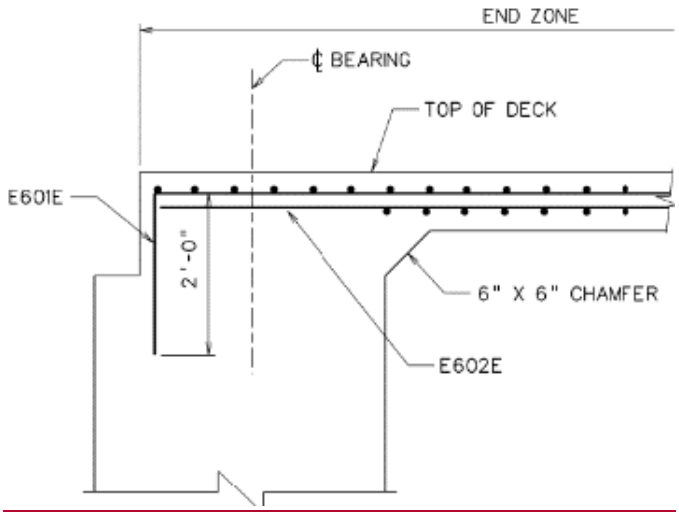

Figure 2090.C

2090.2.2.2-Backwall: The backwall shall be designed without consideration of strength from reinforcing steel in the closure pour. The backwall shall be designed as a horizontal beam resisting earth pressure and all other applicable horizontal forces. Refer to Figure 2090.D.

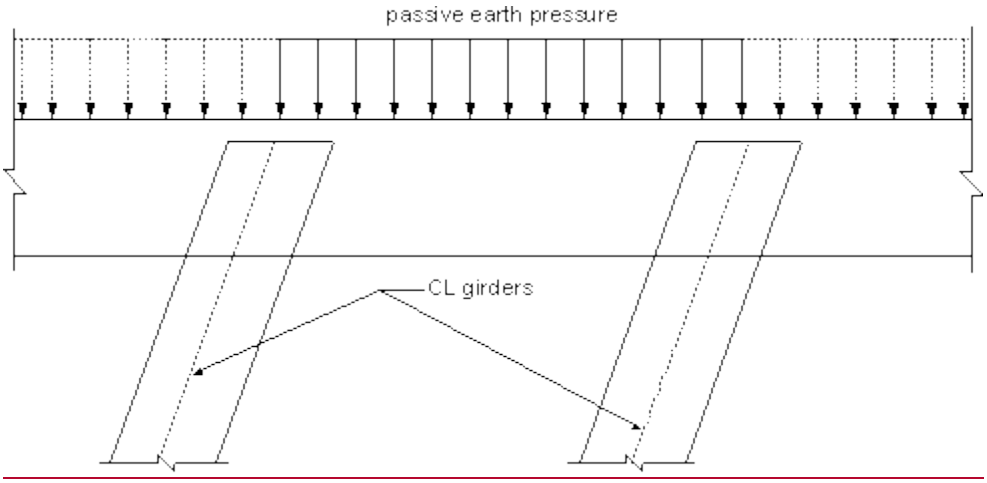

Figure 2090.D

It is best practice to use the same longitudinal reinforcing steel bar size in the front and back faces to avoid unintentional construction errors. The longitudinal reinforcing should be detailed for maximum flexure force effects unless significant cost saving can be realized. Longitudinal bars shall be contained within closed stirrups designed for appropriate shear effects.

Additional longitudinal reinforcing bars shall be placed through holes drilled or cast in the beam ends. The beam anchorage reinforcing steel shall be #8 bars at twelve (12) inches maximum spacing, placed 5½" from the front face of the abutment. A minimum of three (3) longitudinal bars are required to pass through the beam web unless otherwise approved by the Project Manager. Longitudinal bars should be detailed to lap or mechanically couple between beams for ease of placement.

Vertical reinforcing steel shall be approximately equally spaced across the width of the abutment except at beams where modifications may be necessary. The closure pour – pile cap interface shall be connected by fully developed vertical reinforcing steel. Flexure forces at the closure pour – pile cap interface shall be computed assuming frame action for integral abutments not meeting the requirements of SD 2090.1.7.

2090.2.2.3-Pile Cap: The pile cap shall be designed in accordance with AASHTO LRFD Bridge Design Specifications with consideration of both vertical and horizontal forces. Primary flexural reinforcing bars shall be of equal number and size in the top and bottom mat, shall be continuous along the cap's length if possible, and be hooked at the pile caps ends. Secondary flexural reinforcing bars shall be of equal number and size in the front and back mats and shall be continuous along the cap's length if possible. If required, splices in mats of reinforcing steel should be made near points of contraflexure. Shear stirrup size and spacing shall remain constant along the cap's length unless significant savings can be realized. Shear stirrups shall enclose flexural reinforcement except where they conflict with the embedded piles in which case U-Shape stirrups shall be used. Punching shear of the pile through the cap without consideration of the backwall shall be investigated when the positioning of beam and piles requires Strut-and-Tie modeling as specified in SD 2090.1.

2090.2.2.4-Cantilevered Wingwalls: Cantilevered wingwalls shall be designed in accordance with AASHTO LRFD Bridge Design Specifications with consideration of both vertical and horizontal forces. Horizontal forces from earth pressure introduce torsion in rectangular wingwalls that shall be considered as part of their design.

Constant thickness rectangular cantilevered wingwalls are recommended for ease of construction. It is best practice to use the same bar size for horizontal tension reinforcing steel unless significant savings can be realized. Wingwalls should use the same reinforcing steel bar size throughout to avoid unintended construction errors if practical.

2090.2.2.5-Isolated Wingwalls: Isolated wingwalls may be used with integral abutments when cantilevered wingwalls are not practical. Preformed joints shall be used to allow free expansion of the integral abutment without contacting the isolated wingwalls. Foundations for isolated wingwalls shall also be isolated from the abutment foundation. Use of isolated wingwalls with integral abutments requires the Project Manager's approval.

2090.2.3-Pile Design: Steel piles shall be designed in accordance with AASHTO LRFD Bridge Design Specifications with the P-Δ methodology using LPILE or similar software package. Steel pile design shall use resistance factors defined within AASHTO LRFD Bridge Design Specifications for driven piles. Steel piles subject to thermal movements less than ½" may be designed without consideration of the flexural forces introduced as part of the lateral analysis. Design of piles using lateral analysis shall follow the following steps:

STEP 1: Perform borings, field reconnaissance and computations to establish geotechnical parameters needed to complete lateral pile analysis. Modify geotechnical parameters as specified within AASHTO LRFD Bridge Design Specifications for closely spaced piles.

STEP 2: Select pile size based on available information. Use axial loads to estimate pile size if flexural forces are not yet available.

STEP 3: Create LPILE model assuming a fixed head condition. Apply shear and moments at the pile head to establish the deflected fixed head condition. Limit moment to the plastic moment of the pile. Run modeling.

STEP 4: Summarize flexural forces predicted from modeling. Document the first point of zero moment (L_{i1}), second points of zero moment (L_{i2}) and maximum moment between the two points (M_u) as shown within Figure 2090.E.

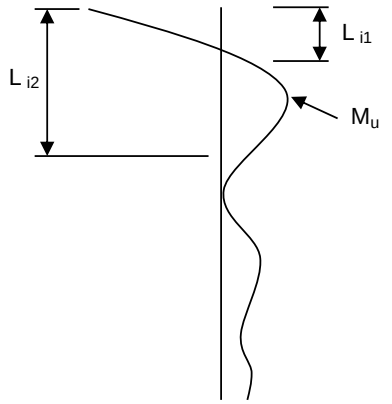

Figure 2090.E

STEP 5: Determine axial pile capacity with an unbraced length equal to the difference between the first and second points of zero deflection.

STEP 6: Design pile in accordance with AASHTO LRFD Bridge Design Specifications for axial and flexural force M_u. Return to Step 3 if pile does not have sufficient capacity.

~~**2090.1-INTEGRAL ABUTMENTS**~~

~~Approach slabs are required for all integral abutments having a total anticipated thermal movement exceeding ½ inch, or those conditions described in SD 2140. The approach slab shall be anchored to the abutment by reinforcing steel bars. The approach slab shall not be anchored to the wingwalls and to reduce friction, filter fabric shall be placed over the base course prior to placing the approach slab.~~

~~Provide expansion joints for utilities, sidewalks, concrete barriers, guardrail and other roadway features that pass over integral abutments onto the approach roadway.~~

~~Construct a Type H joint (Standard Detail Sheet PVT2) between the approach slab and pavement to accommodate thermal movement when using flexible approach pavement. Rigid approach pavements require a Type B joint (Standard Sheet PVT1) between the approach slab pavement for movements up to ¼ inch and a Type J joint (Standard Sheet PVT5) for movements greater than ¼ inch.~~

~~To reduce cracking in integral abutments, a closure pour consisting of the backwall and an adjacent "X" feet minimum of deck shall not be placed until all other deck pours have been placed. The distance "X" is equal to 0.5 feet + the effective slab length (distance between beam quarter points, in feet) measured from the front face of the abutment.~~

~~To reduce the effects of passive earth pressure, use loose (non-compacted) select material for backfilling when thermal movements at integral abutments exceed ½ inch. The design must provide for adequate drainage of the backfill.~~

~~Abutment diaphragms or cross frames are not required for superstructures with integral abutments. If required for construction stability, temporary bracing may be placed adjacent to the abutment and removed after the concrete has cured. Sufficient clearance between the abutment and temporary bracing shall be maintained to provide adequate room for the construction of the abutment backwall. Bearing stiffeners are required on steel superstructures.~~

~~The beam seat shall be sloped parallel to the beam grade for integral abutments.~~

~~Integral abutments shall be designed using a single row of piling. Wingwalls requiring more support than that available from the integral abutment shall be structurally isolated.~~

~~The following parameters apply to integral abutments:~~

~~A. Piling shall be a single row and aligned so that the flanges are parallel to the direction of thermal movement.~~

~~B. Piling shall be embedded into the abutment at least two (2.0) feet unless the analysis requires more.~~

~~C. The distance from the side of any pile to the nearest edge of the abutment shall be greater than nine (9) inches.~~

~~D. Piling lengths of ten (10) feet (minimum) to fifteen (15) feet shall be predrilled to the top of rock. Piling lengths greater than 15 FT shall be predrilled a minimum of fifteen (15) feet. Pre-drilling is in accordance with Section 616 of the Specifications. Pile points are permitted to facilitate pile driving but are not considered a substitute for pre-drilling integral abutment piling.~~

~~E. Wingwalls supported by the abutment shall be limited to six (6) feet for straight wings and twelve (12) feet for U-wings.~~

2090.3-CRITERIA FOR SEMI-INTEGRAL ABUTMENTS

Semi-integral abutments may be used for instances that are not appropriate for integral abutments and where foundation sites rule out the use of an abutment on a single row of piles.

2090.3.1-Approach Slabs: Approach slabs are required for all semi-integral abutments unless approved by the State Bridge Engineer. Approach slabs shall be anchored to the semi-integral abutment diaphragm by reinforcing steel bars and detailed to accommodate appropriate thermal movements. Approach slab geometry shall meet the requirements of SD 2090.1.1.

2090.3.2-Expanded Polystyrene (EPS): Expanded polystyrene for semi-integral abutments shall be in accordance with the requirements of SD 2090.1.2. Expanded polystyrene shall be placed along the full height of the diaphragm that thermally deflects. The thickness of the expanded polystyrene material behind the abutment shall be derived from engineering computations where thermal movements exceed 2 inches but shall not be less than twelve (12) inches.

2090.3.3-Skew Angle: Semi-integral abutments experience similar earth pressure and torsional effects as described in SD 2090.1.4. Semi-integral abutments may be used for skew angles up to 30° without supplementary analysis. Semi-integral abutments for structures should be skewed at the same angle. Different skew angles are allowed for multiple span structures but shall not differ by more than 10°. Superstructures may be skewed outside these limits with the Project Manager's approval and supplementary calculations and detailing, as required, to limit transverse movement.

2090.3.4-Horizontal Alignment: Semi-integral abutments are subject to the horizontal alignment requirements of SD 2090.1.5. Semi-integral abutments that do not meet those requirements may be used with the Project Manager's approval.

2090.3.5-Geometric Constraints: The pile cap portion of a semi-integral abutment shall be no less than three (3) feet by three (3) feet. Wingwalls shall meet the same geometric constraints as described in SD 2090.1.7.

2090.3.6-Foundations: Semi-integral abutments shall be supported by direct bearing on rock, steel piling, drilled caissons, or micropiles. Geotechnical information and design shall be used to establish the preferred foundation type.

2090.3.6.1-Piling Constraints: A minimum of two rows of steel H-Piles aligned so that the flanges are perpendicular to the direction of thermal movement shall be used. All piles shall be embedded into the pile cap a minimum of two (2) feet. The distance from the side of any pile to the nearest edge of the abutment shall not be less than nine (9) inches. Pile size, drilling, and driving criteria shall be at the discretion of the Geotechnical Engineer. The front row of piles may be tapered to resist longitudinal loads if necessary.

2090.3.6.2-Drilled Caisson Constraints: A single row of caissons shall be used and designed to resist applicable longitudinal loads. All caissons shall be embedded into the pile cap a minimum of twelve (12) inches. Caisson reinforcing steel shall be fully developed in accordance with AASHTO LRFD Bridge Design Specifications. The distance from the side of any caisson to the nearest edge of the abutment shall not be less than nine (9) inches. Drilled caissons shall be a minimum of three (3) feet in diameter unless otherwise approved by the Project Manager.

2090.3.6.3-Micropile Constraints: Micropiles should be investigated where access is limited or when longitudinal loads would require taper of conventional piling. Micropile foundations shall be designed and detailed in accordance with FHWA Micropile Design and Construction Guidelines.

2090.3.7-Abutment Seat: A full-length curb on the top of the semi-integral abutment stem shall be used to help retain backfill when the bearing height exceeds 1 ½ inches. Neoprene seals shall be used for waterproofing. Refer to Standard Details – Volume III.

2090.4-DESIGN OF SEMI-INTEGRAL ABUTMENTS

Semi-integral abutments and piles shall be designed to resist all applicable force effects in accordance with AASHTO LRFD Bridge Design Specifications. Semi-integral abutments shall be limited to 4 inches of thermal movement computed in accordance with SD 2090.2.1.5.

2090.5-SEMI-INTEGRAL ABUTMENT CONVERSION

The conversion of an existing non-integral abutment to a semi-integral abutment should be carefully considered in major rehabilitation projects. These considerations should include at a minimum the cost premium for the semi-integral abutment conversion, anticipated rehabilitated bridge service life and differences in maintenance costs. Project Manager approval is required for any semi-integral abutment conversion.

Applicable requirements of SD 2090.4 shall apply for all semi-integral abutment conversions unless otherwise approved. The engineer shall carefully consider the life cycle costs and risks of using semi-integral abutment conversions which fall outside the recommendations of SD 2090.4. All new works associated with the semi-integral abutment conversions shall be designed to resist all applicable force effects in accordance with AASHTO LRFD Bridge Design Specifications.

The preferred method of conversion involves full height removal of the backwall to bearing seat elevation and reconstruction in accordance with Standard Details – Volume III. When this method of construction poses challenges, partial height backwall removal may be considered. The condition of remaining segments of backwall shall be in good condition or rehabilitated as needed.

~~**2090.2-SEMI-INTEGRAL ABUTMENTS**~~

~~Semi-integral abutments may be used where foundation sites rule out the use of an abutment on a single row of piles, while retaining full integrity with the superstructure.~~

~~Consideration must be given to the following:~~

~~A. When full height U-shaped wingwalls are used, provisions shall be made to allow for thermal expansion of the superstructure without interference from the wingwalls.~~

~~B. The Designer must account for these items:~~

~~1. Uplift resulting from the span arrangement.~~

~~2. Buoyancy.~~

~~3. Excessive grade; greater than five percent (5%).~~

~~4. Potential roadway settlement.~~

~~C. Seal between the abutment seat and cap to retain the backfill and for waterproofing. Add a full-length curb to the top of the semi-integral stem to help retain the backfill when the bearing height exceeds 1 ½ inches. See Standard Details – Volume III.~~

DRAFT

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE DIRECTIVE 2110
PIERS
May 4, 2022
First Edition

Piers are intermediate supports in a multi-span bridge system. All feasible pier types must be considered in the preliminary phases of a project. Refer to SD 1044 for a general description of various types of piers. The use of integral pier caps, steel bents, and prestressed pier components fall outside the scope of this directive. In such cases the Engineer shall coordinate with the Project Manager to establish geometric and design constraints.

~~Class B Concrete with a compressive strength of 3,000 PSI should be used for most piers. Class B Modified concrete with a compressive strength of 4,000 PSI may be used, if required for strength.~~

~~For the strength and extreme event limit states, the Designer shall use the strut and tie model for thick concrete elements as defined within AASHTO LRFD Bridge Design Specifications (e.g., footings, pile caps and pier caps). Use this method to determine internal force effects near supports and points of concentrated loads.~~

~~Moment redistribution shall be used where appropriate.~~

2110.1-PIER ~~CAPS~~ CAP GEOMETRY

All pier caps must be wide enough to accommodate the bridge bearings and jacking points. The edge of the bearing masonry plates must be a minimum of three (3) inches from the face of the pier cap. Instances of pier caps being wider than the column, necessitated by skewed bearings and dual bearings ~~such as those found on prestressed concrete beam superstructures~~ are acceptable.

Pier cap depths shall be determined by strength and clearance requirements. The minimum size is three (3) feet vertically by three ~~2.5~~(3) feet horizontally and must extend one (1) foot beyond the fascia beam bearings. Pier caps are usually haunched in the region beyond the face of the exterior column or stem. Any pier cap longer than ~~four~~ five (~~4~~5) feet beyond the face ~~must~~ shall be haunched unless approved by the Project Manager. A haunch ratio between 2:1 ~~haunch ratio is preferred~~ and 4:1 shall be used unless approved by the Project Manager. The use of parabolic haunches or similar complex geometry should be avoided to reduce forming costs. The ends of the pier caps may be either plane vertically or shaped (i.e., cylindrical to mirror the columns).

~~Minimum horizontal reinforcement shall be #5 bars spaced at twelve (12) inches. Rebar shall be placed to avoid anchor bolts.~~

Beam seats shall be stepped and finished level. The sloped stem option, per SD 2080, is preferred when steps exceed four (4) inches.

2110.2-PIER CAP DESIGN

Pier caps shall be designed to resist all applicable force effects in accordance with AASHTO LRFD Bridge Design Specifications. The Engineer shall use the strut and tie modeling for thick concrete elements as defined within AASHTO LRFD Bridge Design Specifications. Use this method to determine internal force effects near supports and points of concentrated loads.

Class B Concrete with a compressive strength of 3,000 PSI should be used for piers. If required for strength, Class B Modified concrete with a compressive strength of 4,000 PSI may be used.

Minimum horizontal reinforcement shall be #5 bars spaced at twelve (12) inches. Reinforcing steel shall be placed to avoid anchor bolts. Tension steel bars shall not be larger than #11 nor spaced closer than six (6) inches to limit concrete consolidation problems unless approved by the Project Manager. Tension steel bars may be bundled, or a second row of reinforcing steel placed six (6) inches below the top mat may be used to attain additional flexural capacity. The pier cap geometry should be re-evaluated if sufficient flexural capacity cannot be attained within these limits.

2110.~~2~~3-PIER COLUMNS

The minimum longitudinal column diameter or stem thickness shall be three (3) feet unless otherwise approved by the Project Manager. Column tapers or section changes shall not be used unless ~~a detailed study proves that they are cost-efficient~~cost savings can be demonstrated. Multi-column piers should be evaluated if the diameter of the stem thickness of a single-column pier exceeds eight (8) feet. ~~Generally, these forming costs are very high. Consider h~~Hollow shafts ~~for~~ piers should be evaluated for columns in excess of one hundred (100) feet in height or ten (10) feet in diameter.

Multi-column piers should generally not be used in a flood plain. Single circular column, T-type or wall type piers may be used in the flood plain with rounded ends and shall be oriented parallel to the stream flow. Crash walls shall be considered in accordance with AASHTO LRFD Bridge Design Specifications and AREMA requirements.

2110.4-PIER COLUMN DESIGN

Pier columns shall be designed to resist all applicable force effects in accordance with AASHTO LRFD Bridge Design Specifications. Torsional forces from non-symmetric longitudinal loads shall be considered on single-column pier shafts. A second-order nonlinear analysis (P-Δ analysis) is preferred over approximate methods of moment magnification. A second-order analysis shall be used for all columns with slenderness (KL/r) exceeding 50 unless otherwise approved by the Project Manager.

2110.~~3~~5-PIER FOUNDATIONS

Pier foundations shall be located and designed as specified in SD 2120, Foundations.

2110.6-EVALUATION OF EXISTING PIERS

Major rehabilitation projects may involve repurposing or reusing existing piers. Where superstructure replacements, deck replacement or similar work are done the Engineer shall evaluate the increase in deadload on the pier and, if information is available, estimate the load carrying capacity of the existing foundations. Where insignificant increases in deadload are found and a field assessment shows no signs of distress, settlement and similar global issues the pier may be reused without the need for retrofitting. Where these increases are not insignificant, or the superstructure configuration allows for more traffic lanes than the existing condition, a more thorough evaluation may be necessary. All aspects of evaluation, repurposing and reuse of existing piers shall require approval from the Project Manager.

DRAFT

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DESIGN DIRECTIVE

DD-814
ON JOB TRAINING
~~*February 24, 2016*~~ *DRAFT*

On all projects having any federal funding where the Engineers Estimated Contract Cost is greater than $2,000,000 dollars and the working day calculations are greater than 12 calendar months, a determination of the need for On Job Training will be required.

When a determination of the need for On Job Training is required, the designer shall provide ~~to~~ the ~~EEO~~ Civil Rights Compliance Division the following information after the final office review:

1) On Job Training Inclusion Request Form (Form CRCD-156)

~~1)~~ 2) Title Sheet

~~2)~~ 3) Engineers Estimate

~~3)~~ 4) Working Day Calculations

After the required determination has been made, the ~~EEO~~ Civil Rights Compliance Division will inform the designer if On Job Training is required and the number of hours to bid under Item 699000-001 “ON JOB TRAINING.”

SECTION BREAK

NEW BUSINESS ITEMS

DRAFT

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DESIGN DIRECTIVE

DD-201
PUBLIC INVOLVEMENT PROCESS
June 25, 2015

Attached is the Division of Highways policy on the "Public Involvement Process".

This document replaces the "Action Plan" dated 1979, DD-93 dated March 14, 1969, DD-93-1 dated September 20, 1991, DD-201 dated October 1, 2003 and DD-201 dated November 14, 2011. The "Public Involvement Process" will be used on both State and Federal Projects.

Attachment

PUBLIC INVOLVEMENT PROCESS

10. INTRODUCTION

This policy addresses the public involvement process for projects that require processing a National Environmental Policy Act (NEPA) environmental document. It is necessary for people to communicate. Communication is an interchange of ideas between individuals and groups. Maximizing communication is the responsibility of not only the Division of Highways (Division), but also the citizens. The citizen should be willing to listen, the Division should be willing to listen and both must react in a positive manner to what they have heard. The Division's listening and comment channels should be formally established so the citizen knows where and how to have his or her views heard and when to expect a response.

Generally Public Involvement is for any project that requires the acquisition of considerable amounts of right of way, requires a long and/or complex detour, substantially changes the layout or function of connecting roadways or of the facility being improved, has a sizeable impact on abutting property, or otherwise may result in substantial social, economic, environmental or other effects.

Additional public involvement opportunities may be initiated when the Division believes there is a substantial change in the project, an unusually long lapse of time since the last public involvement or the identification of a -substantial social, economic or environmental issue not previously considered at earlier public involvement opportunities.

20. PUBLIC INVOLVEMENT AND THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

NEPA requires public involvement on projects that have or may have a significant environmental effect. These projects normally require an “Environmental Impact Statement” (EIS), an “Environmental Assessment” (EA) or a “Categorical Exclusion” (CE). An EIS will require at least two public involvement opportunities. The first is for the “Project Scoping” and the second is after the Draft Environmental Impact Statement (DEIS) has been approved by the Federal Highway Administration (FHWA). An EA will also require at least two public involvement opportunities. The first is for the “Project Scoping” and the second is after the EA has been approved by FHWA. A CE normally does not require public involvement, however, public involvement may be conducted if the Division believes it is warranted or it is requested by the public.

30. PUBLIC INVOLVEMENT TYPES

Public involvement can take many forms. A public meeting is the most recognized by the public. However, other types can be just as valuable and effective such as notices in newspapers, mail, radio, television, billboards, road signs and the internet. All of these

forms help keep the public involved in the project development process and provides the Division with valuable information.

Public meetings provide a face to face interaction between the citizens of West Virginia and the Division in planning and design. There are ~~three~~ four different types of public meetings the first is a public informational workshop, the second is a public hearing, ~~and~~ the third is a combination of the two, and the fourth is a virtual public meeting. ~~All of these~~The first three types of public meetings provide a ~~face to face~~face-to-face interaction with the public and provide the Division and the public with valuable information. A virtual public meeting provides project information to a wide range of citizens unable to attend in person.

a) A public informational workshop is a forum for the free ~~interchange~~ exchange of ideas and may or may not include a formal presentation. While general notes of the issues discussed are taken and considered during project development, written comments are encouraged and included in the public record.

b) A public hearing is the most formal type where a formal presentation is given and verbal comments, or testimony, are recorded after the presentation. A court reporter will prepare a transcript of the presentation and testimony is prepared for the public record; however, written comments are encouraged and are also included in the public record.

c) The combination type will have a public information workshop that begins prior to a formal presentation and testimony is recorded following the presentation. A transcript of the presentation and testimony is prepared for the public record; however, written comments are also encouraged and are also included in the public record.

~~c)~~d) A virtual public meeting is an innovative method to ~~encouraging~~ encourage public participation and soliciting feedback regarding transportation projects. The citizens can log on the meeting through a project link and interact with the project team. The citizens are provided with project details, maps, plan sheets and other materials. The citizen will be given the opportunity to ask questions and talk directly with the project team members.

Other types of Public Involvement like newspaper ads, mail, radio, television, billboards, road signs and the internet can be just as useful as a Public Meeting depending on what information the Division is seeking and what information the Public wants. These types can be used alone or in combination with a Public Meeting. If the Division wants to get a sense of the public's concern about a highway project, distributing a Project Informational Flyer may be sufficient. However, if it is evident that there is a concern from the public about the project, a Public Meeting may be more appropriate and using one or more of the other methods to advertise the meeting would be typical.
Some projects may require a public hearing due to the type of environmental document being prepared. Due to the amount of public concern, the Division or the Federal Highway

Administration (FHWA) may require a public hearing. A public hearing is generally required when the public is asked to comment on an approved DEIS or on an approved EA.

Anyone may request a Public Hearing or a Public Meeting for any project by contacting the Division in writing or by making a written comment on its website. The Division and FHWA will determine after the request has been received if the request is warranted in consideration of all of the comments received from the project.

40. PUBLIC INVOLVEMENT POLICIES

The Division's procedures for public involvement have been established to maximize citizen input in both location and design while complying with environmental requirements. These environmental requirements include NEPA, Section 404 of the Clean Water Act (CWA), Section 106 of the National Historic Preservation Act (NHPA), Section 7 of the Endangered Species Act (ESA), various Executive Orders, including 11988 (Floodplains), 11990 (Wetlands) ~~and 12898 (Environmental Justice)~~, Title IV of the Civil Rights Act and FHWA policy and regulations.

When the Division and FHWA determine that formal public involvement is necessary for a Federal-aid highway project, the Division will develop a public involvement plan in consultation with the FHWA Division office. The public involvement plan should include a summary of the agency and public involvement strategy for the entire NEPA process, as well as a project information distribution list. In addition, the public involvement strategy shall consider how to involve any affected person or persons that qualify under Title IV of the Civil Rights Act, ~~Environmental Justice~~ or the Americans with Disabilities Act of 1990. The distribution list should include federal, state and local agencies, federal, state and county elected officials, historic preservation groups who are active within the project area, as well as individuals who have requested project development information.

All Public Involvement is moderated by responsible officials in the Division. The Division furnishes individuals who are sufficiently familiar with the project to answer questions raised by the public. Alternative courses of action, alternative project locations and major features of the project are discussed along with environmental and other effects of the alternatives.

50. DETERMINING THE TYPE OF PUBLIC INVOLVEMENT TO BE USED

The Public Involvement for any project should consider what questions need to be answered and who the target audience is for the project. The target audience is typically the users of the highway in the area, property owners that are affected by the project, any interested party such as historic groups, metropolitan planning groups, and government officials. The target audience differs from project to project and not all types of public involvement are appropriate for all projects. Therefore, the type of public involvement must be tailored to the target audience.

If a project serves a very small community and has very little to no through traffic then the appropriate public involvement may be sending project flyers to the residents of the community and soliciting their comments. This method may also be appropriate if it is unclear if the public is interested in the project.

For a project in a populated area where the public is likely to be interested, a Public Informational meeting will be the best option. Public informational meetings are also useful on large projects where an initial meeting may assist with the identification of environmental issues and/or resources present within the project area, which would help determine what type of environmental document needs to be developed. This meeting type is also useful if the project has an approved environmental document, but does not have a lot of public controversy. During this type of meeting, it may be determined that an informal presentation is warranted.

For projects that have public controversy and have an approved NEPA Document, a Public Informational Meeting with a hearing component may be the best option. This meeting type will allow the public to ask questions and get responses during the informal part of the meeting and during the formal part of the meeting will allow comments to be recorded.

Public Hearings by themselves without an informal component have not been found to be helpful to the public and are not generally encouraged. However, the Division and FHWA may determine that this type of meeting is the best option.

60. PUBLIC MEETING PROCEDURE

When the Division determines that it has reached a stage in the development process at which a public meeting is recommended, the WVDOT ~~Office of Communications~~Public Relations Division will be notified by the section responsible for conducting the meeting.

a) NOTICE

When a public meeting is scheduled, notice in the form of a legal advertisement will be published in newspapers having general circulation in the vicinity of the proposed project. The newspaper notice shall contain the following:

1) Date and time of the meeting.
2) Location of the meeting.
3) A description of the project.
4) A link to a website where additional project information can be found.
5) A statement that a hearing may be requested.
6) A statement regarding the NHPA Section 106 consultation process and/or Section 4(f) determinations, if applicable.
7) If a formal presentation is being conducted, the time it will begin.
8) If a hearing is being conducted, the time it will begin.
9) If a NEPA document is being presented for comment, the notice will indicate that an electronic copy can be obtained on the Division's website and at the local library.

A statement regarding accommodations to allow persons with disabilities to obtain information and/or provide comments shall be included with the legal advertisement. The statement will be written as follows:

> "The West Virginia Department of Transportation will, upon request, provide reasonable accommodations including auxiliary aids and services necessary to afford an individual with a disability and equal opportunity to participate in our services, programs, and activities. Please contact us at (304) 558-3931. Persons with hearing or speech impairments can reach all state agencies by calling (800) 982-8772 (voice to TDD) or (800) 982-8771 (TDD to voice), toll free." Add the name, phone number, and e-mail address of the current Director of the Office of Communications to complete the statement.

In addition to the legal advertisement, a project flyer will be distributed and will generally contain all of the same information as the legal advertisement.

A copy of the public notice will be mailed to all of the federal and state elected officials that serve the project area. The public notice will also be provided to the respective County Commission and historic preservation groups who are active within the project area.

b) PUBLICATION OF MEETING NOTICES

The WVDOT ~~Office of Communications~~Public Relations Division maintains a current list of newspapers that advertisements are to be placed in, based on the location of the project. All Public Meeting notices should appear in the newspaper and be posted on the Division's website at least 14 days prior to the meeting. In order to ensure that the public, in the area of the project, is informed about the meeting, a secondary type of advertisement is normally required and is developed to inform the local target audience. The secondary advertisement if required should be distributed and/or posted 7 days prior to the meeting. The secondary advertisement may include, but are limited to, the following:

1) Meeting advertisement fliers to be sent to the property owners and/or residents in the project vicinity.
2) Placing fliers in local stores and gathering areas.
3) A road sign to inform the traveling public about the meeting.
4) A paid advertisement in the local paper that is not in the legal section.
5) A billboard.

c) ENVIRONMENTAL DOCUMENTS

When an DEIS or EA is provided to the public and agencies for comment as a part of the public involvement process, the deadline date for comments will be 30 days after the public meeting. For DEIS documents, the comment deadline date will be

at least 45 days from the date the Notice of Availability (NOA) for the document is published in the Federal Register. For EA documents, the deadline date for comments should be no less than 30 days from the date the document was mailed to the agencies or placed on the Division's website. The Division shall advise of the comment deadline date and where the document is available for public review. The Division will work with FHWA to approve any written request to extend the deadline date for comments, if it is received prior to the advertised deadline date.

d) OTHER NOTICES

In addition to the formal newspaper legal advertisement, a press release concerning the meeting and/or hearing may be prepared and distributed by the WVDOT ~~Office of Communications.~~Public Relations Division.

e) MEETING AND/OR HEARING FORMAT

1) Meetings and/or hearings will be moderated by an official of the Division.
2) The developing Division will furnish an individual who is sufficiently familiar with the project to answer questions raised by citizens.
3) The Division's presentation will include project description, alternatives, environmental and other effects of the project.
4) Provision will be made for submission of written statements and other exhibits in addition to oral statements at meetings or hearings.
5) The Division will explain its right of way acquisition process, relocation assistance program and relocation assistance payments at each public meeting and/or hearing where appropriate.

f) PUBLIC HEARING TRANSCRIPT

A court reporter will develop a verbatim transcript of the proceedings of each public hearing. The responsible individual within the Division will make arrangements for the court reporter. Copies and certification will be forwarded to the developing Division for appropriate action and transmittal to the Federal Highway Administration, should the project be federally funded, is eligible for federal funds or if the FHWA has agreed to be the lead federal agency. Copies of the transcript and appendices will be available for public inspection.

g) PUBLIC MEETING ~~NOTES~~SUMMARY

The developing Division will be responsible for ~~notes~~ a summary of the meeting. These ~~notes~~ summaries are to include the approximate number of people attending, Division participants, meeting handouts/flyers, advertisement method(s), retain copies of all written comments received and, if applicable, retain a copy of the public hearing transcript.

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DESIGN DIRECTIVE 701
CONTRACT PLAN PRESENTATION

October 1, 2020

Supersedes June 30, 2010

This Design Directive describes the make-up and presentation of a complete set of contract plans to standardize the production of such plans throughout the Division of Highways. All directions contained herein will apply to contract plans developed by all Central Office Divisions, including plans developed by consultants, and all Districts. It should be noted that other Design Directives, the Drainage Manual, the Bridge Design Manual, and Traffic Engineering Directives are referenced in this document that pertain to similar subject matter and are more precise than these guidelines. Those manuals provide clearer understanding of what should be included in each set of contract plans.

This Design Directive prescribes the order that the different types of sheets required within the contract plans are to be placed, and generally prescribes the content of each type of sheet.

Not all sheets discussed herein are required for all projects. This determination will be made by the Division's Designer or Project Manager, and is dependent on the type, size, and complexity of the project.

All of the referenced publications are available on the Division's web site, at this URL: www.transportation.wv.gov/highways/engineering/Pages/publications.aspx. Other links are given for CADD Standards and plan presentation information described in this document.

I. GENERAL

The submission of digital plans meeting the below criteria is strongly encouraged and in many cases is required by the consultant agreement.

Contract plans are sheets or drawings which show the locations, character, and dimensions of the prescribed work, including layouts, profiles, cross sections, and other details.

Contract plan sheet originals shall be 22" x 34" including borders of 1" on the left and ½" for the other three. Preliminary submissions of Design Reports shall be assembled and bound into sets not to exceed 36" x 48". Roll plans or profiles will not be accepted.

When only a few sheets for a special purpose are submitted, they shall be folded to 8½" x 11" or 8½" x 14". Small paving projects may be submitted on 8½"x 11"

All plans including review plans shall be prepared in such a manner that they can be reduced to quarter size (¼ area and ½ scale – commonly referred to as "half-sizes") by the Division. Quarter-

size prints may be submitted for review. When quarter-size prints are submitted, they are to be accompanied by at least one full-size set, unless waived by the Division of Highways.

The use of contract plan sheets with existing contours and topography 60% screened is required unless waived by the Division of Highways. This also applies to Right of Way Plans.

CADD standards developed by the Engineering Division shall be used in the development of all contract plans. These standards are available on the Division's website at: www.transportation.wv.gov/highways/engineering/cadd/Pages/default.aspx.

II. ORDER OF SHEETS WITHIN THE CONTRACT PLANS

The order of the sheets within the contract plans will be as follows. A general description of information that is required on each type of sheet follows in Section IV of this Design Directive. Note that not all types of sheets shown and described below are required in each set of contract plans, dependent on the type, size, and complexity of each project. Also, some of the different types of sheets may be combined; for instance the Survey Reference Points sheet may be combined with the Geometric Layout sheet on smaller projects.

1. Title Sheet
2. Typical Sections and Details
3. Summary of Estimated Quantities
4. Quantity Tables
5. General Notes
~~5.~~6. Environmental Permit Impact Commitments (EPIC) Sheet
~~6.~~7. Special Details and Approved Special Details
~~7.~~8. Mass Haul Diagram
~~8.~~9. Survey Reference Points
~~9.~~10. Geometric Layout
~~10.~~11. Superelevation Tables and Diagrams
~~11.~~12. Interchange Grading Plans
~~12.~~13. Intersection Details
~~13.~~14. Temporary Traffic Control Plans
~~14.~~15. Plan and Profile Sheets
~~15.~~16. Drainage Detail Sheets
~~16.~~17. Utility Relocation Plans
~~17.~~18. Erosion And Sediment Control Plans
~~18.~~19. Environmental Mitigation Plans
~~19.~~20. Traffic Sketch Maps
~~20.~~21. Pavement Marking Plans
~~21.~~22. Signing Plans
~~22.~~23. Lighting Plans
~~23.~~24. Traffic Signal Plans
~~24.~~25. Ownership Index
~~25.~~26. Property Maps
~~26.~~27. Soil and Geologic Information Plans
~~27.~~28. Structure Plans per Order Of Station
~~28.~~29. Cross Sections

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III. DEFINITIONS

A. **Contract Plans.** Defined in Section IV. below.

B. **Standard Details.** Drawings approved for repetitive use showing details to be used where appropriate. Included are Revised Standard Details that are to be referenced by revision date as appropriate.

C. **Special Details.** Modifications to a Standard Detail drawing, or any detail drawing required to describe an item of work not covered by a Standard Detail drawing.

D. **Approved Special Details,** Drawings approved by the Publications Committee and any other committee with authority, e.g. the Roadway Departure Task Force, and concurred with by the FHWA. Approved Special Details must be individually inserted into the plans. Approved Special Details may be found here: https://transportation.wv.gov/highways/engineering/Pages/Approved-Special-Details.aspx.

E. **Standard Specifications.** A book of Specifications approved for general application and repetitive use. The base document upon which all contracts rely.

F **Supplemental Specifications.** Approved additions and revisions to the Standard Specifications.

G **Special Provisions.** Specifications for specific items or details applicable to the individual project and which are not covered in the Standard or Supplemental Specifications. All special provisions must be approved by the Specifications Committee of Contract Administration Division.

H. **Temporary Traffic Control Plan**. A plan for handling traffic through a specific highway or street work zone or project.

IV. CONTRACT PLANS

A. General. Contract plans (hereinafter referred to as "plans" or "contract plans") are instructions using drawings containing engineering data and details pertaining to geometrics, drainage, structures, soils and pavements, and other appurtenances.

1. Plans should not encompass material that is properly a part of the Standard or Supplemental Specifications, Special Provisions, or Standard Details.

2. The original drawings should be on standard sheets conforming to modern, accepted drafting practices, current DOH CADD Standards, aerial photograph base maps, or other DOH accepted practices. See the description under the "GENERAL" heading above for more information.

3. Straight-line plans may be used provided they give sufficient information to properly complete the project.

   a. Straight-line plans are particularly adaptable to special types of projects such as those for minor emergency relief, safety improvements, resurfacing, restoration, and rehabilitation and pavement marking.

   b. A typical set of straight-line plans consists of only that information necessary to describe the type of work and its limits, such as:

      1) General plan, sketch, or line drawing;

      2) Cross section, if appropriate;

      3) Estimate of quantities;

      4) Tabulation of construction items, providing station and offset, and elevation (if needed);

      5) General notes; and/or

      6) Special details.

B. Standard Details. Standard details are used to reduce the number of drawings required to be supplied for each project and provide uniformity of design and construction where the details are the same from project to project. When modifications to standard details are made and intended for use on most projects, Revised Standard Details will be issued by Engineering Division. When modifications to standard details are necessary for a specific project, special details should be prepared, properly describing the work, and included in the project plans.

C. Contract Plans. Contract plans show the details, dimensions, and other information that are necessary to construct a specific project and should be tailored to provide all information necessary to accomplish the work in an orderly manner.

1. Title Sheet. The Title Sheet should show in a convenient arrangement:

   a. Project Name and Construction Project Number(s);

   b. A location sketch with sufficient identifying information so that the project may be easily located on a county or state map;

   c. Project Length, split into roadway and bridge(s) lengths, and then totaled. Note that projects which do not contain any paving, such as Grading and Drainage projects, will have a zero Project Length, however mainline Begin and End Work stationing shall be tabulated;

   d. A project layout, showing the proposed centerlines, Begin and End Project and Work stationing, all Station Equations, and numerical designations of all roadways to be constructed in the project. The Project Length will be that of the mainline only, sideroads and ramps are not to be included in the Project Length;

   e. A detail or group index of the sheets in the set of plans;

   f. The conventional symbols employed;

   g. Design designation (average daily traffic for the year that the project is to be constructed and the design year (usually 20 years after the construction year); design hour volume, directional distribution, and percent trucks in the design year; and design speed);

   h. Federal-aid project designation, if applicable;

   i. A provision for the dates and signatures of the appropriate approving officials (See DD-702 for examples);

   j. All approved design exceptions shall be noted on the title sheet.

2. Typical Sections and Details. Typical Sections are to be placed on the sheet(s) immediately following the Title Sheet, except that on combined roadway and bridge projects the cross section for the bridges may be shown with other bridge plan information.

   a. Typical Sections should be included in plans for all projects. Typical Sections shall be provided for all roadways to be constructed in the

project, including the mainline roadway, all sideroads, ramps, and driveways.

b. All functional elements should be shown to a convenient scale including:

1) All different slopes of cut and fill with references to the cross sections for slopes not shown;

2) The width of the roadway traveled way, shoulders, and median;

3) The shape of the finished surface and shoulders (cross slopes including breakovers, and ditch foreslopes and backslopes, according to DD-601);

4) Curb and gutter, if part of the design;

5) All integral parts of the surfacing and shoulders including, as appropriate, subbase, base course, and surface course.;

6) Limiting locations where each Typical Section is to be used;

7) Ultimate Typical Section for stage construction project;

8) Thickness of each lift for each element of the surfacing system;

a) Where variations in surfacing or base thickness are proposed because of differing soil conditions or other reasons, such variations should be in tabular form, including station limits for each thickness,

b) In instances in Subparagraph a) above, the typical section need show only that varying thicknesses are to be employed,

c) See DD-644 for appropriate asphalt layer thicknesses.

9) Relation between either proposed or ultimate status and a control survey line and profile grade line;

10) Lateral location of profile grade line (grade point);

11) Typical Details required to properly describe any work that cannot be clearly depicted on the Typical Sections, such as

HMA edge stepping details, median barrier details, shoulder breakover and pavement layer thinning details, etc.

3. Summary of Estimated Quantities

   a. The Summary of Estimated Quantities for the entire project is to appear on separate sheets following the Typical Sections.

   b. If more than one category of funds is required for a project, the quantity of each item required for each category should be identified separately and then combined for bidding purposes.

      1) See DD-805 for guidance on quantities for projects which cross boundaries between municipal and non-municipal areas.

      2) A state-by-state breakdown is to be provided where a project crosses state lines using a manner similar to municipal boundaries as described in DD-805.

      3) Non-Federal-aid work included as part of a Federal-aid contract should be identified separately.

4. Quantity Tables

   a. These sheets will tabulate all construction items such as drainage, signing, guardrail, earthwork, pavement, underdrain, and all other items in a table format showing station and offset for the location of the item. This is desirable on projects to assist in identifying locations where the specific item is to be installed. The municipal/non-municipal, county-by-county, and state-by-state station locations are to be indicated in these Tabulation of Quantities tables, and quantities computed using these station as breakpoints. See DD-805. Earthwork will be computed by the cross sectioning method.

5. General Notes

   a. A table referencing Revised Standard Details will be included when necessary.

   b. See DD-704 for information concerning General Notes to be included in the contract plans.

6. Environmental Permit Impact Commitments (EPIC) Sheet:

a. The EPIC Sheet serves a crucial role in the integration of environmental compliance into construction planning. By including the EPIC sheet in construction plans, project developers ensure that environmental commitments from the NEPA and permitting processes are properly tracked and incorporated into the project lifecycle.

~~6.~~7. Special Details

a. Details not incorporated into the current approved Standard Details or Revised Standard Details are to be added to the contract plan assembly as Special Details.

b. Special Details should be prepared and included, as necessary, to properly describe any items of the work not covered by an applicable Standard Detail or Revised Standard Detail.

~~7.~~8. Mass Haul Diagram Mass Haul Diagram

See DD-705 for information concerning the preparation of the Mass Haul Diagram.

~~8.~~9. Survey Reference Points Survey Reference Points

a. Aerial Photography Control: This sheet will show all Survey Reference Points which were set and utilized by the Designer to survey and set up the aerial photography control for the project. See DD-810 and the description in 8.b. below for more information concerning Survey Reference Points for aerial photography control.

b. Conventional Surveys: This sheet will show all Survey Reference Points utilized for conventional surveys and aerial photography surveys. These Reference Points shall be shown individually, with a description of the point shown (hub and tack, ¾" rebar with cap, etc.). Each Survey Reference Point is to be referenced from at least three other points for future recovery or resetting of the point. Distances to the references are to be obtained and shown, and the references described (RR spike in power pole, "X" cut on sidewalk, etc.). Also, coordinates in the North (N), East (E), and Elevation (Z) format are to be indicated for each Survey Reference Point. The West Virginia State Plane Coordinates System is to be utilized, when this information is available.

~~9.~~10. Geometric Layout Geometric Layout

a. A separate Geometric Layout sheet(s) shall be provided depicting the following:

1) Construction centerline of the mainline roadway, intersecting roads, side roads, and interchanges.

2) Description blocks coinciding with the project description.

3) Equalities with symbols similar to plan sheet symbols.

4) Horizontal curve data for all curves, to include PI station, delta angle, radius (note that degree of curvature is not necessary), length of curve, length of tangent, and superelevation on circular curves; and on spiraled curves, spiral angle and spiral length, tangent offset and tangent distance, spiral offset from tangent and spiral distance on tangent, long spiral tangent and short spiral tangent, and spiral length of chord.

5) Stationing and bearings. Typically, centerlines and bearings are to be shown running south to north and west to east. However there are some existing roads in the State that run opposite from that convention as shown on the Straight Line Diagrams. In this case, the direction of the centerline stationing and bearings shall match that shown on these Diagrams.

6) Coordinates for all horizontal control points, such as Begin and End Project/Work stations; horizontal curve TS, SC, CS, ST, PC, PT, etc. points; intersecting centerlines and/or baselines points; or other pertinent points required to properly lay out the project by survey, shall be given, with North (N), East (E), and Elevation (Z) format. The West Virginia State Plane Coordinates System is to be utilized, when this information is available. This information can be shown in table format, if necessary.

~~10.~~11. Superelevation Tables and Diagrams

See DD-603 for information concerning superelevation tables and diagrams.

~~11.~~12. Interchange Grading Plans

See DD-623 for information concerning interchange grading plans.

~~12.~~13. Intersection Details

See DD-622 for information concerning the requirements for intersection details.

~~13.~~14. Temporary Traffic Control Plans

See DD-681 for guidance concerning the preparation of Temporary Traffic Control Plans.

~~14.~~15. Plan and Profile Sheets

a. General. Plan and profile sheets should be prepared at a scale adequate to show the necessary details as governed by the topography and the complexity of the work.

1) Plans should be drawn to one of the following horizontal scales: small - 1"=100', medium - 1"=50', large - 1"=20' or 1"=10', depending on the density of information to be shown on the plan sheets. The small scale of 1”=100’ is only to be used for design studies, and not for contract plans.

2) Profiles should be drawn to the same horizontal scale as the plan, but the vertical scale may be 10% or 20% of the horizontal scale.

b. Plans

1) The general highway plan should include:

a) The base line of the survey which, if practicable, should also be the centerline of the proposed roadway;

i) When the centerline and the base line are not coincident, their relationship should be indicated,

ii) Divided highways, where independent base lines are used, may be treated as separate roadways indicating only the general relationship between the two,

iii) Special areas such as interchanges and safety rest areas should be shown with separate survey control lines, as necessary**.** Control lines on ramps are to run in the same direction

as the centerline of the proposed roadway regardless of the direction of traffic flow,

iv) Bearings on all tangents based on the West Virginia Coordinates System, when this information is available.

b) Stationing reading from left to right including equations of stationing;

c) Design data of curves, to include PI station, delta angle, radius (note that degree of curvature is not necessary), length of curve, length of tangent, and superelevation on circular curves; and on spiraled curves, spiral angle and spiral length, tangent offset and tangent distance, spiral offset from tangent and spiral distance on tangent, long spiral tangent and short spiral tangent, and spiral length of chord;

d) Proposed and existing rights of way and access control lines, easements, and special-use areas;

e) North arrow and bar scale;

f) Proposed and existing edges of pavement and shoulders;

g) Proposed and existing drainage features such as pipes, culverts, headwalls, manholes, inlets, etc., with the elevations of the top and all inverts shown;

h) Topography, existing streams with direction of flow indicated, railroads with the valuation baseline and stations shown, and other features such as existing roads, streets, and airports on or near the right of way when these items influence the proposed construction. Adjacent roadway shall be shown for 1000' - 1500' on major projects and for 500' - 1000' on minor projects at both the beginning and end of the project. Existing roadways and streets shall have a centerline with stationing established and shown on the plans, and the relationship of this centerline to any proposed centerlines is to be shown;

i) Incidental construction items such as erosion control provisions, guardrail, and retaining walls;

j) Amount and volume of materials available at known sources;

k) Existence of and disposition of all public utilities, buildings and appurtenant items, and any other obstruction or encroachment within the right of way or adjacent thereto if affecting the proposed construction. See DD-709 for information concerning buildings and appurtenant items disposition, DD-303 and DD-310 for information concerning railroad involvement and utility relocations, and DD-305 concerning water and sanitary sewer relocations;

i) If not part of the project, their disposition should be included in the project records,

ii) If part of the project, the plan should show the present and, if applicable, the proposed location including both horizontal and vertical positions and such additional details as may be needed to indicate the scope of work to be performed.

l) It is to be noted that on complex projects, a reference sheet showing the layout of the plan sheets and/or cross section sheets is desirable to facilitate the use of the plans.

c. Profiles

1) Profile grade represents the trace of the vertical plane intersecting the top surface of the wearing course, base course, or other surface along the designated profile grade line.

2) The existing ground line should represent the trace of a vertical plane intersecting the present traveled way or ground line along the designated centerline.

3) Profiles should show:

a) Proposed grade and existing ground lines;

i) When standard plan and profile sheets are used, surface elevations may be omitted and grade elevations shown at changes or gradient only,

ii) When plan sheets are used, grade and existing ground elevations should be shown,

b) Datum line;

c) Station ordinate lines;

d) Percentage of gradient;

e) Vertical and horizontal clearances and the cross section of the roadbed for railroads, highways, and stream beds under proposed and existing structures;

f) Identification of type and clearance under and over utility lines within the right of way;

g) Culverts, storm sewers, and underdrains.

h) Vertical curve data, to include the vertical PI station and elevation, vertical curve length, k value, and stopping sight distance available on crest vertical curves.

i) Cut/fill grading transition details. See DD-405, "Grading Transition Detail".

~~15.~~16. Drainage Detail Sheets

a. Minor Drainage Facilities - Minor drainage facilities shall be defined as straight culverts less than 36" in diameter, erosion control structures, headwalls, inlets, and manholes. Detail plans for minor drainage facilities shall include the following (refer to the most current edition of the WVDOH Drainage Manual for more guidance concerning information to be shown on the contract plans):

1) Sufficient stationing and offsets to show the location and orientation to centerline.

2) All necessary elevations.

3) The intersection of straight culverts less than 36" in diameter with the centerline and each station shall be shown on the profile sheets and each affected roadway cross section.

4) Separate cross sections for structures such as sediment dams or sediment ponds.

b. Major Drainage Facilities - Major drainage facilities shall be defined as any culvert which has bends, culverts 36" in diameter or greater, and channel changes. Detail plans for major drainage facilities shall include the following (refer to the most current approved edition of the WVDOH Drainage Manual for more guidance concerning information to be shown on the contract plans):

1) Sufficient stationing and offsets to show the location and orientation to centerline.

2) All necessary elevations.

3) A profile along the centerline of the culvert or drainage structure showing the relationship between the existing ground line, proposed template, and the culvert or drainage structure, total length of the culvert or drainage structure, all necessary elevations, and utility locations.

4) The intersection of culverts or drainage structures with the centerline and each station shall be shown on the profile sheets and each affected roadway cross section.

5) Separate cross sections for culverts or drainage structures when the cost of excavation is not included in the cost of the culvert or drainage structure.

If all of the information listed above is shown elsewhere in the plans (plan sheets, profile sheets, standard details, etc.), separate detail plan sheets will not be required.

c. Storm Sewers – storm sewers are defined as a composite system of one or more sections of pipe or box culvert, or a combination thereof, generally connecting a series of inlets or manholes. Storm sewers are different from culverts in that they are usually longer and pick up additional water from inlets and intersecting storm sewers along its length. Refer to the most current edition of the WVDOH Drainage Manual for more information.

1) A profile of each storm sewer is required to be shown. This profile can be shown on its own profile sheet, or can be combined with the roadway profile sheets when the sewer runs along the centerline of the roadway (usually multilane divided roadways).

2) The hydraulic grade line developed in the drainage calculations should be shown on each storm sewer's profile.

~~16.~~17. Utility Relocation Plans

See DD-303, DD-305, and DD-310 for information concerning Utility Relocation Plans.

~~17.~~18. Erosion And Sediment Control Plans

See DD-250, "Dust Palliative" and DD-251, "Temporary Erosion Control".

~~18.~~19. Environmental Mitigation Plans

Commitments for environmental mitigation features which are contained in the environmental documentation should be detailed as necessary and included in the project plans as special details and/or shown at the appropriate location in the plans. These plans will also include any necessary stream relocation plans, special planting plans, and any other plans deemed necessary to adhere to the environmental commitments made for the project. Also see DD-252, "Environmental Mitigation Items".

~~19.~~20. Traffic Sketch Maps

See DD-802, "Traffic Sketch Maps" for information.

~~20.~~21. Pavement Marking Plans

See the 300 series Traffic Engineering Directives for guidance concerning the preparation of Pavement Marking Plans.

~~21.~~22. Signing Plans

See Traffic Engineering Directive 103-3, "Preparation of Contract Sign Plans".

~~22.~~23. Lighting Plans

See Traffic Engineering Directives 101, "Guidelines for Highway Lighting" and 102-3, "Roadway Lighting Design".

~~23.~~24. Traffic Signal Plans.

See the 400 series Traffic Engineering Directives for guidance concerning the preparation of Traffic Signal Plans.

~~24.~~25. Ownership Index

See DD-301 for information concerning the preparation of the Ownership Index.

~~25.~~26. Property Maps

See DD-301 for information concerning the preparation of Property Maps.

~~26.~~27. Soil And Geologic Information Plans

a. Location of borings, test pits, or other sites where subsurface investigations have been made are to be shown on the Soil and Geologic Information Plans; and

b. Location and depth of subsurface borings or test pits shall be shown (actual log or test results need not be shown, but a reference should be included indicating where this material may be viewed).

Also see DD-402 for more information concerning the preparation of Soil and Geologic Plans, and their inclusion into the contract plans.

~~27.~~28. Structure Plans per Order Of Station

Reference is made to Section 4, General Plan Presentation, of the latest approved edition of the West Virginia Division of Highways Bridge Design Manual and all addendums thereto, for guidance concerning information required on each sheet of each set of structure plans.

The structure detail plans are to be placed in the contract plans in the order of stationing, with the structure at the lowest station first, and so on. Structure plans shall be placed in the following order: bridge(s) first, followed by retaining wall(s), with box culvert(s) last.

~~28.~~29. 2Cross Sections

a. Cross sections shall be at a natural scale, i.e. the vertical scale will equal the horizontal scale.

b. Cross sections should be taken every 50' for rural projects, every 20' for urban projects, and at major changes in the existing ground line to determine accurately the character and extent of the proposed work.

c. Intersecting road cross sections, side road cross sections, and ramp cross sections shall be shown on mainline cross section sheets where possible. Where cross sections are provided on separate sheets, designers must check with mainline cross sections for accuracy. A quantity match line is to be placed on such cross sections to ensure quantity estimates are not duplicated or omitted.

d. Cross sections shall be placed in the following order: mainline cross sections first, followed by ramp cross sections (if applicable), with side road cross sections last.

e. See DD-705 for general information to be shown on the cross sections. Earthwork shall be computed by the average end area method. Additional information to be shown on the cross sections is as follows, but is not an all-inclusive listing: top and bottom of proposed surface (paved or otherwise) to include shoulders, free-draining base layer (if applicable), aggregate base layer (if applicable), bottom of subgrade layer (if applicable), drainage items such as culverts, wingwalls, ditches/linings, free-draining base trench if applicable, utility crossings and clearances, existing and proposed right-of-way limits, water bodies with edges of water shown, existing roadways with edges of pavement shown, existing structures within the proposed right-of-way, etc.

D. Contiguous Projects

A general plan or layout of contiguous construction projects that are to be constructed with either a different class of funds or by another agency should be included to show the location and effect of the work. (Such details and information necessary to establish their relationship to the project should be shown.) Also, smaller projects “broken out” of a larger design project should show enough information from the adjoining projects or any future project which will incorporate the work of the smaller project to establish their relationship with the work of the smaller project.

Public Roads Div.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
W. V.							

DRAFT

NEPA COMMITMENTS

I. CULTURAL RESOURCES

In the event that human remains are encountered all construction activity (and any archaeological investigations) will cease immediately. The contractor shall notify the project manager at the WVDOH who in turn will notify the WV SHPO and all concerned parties.

☐ No Required Commitments ☐ Required Commitments

Commitments:

II. NATURAL RESOURCES

☐ No Required Commitments ☐ Required Commitments

Commitments:

PERMIT COMMITMENTS

III. STORMWATER POLLUTION PREVENTION-CLEAN WATER ACT SECTION 402

The contractor shall be responsible for water quality throughout the duration of construction in accordance with the general West Virginia/National Pollutant Discharge Elimination System (NPDES) Water Pollution Control Permit stormwater associated with construction activities, Permit Number WV0115 924 issued January 10, 2019 by the West Virginia Department of Environmental Protection (WVDEP), and any medication(s) thereto.

The NPDES Permit expires February 9, 2024 .

☐ Letter of Non-Registration (Under 1 acre of earth disturbing activities)

☐ NPDES Construction Storm Water Permit Registration (Large Construction Activity 3 Acres or more)

☐ NPDES Construction Storm Water Permit Registration (Minor Construction Activity 1 to < 3 acres)

In Urbanized Areas List MS4 Operator(s) that may receive discharges from this project (include WVDOH)

1.

2.

Contractor shall supply:

☐ Stormwater Pollution Prevention Plan ☐ Karst Mitigation Plan ☐ Groundwater Protection Plan

ENHANCED BEST MANAGMENT PRACTICES

Mandatory BMPs:

- Inspection of all BMPs within the project area by a qualified person at least once every four (4) calendar days and within 24 hours after any precipitation event of 0.25 inches or greater per 24-hour period or the occurrence of runoff from snowmelt sufficient to cause a discharge.
- Repairs or maintenance of any defective BMPs identified during the inspection shall be performed within 24 hours. However, permittees must implement alternate BMPs prior to storm events while awaiting repair of the primary enhanced bmp.
- Temporary seeding and mulching of disturbed areas within four (4) days when those areas will not be re-disturbed for more than 14 days.
- Permanent seeding and mulching within four (4) days of reaching final grade.
- Final stabilization within four (4) days after construction has been complete.
- Other Specialized BMPs:

IV. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404

USACE Permit required for filling, dredging, excavating or other work in jurisdictional waters (i.e. water bodies, rivers, creeks, streams and wetlands).

The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

☐ Not Permit Required

☐ Regional General Permit PCN Required (1/10 to < 1/2 acre)

☐ Nationwide Permit PCN Required (1/10 to < 1/2 acre)

☐ Individual 404 Permit Required

Special Permit Conditions:

☐ Yes ☐ No

If yes then list conditions:

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ENVIRONMENTAL PERMIT IMPACT COMMITMENTS

Manuals Committee Meeting

April 2, 2025

WVDOH Manuals Committee Meeting
Wednesday, April 2, 2025
Meeting Location: 1900 Kanawha Blvd. E., Building 5, Room 820, Charleston, WV

Also meeting virtually via Google Meet. Email distribution includes instruction.

Unfinished Business:

ITEM	Champion
Consultant Services Manual ○ An update to the language/typos. Updates to the manual and appendices have been made since the last meeting. ○ **Approval is expected in April.**	Engineering

ITEM	Champion
Construction Manual ○ This is an update to Section 642-Temporary Pollution Control. The revision updates language and adds links to the NPDES General Permit, Sediment Control Best Management Practice Manual, and the WVDOH Environmental Construction Inspection Form. Also, the addition of the WVDOH Environmental Construction Inspection Form. Subsection 642.3-Records and Daily Work Reports has been updated since the last meeting. ○ Approval is expected in April.	D. Kirk

New Business: No new Business items

Next Meeting: The next meeting is on:

- **Wednesday, June 4, 2025.**
- Deadline for submissions May 5, 2025.

Adjournment:

Consultant Services Manual

Issue Date: April 2, 2025~~November 1, 2024~~

Revision Version: 0

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Introduction

This Manual is intended to assist Consultants in conducting business with the West Virginia Department of Transportation, Division of Highways. It has been prepared to inform Consultants and the various WVDOH personnel of the guidelines and methods for qualifying Consultants, requesting a Letter of Qualifications, preparing fee proposals, negotiation procedures, agreement considerations, invoicing procedures and instructions, and other related subjects.

The information contained within this manual is applicable to all types of Engineering and Architectural Consultant agreements including Statewide and Supplemental Agreements for Shop Drawing/ Construction Engineering Review, Bridge Inspection, Construction Inspection, Materials Inspection and Testing, Cultural and Natural Resource Investigation, etc.

This Manual should not be considered a contract document, and its contents are not legally binding upon any West Virginia Department of Transportation, Division of Highways contract. The content within is subject to change. Approved revisions will be issued on an as-needed basis and tracked in the table below.

Revision	Issue Date	Brief description of modifications
0	April 2, 2025~~November 1, 2024~~	Initial issuance of Consultant Services Manual

Any questions or comments on this Manual should be directed to the Consultant Services Section of the Engineering Division.

Table of Contents

List of Appendices

List of Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
ACEC-WV	American Council of Engineering Companies of West Virginia
A/E	Architecture/Engineering
CAWV	Contractors Association of West Virginia
CCQQ	Consultant Confidential Qualification Questionnaire
CEI	Construction Engineering & Inspection
CFR	Code of Federal Regulations
COA	Certificate of Authorization
CPA	Certified Public Accountant
CPM	Critical Path Method
DBE	Disadvantaged Business Enterprise
DD	Design Directive
FAR	Federal Acquisition Regulations
FCCM	Facility Capital Cost of Money
FEIN	Federal Employer Identification Number
FHWA	Federal Highway Administration
GSA	General Services Administration
ICQ	Internal Control Questionnaire
IRS	Internal Revenue Service
ISO	International Organization for Standardization
LOQ	Letter of Qualification
MSC	Management Support Consultant
NEPA	National Environmental Policy Act
PM	Project Manager
PMD	Project Modification Document
PPP	Paycheck Protection Program
PS&E	Plans, Specifications, and Estimate
QAC	Quality Accuracy and Completeness
QA/QC	Quality Assurance/Quality Control
RW	Right of Way
SF-330	Standard Form 330
UCP	Unified Certification Program
US	United States
U.S.C.	United States Code
WBE	Women owned Business Enterprise
WV	West Virginia
WVDOH	West Virginia Division of Highways
WVDOT	West Virginia Department of Transportation

1 Checklist to Perform Services

A Consultant shall meet the following minimum requirements to provide services to the West Virginia Department of Transportation (WVDOT), Division of Highways (WVDOH).

- ☐ Register business with the Internal Revenue Service (IRS) to obtain a Federal Employer Identification Number (FEIN).

- ☐ Register business with the appropriate federal, state, county, and local agencies.
    a. At a minimum, Consultant shall register business with the WV Secretary of State's Office to obtain a WV Business License.
    b. A PDF of the WV Business License may be required with submittals.
    c. Consultant may need to register with local counties or municipalities depending on the actual location of their offices and where they are performing services.

- ☐ To provide (or offer to provide) engineering services for projects in West Virginia, the Consultant will need to obtain a Certificate of Authorization (COA) from the WV State Board of Registration for Professional Engineers. Note, this authorization is separate from the business license obtained from the WV Secretary of State's Office.

- ☐ To provide (or offer to provide) surveying services for projects in West Virginia, the Consultant will need to obtain a Certificate of Authorization (COA) from the WV State Board of Professional Surveyors. Note, this authorization is separate from the business license obtained from the WV Secretary of State's Office.

- ☐ To provide (or offer to provide) architectural services for projects in West Virginia, the Consultant will need to register with the WV Board of Architects. Note, this authorization is separate from the business license obtained from the WV Secretary of State's Office.

- ☐ Submit Consultant's AASHTO Internal Control Questionnaire (ICQ), Overhead information, Balance Sheet, CPA Audit Report, Overhead Calculation, and Consultant Overhead Certification to dotauditoverheads@wv.gov.
    a. The Consultant will need a PDF of their Indirect Cost Desk Review Memo from the WVDOT Auditing Division approving the Consultant's overhead rate for office and/or field services for potential cost proposals.

- ☐ Submit Consultant's Standard Form 330 (SF-330).
    a. The SF-330 should be submitted as soon as possible after January 1 of each year.

- ☐ Consultants interested in being considered for pre-qualification must submit a "Letter of Qualification" and one (1) unpriced prospectus for the most recently advertised LOQ.
    a. Projects with an anticipated fee of less than $750,000 may be selected from the WVDOH list of prequalified Consultants. Projects with an anticipated fee of more than $750,000 must be selected using a project-specific advertisement.

2 Requirements to Perform Services

2.1 Standard Form 330 (SF-330)

To be qualified to perform services, the General Services Administration (GSA) Standard Form 330 (SF-330) must be completed and submitted annually to the Consultant Services section at DOH.consultantservices@wv.gov. It is suggested that a read-receipt be added to the submission email as no written notification will be provided by WVDOH to confirm receipt.

These items are required by all entities conducting business with WVDOH, regardless if they are a Prime Consultant or Subconsultant. To be considered to perform services, these items MUST be submitted as soon as possible after January 1st of each calendar year. These items will NOT be accepted if predated or submitted prior to January 1st for the upcoming calendar year.

If significant changes occur which impact the Consultant's information, it is the responsibility of the Consultant to provide a timely update to WVDOH. Examples of significant changes include point of contact, address, or unique entity identifier.

The Consultant shall complete the following sections of the SF-330 listed below. The current SF- 330 form (Rev 7/2021) is provided as an attachment in Appendix A for reference; however, the Consultant should utilize the most current version available at https://www.gsa.gov/forms-library/architect-engineer-qualifications.

Note, as of the adoption of this Manual, the Consultant Confidential Qualification Questionnaire (CCQQ) will no longer be allowable for annual qualifications, nor is it considered a substitute or alternative for the SF-330 format.

Part I Section B (Architect-Engineer Point of Contact)

The Point of Contact shall be the designated Principal of the firm. The firm name (Box 5) shall exactly match how the Consultant's name appears on their Certificate of Authorization from the West Virginia Secretary of State's office. This includes the use of uppercase/lowercase lettering, italics, abbreviations, etc.

Part I Section E (Resumes of Key Personnel Proposed For This Contract)

This section is ONLY required for the Consultant's initial SF-330 submission, unless there is a need to remove or add new staff associated with the firm. Section E should be prepared as follows:

- The Consultant shall be required to complete all fields in Section E. If a field is not applicable, insert "N/A".
- A maximum of ten (10) resumes are to be included.
    - One (1) resume shall be the Point of Contact from Part I Section B.
    - No more than five (5) resumes shall be submitted per discipline, e.g. roadway, traffic, structural, etc.
- Each resume shall be a maximum of two (2) pages and highlight relevant experience with WVDOH including specific roles on projects. If the Consultant does not have WVDOH or transportation experience, include similar type projects from other state or local agencies.

- Example projects used on resumes are required to either be current or have completion of professional services within the previous ten (10) years.

Part I Section F (Example Projects which Best Illustrate Proposed Team's Qualifications for This Contract)

This section is ONLY required for the Consultant's initial SF-330 submission, unless there is a need to remove or add new projects associated with the firm. Section F should be prepared as follows:

- The Consultant shall be required to complete all fields in Section F. If a field is not applicable, insert "N/A".
- A maximum of ten (10) example projects are to be included.
    - Only include projects which are highlighted on the staff resumes.
- If the project experience is in a Subconsultant or alternative delivery role, indicate this in Box 21.
- For Box 25, include all associated firms involved in this project.
- Example projects are required to either be current or have completion of professional services within the previous ten (10) years.

Part I Section G (Key Personnel Participation in Example Projects)

This section is ONLY required for the Consultant's initial SF-330 submission, unless there is a need to remove or add new staff or projects associated with the firm.

Part I Section H (Additional Information)

This Section, which shall not exceed two (2) pages, should be prepared as follows:

- Although not required, additional information regarding the firm's history and experience in West Virginia can be provided in Box 30.
- Boxes 31, 32, and 33 shall be signed by the firm's authorized representative, e.g. authorized signatory for contracts.

Part II (General Qualifications)

The firm name and address (Box 2) shall exactly match their Certificate of Authorization from the West Virginia Secretary of State's office. This includes the use of uppercase/lowercase lettering, italics, abbreviations, etc. Part II should be prepared as follows:

- The Consultant shall be required to complete all fields in Part II. If a field is not applicable, insert "N/A".
- Include the primary office where work will be managed and performed plus up to five (5) branch offices.

2.2 Transportation Auditing Overhead Submittal

The following shall be submitted to dotauditoverheads@wv.gov on an annual basis to determine an approved overhead rate for use on WVDOT projects.

- AASHTO Internal Control Questionnaire (ICQ)
- Company Financial Statements
- PPP Loan Certification, if applicable

In response to this submission, WVDOT will issue an "Indirect Cost Desk Review Memo" which shall be used on contracts funded by the State of West Virginia and/or Federal sources, including projects for WVDOT and WV Local Public Agencies. See Chapter 11 for additional information.

2.3 Quality Assurance/Quality Control Policy Submittal

Consultants shall submit an overview of their corporate Quality Assurance/Quality Control (QA/QC) procedures on an annual basis, as soon as possible after January 1st of each calendar year, to WVDOH at DOH.consultantservices@wv.gov.

The intent of this request is to verify the Consultant has developed and implemented a QA/QC procedure. This overview shall provide sufficient detail to outline the content of the procedure and document how the Consultant will monitor the work to meet the standard of care.

If the Consultant's QA/QC procedures have been certified to ISO (or equivalent standards) in any location in which you operate, please indicate location and scope of that certification.

2.4 Registrations

To be qualified to perform services, the following registrations are required to be obtained and maintained, as required, by each governing entity. These items are required for all entities conducting business with WVDOT, regardless if they are a Prime Consultant or Subconsultant.

If significant changes occur which impact the Consultant's information, it is the responsibility of the Consultant to provide a timely update to the governing entity. Examples of significant changes include point of contact, address, or firm acquisition.

Where submission to the WVDOT is indicated, the Consultant shall submit the documentation to dotauditoverheads@wv.gov. It is suggested that a read-receipt be added to the submission email as no written notification will be provided by WVDOT to confirm the receipt.

Certificates of Authorization (COA)

The Consultant shall maintain COAs, appropriate for the professional services being performed. Contact information for each governing board is provided below.

West Virginia State Board of Registration for Professional Engineers
300 Capitol Street, Suite 910
Charleston, WV 25301
(304) 558-3554
http://www.wvpebd.org

West Virginia Board of Professional Surveyors
1124 Smith Street, Suite B127C
Charleston, WV 25301
(304) 558-0350
www.wvbps.wv.gov

West Virginia Board of Architects
405 Capitol Street, Mezzanine Suite 3
Charleston, WV 25301
(304) 558-1406
https://brdarch.wv.gov

wvOasis Registration

Consultants shall be registered as a vendor with wvOasis to perform business with the WVDOT. It is critical the firm name and address be kept up to date as this information will be utilized on WVDOT invoicing and payments. Refer to the wvOasis website for additional information: www.wvoasis.gov.

State of West Virginia Business Registration

The Consultant shall be registered with the West Virginia Secretary of State and maintain the requirements of annual filing, as required. Refer to the Secretary of State's website for additional information: https://sos.wv.gov.

Workers Compensation and Unemployment Registration

The Consultant shall be registered with Workforce West Virginia and maintain good standing for Workers Compensation and Unemployment Accounts. Prior to entering into a contract, the WVDOT will check the default databases. If a firm is not in good standing, the contract will not be executed until corrective action is taken.

Registration requirements and additional information on Workers Compensation can be obtained by contacting:

Workforce West Virginia
Status Determination Unit
112 California Avenue
Charleston, West Virginia 25305
(304) 558-2677
www.workforcewv.org

Disadvantaged and Women-owned Business Enterprise (DBE/WBE) Registration, if applicable

It is the policy of the WVDOT that Disadvantaged and Women-owned Business Enterprises (DBE/WBE) shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds in accordance with the WVDOH's Disadvantaged Business Enterprise Program and WVDOT's Unified Certification Program (UCP).

For certification as a DBE, Consultants shall follow the requirements outlined in the UCP and submit an application to the address listed below. It is recommended to contact the Civil Rights Compliance Division for additional details and requirements prior to initiating an application.

West Virginia Department of Transportation
Civil Rights Compliance Division
1900 Kanawha Boulevard, East
Building 5, Room 430
Charleston, WV 25305
(304) 558-3931
Dot.eeo@wv.gov

Important Links

- Standard Form 330 (SF-330) → https://www.gsa.gov/forms-library/architect-engineer-qualifications

3 Letters of Qualifications

Legal notifications requesting a Letter of Qualification (LOQ) and Unpriced Prospectus from consulting firms wishing to provide services to the WVDOH may be advertised in the Charleston Gazette-Mail and will be posted on the WVDOT and WV State Auditor's websites for a minimum of fourteen (14) days. In addition, copies of the classified advertisements will be provided to the American Council of Engineering Companies of West Virginia (ACEC-WV), and the Contractors Association of West Virginia (CAWV). The advertisement will indicate the type of service being requested.

The type of services being requested may include, but not necessarily limited to, the following:

- Project management
- Construction management/ construction inspection
- Bridge inspection
- Feasibility studies
- Preliminary engineering
- Design
- Engineering
- Surveying
- Aerial photography and mapping
- Architectural
- Materials inspection
- Sampling and testing materials
- NEPA related documentation
- Cultural resources
- Natural resources
- Related services to any above

Ability to Perform Work

Consultants submitting LOQs shall provide proof of ability to perform work in West Virginia and documentation that all business registrations are current. These documents may include the following, as per the legal notification:

- Registration with the WV Secretary of State Business & Licensing:
  - Copy of the Certificate of Authorization
  - Copy of the Business Organization Detail sheet from the Business and Licensing Section of the WV Secretary of State's office Online Data Services
- A copy of a valid Certificate of Authorization to offer Engineering, Surveying, and/or Architectural professional services within the state, issued by the appropriate West Virginia Board.
- Current Indirect Cost Desk Review Memo, which is in effect at the time of the LOQ, provided by the WVDOT Transportation Auditing Division.
- The Consultant will also provide a list of firms to be used as Subconsultants. The above requirements shall also pertain to any and all Subconsultants.

ALL DOCUMENTATION FOR THE PRIME CONSULTANT AND ANY SUBCONSULTANTS MUST BE INCLUDED IN THE PROSPECTUS.

Consultants failing to provide proper documentation or failure to meet the LOQ submission deadline shall be disqualified. In the case of a response to advertisement for services, if all previously listed requirements are not met, the Consultant's LOQ will not be forwarded to the Preliminary Selection Committee.

Evaluation Factors

The LOQ and Unpriced Prospectus may include the following evaluation information factors that will be rated by the Preliminary Selection Committee at the Short List Meeting. Refer to the legal notification for evaluation factors specific to the project being advertised.

Professional qualifications necessary for consideration and satisfactory performance of the required work and as a minimum shall have a professional engineer licensed by the State of West Virginia. That person shall be located within the office where the work is to be performed and shall demonstrate sufficient experience performed for transportation related design and plan development to be provided. This individual shall be the person-in-charge overseeing the work and must be readily accessible to the WVDOT, preferably located in-state.

1. Consideration shall be given to specialized experience and technical competence. Specialized experience shall focus on the qualifications of the staff working on the project with emphasis placed on individual specialized expertise required for the project. Strong consideration will be based on the professional and non-professional staff stationed within the office where the work is to be performed.

   (a) As a minimum, the firm shall provide a Resume for the Point of Contact and any discipline leader who will be committed to the needs of the project. Resumes shall be limited to ten (10) individuals for all LOQ's unless WVDOH specifically increases or reduces this number within the individual advertisement and shall be limited to one (1) page.

   (b) Experience may also be illustrated using project single-page descriptions provided in the SF-330 format. Projects shall be limited to no more than ten (10) projects and may only include work performed within the previous ten (10) years.

   (c) The total prospectus should be no more than thirty (30) pages plus required appendices.

2. Capacity consideration shall be made on the firm's ability to accomplish the work within the WVDOT required schedule time frame and personnel dedicated to performing such work.

3. Documented past performance with the WVDOH, including past Consultant evaluations (See Chapter 9). If the Consultant has no past performance with the WVDOH, then the score will be determined by the Preliminary Selection Committee.

4. Location and knowledge of locality shall be based on the geographic location of the Consultant's office relative to the project site, along with experience and knowledge of the area.

In addition to the above evaluation factors, the LOQ and Unpriced Prospectus may include the following items. Refer to the legal notification for additional items specific to the project being advertised:

1. A completed copy of SF-330 (Architect-Engineer General Qualifications) must be submitted within the LOQ, if not already on file with WVDOH and must be dated for the calendar year specified in the advertisement. If submitted, this document shall be provided as an appendix. It must specifically indicate the staff levels by classification located in-state vs. out-of-state.

2. Firms submitting LOQ's shall submit a detailed current list of all work assigned by any WVDOH division or district. The list shall include division or district of assignment, project name, state project number, percentage of work completed based on maximum amount payable, and the total maximum amount payable. This document shall be provided as an appendix to their LOQ.
3. Completed copies of the WVDOT's "Consultant Short List Selection Criteria Technical Evaluation" form limited to a single page. Cross referencing on this form to other parts of the prospectus is not acceptable. This document shall be provided as an appendix of the prospectus.
4. Location of office or office(s) in which the work, or part of the work, will be performed.
5. Identification of Subconsultants by name as to the type of work anticipated to be subcontracted or performed, if proposed as part of the design team.
6. Identification of software (including design software) that may potentially be utilized for this project.

Important Links

- Advertisements for consulting services may be found on the WVDOT's website at: https://transportation.wv.gov/highways/Pages/UpcomingContracts.aspx
- Advertisements for consulting services may be found on the WV State Auditor's website at: Legal Notices - wvsao.gov
- WV Secretary of State's office Online Data Services at: https://apps.sos.wv.gov/business/corporations/
- The Technical Evaluation form can be downloaded from WVDOT's website at: https://transportation.wv.gov/highways/engineering/Consultant/Short%20List%20Selection%20Tech%20Eval%20Form%20REV%20April%202018.doc

4 Selection of Consultants

This chapter covers the selection of Consultants utilizing all processes. Details can be found in 23 CFR 172, WV Code §5G-1-4 , and WV 157CSR1, Section 7.

4.1 Selection of Consultants Using the Competitive Selection Process

This section covers the selection process for projects anticipated to exceed $750 000, as per the codes and laws referenced above. Projects shall be advertised, and firms submitting an LOQ shall be short-listed, selected and placed under agreement through the interview process identified in WV 157CSR1 Section 7.4. The Division or District will advertise for Letters of Qualification from Consultants interested in performing the service.
The WVDOH Division Director requesting consulting services shall designate the appropriate staff to review the LOQ's and all required documentation to assure that pertinent information and data have been submitted in accordance with the advertisement. Information and comments from this review will be provided to the Preliminary Selection Committee. A similar review by that committee will take place resulting in a short listing of Consultants.

These reviews shall include, but may not be limited to, the following:

- Comparison of Factors of Interest.
- Qualifications.
- Consultant's Short List Selection Criteria Technical Evaluation.
- The WVDOH's previous Performance Evaluations (if available).
- Current Workload for Prime Consultant and Subconsultant.
- Office location where work is to be performed, not just managed.
- Completeness of the Prospectus which includes Approved Overhead Rates, COA, e.g., any information requested in the advertisement for both the Prime Consultants and Subconsultants.

Based on the reviews, a minimum of two (2) more Consultants than required shall be short-listed, which typically results in three (3) Consultants, unless the Committee, after considering the project particulars, decides that more than three (3) should be short-listed.

Short List Process
Short List Process and Conflict of Interest are available as Appendices.

Interview Process
The short-listed Consultants shall be interviewed by a panel of individuals representing various aspects of the project. Interview presentation times may vary at the discretion of the Division requesting the service, but will be provided with the interview invitation. The interview panel will vote at the conclusion of the final Consultant's presentation.
The Consultants will be ranked according to the total of their scores, with the Consultant receiving the lowest score being recommended for selection. In the case of a tie, the Consultant that receives the most No. 1 votes will be recommended for the project. If neither Consultant received a majority of the No. 1 votes, the interview panel will recast their votes including only the Consultants that

tied; the Consultant receiving the lowest score will be recommended for the project. The short-listed Consultants will be notified via email with the results of the selection order once the selection is approved by the Commissioner of Highways. The Consultant selected to perform the requested services will be notified via email with a designated time frame for holding a detailed Scope of Work meeting.

All Consultants submitting an LOQ and Unpriced Prospectus shall be notified via email of the selection. The results of the selection will also be posted on the WVDOH website. Per WV CSR1571, Section 7, the short-listed Consultants that were not selected to perform the services may request a debrief meeting from the WVDOH Division Director that requested the services. No debrief meetings will be performed for Consultants that were not short listed.

A Consultants not selected may also appeal to the Commissioner, but must do so in writing within ten (10) days after the date of being notified. Claims or disputes in reference to payment, work, method of compensation, or performance evaluation are also eligible for appeals.

B Once all administrative procedures have been exhausted with the State, matters concerning work performed, wherein Federal funds are used in whole or part, may be protested to FHWA. Please refer to the FHWA Consultant Services Website for their Best Practices in Management of Design Errors and Omissions, as prepared as part of NCHRP Project 20-70, Task 225. However, reviews of protests by the federal agency will be limited to: (1) violations of federal law or regulations; or (2) violations of the state's protest procedures for failure to review a complaint or protests. Protests received by FHWA other than those specified above will be referred to the State.

Note: Consultants are advised to review applicable regulations governing procurement of selections. The process provided herein may be superseded by West Virginia State Code §5G and/or other applicable West Virginia Code of State Rules.

4.2 Selection of Consultants Using ID/IQ or Statewide Procurement Process

This section covers the selection process for projects anticipated to be less than $750,000, as per the codes and laws referenced above. Master Agreement categories shall be advertised, and firms submitting an LOQ shall be short-listed, selected and placed under agreement through the interview process identified in WV 157CSR1 Section 7.4. A Master Agreement shall be valid for two (2) years, with the option to extend for three (3) consecutive 1-year terms so long as both parties agree. Firms selected shall be placed on a list of eligible firms that are available for task assignment.

The Division Director or District Manager requesting the service shall obtain approval from the Commissioner to use the ID/IQ or Statewide Process procedure and shall follow all the requirements of the Competitive Selection Process. Consultants that will be considered must have a Statewide Master Agreement in place for the service requested. A minimum of two (2) more Consultants than required shall be contacted to inquire about their interest in the project. Once notification of interest is received from the required number of Consultants, a selection will be made from the interested Consultants based on various factors. A selection memo is then prepared and sent to the Commissioner of Highways for review and approval.

4.3 Selection of Consultants Using a Prequalified List

This section covers the selection process for projects anticipated to be less than $750,000, as per the codes and laws referenced above. Prequalification categories shall be created by the Division or District needing specific categories. The Division or District shall request approval of the category from the Commissioner of Highways. Once approved, the category shall be submitted to the Engineering Division for storing. The overseeing organization shall advertise for services. Each advertisement shall be open for a maximum of five (5) years. At any time during those 5 years, a firm may submit all required documentation for inclusion as an eligible firm on the appropriate prequalification category list.

The Division Director or District Manager requesting the service of a consulting firm, using the available firms from the Prequalified List, is not required to obtain pre-approval from the Commissioner to use this process. Pre-approval shall be assumed due to the Commissioner having approved the firm's inclusion on the Prequalification List. The Division Director or District Manager requesting the service shall contact a minimum of two (2) more Consultants than required from active firms available on the appropriate Prequalified List. Once notification of interest is received from the required number of Consultants, a selection will be made from the interested Consultants based on various factors. A selection memo is then prepared and sent to the Commissioner of Highways for review and approval.

Important Links

- West Virginia State Code §5G provides the legislative requirements for Procurement of Architect-Engineer Services by State and Its Subdivisions → https://code.wvlegislature.gov/5G-1/
- Code of State Rules → https://apps.sos.wv.gov/adlaw/csr/
- Results of Consultant selections may be found on the WVDOT website at https://transportation.wv.gov/highways/Pages/UpcomingContracts.aspx

5 Procurement Timeline

After notification of selection, the procurement process is initiated with the Consultant. In general, the following are expected from the Consultant:

- Due diligence prior to the Scope of Work meeting to understand the project and required services.
- Providing appropriate level of written narrative to accurately describe the work required, assumptions, and exclusions to the Scope of Work.
- Thorough understanding of WVDOH's Specifications, Standards, and Manuals.
- Timely and accurate submissions (see Chapter 9 for WVDOH's process for evaluating Consultant procurement).
- Responsibility for reviewing the Subconsultant's proposals prior to submittal for completeness, quality, and accuracy.
- Submitting proposals electronically to the appropriate WVDOH Division's procurement email box, as an example, for Engineering Division procurement use DOHEngineeringproposals@wv.gov.

The chart below outlines the procurement process from the Consultant's perspective:

1. Prior to Scope of Work Meeting

   Site Visit

   The Consultant, if possible, should conduct a site visit of the project area to understand the constraints, existing conditions, and services which may be required.

   Draft Narrative Submission

   The Consultant shall prepare a Draft Narrative Scope of Work which outlines the required services, assumptions, etc. It is recommended the narrative follow the WVDOH's Fee Proposal Spreadsheet to allow for correlation of services between the text and hours. No rates, hours, or fee information is to be submitted with the narrative. This narrative shall be provided to the WVDOH at least one (1) day prior to the Scope of Work meeting for review.

2. Scope of Work Meeting

   WVDOH will contact the Consultant to schedule the Scope of Work meeting. This meeting may be held virtually or in-person at the WVDOH offices or project site. During this meeting, WVDOH will review the Scope of Work notes, schedule, interim completion dates, and Consultant's Draft Narrative Scope of Work.

3. Revised Narrative Proposal Submission

   Subsequent to the Scope of Work meeting, the Consultant will be required to submit the Revised Narrative Scope of Work by the date provided by WVDOH's PM (typically 3-5 days after the Scope of Work meeting). This shall include the following:

- Revised Narrative
- "Zeroed out" Fee Proposal Spreadsheet
    - Consultant is responsible for utilizing the most current version of the spreadsheet and confirming their Subconsultants utilize the same.
    - Consultant to determine planned labor categories and provide staff rates in the appropriate categories. Rates shall be certified by the Consultant's Principal or Office Manager prior to submission.
    - Consultant to input current overhead and facility capital cost of money (FCCM) rates.
    - Based on the narrative, the Consultant shall illustrate the tasks and labor categories which will be required for the project with a "0". Only tasks and labor categories in which the Consultant anticipates hours should be shown with a zero. Note, the WVDOH will utilize this spreadsheet to develop their independent estimate.
    - Based on the narrative, the Consultant shall identify anticipated mileage, travel, and other direct costs associated with the project. These can be identified, not by quantity, but by number of miles, lodging/meal rates, etc. associated with particular tasks.
- Approved Critical Path Method (CPM) Diagram.

4. Fee Proposal Submission

   After the Consultant's Revised Narrative Proposal Submission, the WVDOH will prepare their Independent Fee Estimate. Once this is internally approved at WVDOH, the Consultant will be contacted to request their completed fee proposal. The Consultant shall submit the completed fee proposal within two (2) weeks after receiving the request from the WVDOH.

Important Links

- WVDOH Fee Proposal Template → https://transportation.wv.gov/highways/engineering/Pages/Manuals.aspx

6 Agreements

The WVDOH utilizes various agreement types depending on the overall contract amount and anticipated complexity. Consultants are advised to review Code of State Rules §157-1-7 for WVDOH Procurement Procedures for Negotiated Contracts for additional detail on agreement types.

6.1 Engineering Agreement

An Engineering Agreement is the primary contractual document between the WVDOT and the Consultant selected to perform a specific engineering function or functions. This Agreement provides a project description, general requirements, specifies the type of services to be performed and deliverables required by the Consultant, the method of payment, the time schedule to complete the work, and standard specifications for consulting services.

6.2 Statewide Master Agreement

A Statewide Master Agreement is used to procure particular services such as architectural, etc. using a specified method of payment for a period of one (1) year with the WVDOT's option to extend it for an additional year. Under a Statewide Master Agreement the overhead is fixed for the duration of the contract but may be adjusted during the extended period. Depending on the type of services performed, the WVDOT may specify the method of payment for services rendered and labor rates may be fixed or allowed to fluctuate during the contract period. Once a Statewide Master Agreement has been executed, specific assignments may be made for the type of services specified under the Statewide Master Agreement by issuing a Letter Agreement or Letter of Authorization also referred to as a Maximum Amount Payable Letter, as described below:

- A Letter Agreement outlines the project scope, confirms Notice to Proceed date, method of payment, scheduled completion, and sets the maximum amount payable.
- A Letter of Authorization, also called or referred to as a Maximum Amount Payable Letter, is used when specific rates of payment are utilized in the Statewide Master Agreement. This letter gives the Consultant notice to proceed to perform the work, as well as approval of the estimated cost as outlined in their proposal.

Each specific work assignment shall be executed under a Letter Agreement or Letter of Authorization and is subject to a maximum amount payable of $750,000 for State funded projects with a maximum of $7,500,000 per year. Each Statewide Master Agreement is subject to a total maximum amount as specified therein. Letter Agreements and Letters of Authorization are processed in the same manner as other Agreements with regards to the submittal of a fee proposal and negotiations prior to its execution.

6.3 Prequalification Agreement

A Prequalification Agreement may be used for procuring professional services for projects estimated to cost less than the maximum limits established by 23 CFR 172 for federally funded work or WV State Code §5G-1-4 for State funded work, currently $750,000 per assignment and up to $7,500,000 per year. The Commissioner of Highways must approve the use of this procurement method for all categories of work.

Each specific work assignment shall be executed under an Engineering Agreement or Letter of Authorization and is subject to a maximum amount payable. The Agreement shall serve as notice to proceed unless advance notice to proceed was given prior to the executed Agreement.

6.4 Management Support Consultant Agreement

On November 28, 2022, the Federal Highway Administration (FHWA) approved the use of Management Support Consultants (MSC) to reinforce WVDOH's ability to deliver on their infrastructure obligation authority. The MSC Agreement will be utilized for various WVDOH functions including, but not limited to, the following:

- Procurement – Prepare advertisements and scopes of work; develop independent estimates; and negotiations. WVDOH will retain the authority for Consultant selection and final proposal approval.
- Project Management – Oversight of other Consultants including responses to standards and policy questions; project deliverable reviews, monthly communication and monitoring of schedules; review and approval of invoices; value engineering; and practical design suggestions.

Please see Appendix "F" for more information. These types of agreements may be project specific or procured as a Prequalification type contract (See Section 6.3).

6.5 Supplemental Agreement

Any time during the execution of a contract, a Consultant who believes that there has been a change in the scope, complexity, or character of the work for which it has been contracted may submit a Project Modification Document (PMD) form requesting consideration for additional compensation to the Division's Project Manager overseeing the project. This request shall be made as soon as practical following the change or request in the change of work. The proposal submission shall be in the same format as required for the original fee proposal with a narrative describing the work performed or to be performed, a breakdown of man-hours, along with any direct costs associated with the project. Each supplemental request shall be subject to a review and subsequent negotiations. If found warranted, a Supplemental Agreement shall be executed, increasing the Consultant's fee to a new maximum amount payable for the project. In like manner, when work is decreased or eliminated, the Consultant shall submit a PMD and a supplemental requesting reduction of the maximum amount payable.

<u>Important Links</u>

- Project Modification Document → https://transportation.wv.gov/highways/engineering/Pages/Manuals.aspx
- West Virginia Code of State Rules → https://apps.sos.wv.gov/adlaw/csr/

7 Invoicing

All invoices are to follow the guidelines as set forth below. Example invoicing formats are provided in Appendix B.

1. The Consultant shall not submit any invoice for payment for services until an agreement has been fully executed.
2. Invoices are to be addressed and emailed to the appropriate District Manager or Division Director. (The Consultant will be informed at the Scope of Work meeting as to the appropriate individual and email address.)
3. Identify project by State and Federal project number, name, and county;
4. Identify invoice by number and date (not by amount);
5. Identify invoice by Federal Employer's Identification Number (FEIN);
6. Content of invoice submissions:
    a) A PDF of the completed invoice shall be submitted to the WVDOH via email to the appropriate District Manager, Division Director, or Division email address for invoicing, such as dohengineeringinvoices@wv.gov for the Engineering Division.
7. An invoice submission may be made up of several of the standard invoice forms, depending on the basis of payment. A completed BF-2 form shall accompany the original and all invoice copies.
8. Unless otherwise permitted by an agreement or Scope of Work note, separate invoices are required for each project. Supplemental agreements are to be shown as separate phases or billing breakdowns on the invoice.
9. The WVDOH will not honor any invoice for work performed prior to notice to proceed. See Chapter 6 for information regarding notice to proceed.

The most common invoicing errors that are encountered by WVDOH include:

1. Previous Amounts shown on current invoice do not match the previous invoice.
2. Subconsultant Certification not completed or filled out incorrectly.
3. Consultant Name and Address does not match wvOasis.
4. Copy of Subconsultant Invoices not provided with Prime Consultant's invoice.

Important Links

- WVDOT BF-2 form → https://transportation.wv.gov/employees/Pages/DOTForms.aspx

8 Project Reporting

Purpose

The Consultant will hold regular monthly progress meetings with each WVDOH Division or District in which the Consultant has a project assigned. The WVDOH Division or District will assign a day and time each month for the Consultant to meet to discuss project progress. The general purpose of the progress meeting is to:

- Review progress and schedule;
- Identify potential issues, solutions, and schedule delays;
- Needs from WVDOH; and
- Action items.

Progress Meetings

For each project, the Consultant shall provide the following:

1. Meeting Notes

   The Consultant will provide meeting notes for each assigned project at each progress meeting. It is important to develop notes for the discussions to be held. The Consultant is responsible for the preparation of the meeting notes. The Consultant will upload the current progress meeting notes to ProjectWise the day before the progress meeting. Although each WVDOH Division or District may require differing information in the progress meeting notes, the following shall be included in each at a minimum:

   - Previous progress notes;
   - Current progress notes;
   - Project percent complete of project budget (for auditing); and
   - Upcoming tasks/submissions (next steps).

2. CPM/Schedule

   The Consultant will provide a Critical Path Method (CPM) Schedule for each progress meeting. The CPM will follow Design Directive 202 (DD-202), if applicable, or a different CPM may be used upon approval of the WVDOH. The CPM file, which is stored on WVDOH's ProjectWise, will be updated to reflect any changes in schedule since the last progress meeting. For each Consultant Project, there shall be a folder called "CPM and Estimates" in the ProjectWise folder structure. The CPM will be linked to WVDOH's internal project tracking database; therefore, under no circumstance shall the CPM file be renamed or superseded. These updates shall be performed one (1) day prior to the Consultant's progress meeting.

9 Consultant Evaluations

9.1 Background

Purpose

The purpose of these procedures is to provide an updated evaluation process based specifically on quality of the deliverables and timely delivery. This policy provides workflow and definitions to provide prompt evaluations of Consultant deliverables. This is intended to supplement WV State Legislative Rule Title 157, Series 1, Section 7.11 regulations with specific guidance.

Goals

Evaluations are based on two (2) criteria: quality and timeliness. This criterion provides the basis for information required when requesting services. These two (2) measures identify objective indicators of the project health at the time of the review. Quality, accuracy, and completeness criteria shows that the Consultant is providing a consistent, correct set of deliverables that need very little quality assurance review by WVDOH. As important to the WVDOH as accurate plans are timely submittals. Timely submittals allow for funding milestones to be met and keep critical path tasks on schedule. Plans delivered on the Plans, Specifications, and Estimate (PS&E) schedule, but missing prior milestones may mean that the project funding, utility relocation or resource agency approvals may delay either federal authorization or construction schedules. To ensure all parties' understanding, the WVDOH's Project Manager will discuss the evaluation criteria, expectations, deliverables, and timing of evaluations before the Consultant begins work. Ideally, this should be done at the Scope of Work meeting and in correspondence transmitting the engineering agreement.

Definitions

Timeliness – Meeting or advancing the WVDOH-defined schedule date or CPM schedule date.

Quality – Having all necessary information presented properly.

9.2 Evaluation Criteria

Evaluations are important to communicate expectations beyond the legal agreement between the WVDOH and Consultant. Timely evaluations throughout task or project development are essential for the final product to meet the needs and goals of the WVDOH. Evaluations not only lead to understanding of needs between WVDOH and Consultant but also provide a fundamental decision point in choosing Consultants for future work. Providing numeric values on the most critical objectives allows all to focus on these items. Evaluations will be based on timeliness and quality submittals. Guidelines for scoring can be found in Appendix C.

Timeliness Criteria

As timeliness implies, on time delivery is an important value for the project schedule. On time delivery is important at the beginning of a project when trying to procure and then when delivering the actual project. Timeliness affects many tasks beyond the milestone affected at the submission date. Rescheduling submittal dates may cause programmatic issues with National Environmental Policy Act (NEPA) clearance or funding deadlines. On time deliveries also provide the WVDOH with a sense the Consultant is fulfilling the needs of the agency.

Quality Submission Criteria

Quality submittals are of great importance. As more workload of review is delegated to Consultants, it is important that quality control measures are in place. The WVDOH generally acknowledges that quality is essential for proposal and plan submittals by providing time to Consultants for quality assurance and quality control tasks. As such, Consultants are required to have their QA/QC policy on file and to submit "marked up" plans at major milestones for review. "Marked up" proposals are not required during the procurement process. However, the Consultant shall make sure that the proposal is correct and complete both from the Prime Consultant and Subconsultant.

Procurement Submission Criteria

To meet schedules, the procurement of services must be in a timely manner and complete. To facilitate this, timeliness, correctness, and quality will be the criteria for the scoring. WVDOH will indicate at the beginning of the project if the Consultant will receive an evaluation on the procurement submission.

9.3 Milestone Weighting for Design Submissions

The WVDOH may elect to use weighting of a criteria if they feel it requires more emphasis at the design submittal milestones. Weights will be identified early in procurement and will be made known to the Consultant. The weight between one (1) and four (4) will be used, with four (4) being the highest weight. If no weights are identified, then a value of one (1) will be used.

9.4 Reporting of Evaluations

Evaluations will be reported for short listing or other agency needs based on project score. If the Consultant has multiple projects, the WVDOH Division or WVDOH District overseeing the work will report on the average score of the Consultant's assigned projects. Partially complete projects will be reported as the score on that project at time of request for evaluations.

A Consultant's evaluation will be stored for three (3) years past project or task completion. This 3-year aggregate will be used when reports are requested. The Consultant's evaluation scores will be available to future selection committees and should be reviewed during the short list meeting for new procurements.

9.5 Evaluation of Design Submissions

To provide more consistent and relevant evaluations, scoring will occur at specified intervals as indicated in the agreement. Consultant evaluations are conducted at different timeframes for each WVDOH Division or District. The frequency of the evaluations should align with project deliverables and be often enough to affect changes in performance if they are needed. Evaluations will be given at standard reviews determined by DD- 202 submissions or at an identified interval in the agreement based on the type of services requested.

The milestones or task submissions to be evaluated will be identified in the agreement. Agreements that do not identify intermediate evaluations will be evaluated at final submission. The Consultants

may be evaluated based on any milestone deemed appropriate by the Division or District requesting the work.

Consultant work product will be evaluated by the assigned Project Manager with concurrence by the next level supervisor. If the Consultant elects to subcontract out tasks assigned for the project, the Prime Consultant will be evaluated on the work of the Subconsultant or Subcontractor regarding adherence to quality and timeliness. The WVDOH PM should consider the following throughout the project duration for the quality submission scoring:

- Did the Consultant adhere to the scope?
- Did Consultant produce quality products or were products returned for substantial corrections?
- Was Consultant self-sufficient or did the Consultant require additional assistance?
- Was the Consultant responsive and proactive in communications with the WVDOH?
- Did the Consultant place appropriate staff in roles to benefit the project?

The Consultant will receive the evaluation of the task within five (5) working days after the submission review meeting. The Consultant will have the opportunity to review the evaluation and sign the evaluation sheet. The assigned WVDOH PM is responsible for submitting the evaluation to the contracting agent for the Division or District, or other assigned personnel for tracking all Consultant evaluations.

Comments are required for each assigned rating. For firms receiving an evaluation rating of "1", "2" or "3" on any criteria, a detailed explanation is required outlining the performance issue and necessary corrective action(s). The evaluation should not be used as the first communication of issue or praise to Consultants. WVDOH will strive to work with Consultants to correct issues in the interim. Please see Appendix "G" for more information.

- Please note evaluation forms may vary between divisions.

9.6 Appeals Process

The intent of the appeals process is to foster documented dialogue which explains both the WVDOH's and the Consultant's perspective and allows the Project Manager (PM) to use their professional judgment when reviewing the evaluation and all supporting documents. Evaluations are signed by the WVDOH PM and the Consultant's PM. The Consultant's signature on the Evaluation Form is certification that the Consultant has been provided the opportunity to review and provide comments regarding the WVDOH's evaluation and comments. Signing the evaluation does not necessarily indicate that the Consultant agrees with the evaluation or comments provided. If the Consultant disagrees with the evaluation rating and/or comments the Consultant must still sign the evaluation and should provide a written response on the Evaluation Form. The signed performance evaluation should be returned to the WVDOH within ten (10) business days after receiving the evaluation. All ratings provided on the performance evaluation are final unless justification is provided to and approved by WVDOH. WVDOH reserves the right to revise a performance evaluation based upon supporting documentation presented by the Consultant. If a Consultant intends to appeal their evaluation, supporting documentation defining why a change

should be considered will need to be sent to the WVDOH PM within ten (10) business days of receipt of the evaluation. Within those ten (10) business days, the Consultant may also request a meeting with the WVDOH PM to resolve any differences. At the completion of the meeting the WVDOH PM will add supporting documentation to the electronic evaluation indicating the outcome of the meeting, or if needed, revise the evaluation. Supporting documentation may include but not be limited to, corrective action plans, additional comments from the Consultant, or comments from the WVDOH PM acknowledging an alternative position regarding the evaluation. If the Consultant and the WVDOH PM cannot resolve the dispute, the issue can be escalated to a higher level of management (Division Director, District Manager.). The assessment in the Consultant Evaluation System will be revised accordingly, depending on the outcome of the Consultant's appeal.

9.7 Performance Evaluation Scoring Process

Consultants will be evaluated using the ratings and corresponding scores in Appendix C. The descriptions should be used by WVDOH PMs as general guidelines for scoring. The evaluation guidelines are not designed to be inclusive of all situations; they are intended to provide WVDOH PMs with a general framework to assist in the completion of an evaluation. The effective management of Consultant performance through documented feedback is essential to managing successful projects. Written comments are required for each assigned rating. For Consultants receiving an evaluation rating of "1, 2 or 3" on a design submission, a detailed explanation is required outlining the performance issue and necessary corrective action(s). Consultants rely on this information to improve their processes, products, and management, and assign resources properly for future opportunities. When writing comments, provide specifics (e.g., what the firm did well, what should be different, was project management adequate, and if not, why was Subconsultant use helpful to project execution, and if not, why). The requirement for written evaluations does not rule out the option to meet with the Consultant when issues occur and improvement is needed related to performance on a given assignment, particularly if issues arise that affect deliverables. Proactive communication serves both the Consultant and WVDOH. See Appendix C for Scoring Criteria.

Important Links

- Code of State Rules → https://apps.sos.wv.gov/adlaw/csr/

10 Project Closeout

At the conclusion of each project, the Consultant shall undertake the following steps and ensure compliance to initiate project closeout.

The Consultant's Project Manager shall submit an email to the WVDOH Project Manager indicating that the Consultant has completed all project tasks and intends to submit Final Invoice. Prior to submission of the final invoice, the Consultant must perform and/or ensure the following:

- Have submitted RW-4 Plans or note in the email to the WVDOH PM that RW-4 plans are NOT a scoped task or not applicable for the subject project.
- Request WVDOH PM to perform final Consultant evaluation.
- After receiving concurrence from the WVDOH PM, the Consultant should then submit the final invoice within thirty (30) days.
- Once the final invoice is submitted to the Division it will be reviewed and sent to the Transportation Auditing Division for an audit if the costs incurred are over $250,000.00
- The Transportation Auditing Division will review the project for accuracy and issue a report of their findings to the proper Division.
- The Division will review the report and take appropriate action and process the invoice for closing.

11 Audit Requirements

This section is designed to address the requirements for overhead, proposal, and final cost reviews for the WVDOT. This follows the 23 U.S.C. 112(b)(2)(B), any contract or subcontract awarded for architectural and engineering (A/E) services whether funded in whole or in part with Federal-aid highway funds shall be performed and audited in compliance with cost principles contained in the Federal Acquisition Regulations (FAR).

11.1 Overhead Rate

Overhead rate (including field office overhead and Facility Capital Cost of Money (FCCM) rates, if applicable) must be on file for both Prime Consultants and Subconsultants prior to entering contract negotiations and submission of a proposal. The submitted overhead information shall contain a detailed exhibit of the computations with all applicable FAR eliminations and the minimum audit report disclosure notes. Consultants will be required to provide an indirect cost (overhead) rate schedule for the most recent fiscal year ended. The requirement applies to all engineering related Consultant agreements regardless of method of payment.

There are four (4) types of overhead rates that can be submitted as listed below. Consultant shall submit all information to dotauditoverheads@wv.gov.

1. Certified Public Accountant (CPA) audited overhead rates must be submitted for approval for agreements expected to exceed $500,000.00, per Consultant or Subconsultant. The audit shall be done in accordance with Government Auditing Standards issued by the Comptroller General of the United States and all eliminations required by Part 31 of the FAR are to be followed. The independent auditor's report must have issued an unqualified opinion stating that the financial statements are presented fairly.

   Information to be provided to WVDOT Auditing Division includes:

   - Indirect cost schedule with calculations
   - CPA overhead audit with report notes
   - Company audited financial reports, if available
   - AASHTO ICQ
   - AASHTO Consultant Rate Certification

   ******It will be the responsibility of the Consultant to contact the WVDOT Auditing Division to verify approval/certification of the potential CPA to perform the requested Consultant's FAR audit.***

2. Company computed, or unaudited compiled overhead rates can be submitted under the following conditions:

   - The contract for the Consultant is not expected to exceed $500,000.00.
   - The Consultant has a verifiable accounting system that is an accrual system in accordance the US Generally Accepted Accounting Principles. WVDOT Auditing Division may request

supporting documentation, i.e., trial balance, general ledger for amounts used prior to accepting the submitted overhead.

Information to be provided to WVDOT Auditing Division includes:

- Indirect cost schedule with calculations
- Company audited financial reports/quarterly payroll tax returns (94ls)
- AASHTO ICQ
- AASHTO Consultant Rate Certification

3. Safe Harbor Rate may be available for small engineering firms that have been recently established, with the following conditions:
   - Must not have ever had a CPA audited overhead rate.
   - Has not exceeded the three (3) year limitation on use of a Safe Harbor Rate.
   - Has sufficient data to complete and submit the AASHTO ICQ prior to consideration of Safe Harbor Rate use.

   Information to be provided to WVDOT Auditing Division include:
   - Company financial reports
   - AASHTO ICQ

4. A cognizant rate review from other state departments of transportation may be submitted for review and approval. Please see Section 11.4.

The External Audit Section will review the CPA's audit report upon receipt of the overhead information before the audited rate will be accepted by the WVDOT. For the Safe Harbor Rate, the WVDOT will obtain the necessary data from the ICQ to determine the eligibility and calculate the rate specific to the WVDOH. WVDOT Auditing Division will issue a "Indirect Cost Desk Review Memo" to the Consultant and the WVDOH's contracting officer stating the rate that is accepted upon completion of the review. WVDOT Auditing Division has final say on the rate to be used for all WVDOH contracts.

For assistance with any overhead questions, email dotauditoverheads@wv.gov with your questions or provide contact information for a callback.

11.2 AASHTO Internal Control Questionnaire (ICQ)

The American Association of State Highway and Transportation Officials (AASHTO) ICQ is an important part of the annual submission of overhead and other accounting information to WVDOT Auditing Division by all A/E firms that have an interest in performing engineering services with the WVDOH. The annual submission is required of all Consultants and Subconsultants. Prime Consultants must ensure that all Subconsultants have submitted the same accounting information prior to submitting proposals to the WVDOH. As an annual submission, a revised AASHTO ICQ shall be submitted as soon as possible, but generally no later than six (6) months after the end of the firm's fiscal year or whenever changes to the company's accounting system are made.

The AASHTO ICQ will determine if the company pays overtime at a premium portion to any employees. It will state whether the premium overtime cost is reimbursed directly to a project or is recovered through the indirect cost rate. This means the costs are compensated when the overhead rate is applied.

11.3 Consultant Cost Certification

The costs must be certified by an official of the Consultant as being allowable in accordance with the cost principles of 48 CFR, part 31 and does not include any costs which are expressly unallowable. The requirement applies to all indirect cost rate proposals submitted by the Consultants and Subconsultants. Each firm is responsible for its own indirect cost rate.

Certification of Labor Rates must have employees listed either under one (1) pay classification or the percentage of work must equal 100% for the multiple classifications. The Consultant needs to have the individual's name and/or employee's number for every position listed with rates. The labor should be a raw hourly rate with profit and overhead added separately. Loaded rates for this type of contract are not allowable.

A copy of the Consultant Certification can be obtained at transportation.wv.gov/auditing.

11.4 Cognizant Agency

Cognizant audit on the Consultant's indirect cost rate(s) may be accepted as established for a one (1) year applicable fiscal year by a cognizant agency of the state where the Consultant's accounting and financial records are located. The cognizant agency must conduct a review of the audit report and related work papers prepared by a CPA and issue a letter of concurrence with the related audited indirect cost rate.

A copy of the approved WVDOT Indirect Cost Desk Review Memo should be included in the fee proposal. The Consultant's actual approved overhead rate, as reflected in the memo, will be used. If the Consultant voluntarily proposes to use a lower overhead rate than the current audit in order to keep overall project costs competitive, the WVDOH may accept the lower overhead rate. The use of a lower overhead rate will not be a requirement for contracting.

11.5 Retainage and Final Payment

Complete Job Cost reports are required for every Cost Plus agreement and should be attached to the final invoice. Interim Job Cost reports may be required for projects exceeding five (5) years to complete, the Consultant merges with another consulting company, or the Consultant changes accounting systems. Job Cost reports are to be submitted for Lump Sum supplemental requests when the request is for additional compensation due to underestimating the complexity or time necessary to complete a project.

Consultants are responsible for maintaining all supporting cost detail for any other Consultant they acquire for any ongoing project with the WVDOH. They have to keep these records for three (3) years.

Once all contractual obligations are complete, a final audit will be requested by the Division or District from the Transportation Auditing Division. Adjustments to costs (i.e. overhead, non-supported costs) will be based on the final audit and will result in the final payment.

Important Links:

- AASHTO ICQ can be obtained at Transportation.org – The home of transportation professionals.

11.6 FAR Part 31 Questions and Answers

1. **Question:**

   What is the purpose of FAR?

   Answer:

   The purpose of the FAR is to publish uniform policies and procedures for federal agencies to follow when going through the procurement process. These rules provide a consistent yet flexible purchasing procedure so that government contracts may be conducted in a transparent, fair, and impartial manner.

2. **Question:**

   Does FAR Part 31 apply to fixed price contracts?

   Answer:

   31.102 Fixed-price contracts. The applicable subparts of part 31 shall be used in the pricing of fixed-price contracts, subcontracts, and modifications to contracts and subcontracts whenever (a) cost analysis is performed, or (b) a fixed-price contract clause requires the determination or negotiation of costs.

3. **Question:**

   Which of the cost categories are not allowable under FAR Part 31?

   Answer:

   Examples of these include: Interest Expense, Donations or Contributions, Entertainment, Contingencies, Bad Debts, Fines & Penalties, Goodwill, Losses on Contracts, Organization/Re-Organization Costs, Alcohol, Promotion, Personal Use, Profit Distribution, First Class Airfare, and Legal Costs.

4. **Question:**

   Do you have to wait on a cognizant audit from your home state to submit your overhead information?

   Answer

   No, the concept was developed to assign responsibility for an audit to a single entity to avoid the duplication of audit work performed. If you have the required CPA audited information package ready, you can submit to the WVDOT Auditing Division earlier if your company is trying to meet a deadline.

Appendix A

Example SF-330

ARCHITECT-ENGINEER QUALIFICATIONS

OMB Control Number: 9000-0157
Expiration Date: 2/29/2024

PURPOSE

Federal agencies use this form to obtain information from architect-engineer (A-E) firms about their professional qualifications. Federal agencies select firms for A-E contracts on the basis of professional qualifications as required by 40 U.S.C. chapter 11, Selection of Architects Engineers, and Part 36 of the Federal Acquisition Regulation (FAR).

The Selection of Architects and Engineers statute requires the public announcement of requirements for A-E services (with some exceptions provided by other statutes), and the selection of at least three of the most highly qualified firms based on demonstrated competence and professional qualifications according to specific criteria published in the announcement. The Act then requires the negotiation of a contract at a fair and reasonable price starting first with the most highly qualified firm.

The information used to evaluate firms is from this form and other sources, including performance evaluations, any additional data requested by the agency, and interviews with the most highly qualified firms and their references.

GENERAL INSTRUCTIONS

Part I presents the qualifications for a specific contract.

Part II presents the general qualifications of a firm or a specific branch office of a firm. Part II has two uses:

1. An A-E firm may submit Part II to the appropriate central, regional or local office of each Federal agency to be kept on file. A public announcement is not required for certain contracts, and agencies may use Part II as a basis for selecting at least three of the most highly qualified firms for discussions prior to requesting submission of Part I. Firms are encouraged to update Part II on file with agency offices, as appropriate, according to FAR Part 36. If a firm has branch offices, submit a separate Part II for each branch office seeking work.

2. Prepare a separate Part II for each firm that will be part of the team proposed for a specific contract and submitted with Part I. If a firm has branch offices, submit a separate Part II for each branch office that has a key role on the team.

INDIVIDUAL AGENCY INSTRUCTIONS

Individual agencies may supplement these instructions. For example, they may limit the number of projects or number of pages submitted in Part I in response to a public announcement for a particular project. Carefully comply with any agency instructions when preparing and submitting this form. Be as concise as possible and provide only the information requested by the agency.

DEFINITIONS

Architect-Engineer Services: Defined in FAR 2.101.

Branch Office: A geographically distinct place of business or subsidiary office of a firm that has a key role on the team.

Discipline: Primary technical capabilities of key personnel, as evidenced by academic degree, professional registration, certification, and/or extensive experience.

Firm: Defined in FAR 36.102.

Key Personnel: Individuals who will have major contract responsibilities and/or provide unusual or unique expertise.

SPECIFIC INSTRUCTIONS

Part I - Contract-Specific Qualifications

Section A. Contract Information.

1. Title and Location. Enter the title and location of the contract for which this form is being submitted, exactly as shown in the public announcement or agency request.

2. Public Notice Date. Enter the posted date of the agency's notice on the Federal Business Opportunity website (FedBizOpps), other form of public announcement or agency request for this contract.

3. Solicitation or Project Number. Enter the agency's solicitation number and/or project number, if applicable, exactly as shown in the public announcement or agency request for this contract.

Section B. Architect-Engineer Point of Contact.

4-8. Name, Title, Name of Firm, Telephone Number, Fax (Facsimile) Number and E-mail (Electronic Mail) Address. Provide information for a representative of the prime contractor or joint venture that the agency can contact for additional information.

Section C. Proposed Team.

9-11. Firm Name, Address, and Role in This Contract. Provide the contractual relationship, name, full mailing address, and a brief description of the role of each firm that will be involved in performance of this contract. List the prime contractor or joint venture partners first. If a firm has branch offices, indicate each individual branch office that will have a key role on the team. The named subcontractors and outside associates or consultants must be used, and any change must be approved by the contracting officer. (See FAR Part 52 Clause "Subcontractors and Outside Associates and Consultants (Architect-Engineer Services)"). Attach an additional sheet in the same format as Section C if needed.

Section D. Organizational Chart of Proposed Team.

As an attachment after Section C, present an organizational chart of the proposed team showing the names and roles of all key personnel listed in Section E and the firm they are associated with as listed in Section C.

Section E. Resumes of Key Personnel Proposed for this Contract.

Complete this section for each key person who will participate in this contract. Group by firm, with personnel of the prime contractor or joint venture partner firms first. The following blocks must be completed for each resume:

12. Name. Self-explanatory.

13. Role in this contract. Self-explanatory.

14. Years Experience. Total years of relevant experience (block 14a), and years of relevant experience with current firm, but not necessarily the same branch office (block 14b).

15. Firm Name and Location. Name, city and state of the firm where the person currently works, which must correspond with one of the firms (or branch office of a firm, if appropriate) listed in Section C.

16. Education. Provide information on the highest relevant academic degree(s) received. Indicate the area(s) of specialization for each degree.

17. Current Professional Registration. Provide information on current relevant professional registration(s) in a State or possession of the United States, Puerto Rico, or the District of Columbia according to FAR Part 36.

18. Other Professional Qualifications. Provide information on any other professional qualifications relating to this contract, such as education, professional registration, publications, organizational memberships, certifications, training, awards, and foreign language capabilities.

19. Relevant Projects. Provide information on up to five projects in which the person had a significant role that demonstrates the person's capability relevant to her/his proposed role in this contract. These projects do not necessarily have to be any of the projects presented in Section F for the project team if the person was not involved in any of those projects or the person worked on other projects that were more relevant than the team projects in Section F. Use the check box provided to indicate if the project was performed with any office of the current firm. If any of the professional services or construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description and Specific Role (block (3)).

Section F. Example Projects Which Best Illustrate Proposed Team's Qualifications for this Contract.

Select projects where multiple team members worked together, if possible, that demonstrate the team's capability to perform work similar to that required for this contract. Complete one Section F for each project. Present ten projects, unless otherwise specified by the agency. Complete the following blocks for each project:

20. Example Project Key Number. Start with "1" for the first project and number consecutively.

21. Title and Location. Title and location of project or contract. For an indefinite delivery contract, the location is the geographic scope of the contract.

22. Year Completed. Enter the year completed of the professional services (such as planning, engineering study, design, or surveying), and/or the year completed of construction, if applicable. If any of the professional services or the construction projects are not complete, leave Year Completed blank and indicate the status in Brief Description of Project and Relevance to this Contract (block 24).

23a. Project Owner. Project owner or user, such as a government agency or installation, an institution, a corporation or private individual.

23b. Point of Contact Name. Provide name of a person associated with the project owner or the organization which contracted for the professional services, who is very familiar with the project and the firm's (or firms') performance.

23c. Point of Contact Telephone Number. Self-explanatory.

24. Brief Description of Project and Relevance to this Contract. Indicate scope, size, cost, principal elements and special features of the project. Discuss the relevance of the example project to this contract. Enter any other information requested by the agency for each example project.

25. Firms from Section C Involved with this Project. Indicate which firms (or branch offices, if appropriate) on the project team were involved in the example project, and their roles. List in the same order as Section C.

Section G. Key Personnel Participation in Example Projects.

This matrix is intended to graphically depict which key personnel identified in Section E worked on the example projects listed in Section F. Complete the following blocks (see example below).

26. and 27. Names of Key Personnel and Role in this Contract. List the names of the key personnel and their proposed roles in this contract in the same order as they appear in Section E.

28. Example Projects Listed in Section F. In the column under each project key number (see block 29) and for each key person, place an "X" under the project key number for participation in the same or similar role.

29. Example Projects Key. List the key numbers and titles of the example projects in the same order as they appear in Section F.

Section H. Additional Information.

30. Use this section to provide additional information specifically requested by the agency or to address selection criteria that are not covered by the information provided in Sections A-G.

Section I. Authorized Representative.

31. and 32. Signature of Authorized Representative and Date. An authorized representative of a joint venture or the prime contractor must sign and date the completed form. Signing attests that the information provided is current and factual, and that all firms on the proposed team agree to work on the project. Joint ventures selected for negotiations must make available a statement of participation by a principal of each member of the joint venture.

33. Name and Title. Self-explanatory.

SAMPLE ENTRIES FOR SECTION G *(MATRIX)*

26. NAMES OF KEY PERSONNEL *(From Section E, Block 12)*	27. ROLE IN THIS CONTRACT *(From Section E, Block 13)*	28. EXAMPLE PROJECTS LISTED IN SECTION F *(Fill in "Example Projects Key" section below first, before completing table. Place "X" under project key number for participation in same or similar role.)*									
		1	2	3	4	5	6	7	8	9	10
Jane A. Smith	Chief Architect	X		X							
Joseph B. Williams	Chief Mechanical Engineer	X	X	X	X						
Tara C. Donovan	Chief Electricial Engineer	X	X		X						

29. EXAMPLE PROJECTS KEY

NUMBER	TITLE OF EXAMPLE PROJECT *(From Section F)*	NUMBER	TITLE OF EXAMPLE PROJECT *(From Section F)*
1	Federal Courthouse, Denver, CO	6	XYZ Corporation Headquarters, Boston, MA
2	Justin J. Wilson Federal Building, Baton Rouge, LA	7	Founder's Museum, Newport, RI

Part II - General Qualifications

See the "**General Instructions**" on page 1 for firms with branch offices. Prepare Part II for the specific branch office seeking work if the firm has branch offices.

1. Solicitation Number. If Part II is submitted for a specific contract, insert the agency's solicitation number and/or project number, if applicable, exactly as shown in the public announcement or agency request.

2a-2e. Firm (or Branch Office) Name and Address. Self-explanatory.

3. Year Established. Enter the year the firm (or branch office, if appropriate) was established under the current name.

4. Unique Entity Identifier. Insert the unique entity identifier issued by the entity designated at SAM. See FAR part 4.6.

5. Ownership.

a. Type. Enter the type of ownership or legal structure of the firm (sole proprietor, partnership, corporation, joint venture, etc.).

b. Small Business Status. Refer to the North American Industry Classification System (NAICS) code in the public announcement, and indicate if the firm is a small business according to the current size standard for that NAICS code (for example, Engineering Services (part of NAICS 541330), Architectural Services (NAICS 541310), Surveying and Mapping Services (NAICS 541370)). The small business categories and the internet website for the NAICS codes appear in FAR part 19. Contact the requesting agency for any questions. Contact your local U.S. Small Business Administration office for any questions regarding Business Status.

6a-6c. Point of Contact. Provide this information for a representative of the firm that the agency can contact for additional information. The representative must be empowered to speak on contractual and policy matters.

7. Name of Firm. Enter the name of the firm if Part II is prepared for a branch office.

8a-8c. Former Firm Names. Indicate any other previous names for the firm (or branch office) during the last six years. Insert the year that this corporate name change was effective and the associated unique entity identifier. This information is used to review past performance on Federal contracts.

9. Employees by Discipline. Use the relevant disciplines and associated function codes shown at the end of these instructions and list in the same numerical order. After the listed disciplines, write in any additional disciplines and leave the function code blank. List no more than 20 disciplines. Group remaining employees under "Other Employees" in column b. Each person can be counted only once according to his/her primary function. If Part II is prepared for a firm (including all branch offices), enter the number of employees by disciplines in column c(1). If Part II is prepared for a branch office, enter the number of employees by discipline in column c(2) and for the firm in column c(1).

10. Profile of Firm's Experience and Annual Average Revenue for Last 5 Years. Complete this block for the firm or branch office for which this Part II is prepared. Enter the experience categories which most accurately reflect the firm's technical capabilities and project experience. Use the relevant experience categories and associated profile codes shown at the end of these instructions, and list in the same numerical order. After the listed experience categories, write in any unlisted relevant project experience categories and leave the profile codes blank. For each type of experience, enter the appropriate revenue index number to reflect the professional services revenues received annually (averaged over the last 5 years) by the firm or branch office for performing that type of work. A particular project may be identified with one experience category or it may be broken into components, as best reflects the capabilities and types of work performed by the firm. However, do not double count the revenues received on a particular project.

11. Annual Average Professional Services Revenues of Firm for Last 3 Years. Complete this block for the firm or branch office for which this Part II is prepared. Enter the appropriate revenue index numbers to reflect the professional services revenues received annually (averaged over the last 3 years) by the firm or branch office. Indicate Federal work (performed directly for the Federal Government, either as the prime contractor or subcontractor), non-Federal work (all other domestic and foreign work, including Federally-assisted projects), and the total.

12. Authorized Representative. An authorized representative of the firm or branch office must sign and date the completed form. Signing attests that the information provided is current and factual. Provide the name and title of the authorized representative who signed the form.

List of Disciplines *(Function Codes)*

Code	Description	Code	Description
01	Acoustical Engineer	32	Hydraulic Engineer
02	Administrative	33	Hydrographic Surveyor
03	Aerial Photographer	34	Hydrologist
04	Aeronautical Engineer	35	Industrial Engineer
05	Archeologist	36	Industrial Hygienist
06	Architect	37	Interior Designer
07	Biologist	38	Land Surveyor
08	CADD Technician	39	Landscape Architect
09	Cartographer	40	Materials Engineer
10	Chemical Engineer	41	Materials Handling Engineer
11	Chemist	42	Mechanical Engineer
12	Civil Engineer	43	Mining Engineer
13	Communications Engineer	44	Oceanographer
14	Computer Programmer	45	Photo Interpreter
15	Construction Inspector	46	Photogrammetrist
16	Construction Manager	47	Planner: Urban/Regional
17	Corrosion Engineer	48	Project Manager
18	Cost Engineer/Estimator	49	Remote Sensing Specialist
19	Ecologist	50	Risk Assessor
20	Economist	51	Safety/Occupational Health Engineer
21	Electrical Engineer	52	Sanitary Engineer
22	Electronics Engineer	53	Scheduler
23	Environmental Engineer	54	Security Specialist
24	Environmental Scientist	55	Soils Engineer
25	Fire Protection Engineer	56	Specifications Writer
26	Forensic Engineer	57	Structural Engineer
27	Foundation/Geotechnical Engineer	58	Technician/Analyst
28	Geodetic Surveyor	59	Toxicologist
29	Geographic Information System Specialist	60	Transportation Engineer
30	Geologist	61	Value Engineer
31	Health Facility Planner	62	Water Resources Engineer

List of Experience Categories *(Profile Codes)*

Code	Description
A01	Acoustics, Noise Abatement
A02	Aerial Photography; Airborne Data and Imagery Collection and Analysis
A03	Agricultural Development; Grain Storage; Farm Mechanization
A04	Air Pollution Control
A05	Airports; Navaids; Airport Lighting; Aircraft Fueling
A06	Airports; Terminals and Hangars; Freight Handling
A07	Arctic Facilities
A08	Animal Facilities
A09	Anti-Terrorism/Force Protection
A10	Asbestos Abatement
A11	Auditoriums & Theaters
A12	Automation; Controls; Instrumentation
B01	Barracks; Dormitories
B02	Bridges
C01	Cartography
C02	Cemeteries *(Planning & Relocation)*
C03	Charting: Nautical and Aeronautical
C04	Chemical Processing & Storage
C05	Child Care/Development Facilities
C06	Churches; Chapels
C07	Coastal Engineering
C08	Codes; Standards; Ordinances
C09	Cold Storage; Refrigeration and Fast Freeze
C10	Commercial Building *(low rise)* ; Shopping Centers
C11	Community Facilities
C12	Communications Systems; TV; Microwave
C13	Computer Facilities; Computer Service
C14	Conservation and Resource Management
C15	Construction Management
C16	Construction Surveying
C17	Corrosion Control; Cathodic Protection; Electrolysis
C18	Cost Estimating; Cost Engineering and Analysis; Parametric Costing; Forecasting
C19	Cryogenic Facilities
D01	Dams *(Concrete; Arch)*
D02	Dams *(Earth; Rock);* Dikes; Levees
D03	Desalinization *(Process & Facilities)*
D04	Design-Build **-** Preparation of Requests for Proposals
D05	Digital Elevation and Terrain Model Development
D06	Digital Orthophotography
D07	Dining Halls; Clubs; Restaurants
D08	Dredging Studies and Design
E01	Ecological & Archeological Investigations
E02	Educational Facilities; Classrooms
E03	Electrical Studies and Design
E04	Electronics
E05	Elevators; Escalators; People-Movers
E06	Embassies and Chanceries
E07	Energy Conservation; New Energy Sources
E08	Engineering Economics
E09	Environmental Impact Studies, Assessments or Statements
E10	Environmental and Natural Resource Mapping
E11	Environmental Planning
E12	Environmental Remediation
E13	Environmental Testing and Analysis
F01	Fallout Shelters; Blast-Resistant Design
F02	Field Houses; Gyms; Stadiums
F03	Fire Protection
F04	Fisheries; Fish ladders
F05	Forensic Engineering
F06	Forestry & Forest products
G01	Garages; Vehicle Maintenance Facilities; Parking Decks
G02	Gas Systems (Propane; Natural, Etc.)
G03	Geodetic Surveying: Ground and Air-borne
G04	Geographic Information System Services: Development, Analysis, and Data Collection
G05	Geospatial Data Conversion: Scanning, Digitizing, Compilation, Attributing, Scribing, Drafting
G06	Graphic Design
H01	Harbors; Jetties; Piers, Ship Terminal Facilities
H02	Hazardous Materials Handling and Storage
H03	Hazardous, Toxic, Radioactive Waste Remediation
H04	Heating; Ventilating; Air Conditioning
H05	Health Systems Planning
H06	Highrise; Air-Rights-Type Buildings
H07	Highways; Streets; Airfield Paving; Parking Lots
H08	Historical Preservation
H09	Hospital & Medical Facilities
H10	Hotels; Motels
H11	Housing *(Residential, Multi-Family; Apartments; Condominiums)*
H12	Hydraulics & Pneumatics
H13	Hydrographic Surveying

Code	Description
I01	Industrial Buildings; Manufacturing Plants
I02	Industrial Processes; Quality Control
I03	Industrial Waste Treatment
I04	Intelligent Transportation Systems
I05	Interior Design; Space Planning
I06	Irrigation; Drainage
J01	Judicial and Courtroom Facilities
L01	Laboratories; Medical Research Facilities
L02	Land Surveying
L03	Landscape Architecture
L04	Libraries; Museums; Galleries
L05	Lighting (Interior; Display; Theater, Etc.)
L06	Lighting (Exteriors; Streets; Memorials; Athletic Fields, Etc.)
M01	Mapping Location/Addressing Systems
M02	Materials Handling Systems; Conveyors; Sorters
M03	Metallurgy
M04	Microclimatology; Tropical Engineering
M05	Military Design Standards
M06	Mining & Mineralogy
M07	Missile Facilities (Silos; Fuels; Transport)
M08	Modular Systems Design; Pre-Fabricated Structures or Components
N01	Naval Architecture; Off-Shore Platforms
N02	Navigation Structures; Locks
N03	Nuclear Facilities; Nuclear Shielding
O01	Office Buildings; Industrial Parks
O02	Oceanographic Engineering
O03	Ordnance; Munitions; Special Weapons
P01	Petroleum Exploration; Refining
P02	Petroleum and Fuel (Storage and Distribution)
P03	Photogrammetry
P04	Pipelines (Cross-Country - Liquid & Gas)
P05	Planning (Community, Regional, Areawide and State)
P06	Planning (Site, Installation, and Project)
P07	Plumbing & Piping Design
P08	Prisons & Correctional Facilities
P09	Product, Machine Equipment Design
P10	Pneumatic Structures, Air-Support Buildings
P11	Postal Facilities
P12	Power Generation, Transmission, Distribution
P13	Public Safety Facilities
R01	Radar; Sonar; Radio & Radar Telescopes
R02	Radio Frequency Systems & Shieldings
R03	Railroad; Rapid Transit
R04	Recreation Facilities (Parks, Marinas, Etc.)
R05	Refrigeration Plants/Systems
R06	Rehabilitation (Buildings; Structures; Facilities)
R07	Remote Sensing
R08	Research Facilities
R09	Resources Recovery; Recycling
R10	Risk Analysis
R11	Rivers; Canals; Waterways; Flood Control
R12	Roofing
S01	Safety Engineering; Accident Studies; OSHA Studies
S02	Security Systems; Intruder & Smoke Detection
S03	Seismic Designs & Studies
S04	Sewage Collection, Treatment and Disposal
S05	Soils & Geologic Studies; Foundations
S06	Solar Energy Utilization
S07	Solid Wastes; Incineration; Landfill
S08	Special Environments; Clean Rooms, Etc.
S09	Structural Design; Special Structures
S10	Surveying; Platting; Mapping; Flood Plain Studies
S11	Sustainable Design
S12	Swimming Pools
S13	Storm Water Handling & Facilities
T01	Telephone Systems *(Rural; Mobile; Intercom, Etc.)*
T02	Testing & Inspection Services
T03	Traffic & Transportation Engineering
T04	Topographic Surveying and Mapping
T05	Towers *(Self-Supporting & Guyed Systems)*
T06	Tunnels & Subways

Code	Description
U01	Unexploded Ordnance Remediation
U02	Urban Renewals; Community Development
U03	Utilities (Gas and Steam)
V01	Value Analysis; Life-Cycle Costing
W01	Warehouses & Depots
W02	Water Resources; Hydrology; Ground Water
W03	Water Supply; Treatment and Distribution
W04	Wind Tunnels; Research/Testing Facilities Design
Z01	Zoning; Land Use Studies

ARCHITECT-ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="http://www.w

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="http://www.w

5. NAME OF FIRM

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="http://www.w

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
<body xmlns:xfa="http://www.xfa.o	<body xmlns:xfa="http://\	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	(Check) J-V PARTNER	(Check) SUBCON-TRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	☐	☐	☐	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html"> ☐ CHECK IF BRANCH OFFICE	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0"
b.	☐	☐	☐	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html"> ☐ CHECK IF BRANCH OFFICE	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0"
c.	☐	☐	☐	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html"> ☐ CHECK IF BRANCH OFFICE	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0"
d.	☐	☐	☐	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html"> ☐ CHECK IF BRANCH OFFICE	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0"
e.	☐	☐	☐	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html"> ☐ CHECK IF BRANCH OFFICE	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0"
f.	☐	☐	☐	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html"> ☐ CHECK IF BRANCH OFFICE	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0"

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☐ *(Attached)*

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
<body xmlns:xfa="http://www.xfa.org/schema/	<body xmlns:xfa="http://www.xfa.org/schei	pe="text/html"	entType="text/html" xfa:sp

15. FIRM NAME AND LOCATION *(City and State)*

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="http://www

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa: contentType="text/html" xfa:spec="2.2.0" xmlns=" http://www.w3.org/1999/xhtml"> </body>	<body xmlns:xfa=" http://www.xfa.org/schema/xfa-data/1.0/" xfa: contentType="text/html" xfa:spec="2.2.0" xmlns=" http://www.w3.org/1999/xhtml"> </body>

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns=" http://www.w3.org/1999/xhtml"> </body>

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa: contentType="text/html" xfa:spec="2.2.0" xmlns="

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
entType="text/html" xfa:sp	ntentType="text/html" xfa:spe

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns=" http://www.w3.org/1999/xhtml"> </body>

b.

(1) TITLE AND LOCATION *(City and State)*

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa: contentType="text/html" xfa:spec="2.2.0" xmlns="

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
entType="text/html" xfa:sp	ntentType="text/html" xfa:spe

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

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c.

(1) TITLE AND LOCATION *(City and State)*

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(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
entType="text/html" xfa:sp	ntentType="text/html" xfa:spe

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

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d.

(1) TITLE AND LOCATION *(City and State)*

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(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
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(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

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e.

(1) TITLE AND LOCATION *(City and State)*

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(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
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(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns=" http://www.w3.org/1999/xhtml"> </body>

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

<body xmlns:xfa="http

21. TITLE AND LOCATION *(City and State)*

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:
contentType="text/html" xfa:spec="2.2.0" xmlns="

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
tentType="text/html" xfa:spe	ntentType="text/html" xfa:spe

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
<body xmlns:xfa="http://www.xfa.org/sch	<body xmlns:xfa="http://www.xfa.org/schema/	<body xmlns:xfa="http://www.xfa.o

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

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http://www.w3.org/1999/xhtml"> </body>

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	<body xmlns:xfa=" http://www.xfa.org/schema/xfa-data/1.0/	<body xmlns:xfa=" http://www.xfa.org/schema/xfa-data/1.0/"	<body xmlns:xfa=" http://www.xfa.org/schema/xfa-data/1.0/" xfa:
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G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL *(From Section E, Block 12)*	27. ROLE IN THIS CONTRACT *(From Section E, Block 13)*	28. EXAMPLE PROJECTS LISTED IN SECTION F *(Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)*									
		1	2	3	4	5	6	7	8	9	10
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<body xmlns:xfa=" http://www.xfa.org/schema/xfa	<body xmlns:xfa=" http://www.xfa.org/schema/xfa										

29. EXAMPLE PROJECTS KEY

NUMBER	TITLE OF EXAMPLE PROJECT *(From Section F)*	NUMBER	TITLE OF EXAMPLE PROJECT *(From Section F)*
1	<body xmlns:xfa="http://www.xfa.org/schema/xfa-	6	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1
2	<body xmlns:xfa="http://www.xfa.org/schema/xfa-	7	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1
3	<body xmlns:xfa="http://www.xfa.org/schema/xfa-	8	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1
4	<body xmlns:xfa="http://www.xfa.org/schema/xfa-	9	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1
5	<body xmlns:xfa="http://www.xfa.org/schema/xfa-	10	<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="
http://www.w3.org/1999/xhtml"> </body>

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE	32. DATE

33. NAME AND TITLE

<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="http://www.w

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*
<body xmlns:xfa="http://www.xfa.org/sche

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (*or Branch Office*) NAME
<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text

3. YEAR ESTABLISHED
<bod

4. UNIQUE ENTITY IDENTIFIER
<body xmlns:xfa="http:

2b. STREET
<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text

2c. CITY
<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/

2d. STATE
<b

2e. ZIP CODE
<body xmlns:x

5. OWNERSHIP

a. TYPE
<body xmlns:xfa="http://www.xfa.org/sche

b. SMALL BUSINESS STATUS
<body xmlns:xfa="http://www.xfa.org/sche

6a. POINT OF CONTACT NAME AND TITLE
<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="
text/html" xfa:spec="2.2.0" xmlns="http://www.w3.org/1999/xhtml"

7. NAME OF FIRM *(If Block 2a is a Branch Office)*
<body xmlns:xfa="
http://www.xfa.org/schema/xfa-data/1.0/"
xfa:contentType="text/html" xfa:spec="

6b. TELEPHONE NUMBER
<body xmlns:xfa="http://www.xfa.org/sch

6c. EMAIL ADDRESS
<body xmlns:xfa="http://www.xfa.org/sc

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa: contentType="text/html" xfa:spec="2.2.0" xmlns=" http://www.w3.org/1999/xhtml"> </body>	<bod	<body xmlns:xfa="http://ww

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
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="text/htr	<body xmlns:xfa="http://www.xfa			:"text/ht	<body xmlns:xfa="http://www.xfa.or	<b
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="text/htr	<body xmlns:xfa="http://www.xfa			:"text/ht	<body xmlns:xfa="http://www.xfa.or	<b
="text/htr	<body xmlns:xfa="http://www.xfa			:"text/ht	<body xmlns:xfa="http://www.xfa.or	<b
="text/htr	Other Employees			:"text/ht	<body xmlns:xfa="http://www.xfa.or	<b
	Total	0	0	:"text/ht	<body xmlns:xfa="http://www.xfa.or	<b

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

a. Federal Work	<b
b. Non-Federal Work	<b
c. Total Work	<b

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE

c. NAME AND TITLE
<body xmlns:xfa="http://www.xfa.org/schema/xfa-data/1.0/" xfa:contentType="text/html" xfa:spec="2.2.0" xmlns="http://www.

Appendix B

Example Invoicing Formats

Invoicing

The WVDOH realizes the importance of timely processing and payment for services rendered. In order for this to take place, the WVDOH must process the invoices as expeditiously as possible, but in order to do so, the consultant must make every effort to present their invoices accurately and in the proper format.

This section provides and outlines the format that is to be followed when submitting invoices for payment. Several examples have been provided that shows how the WVDOH needs the invoices presented relative to the different type of agreements (e.g. Lump Sum, Cost Plus Fixed Fee, Specific Rate of Pay, etc.). The work flow to process an invoice is not complex but passes through several reviews.

Generally, the invoice is logged for processing and then sent to the Project Manager for review. The Project Manager will review the percentage of funds that the consultant is requesting relative to the progress of the work completed to date. The Engineering Division's Administration Section, which is responsible for most invoices, tracks the invoices so that they are not out of their office more than seven (7) days. Once approved by the Project Manager, it is then returned to the Engineering Administration Section for further processing which generally takes two (2) days. The Engineering Administration Section will review the invoice for accuracy and other required elements necessary for processing the invoice payment generally taking two (2) days. Once the invoice clears this review, it is then sent to the Finance Division for processing and submission to the State Auditors office for payment. Payment generally is received within seven (7) to ten (10) working days. Payment is made in the form of a check or through direct-deposit. It is recommended that if payment has not been received within thirty (30) days from the date submitted the consultant should contact the Administration Section for an update on its status. This is strongly recommended when final invoices have been submitted and final payment is being requested. However, it should be understood that a final invoice will take much longer to process; generally a few months for lump sum contracts and several months for other contract types.

The following section shows examples with information needed in the submission of each invoice that is being presented for payment. The invoice information required for processing is dependent on the type of payment stated in the consultant's agreement

Example Invoice Format

Notes:

1) *Add or delete specific invoice line items as appropriate to your agreement.*

2) *Elements in [Brackets or Italics] represent general information to be provide or modified by the Consultant, (e.g.* ***Consultant,*** *should be replaced with the name of its firm or* ***Subconsultant firm where applicable)***

3) *Subconsultant invoices are submitted to the prime consultant for payment and submitted to the WVDOH. The costs are subtotaled and included as shown in the prime consultant's invoice to the WVDOH.*

4) *Backup Documentation where applicable and when required should include:*
   a. *Summary of Billable time*
   b. *Summary of Expenses*
      i. *Vehicle charges*
      ii. *Lodging receipts*
      iii. *Meal expenses*
      iv. *Telephone bills*
      v. *Etc.*

   For Cost Plus and Fixed Rate (Specific Rate of Pay) type invoices, the actual receipts are not to be sent but must be keep on file for final audits.

5) *Subconsultant Invoice and Documentation (repeat above information for each sub) Subconsultant invoices should follow prescribed format.*

Consultant's Logo,
if applicable

[Consultant's name and address as it appears on the contract documents and OASIS]

[Invoice Date]

[Name and Title of Current Division Director]
[Division Name]
[Division Address]

Subject: **PROGRESS REPORT AND INVOICE # [Invoice sequence number 1, 2, 3, etc.]**
State Project [Project number from Scope of Work Meeting notes]
Federal Project [Project number from Scope of Work Meeting notes]
Project Description [Project name from Scope of Work Meeting notes]
[Location of Project] County

Dear **[Name and Title of Current Division Director]:**

Below is our Progress Report which summarizes our work performed on this project through **End of Period.**

PROGRESS REPORT:

- **[Work Item #1]**
- **[Work Item #2]**
- **[Work Item #etc.]**

We have enclosed our Invoice. If this meets your approval, we would appreciate having it placed in line for payment.

If you have any questions or require additional information, please let me know.

Sincerely,
[Consultant's name]

[Authorized Company Representative]

Consultant's Logo, if applicable

Remit payment to:

[Consultant's address as it appears on the contract documents and OASIS]

Invoice

State Project No.	**[Project number from Agreement]**	**Date**	**[Invoice Date]**
Federal Project No.	**[Project number from Agreement]**	**Invoice No.**	**[Invoice sequence number]**
Project Name	**[Project name from Agreement]**	**FEIN No.**	**Company's FEIN**
County	**[Location of Project] County**		

Lump Sum Type Billing

For the study, design, and preparation of construction contract plans and related documents in accordance with the terms of the agreement dated **Date of Agreement** and

Invoice Period **Start of Period** to **End of Period**

Contract Plans		Current	To Date
Lump Sum Fee	**$950,000.00**		
Completed to Date	**50.0000%**		
Previously Invoiced	**30.0000%**		**$ 285,000.00**
Earned this Period	**20.0000%**	**$ 190,000.00**	
Earned to Date			**$ 475,000.00**

Subconsultant (Name of Subconsultant)			
Lump Sum Fee	**$50,000.00**		
Completed to Date	**100.0000%**		
Previously Invoiced	**65.0000%**		**$ 32,500.00**
Earned this Period	**35.0000%**	**$ 17,500.00**	
Earned to Date			**$ 50,000.00**

Drillng Subcontractor [Name of Subcontractor]			
Not to Exceed Cost	**$25,250.00**		
Completed to Date	**100.0000%**		
Previously Invoiced	**0.0000%**		**$ -**
Earned this Period	**100.0000%**	**$ 25,250.00**	
Earned to Date			**$ 25,250.00**

Amount Payable to Date		**$ 550,250.00**
Amount Previous Invoiced		**$ 317,500.00**
Amount Due		**$ 232,750.00**

Certification

I, the undersigned, do hereby certify that; (1) the above invoice reflects a true and accurate accounting of the records of **[Consultant's name]** and the amount has not been paid or previously invoiced; and (2) insurance coverage as specified in the agreement furnished by Acord is still in effect and current.

[Authorized Company Representative] **[Title]**

CONSULTANT VOUCHER
FORM BF-2
REVISED: 3/2000
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Progress Report of Work Performed For **Engineering** Services By

Name, FEIN / Address: **[Consultant's Name, FEIN, and Address as it appears on the contract documents and OASIS]**

Invoice Period: **Start of Period** to **End of Period**

Project No.

WVDOT FINANCE USE ONLY

Org. No.
Account No.
Auth. No.
Act. Code
Obj. Code
Sequence No.

SERVICES PERFORMED AS PER ATTACHED INVOICE

Vendor's Invoice No.	**[Invoice sequence number]**
Date of Invoice	**[Invoice Date]**
Dates of Agreement	**Date of Agreement**
Supplemental Agreement 1	
Supplemental Agreement 2	

MAXIMUM AMOUNT PAYABLE

Original Agreement	**$1,025,250.00**
Supplemental	**$ -**
TOTAL	**$1,025,250.00**

DESCRIPTION OF WORK AND CHARGES

State Project No. **[Project number from Agreement]**
Federal Project No. **[Project number from Agreement]**
Project Description **[Project name from Agreement]**
County **[Location of Project] County**
% of Funds Expended 53.669837%

	Previous Total	Amount Current	Amount To Date
Invoice Amount	**$ 317,500.00**	**$ 232,750.00**	**$ 550,250.00**
Less Retainage Withheld	$ -	$ -	$ -
Plus Retainage Paid	$ -	$ -	$ -
Balance Due	**$ 317,500.00**	**$ 232,750.00**	**$ 550,250.00**

Approved for Payment

_____

Less Previous Invoices	**$ 317,500.00**
Amount Due Consultant This Payment	**$ 232,750.00**

Consultant's Logo, if applicable

Subconsultant/Subcontractor Certification

State Project No. [Project number from Agreement] **Date** [Invoice Date]

Federal Project No. [Project number from Agreement] **Invoice No.** [Invoice sequence number]

Project Description [Project name from Agreement] **FEIN No.** [Company's FEIN]

County [Location of Project] County

Certification

SUBCONSULTANT/SUBCONTRACTOR CERTIFICATION

Please select one of the two subconsultant/subcontractor certifications below:

[X] I hereby certify that on [Payment Received Date] [Consultant Name] received payment for Invoice No. dated in the amount of and the following subconsultant(s) and subcontractor(s) included in the subject invoice have been paid:

Subconsultant	Amount
Subconsultant Name	Subconsultant Amount
Subconsultant Name	Subconsultant Amount

[ ] There were no subconsultant(s) or subcontractor(s) included on the previous invoice.

[ ] [Consultant Name] has not received payment for Invoice No. [Previous Invoice(s)]

[Authorized Company Representative] [Title]

Consultant's Logo, if applicable

[Consultant's name and address as it appears on the contract documents and OASIS]

[Invoice Date]

[Name and Title of Current Division Director]
[Division Name]
[Division Address]

Subject: **PROGRESS REPORT AND INVOICE # [Invoice sequence number 1, 2, 3, etc.]**
State Project No. **[Project number from Agreement]**
Federal Project No. **[Project number from Agreement]**
Project Description **[Project name from Agreement]**
County **[Location of Project] County**

Dear **[Name and Title of Current Division Director]:**

Below is our Progress Report which summarizes our work performed on this project through **End of Period**.

Progress Report:

- **[Work Item #1]**
- **[Work Item #2]**
- **[Work Item #etc.]**

We have enclosed our Invoice. If this meets your approval, we would appreciate having it placed in line for payment.

If you have any questions or require additional information, please let me know.

Sincerely,
[Consultant's name]

[Authorized Company Representative]
[Title]

CONSULTANT VOUCHER
FORM BF-2
REVISED: 3/2000
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Progress Report of Work Performed For **Engineering** Services By

Name, FEIN Address | **[Consultant's Name, FEIN, and Address as it appears on the contract documents and OASIS]**

Invoice Period **[Start of Period]** | to **[End of Period]**

Project No. _____

WVDOT FINANCE USE ONLY

Org. No. _____
Account No. _____
Auth. No. _____
Act. Code _____
Obj. Code _____

Sequence No. _____

SERVICES PERFORMED AS PER ATTACHED INVOICE

Vendor's Invoice No.	**[Invoice sequence number]**
Date of Invoice	**[Invoice Date]**
Dates of Agreement	**[Date of Agreement]**
Supplemental Agreement 1	
Supplemental Agreement 2	

MAXIMUM AMOUNT PAYABLE

Original Agreement	$	1,025,250.00
Supplemental	$	-
TOTAL		**$1,025,250.00**

DESCRIPTION OF WORK AND CHARGES

State Project No. **[Project number from Agreement]**
Federal Project No. **[Project number from Agreement]**
Project Description **[Project name from Agreement]**
County **[Location of Project] County**
% of Funds Expended 53.669837%

	Previous Total	Amount Current	Amount To Date
Invoice Amount	$ 317,500.00	$ 232,750.00	$ 550,250.00
Less Retainage Withheld	$ -	$ -	$ -
Plus Retainage Paid	$ -	$ -	$ -
Balance Due	$ 317,500.00	$ 232,750.00	$ 550,250.00

Approved for Payment

_____

Less Previous Invoices	$ 317,500.00
Amount Due Consultant This Payment	$ 232,750.00

Consultant's Logo, if applicable

Remit payment to:

[Consultant's address as it appears on the contract documents and OASIS]

Invoice

State Project No.	[Project number from Agreement]	**Date**	[Invoice Date]
Federal Project No.	[Project number from Agreement]	**Invoice No.**	[Invoice
Project Name	[Project name from Agreement]	**FEIN No.**	Company's FEIN
County	[Location of Project] County		

Cost Plus Fixed Fee Basis of Payment

For the study, design, and preparation of construction contract plans and related documents in accordance with the terms of the agreement dated [Date of Agreement] and

Total	[Prime Consultant's Name] (Prime Consultant)		$ 950,000.00
	[Subconsultant's Name] (Subconsultant)		$ 50,000.00
	[Subconsultant's Name] (Subconsultant)		$ 25,250.00
		Maximum Amount Payable	$ 1,025,250.00

OVERALL PROJECT SUMMARY

PREVIOUS AMOUNT INVOICED	Current	To Date
Previously Earned		
[Prime Consultant's Name] (Prime Consultant)		$ 285,000.00
[Subconsultant's Name] (Subconsultant)		$ 32,500.00
[Subconsultant's Name] (Subconsultant)		$ -
Previously Invoiced		$ 317,500.00

CURRENT AMOUT EARNED	Current	To Date
Earned this Period		
[Prime Consultant's Name] (Prime Consultant)	$ 190,000.00	$ 475,000.00
[Subconsultant's Name] (Subconsultant)	$ 17,500.00	$ 50,000.00
[Subconsultant's Name] (Subconsultant)	$ 25,250.00	$ 25,250.00
Earned this Period	$ 232,750.00	$ 550,250.00

CURRENT AMOUT DUE	
Amount Payable to Date	$ 550,250.00
Total Previously Invoiced	$ 317,500.00
AMOUNT NOW DUE	$ 232,750.00

Consultant's Logo, if applicable

Remit payment to:

[Consultant's address as it appears on the contract documents and OASIS]

Invoice

State Project No. [Project number from Agreement]
Federal Project No. [Project number from Agreement]
Project Name [Project name from Agreement]
County [Location of Project] County

Date [Invoice Date]
Invoice No. [Invoice sequence number]
FEIN No. Company's FEIN

Cost Plus Fixed Fee Type Billing

For the study, design, and preparation of construction contract plans and related documents in accordance with the terms of the agreement dated **Date of Agreement** and

Invoice Period **Start of Period** to **End of Period**

Total	Original Agreement	$	950,000.00
	Supplemental Agreement #1	$	-
	Supplemental Agreement #2	$	-
	Maximum Amount Payable	$	950,000.00

Prime Consultant Summary

CURRENT AMOUNT INVOICED			Current		To Date
Direct Labor (Tabulation Attached)		$	68,000.00	$	160,000.00
Overhead	170.00%	$	115,600.00	$	272,000.00
Direct Costs (Tabulation Attached)		$	1,060.00	$	2,200.00
		$	184,660.00	$	434,200.00
Fixed Fee	$ 100,000.00				
% Completed to Date	40.00%				
% Previously Invoiced	35.00%				
% Completed this Period	5.00%	$	5,000.00	$	40,000.00
FCCM	0.50%	$	340.00	$	800.00
Earned this Period		$	38,633.76	$	475,000.00

CURRENT AMOUT DUE		
Amount Payable to Date	$	323,633.76
Total Previously Invoiced	$	285,000.00
INVOICE TOTAL	$	190,000.00
AMOUNT NOW DUE	$	190,000.00

Direct Labor Tabulation

Employee Number	Classification	Hours	Rate	Amount
Employee Number	Administrative Assistant	Actual Hours	Actual Wage Rate	
Employee Number	Engineer I	Actual Hours	Actual Wage Rate	
Employee Number	Engineer II	Actual Hours	Actual Wage Rate	
Employee Number	Engineer III	Actual Hours	Actual Wage Rate	
Employee Number	Engineering Technician I	Actual Hours	Actual Wage Rate	
Employee Number	Engineering Technician I	Actual Hours	Actual Wage Rate	
Employee Number	Engineering Technician I	Actual Hours	Actual Wage Rate	
Employee Number	Engineering Technician II	Actual Hours	Actual Wage Rate	
Employee Number	Engineering Technician II	Actual Hours	Actual Wage Rate	
Employee Number	Engineering Technician III	Actual Hours	Actual Wage Rate	
Employee Number	Planner I	Actual Hours	Actual Wage Rate	
Employee Number	Planner II	Actual Hours	Actual Wage Rate	
Employee Number	Registered Land Surveyor	Actual Hours	Actual Wage Rate	
Employee Number	Senior Project Engineer	Actual Hours	Actual Wage Rate	
Employee Number	Senior Project Engineer	Actual Hours	Actual Wage Rate	
Employee Number	Senior Project Engineer	Actual Hours	Actual Wage Rate	
Employee Number	Senior Project Engineer	Actual Hours	Actual Wage Rate	
Employee Number	Senior Project Scientist	Actual Hours	Actual Wage Rate	
Employee Number	Survey Technician	Actual Hours	Actual Wage Rate	
Employee Number	Survey Technician	Actual Hours	Actual Wage Rate	
	Totals:	0.00		

Direct Cost Tabulation

Direct Costs Tabulation

Description	Quantity	Unit	Unit Price	Price
Hotel		days		$ -
Meals		days		$ -
Mileage	500	miles	$ 0.625	$ 312.50
Other approved Direct Cost items				

Totals: $312.50

Consultant's Logo, if applicable

Subconsultant/Subcontractor Certification

State Project No. [Project number from Agreement] [Invoice Date]
Federal Project No. [Project number from Agreement] [Invoice sequence number]
Project Description [Project name from Agreement] [Company's FEIN]
County [Location of Project] County

Certification

SUBCONSULTANT/SUBCONTRACTOR CERTIFICATION

Please select one of the two subconsultant/subcontractor certifications below:

[X] I hereby certify that on [Payment Received Date] [Consultant Name] received payment for Invoice No. [Previous Invoice sequence number] dated [Previous Invoice Date] in the amount of [Previous Invoice Amount] and the following subconsultant(s) and subcontractor(s) included in the subject invoice have been paid:

Subconsultant	Amount
Subconsultant Name	Subconsultant Amount
Subconsultant Name	Subconsultant Amount

[ ] There were no subconsultant(s) or subcontractor(s) included on the previous invoice.

[ ] [Consultant Name] has not received payment for Invoice No. [Previous Invoice(s)]

[Authorized Company Representative] [Title]

Subconsultant Invoice

State Project No. [Project number from Agreement]
Federal Project No. [Project number from Agreement]
Project Name [Project name from Agreement]
County [Location of Project] County

Date [Invoice Date]
Invoice No. [Invoice sequence number]
FEIN No. Company's FEIN

Cost Plus Fixed Fee Basis of Payment

For the study, design, and preparation of construction contract plans and related documents in accordance with the terms of the agreement dated [Date of Sub Agreement] and

Original Agreement	$	50,000.00
Supplemental Agreement #1	$	-
Supplemental Agreement #2	$	-
Maximum Amount Payable	$	50,000.00

Subconsultant Summary

CURRENT AMOUNT INVOICED		Current		To Date
Amount Due (Invoice Attached)	$	17,500.00	$	50,000.00

CURRENT AMOUT DUE		
Amount Payable to Date	$	50,000.00
Total Previously Invoiced	$	32,500.00
AMOUNT NOW DUE	$	17,500.00

Subconsultant Invoice

State Project No. [Project number from Agreement]
Federal Project No. [Project number from Agreement]
Project Name [Project name from Agreement]
County [Location of Project] County

Date [Invoice Date]
Invoice No. [Invoice sequence number]
FEIN No. Company's FEIN

Cost Plus Fixed Fee Basis of Payment

For the study, design, and preparation of construction contract plans and related documents in accordance with the terms of the agreement dated [Date of Sub Agreement] and

Original Agreement	$	25,250.00
Supplemental Agreement #1	$	-
Supplemental Agreement #2	$	-
Maximum Amount Payable	$	25,250.00

Subconsultant Summary

CURRENT AMOUNT INVOICED	Current	To Date
Amount Due (Invoice Attached)	$ 25,250.00	$ 25,250.00

CURRENT AMOUT DUE		
Amount Payable to Date		$ 25,250.00
Total Previously Invoiced		$ -
AMOUNT NOW DUE		$ 25,250.00

Consultant's Logo, if applicable

[Consultant's name and address as it appears in the Agreement and OASIS]

[Invoice Date]

[Name and Title of Current Division Director]
[Division Name]
[Division Address]

Subject: **PROGRESS REPORT AND INVOICE # [Invoice sequence number 1, 2, 3, etc.]**
State Project No. **[Project number from Agreement]**
Federal Project No. **[Project number from Agreement]**
Project Description **[Project name from Agreement]**
County **[Location of Project] County**

Dear **[Name and Title of Current Division Director]:**

Below is our Progress Report which summarizes our work performed on this project through **End of Period**.

Progress Report:

- **[Work Item #1]**
- **[Work Item #2]**
- **[Work Item #etc.]**

Enclosed you will find our Invoice. If this meets your approval, we would appreciate having it placed in line for payment.

If you have any questions or require additional information, please let me know.

Sincerely,
[Consultant's name]

[Authorized Company Representative]
[Title]

CONSULTANT VOUCHER
FORM BF-2
REVISED: 3/2000
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Progress Report of Work Performed For **Engineering** Services By

Name, FEIN Address | **[Consultant's Name, FEIN, and Address as it appears in the Agreement and OASIS]**

Invoice Period **Start of Period** | to **End of Period**

Project No. _____

WVDOT FINANCE USE ONLY

Org. No. _____
Account No. _____
Auth. No. _____
Act. Code _____
Obj. Code _____

Sequence No. _____

SERVICES PERFORMED AS PER ATTACHED INVOICE

Vendor's Invoice No.	**[Invoice sequence number]**
Date of Invoice	**[Invoice Date]**
Dates of Agreement	**Date of Agreement**
Supplemental Agreement 1	
Supplemental Agreement 2	

MAXIMUM AMOUNT PAYABLE

Original Agreement	$	1,025,000.00
Supplemental	$	-
TOTAL		**$1,025,000.00**

DESCRIPTION OF WORK AND CHARGES

State Project No. **[Project number from Agreement]**
Federal Project No. **[Project number from Agreement]**
Project Description **[Project name from Agreement]**
County **[Location of Project] County**
% of Funds Expended 53.682927%

	Previous Total	Amount Current	Amount To Date
Invoice Amount	$ 317,500.00	$ 232,750.00	$ 550,250.00
Less Retainage Withheld	$ -	$ -	$ -
Plus Retainage Paid	$ -	$ -	$ -
Balance Due	$ 317,500.00	$ 232,750.00	$ 550,250.00

Approved for Payment

_____

Less Previous Invoices	$ 317,500.00
Amount Due Consultant This Payment	$ 232,750.00

Consultant's Logo, if applicable

Remit payment to:

[Consultant's address as it appears on the contract documents and OASIS]

Invoice

State Project No. [Project number from Agreement] **Date** [Invoice Date]
Federal Project No. [Project number from Agreement] **Invoice No.** [Invoice

Project Name [Project name from Agreement] **FEIN No.** Company's FEIN

County [Location of Project] County

Specific Rate of Pay Basis of Payment

For the study, design, and preparation of construction contract plans and related documents in accordance with the terms of the agreement dated [Date of Agreement] and

Total	[Prime Consultant's Name] (Prime Consultant)	$ 950,000.00
	[Subconsultant's Name] (Subconsultant)	$ 50,000.00
	[Subconsultant's Name] (Subconsultant)	$ 25,250.00
	Maximum Amount Payable	$ 1,025,250.00

OVERALL PROJECT SUMMARY

PREVIOUS AMOUNT INVOICED	Current	To Date
Previously Earned		
[Prime Consultant's Name] (Prime Consultant)		$ 285,000.00
[Subconsultant's Name] (Subconsultant)		$ 32,500.00
[Subconsultant's Name] (Subconsultant)		$ -
Previously Invoiced		$ 317,500.00

CURRENT AMOUT EARNED	Current	To Date
Earned this Period		
[Prime Consultant's Name] (Prime Consultant)	$ 190,000.00	$ 475,000.00
[Subconsultant's Name] (Subconsultant)	$ 17,500.00	$ 50,000.00
[Subconsultant's Name] (Subconsultant)	$ 25,250.00	$ 25,250.00
Earned this Period	$ 232,750.00	$ 550,250.00

CURRENT AMOUT DUE	
Amount Payable to Date	$ 550,250.00
Total Previously Invoiced	$ 317,500.00
AMOUNT NOW DUE	$ 232,750.00

ATTACHMENT A1 - Mead & Hunt Labor Costs

LABOR COSTS

Title	ST[1] Rate	ST Hours	ST Subtotal	OT[2] Rate	OT Hours	OT Subtotal
Project Manager	$ 190.00	4.00	$ 760.00	N/A		
Administrative Assistant	$ 60.00			$ 65.00		
Level IV Inspection/Technician	$ 110.00	160.00	$ 363.18	$ 115.00		
Level III Inspection/Technician	$ 95.00	120.00	$ 11,400.00	$ 100.00		
Level II Inspection/Technician	$ 65.00			$ 70.00		
Level I Inspection/Technician	$ 55.00			$ 60.00		
Subtotal		5.00	$ 896.46		0.00	$ -

Straight Time	**$**	**190,000.00**
Overtime	**$**	**-**
Total Labor	**$**	**190,000.00**
Total Direct Cost	**$**	**-**
Total Amount	**$**	**190,000.00**

Notes:
1) Straight time rate per contract **[Billing Rates per Agreement]**
2) Overtime rate per contract **[Billing Rates per Agreement]**

ATTACHMENT A2
Direct Costs

Items	Description	Quantity	Unit Rate	Unit	Amount
1a	**Vehicles - Reg**	0.0	$ 0.625	mile	$ -
1b	**Vehicles - OT**	0	$ 0.625	mile	$ -
2	**Magnetic ID Signs**	0	$ 15.00	pair	$ -
3	**Flashing Lights (1 Vehicle)**	0	$ 110.00	month	$ -
4	**On-Site Mileage**	0	$ 0.59	mile	$ -
5	**Cellular Phone**	0	$ 75.00	month	$ -
6	**Lodging (2-Inspectors)**	0	$ 93.00	day	$ -
7	**Meals (2-Inspectors)**		$ 51.00	day	$ -
8	**Inspector Tools**				$ -
	100' Chain	0	$ 15.00	each	$ -
	Hard Hat	0	$ 30.00	each	$ -
	6' Engineer's Rule	0	$ 15.00	each	$ -
	Hand Levels	0	$ 50.00	each	$ -
	Safety Vests	0	$ 25.00	each	$ -
9	**Asphalt Testing**				$ -
	Equipment & Supplies	0	$ 325.00	month	$ -
10	**Concrete Testing**				$ -
	Equipment & Supplies	0	$ 325.00	month	$ -
11	**Soils Testing**				$ -
	Equipment & Supplies	0	$ 325.00	month	$ -
12	**Nuclear Density Gauge**	0	$ 390.00	month	$ -
	Nuclear Density Gauge Storage	0	$ 65.00	month	$ -
13	**Other**				$ -
	Asphalt Core Machine	0	$ 300.00	month	$ -
14	Komax Copier Base Rate	0	$ 302.10	month	$ -
	Komax Copier Overage	0	$ -		$ -
				Total	**$0.00**

Consultant's Logo, if applicable

Subconsultant/Subcontractor Certification

State Project No.	**[Project number from Scope of Work Meeting notes]**	**Date**	**[Invoice Date]**
Federal Project No.	**[Project number from Scope of Work Meeting notes]**	**Invoice No.**	**[Invoice sequence number]**
Project Description	**[Project name from Scope of Work Meeting notes]**	**FEIN No.**	**[Company's FEIN]**
County	**[Location of Project] County**		

Certification

SUBCONSULTANT/SUBCONTRACTOR CERTIFICATION

Please select one of the two subconsultant/subcontractor certifications below:

[X] I hereby certify that on **[Payment Received Date]** **[Consultant Name]** received payment for Invoice No. **[Previous Invoice sequence number]** dated **[Previous Invoice Date]** in the amount of **[Previous Invoice Amount]** and the following subconsultant(s) and subcontractor(s) included in the subject invoice have been paid:

Subconsultant	Amount
Subconsultant Name	**Subconsultant Amount**
Subconsultant Name	**Subconsultant Amount**

[ ] There were no subconsultant(s) or subcontractor(s) included on the previous invoice.

[ ] **[Consultant Name]** has not received payment for Invoice No. **[Previous Invoice(s)]**

_____ _____

[Authorized Company Representative] **[Title]**

Subconsultant Invoice

State Project No. [Project number from Agreement]
Federal Project No. [Project number from Agreement]
Project Name [Project name from Agreement]
County [Location of Project] County

Date [Invoice Date]
Invoice No. [Invoice sequence number]
FEIN No. Company's FEIN

Cost Plus Fixed Fee Basis of Payment

0

For the study, design, and preparation of construction contract plans and related documents in accordance with the terms of the agreement dated [Date of Sub Agreement] and

Contract [Prime Consultant's Name] (Prime Consultant)		$ 950,000.00
[Subconsultant's Name] (Subconsultant)		$ 50,000.00
[Subconsultant's Name] (Subconsultant)		$ 25,250.00
	Maximum Amount Payable	$ 1,025,250.00

CURRENT AMOUNT INVOICED	Current	To Date
Amount Due (Invoice Attached)	$ 17,500.00	$ 50,000.00

CURRENT AMOUT DUE	
Amount Payable to Date	$ 50,000.00
Total Previously Invoiced	$ 32,500.00
AMOUNT NOW DUE	$ 17,500.00

Appendix C

Performance Evaluation Criteria

Procurement Submission
Timeliness Criteria for Design and CEI Projects

Numeric Rating	Description	Generic Description
5	Consultant was responsive and delivered each submission in advance of the due date	Outstanding
4	Consultant was responsive and delivered each submission on time.	Very Good
3	Consultant delivered submission on time.	Good
2	Consultant delivered each submission within a three (3)-day window following the due date.	Unacceptable
1	Consultant delivered each submission consistently late, and the submission was incomplete with revisions needed.	Notify Management

Procurement Submission
Quality, Accuracy and Completeness Criteria (QAC) for Design and CEI Projects

Numeric Rating	Description	Generic Description
5	Consultant was responsive and the submission was complete with no revisions needed unless it was at the request of the WVDOH.	Outstanding
4	The submission was complete with no revisions needed unless it was a preference of the WVDOH.	Very Good
3	The submission was complete with minor revisions needed.	Good
2	The submissions were incomplete with minor revisions needed.	Unacceptable
1	The submission was incomplete with major revisions needed.	Notify Management

Design Submission
Timeliness Criteria for Design and CEI Projects

Numeric Rating	Description	Generic Description
10	An acceptable work product was delivered more than two (2) weeks ahead of schedule.	Outstanding
9	An acceptable work product was delivered more than one (1) week ahead of schedule.	Excellent
8	An acceptable work product was delivered on schedule.	Very Good
7	An acceptable work product was delivered no more than three (3) working days late.	Good
6	An acceptable work product was delivered no more than one (1) week late.	Acceptable
5	An acceptable work product was delivered no more than two (2) weeks late.	Fair
4	An acceptable work product was delivered no more than three (3) weeks late.	Poor
3	An acceptable work product was delivered no more than four (4) weeks late.	Very Poor
2	An acceptable work product was delivered no more than five (5) weeks late.	Unacceptable
1	An acceptable work product was delivered more than five (5) weeks late.	Notify Management

Note: The scoring system is based on the documented received date of the submission compared to the required date by the approved CPM.

Design Submission
Quality, Accuracy and Completeness (QAC) Criteria for Design Projects

Numeric Rating	Description	Generic Description
10	Submission completed with minimal comments and technical guidance from the Division or District, including compliance with WVDOH manuals and procedures. Consultant was an asset to the Division or District.	Outstanding
9	Submission completed with a small number of comments and minimal technical guidance from the Division or District, relative to the size and the complexity of the project. The PM's time commitments to complete reviews are relatively small.	Excellent
8	Submission completed with some comments and technical guidance. Comments are minor in nature and do not include serious design or product quality issues, relative to the size and complexity of the project. PM's time commitments to complete the reviews are still relatively small.	Very Good
7	Submission completed with some comments and technical guidance. Comments are mostly minor in nature but more numerous, relative to the size and complexity of the project, but do not include serious design or cost issues.	Good
6	Submission completed with a significant but acceptable level of WVDOH involvement required including comments and technical guidance. Comments do not include serious design or product quality issues.	Acceptable
5	Significant level of comments included serious design, plan preparation or product quality issues.	Fair
4	Consultant was deficient in knowledge of WVDOH practices and manuals. Extensive WVDOH staff involvement required to achieve an acceptable work product.	Poor
3	Consultant was deficient in knowledge of WVDOH practices and manuals. Extensive WVDOH staff involvement required to achieve an acceptable work product. Project Manager spends excessive amounts of time in coordinating response to consultants.	Very Poor
2	Submission is unacceptable to the point that deliverable is returned for revision without detailed comments.	Unacceptable
1	Submission is unacceptable to the point that removal of prequalification is warranted.	Remove prequalification

Submission
Quality, Accuracy and Completeness (QAC) Criteria for CEI Projects

West Virginia Department of Transportation
Division of Highways
Contract Administration Division
Consultant Evaluation Form

Agreement type:	District:	Key to Ratings
Name of Consultant Firm:		1-2. Unsatisfactory (comment required) 3-4. Marginal 5-6. Satisfactory 7-8. Commendable 9-10. Outstanding
Project name and number		
Evaluation Date		

1. Knowledge, Skill, Ability : Is the consultant competent to fulfill the requirements of the job and have the knowledge, skill, and ability necessary to perform the work, including the appropriate certifications required.	Comments:	**Score:**
2. Quality of Work : Does the consultant provide quality work which is neat, accurate, thorough, and free of errors	Comments:	**Score:**
3. Work Habits : Is the consultant punctual, diligent, dependable, resourceful, not disruptive	Comments:	**Score:**
4. Attitude, Cooperation: Does the consultant sustain a positive attitude, willing to work when needed, cooperative, high morale	Comments:	**Score:**
5. Adaptability/Flexibility: Does the conultant have the ability to grasp, understand, apply new or changing duties/assignments	Comments:	**Score:**
6. Judgement: Does the consultant have the ability to think clearly and impartially, utilizing all available information	Comments:	**Score:**
7. Professional Relationships: Does the consultant work well as a member of a group or team.	Comments:	**Score:**
8. Quantity of Work : Is the amount of work satisfactory considering workload and given time	Comments:	**Score:**
9. Communication : Is the consultant communicating with the Division and the Contractor Effectively	Comments:	**Score:**
10. Responsiveness : Is the consultant responsvie to the needs of the Division, requests, invoicing, etc.	Comments:	**Score:**
	TOTAL	0.0

Project Supervisor/Engineer Comments:
Prepared by: Date:

Construction Engineer/ Project Manager Comments:
Prepared by: Date:

Consultant Firm's Response:
Prepared by: Date:

Reviewed and approved by:

Construction Engineer/Project Manager	Date

Submission
Quality, Accuracy and Completeness (QAC) Criteria for Load Rating

West Virginia Department of Transportation
Division of Highways
Operations Division
Consultant Evaluation Form-Load Rating

Agreement type:	**District:**	**Key to Ratings**
Name of Consultant Firm:		1-2. Unsatisfactory (comment required)
Project name and number		3-4. Marginal
Evaluation Date		5-6. Satisfactory
		7-8. Commendable
		9-10. Outstanding

1. Qualifications / Staffing: Does the consultant have the appropriate load rating staff available to produce the work product?	Comments:	**Score:**
2. Quality of Work: Does the consultant provide an accurate, thorough, and neat work product?	Comments:	**Score:**
3. Independence: Does the consultant work primarily independently and diligently to produce the work product?	Comments:	**Score:**
4. Judgement: Does the consultant apply sound engineering judgement with available information?	Comments:	**Score:**
5. Professionalism: Does the consultant conduct itself with responsibility, integrity, and accountability?	Comments:	**Score:**
6. Timeliness: Does the consultant produce the work product satisfactorily in the given ammount of time?	Comments:	**Score:**
7. Communicaiton: Does the consultant quickly, clearly , and sussinctly communicate with the appropriate representative of the WVDOH?	Comments:	**Score:**
	TOTAL	0.0

West Virginia Department of Transportation
Division of Highways
Operations Division
Consultant Evaluation Form-Load Rating

Agreement type:	District:	Key to Ratings
Name of Consultant Firm:		1-2. Unsatisfactory (comment required)
Project name and number		3-4. Marginal
Evaluation Date		5-6. Satisfactory
		7-8. Commendable
		9-10. Outstanding

WVDOH Operations Division Comments:

Prepared by: **Date:**

WVDOH District Bridge Engineer Comments:

Prepared by: **Date:**

Consultant Firm's Response:

Prepared by: **Date:**

Reviewed and approved by:

Progam Manager/ Assitant Director of Bridge **Date**

Submission
Quality, Accuracy and Completeness (QAC) Criteria for Bridge Inspection

West Virginia Department of Transportation
Division of Highways
Operations Division
Consultant Evaluation Form-Bridge Inspection

Inspection Type/Date:		**Key to Ratings**
Name of Consultant Firm:		1-2. Unsatisfactory (comment required)
Project Name and Number:		3-4. Marginal
Evaluation Performed By:		5-6. Satisfactory
Evaluation Date:		7-8. Commendable
		9-10. Outstanding

		Score:	
		Operations	**District**
1. Competence-Knowledge, Skill, Ability: Does the consultant's bridge inspection team posess the knowledge, skill, ability and certifications to perform the work?	Comments:		0
2. Quality of Work: Does the consultant provide an accurate, concise, and thorough work product free of errors in accordance with all WVDOH policies and scope?	Comments:		0
3. Timeliness: Does the consultant meet pre-set and rushed schedules and reply promptly to correspondenace?	Comments:		0
4. Adherence to Standards, Specs, and Policies: Does the consultant follow governing specifications, policies, and safe work practices without excess guidance?	Comments:		0
5. Resourcefulness: Does the consultant possess the ability to innovate, seek information, exercise flexibility, and overcome challenges?	Comments:		0
6. Project Management: Does the consultant manage and review subconsultants, maintain project budget, and provide proper invoicing?	Comments:		0
7. Continuity of Project Personnel: Does the consultant provide consistent project personnel including equal or more competenent replacement personnel, when necessary?	Comments:		0
8. Communication: Does the consultant communicate effectively with the public, subconsultants, District, and Operations Division?	Comments:		0
9. Responsiveness: Does the consultant respond to the needs, requests, invoices, etc. of District and Operations Division?	Comments:		0
	TOTAL		0.0

West Virginia Department of Transportation
Division of Highways
Operations Division
Consultant Evaluation Form-Bridge Inspection

Inspection Type/Date:		**Key to Ratings**
Name of Consultant Firm:		1-2. Unsatisfactory (comment required)
Project Name and Number:		3-4. Marginal
Evaluation Performed By:		5-6. Satisfactory
Evaluation Date:		7-8. Commendable

WVDOH Operations Division Comments:

Prepared by: **Date:**

WVDOH Bridge Engineer Comments:

Prepared by: **Date:**

Consultant Firm's Response:

Prepared by: **Date:**

Reviewed and approved by:

Program Manager/ Assistant Director of Bridge Operations

Date

Example Evaluation Scoring

Equations

$$\text{Procurement Score} = \text{QAC Score} + \text{Timliness Score}$$

$$\text{Submission Score} = \frac{(\text{QAC Score} * \text{Weight}) + (\text{Timeliness Score} * \text{Weight})}{\sum \text{Weights}}$$

$$Evaluation\ Score = \frac{\sum Procurement + Submission\ Scores}{Number\ of\ Scores}$$

Note: For CEI, the QAC Score for Submissions shall be the total from the form divided by 10.

Example

Consultant ABC completed a design project with three (3) submissions. Prior to starting the project, the WVDOH provided criteria weighting to identify critical performance areas and reinforce their primary objectives. The following weighting was provided to the Consultant:

Example Weighting

	QAC	Timeliness
Submission 1	4	1
Submission 2	1	1
Submission 3	3	1

The summary table below illustrates the ratings the Consultant received and the calculation of individual scores and the average for the project.

Evaluation Area and Rating	Score Calculation
Procurement Consultant received a 5 for QAC and 4 for Timeliness	$\text{Procurement Score} = 5 + 4 = 9.0$
Submission 1 Consultant received an 8 for QAC and 10 for Timeliness	$\text{Submission Score} = \frac{(8 * 4) + (10 * 1)}{4 + 1} = 8.4$
Submission 2 Consultant received a 7 for QAC and 7 for Timeliness	$\text{Submission Score} = \frac{(7 * 1) + (7 * 1)}{1 + 1} = 7.0$
Submission 3 Consultant received a 10 for QAC and 6 for Timeliness	$\text{Submission Score} = \frac{(10 * 3) + (6 * 1)}{3 + 1} = 9.0$
Evaluation Score for Agreement	**8.35**

Appendix D

Short List Process

CONSULTANT SELECTION COMMITTEES

AGREEMENTS LESS THAN $750,000

For projects with anticipated agreements less than $750,000, the division or district requiring the services shall make a minimum of three recommendations. The firms shall be considered from appropriate Prequalification or Statewide lists. A selection memo, identifying the considered and preferred consultant, shall be submitted from the Director or District Manager, through the appropriate organizational structure, to the Commissioner of Highways. The Commissioner of Highways shall approve the selection.

AGREEMENTS GREATER THAN $750,000

For projects with anticipated agreements greater than $750,000, the division or district needing the services shall form a preliminary selection committee to evaluate the firms that have submitted letters of intent. The preliminary selection committee shall be chosen by the Director or District Manager requesting the services. The preliminary selection committee shall consist of a minimum of three (3) members. The preliminary selection committee should consist of the appropriate organizational staff between the Director and District Manager and the Commissioner of Highways, not including the Commissioner, or their delegated staff.

The preliminary selection committee shall identify five (5) members to serve on the interview panel to recommend a firm to the Commissioner of Highways. No individuals may serve on both the preliminary short list committee and interview panel.

The preliminary selection committee and interview panels shall be made up:

Chief Engineer, Special Programs
Chief Engineer, Development
Chief Engineer, Planning and Program Implementation
Chief Engineer, Construction
Chief Engineer, Operations
Chief, Technology Officer
Director, Engineering Division
Director, Technical Support Division
Director, Right of Way Division
Director, MCS&T Division
Director, Contract Administration Division
Director, Operations Division
Director, Traffic Engineering Division
Director, Planning Division
Director, Information Technology Division
Director, Performance Management Division
District Representatives
Project Managers

CONFLICTS OF INTEREST

No WVDOH staff shall serve on a preliminary selection committee, interview panel or select a firm if there is any real or perceived conflict of interest between that staff and any firm being evaluated. The conflict may arise either as a familiar or past work relationship. It is the responsibility of WVDOH staff to abstain from any conflicts of interest.

Appendix E

Conflict of Interest

Conflicts of Interest

(i) A contracting agency shall maintain a written code of standards of conduct governing the performance of their employees engaged in the award and administration of engineering and design related services contracts under this part and governing the conduct and roles of consultants in the performance of services under such contracts to prevent, identify, and mitigate conflicts of interest in accordance with 2 CFR 200.112, 23 CFR 1.33 and the provisions of this paragraph (b)(4).

(ii) No employee, officer, or agent of the contracting agency shall participate in selection, or in the award or administration of a contract supported by Federal-aid funds if a conflict of interest, real or apparent, would be involved. Such a conflict arises when there is a financial or other interest in the consultant selected for award by:

(A) The employee, officer, or agent;

(B) Any member of his or her immediate family;

(C) His or her partner; or

(D) An organization that employs or is about to employ any of the above.

(iii) The contracting agency's officers, employees, or agents shall neither solicit nor accept gratuities, favors, or anything of monetary value from consultants, potential consultants, or parties to sub-agreements. A contracting agency may establish dollar thresholds where the financial interest is not substantial or the gift is an unsolicited item of nominal value.

(iv) A contracting agency may provide additional prohibitions relative to real, apparent, or potential conflicts of interest.

(v) To the extent permitted by State or local law or regulations, the standards of conduct required by this paragraph shall provide for penalties, sanctions, or other disciplinary actions for violations of such standards by the contracting agency's officers, employees, or agents, or by consultants or their agents.

(vi) A contracting agency shall promptly disclose in writing any potential conflict of interest to FHWA.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways
1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Stephen T. Rumbaugh, P. E.
Secretary of Transportation
Commissioner of Highways

(DATE)

(FHWA ADMINISTRATOR)
Division Administrator
West Virginia Division
Federal Highway Administration
154 Court Street
Charleston, West Virginia 25301

RE: (CONSULTANT NAME)
Project Name: (PROJECT NAME)
Federal Project #: (FEDERAL PROJECT #)

Dear (FHWA ADMINISTRATOR):

This letter serves to provide notice to the FHWA that the West Virginia Division of Highways, in accordance with the procedures set forth in W. Va. Code St. R. § 157-1-7, as approved by the FHWA in our Stewardship and Oversight Agreement on Project Assumption and Program Oversight, evaluated several consulting firms and selected (CONSULTANT NAME) as the best qualified consultant to perform the services required for the above-referenced project.

As you may be aware, the (POSITION OF WVDOH EMPLOYEE), (WVDOH EMPLOYEE NAME), has a (RELATIONSHIP TO WVDOH EMPLOYEE) employed as an (POSITION OF FAMILY MEMBER) by (CONSULTANT NAME). Under West Virginia law this (would or would not) be considered a conflict of interest. (If there is a conflict of interest, a statement would be placed here, recusing the WVDOH employee from all aspects of the project).

We are sending this communication such that, if the FHWA has any different guidance relative to this situation, we can adapt accordingly. If you have any questions, please feel free to contact me or have your appropriate staff member contact me at (PHONE NUMBER).

Sincerely,

(SIGNATURE AUTHORITY)
(POSITION)

XXX:x

Appendix F

Management Support Consultants (MSC)

MANAGEMENT SUPPORT CONSULTANTS (MSC)

GENERAL

Management Support Consultants (MSC) will be hired to perform specific engineering functions normally performed by WVDOH staff. These services may include but are not limited to review of other consultants work, procurement activities, and other quality assurance tasks. Firms selected as MSC will receive oversight from WVDOH but many of the tasks assigned will be of an independent nature. This policy identifies implementation, tasks and approval roles and other guidance for these services.

IMPLEMENTATION OF MANAGEMENT SUPPORT CONSULTANTS (MSC):

1) Receive approval from FHWA for the use of Management Support Consultants.
2) A single project for review or procurement per MSC shall be programmed once approval is received.
3) Selections and project assignments for project management and procurement will be made using the prequalification process.
    a. "Management projects" will be federal-aid reimbursable.
    b. The MSC will review or procure multiple standalone projects from the management project on an as needed basis.
        i. Agreements will be drafted to allow for multiple project review without additional agreements.
        ii. The MSC selected will be required to track the project's time, through a process such as cost accounting. This is required for audits and legal review.

TASKS FOR PROJECT MANAGEMENT:

1) The MSC will create a cost accounting/work log template for tracking and describing actions for auditing and review purposes. The Division will approve the template.
2) The MSC will then create a QA plan for review of consultants' work. The plan will be reviewed and approved by the Division. The MSC will review work based on the approved plan.
3) The MSC will generate a standard invoice template to be used by project consultants. The invoice will provide the ability for the MSC to easily review the work completed without compromising any proprietary information of the submitting consultant. The invoice will also provide simple or automated capability to add the proprietary information for submittal by state employees for reimbursement.
4) Consultant Assignment and Equipment:
    a. The MSC will be stationed at a Central Office location and provided standard computer hardware.
    b. The MSC will be given network access and will have to sign all standard employee agreements for use of network and computers.

c. All statewide software applications necessary for performing duties will be made available. Software shall include ProjectWise, CADD applications, design software applications, Google or office products, Hub, AASHTO Project and Estimation software, Bluebeam, etc.
d. Any consultant-specific applications must be approved by the Division prior to loading onto the MSC computers.

5) Responsibilities of the MSC when reviewing project consultant work:
    a. Follow guidance in the approved QA plan.
    b. Provide direction to consultants on WVDOH standard policies, guidelines, and practices.
    c. Supply engineering judgement when requested or as part of a review on industry standard practice. When industry standard practice conflicts with WVDOH guidelines, or if no WVDOH guidance exists, the MSC shall fully document the decisions and notify the Division.
    d. The MSC shall create a system of tracking requests for information (RFI) and review comments. The system shall have the ability to track the communication, dates, and conclusions to RFI and review comments. The system shall be able to "flag" incomplete dialogue comments.
    e. The MSC shall evaluate the quality and timeliness of the submittal.
    f. The MSC shall manage the project schedule from the owner's perspective. They shall coordinate all activities outside the influence of the consultant.
    g. The MSC shall be responsible for supplying responses to general project comments from management.
    h. The MSC will be responsible for PSE to Contract Administration of assigned projects.
    i. The MSC will review and approve invoice submittals. The MSC is to reject invoices when work has not been performed or is of a substandard workmanship.

TASKS FOR CONSULTANT PROCUREMENT:

1) CONSULTANT SELECTION AND FINAL PROPOSAL APPROVAL WILL BE BY WVDOH STAFF.
2) The MSC will create a cost accounting/work log template for tracking and describing actions for auditing and review purposes. The Division will approve the template.
3) The MSC will create or modify a proposal submittal sheet that removes the selected firm's proprietary information. The MSC will also create an automated process for state employees to insert proprietary information for the final proposal amount approval.
4) Consultant Assignment and Equipment:
    a. The MSC will be stationed at a Central Office location and provided standard computer hardware.
    b. The MSC will be given network access and will have to sign all standard employee agreements for use of network and computers.

c. All statewide software applications necessary for performing duties will be made available. Software shall include ProjectWise, CADD applications, design software applications, Google or office products, Hub, AASHTO Project and Estimation software, Bluebeam, etc.
d. Any consultant-specific applications must be approved by the Division prior to loading onto the MSC computers.

5) Responsibilities of the MSC when procuring engineering services:
   a. Division will provide reports and contact information for the MSC to prepare procurement documents.
   b. The MSC will review documents and interview DOH staff to prepare advertisements and scopes of work. The MSC should take general direction from WVDOH staff and expand the description of the advertisement and scope to fully identify the project in the best interest of the WVDOH.
   c. The MSC will be responsible for preparing an independent estimate from the scope and narrative, using industry best practices for plan development.
   d. Once an independent estimate is approved, the MSC will negotiate in the best interest of the WVDOH. Any final proposed hours greater than the independent estimate will require justification.

CONSULTANT MANAGEMENT AND OVERSIGHT

The intent of procuring consultants for management support roles is to free WVDOH staff to work on higher risk projects and to supplement existing staff due to high turnover. WVDOH staff will provide direction, guidance and approval of tasks identified in legislative procedures, FHWA policies and other duties fundamental to the governmental organization, such as approval of invoices submitted by the MSC. Oversight of the MSC will be the responsibility of the Division Director or District Manager/Engineer or their designee.

The Division will retain authority for the following *PROJECT MANAGEMENT* tasks:

- Location and Design approval
- Design Exception approval
- Schedule change approval
- Engineers Estimate approval
- Invoice approval (Consultant and MSC)
- Scope Change resulting in PMD/Supplement

The Division will retain authority for the following *PROCUREMNT* tasks:

- Scope of work approval
- Final fee approval
- Notice to Proceed
- Consultant Selection (including short list and interviews)

MANAGEMENT SUPPORT CONSULTANTS (MSC)

CONFLICT OF INTEREST FOR MANAGEMENT SUPPORT CONSULTANTS

Due to the nature of management support roles, the Division must take additional measures to confirm that no conflicts of interest exist. Federal Highway Administration (FHWA) requirements concerning the states responsibility concerning conflict of interest are covered in 23 CFR, Section1.33:

> "No engineer, attorney, appraiser, inspector or other person performing services for a State or a governmental instrumentality in connection with a project shall have, directly or indirectly, a financial or other personal interest, other than his employment or retention by a State or other governmental instrumentality, in any contract or subcontract in connection with such project."
>
> "No officer or employee of such person retained by a State or other governmental instrumentality shall have, directly or indirectly, any financial or other personal interest in any real property acquired for a project unless such interest is openly disclosed upon the public records of the State highway department and of such other governmental instrumentality, and such officer, employee or person has not participated in such acquisition for and in behalf of the State."
>
> "No official or employee of a State or any other governmental instrumentality who is authorized in his official capacity to negotiate, make, accept or approve, or take part in negotiating, making, accepting or approving any contract or subcontract in connection with a project shall have, directly or indirectly, any financial or other personal interest in any such contract or subcontract.

The Division requires that firms accepting work as MSC will provide information from the last two (2) years regarding their involvement with any firm or company with whom they worked in a contractual manner(as a prime consultant, subconsultant, or team member) with the department or any other public or private entity. The firm will be required to sign the WVDOH Confidentiality Agreement for management support roles and the Conflict of Interest Form. Firms have full responsibility to actively maintain the Conflict of Interest Form. Firms have only five (5) working days to update the form, when possible, collaboration occurs, either direct or indirect, for possible partnerships.

It is the responsibility of the firm to disclose ANY conflicts of interest to the Division for review and adjudication. The Division is responsible for maintaining the public trust and therefore will make a determination based on the lowest avoidable risk assessment. To mitigate possible conflicts of interest, the Division may require(but is not limited to):

- Change in the firm's assigned personnel
- Additional mitigation or "firewalling" of support staff
- Removal of personnel
- Other

MANAGEMENT SUPPORT CONSULTANTS (MSC)

Out of an abundance of caution and to remedy the appearance of conflicts of interests, the Division may at any time choose to end the contractual relationship with the MSC. to avoid conflicts of interest, the Division reserves the right to take action during any part of the procurement process

WORKFLOW:

The following will generally describe the workflow of a contract and tasks. See Figure 1:

1) FHWA approves program and is willing to obligate federal-aid funds for consultant payment under a single Preliminary Engineering (PE) project.
2) A single PE project for project management and/or another for procurement for each MSC selected is programmed and authorized.
3) MSC(s) are selected and placed under agreement.
4) Space, equipment, and standard agreements for computer usage, EEO, etc. are completed.
5) The MSC will complete initial tasks for program implementation. The Division will approve documents, policies, and software applications.
6) The Division will prepare a list of projects that the MSC will oversee. The MSC will review the list and prepare a PMD including estimated hours to be used on the tasks. The Division will review the PMD, amount of hours that are estimated and amount of hours available in the contract and provide approval. No supplemental agreement or authorization will be generated through this process. When a PMD generates payment above the original amount or outside of scoped tasks, the PMD will be rejected and a separate selection will be made.
    a. A supplement will not be generated through this process. The agreement will state that the MSC term will end when the agreement funds are expended. The agreement will not be extended. Another selection will occur at the end of the agreement's maximum amount payable. Tasks outside of the original scope of work will be performed by Division employees or a separate selection will occur.
    b. A supplemental agreement or authorization may be generated if it is in the best interest of the Division to maintain a single project's uniformity. An example of such uniformity would be to provide comments on the final office review when the consultant has reviewed all other milestones of the project. This should be rare and recognized prior to the consultant NTP and the beginning of the task.
7) Once approval is given, the MSC will begin work, provide schedule updates and a weekly log to the Division of upcoming and completed work or tasks.
8) The MSC will contact the Division to answer specific questions or when Division required approvals are needed. Initially, it is anticipated that the Division will provide strict oversight of the MSC to ensure program implementation. Within several months of implementation, the consultant should be self-sufficient and delivering tasks at schedules necessary to deliver the program.
9) When the MSC reaches the end of the agreement term or maximum amount payable, the agreement and authorization will be terminated.

MANAGEMENT SUPPORT CONSULTANTS (MSC)

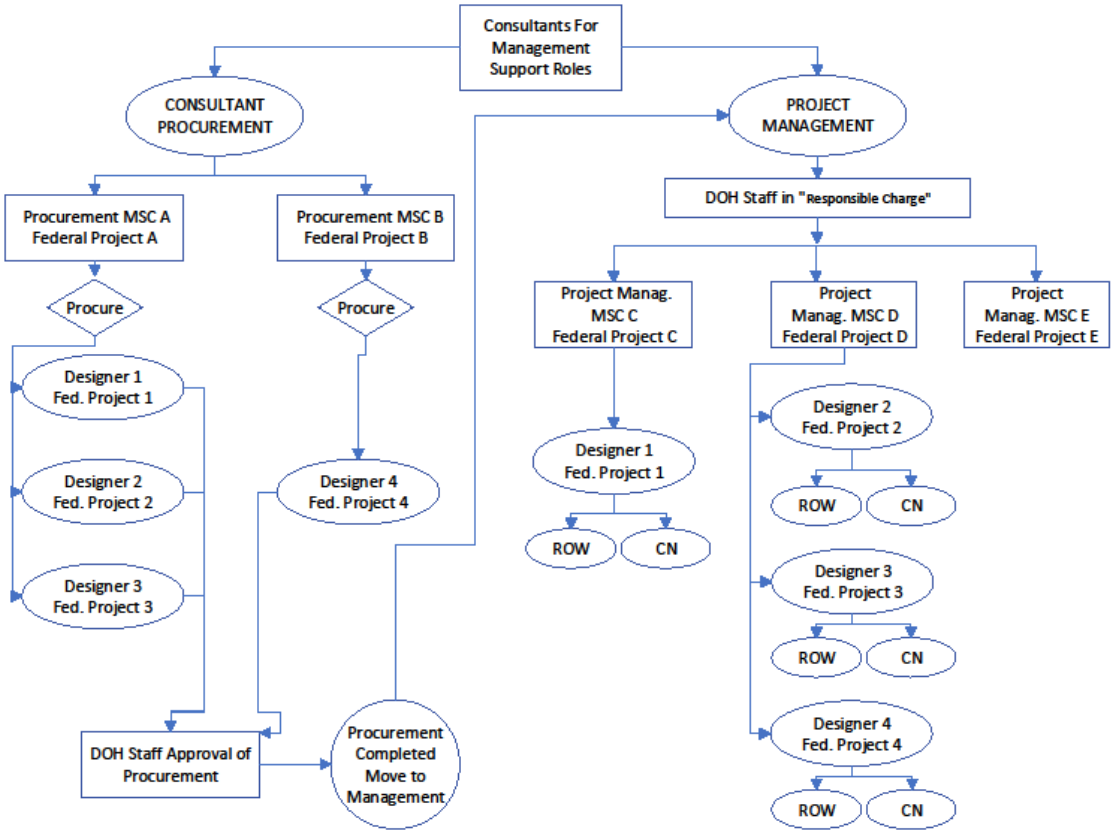

Figure 1 Workflow Chart for Management Support Roles

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CONFIDENTIALITY AGREEMENT

PROJECT DESCRIPTION:

COUNTY:

CONTRACT ID:

This Confidentiality Agreement ("Agreement") is made and entered into as of (“Effective Date”), by and between the WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS (“WVDOH”) and _____ Recipient"), whose address is; _____.

Explanatory Statement

A. WVDOH has retained the services of Recipient as a Management Support Consultant for the purposes of providing project management support and oversight related to _____ (Project Description). Recipient's project management duties will consist of, but not necessarily be limited to, providing responses to WVDOH standards and policy questions, high level quality assurance (QA) oversight, monthly communication and monitoring of schedules, review and approval of invoice submittals, value engineering and practical design suggestions, and assistance with delivery of infrastructure program. In the course of performing these and related tasks, it is anticipated that Recipient will come into possession of certain WVDOH data, records, reports, and information ("Records").

B. WVDOH may elect to disclose to Recipient certain of the Records which are necessary or appropriate to Recipient’s provision of guidance or services to WVDOH.

C. The purpose of this Agreement is to provide for the confidentiality of the Records disclosed by WVDOH to Recipient and to prevent the unauthorized premature disclosure of such Records by Recipient.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are acknowledged by the parties, the parties agree as follows:

1. Records

(a) WVDOH may elect to disclose certain of its Records to Recipient. Nothing herein

shall require WVDOH to disclose Records or any of its information.

(b) Records may include information disclosed or submitted orally, in writing, or by any other media, to Recipient by WVDOH and/or its consultants. In the event of any uncertainty as to the status of a Record as confidential or exempt, the Recipient shall promptly request clarification from WVDOH but shall otherwise hold the Record in confidence pursuant to this Agreement unless and until advised otherwise by WVDOH.

2. Recipient's Obligations

(a) Recipient agrees that the Records are to be considered confidential and proprietary to WVDOH, that WVDOH is the custodian of such Records, and Recipient shall hold the same in confidence, shall not use the Records other than for the purposes of Recipient's services for or business with WVDOH, and shall disclose it to no one, except officers, employees, or consultants of Recipient who have agreed to observe and be bound by the terms of this Agreement and for whom Recipient shall ensure compliance with the Agreement. Recipient will not disclose, publish, or otherwise reveal any of the Records to any other party whatsoever, except with the specific prior written authorization of WVDOH.

(b) All Records are and remain the property of WVDOH. Records furnished in tangible form shall not be duplicated by Recipient, without the prior written permission of WVDOH. Upon WVDOH's written request or the termination or expiration of this Agreement, Recipient shall return all Records received in written or tangible form, including copies, or reproductions and any notes or memoranda of conversations relating to the Records, including any copies thereof or other media containing such Records, within ten (10) calendar days of such request. At Recipient's option and WVDOH's approval, any documents or other media developed by Recipient containing Records may be destroyed by Recipient, in which case Recipient shall provide WVDOH a notarized affidavit certifying destruction of such Records within ten (10) calendar days thereafter.

3. Term of Agreement and Termination Requirements

The obligations of Recipient under this Agreement shall begin on the Effective Date of this Agreement and shall remain in effect until terminated by written notice to the Recipient from WVDOH. Recipient's obligations shall not be affected by bankruptcy, receivership, assignment, attachment, or seizure procedures, whether initiated by or against Recipient, nor by the rejection of any agreement between WVDOH and Recipient, by a trustee of Recipient in bankruptcy, or by the Recipient as a debtor-in-possession or the equivalent of any of the foregoing.

Governing Law

This Agreement shall be governed and construed in accordance with the laws of the State of West Virginia.

4. Limitations on Confidentiality

(a) Nothing in this Agreement shall be interpreted as placing any obligation of confidentiality or nonuse by Recipient with respect to any information that:

1. is or becomes publicly available to Recipient, without breach of this Agreement, or is rightfully received by Recipient without an obligation or breach of confidentiality;

2. can be demonstrated to have been in the public domain as of the Effective Date of this Agreement, or legitimately comes into the public domain thereafter through no action of the Recipient;

3. can be demonstrated to have been known to the Recipient prior to execution of this Agreement and was not acquired, directly or indirectly, from WVDOH or from a third party under a continuing obligation of confidentiality;

4. is required to be disclosed pursuant to law or court order; provided that Recipient provides prior notice to WVDOH and provides sufficient time to WVDOH to assert any exclusions or privileges that may be available by law; or

5. is developed by Recipient without breach of this Agreement;

Provided, however, such Records shall not be disclosed until thirty (30) days or such shorter period as may be required for compliance with law, after written notice of intent to disclose is given to WVDOH along with the asserted grounds for disclosure.

(b) The Recipient will forward all written or oral requests for disclosure of Records to WVDOH immediately.

5. Costs of Breach and Enforcement

Recipient shall be responsible for any and all courts costs, reasonable attorney's fees,

and compensatory and/or consequential damages caused by Recipient's breach of this Agreement. The Recipient agrees to hold WVDOH harmless for any damages caused to WVDOH or third parties resulting from Recipient's breach of this Agreement, and Recipient shall defend and indemnify WVDOH against any claims, demands, or causes of action related to such damages.

6. Entire Agreement

This Agreement sets forth the parties' entire understanding as to its subject matter and terminates and supersedes all prior understandings or agreements, oral or written, between WVDOH and Recipient, relating to the subject matter of this Agreement, but shall neither nullify nor otherwise affect any other existing or future confidentiality or nondisclosure agreements between the Recipient and either the State of West Virginia or WVDOH.

7. Amendments

This Agreement may not be changed or modified except by an instrument in writing signed by duly authorized representatives of WVDOH and Recipient. Provided, however, that WVDOH reserves the right to terminate the Agreement at any time at its discretion.

8. Assignment

Recipient may not sell, assign, or transfer, either voluntarily or by operation of law this Agreement or any interest herein without WVDOH's express prior written consent. This Agreement shall inure to the benefit of and shall be binding upon WVDOH and Recipient and WVDOH's and Recipient's respective successors and permitted assigns.

9. Severability

If any term of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, then this Agreement, including all remaining terms, will remain in full force and effect as if such invalid or unenforceable term had never been included.

10. Notices

Any notice required by this Agreement, or given in connection with it, shall be in writing and shall be given to WVDOH by delivery to the designated WVDOH point of contact named below and to Recipient to its designated representative named below.

WVDOH's Representative:

Name: _____

Tit1e: _____

Address: _____

_____

Phone: _____

Recipient's Representative:

Name: _____

Tit1e: _____

Address: _____

_____

Phone: _____

11. **No Implied Waiver**

Either party's failure to insist in any one or more instances upon strict performance by the other party of any of the terms of this Agreement shall not be construed as a waiver of any continuing or subsequent failure to perform or delay in performance of any term hereof.

IN WITNESS WHEREOF, the parties have executed this Confidentiality Agreement as of the Effective Date above written.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS

By: _____

(Signature)

Title: _____

RECIPIENT

_____

(Signature)

Title:_____

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Conflict of Interest Disclosure Form

In order to avoid the appearance of a conflict of interest, and to ensure requirements in 23 CFR, section 1.33 are followed, firms selected as Management Support Consultants shall complete this form, for the purposes of providing project management support and oversight related to:

PROJECT DESCRIPTION:
COUNTY:
CONTRACT ID:

In the space provided below, and on supplemental sheets as necessary, Firms should disclose: (a) any current contractual relationships with WVDOH; (b) any past, present, or planned contractual or employment relationships with any officer or employee of WVDOH; and (c) any past, present, or anticipated future contractual or employment relationships with any public agencies, companies or individuals (including officers and employees) known to Firm. **If at any time the Firm begins to enter into a contractual relationship or updates employment relationship with any companies or individuals, the firm has the responsibility to update the disclosure form no later than five (5) working days after such contact.**

D I S C L O S U R E

REMEDIATION PLAN

In the space provided below, and on supplemental sheets as necessary, identify steps the Firm plans to take to avoid, neutralize, or mitigate every identified real or potential organizational conflict of interest listed above.

CERTIFICATION

The undersigned hereby certifies that, to the best of his or her knowledge and belief, no interest exists that is required to be disclosed on this Conflict of Interest Disclosure Form, other than as described above. The undersigned further certifies that he or she understands that disclosure of a conflict of interest on this Form does not relieve his or her company of the obligation to comply with WVDOH policies, as well as applicable federal and state laws and regulations.

Signature

Name

Title

Name of Firm

Date

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Stephen T. Rumbaugh, P. E.
Secretary of Transportation
Commissioner of Highways

March 13, 2025

Mr. Jeff Blanton
Division Administrator
West Virginia Division
Federal Highway Administration
300 Virginia Street, East
Suite 7400
Charleston, West Virginia 25301

Dear Mr. Blanton

SUBJECT: Procuring Consultants for Management Support Roles Procedure

The West Virginia Division of Highways (WVDOH) and the Federal Highway Administration are reaffirming the effort to create a procedure for hiring consultants in Management Support Roles. This process will be a tool to assist the WVDOH to deliver the future infrastructure program.

Attached are the Management Support Role Policy, Confidentiality Agreement, and Conflict of Interest form. Upon approval, the information will be formalized and provided to the necessary WVDOH personnel for their use.

Please address your response letter to Mr. R. J. Scites, P. E., Director of our Engineering Division, at 1900 Kanawha Boulevard, East, Building Five, Room 920, Charleston, West Virginia 25305. Should you have any questions or require additional information, you may contact Mr. Scites at (304) 414-6479 or via email at Raymond.J.Scites@wv.gov.

Sincerely,

Stephen T. Rumbaugh, P. E.
Secretary of Transportation
Commissioner of Highways

SR:Sr

Attachment

U.S. Department

Federal Highway Administration

West Virginia Division

154 Court Street
Charleston, West Virginia 25301
Phone (304) 347-5928
Fax (304) 347-5103

November 28, 2022,

IN REPLY REFER TO:
Procuring Consultants for
Management Support Roles
Policy

Raymond Scites, P.E.
Director – Engineering Division
West Virginia Department of Transportation
Division of Highways
Charleston, West Virginia 25305

Dear Mr. Scites:

Your letter of November 17, 2022, provided the WVDOH Policy for Procuring Consultants for Management Support Roles, including Confidentiality Agreement, Conflict of Interest Form and updates to 157 CSR1 Procurement Procedures for Negotiated Contracts. We have worked with the WVDOH to draft this policy and find it in compliance with 23 CFR 172. A copy of the procedures with our approval indicated thereon is enclosed for your files.

If you have further questions regarding this matter, please contact Yuvonne Smith at 304.347.7196, or yuvonne.smith@dot.gov.

Sincerely yours,

Jeff Blanton

Jeffrey S. Blanton, P.E.
Division Administrator

Enclosure

Appendix G

Evaluation of Design

PROJECT EVALUATION WORKSHEET

PROJECT NAME _____

STATE PROJECT NUMBER _____

FEDERAL PROJECT NUMBER _____

CONSULTANT _____

PROJECT MANAGER/EVALUATOR _____

		TIMELINESS		**QUALITY**		**TASK**
	TASK/MILESTONE	EVALUATION	FACTOR	EVALUATION	FACTOR	EVALUATION
1.						
	DOH PM INITIALS _____	*DOH SUP INITIALS* _____		*CONSULTANT PM/EOR* _____		
2.						
	DOH PM INITIALS _____	*DOH SUP INITIALS* _____		*CONSULTANT PM/EOR* _____		
3.						
	DOH PM INITIALS _____	*DOH SUP INITIALS* _____		*CONSULTANT PM/EOR* _____		
4.						
	DOH PM INITIALS _____	*DOH SUP INITIALS* _____		*CONSULTANT PM/EOR* _____		
5.						
	DOH PM INITIALS _____	*DOH SUP INITIALS* _____		*CONSULTANT PM/EOR* _____		
6.						
	DOH PM INITIALS _____	*DOH SUP INITIALS* _____		*CONSULTANT PM/EOR* _____		

OVERALL PROJECT EVALUATION

DRAFT

SECTION 642
TEMPORARY POLLUTION CONTROL

642.1-GENERAL REQUIREMENTS

642.1.1-Description of Work Section 642 of the Specifications governs the material and construction requirements for temporary pollution control. When Item 642 is specified in the Contract, the Project Inspector is responsible for verifying that the Contractor performs the work in accordance with Section 642 of the Specifications and as designated on the Contract Plans. See the Specifications for the method of measurement for payment.

642.1.2-Materials Considerations Inspect all materials upon arrival. Verify that all materials conform to the requirements specified in Section 642.2 of the Specifications. Ensure that materials are supplied from pre-approved DOH sources, as applicable, and document laboratory numbers from the shipping documents on the Daily Work Report.

642.2-INSPECTION GUIDELINES The Project Inspector is responsible for ensuring that the work for temporary pollution control is in conformance with the construction methods and details specified in Section 642 of the Specifications. If inspectors are contacted by the WV Department of Environmental Protection (WVDEP) at the project, any recommended modifications or corrective measures must be recorded in DWR and addressed immediately. At the Preconstruction Conference, the Contractor will submit for approval the Storm Water Pollution Prevention Plan (SWPPP), including the project waste and borrow sites. These plans shall be approved by the District Construction Engineer and District Environmental Coordinator and the WVDEP. Projects with ~~more than one acre of disturbance~~ one acre or more of disturbance shall also be approved by the Technical Support Division Permit Unit and WVDEP via a modification to the NPDES registration. All permits related to pollution control issues need to be on file at the project. Pay particular attention to the schedule of requirements for each size threshold of erodible area. Construction of permanent drainage facilities as well as performance of other Contract work that will contribute to the control of erosion and siltation will be accomplished at the earliest practical stage during the life of the Contract. Pollutants such as chemicals, fuels, lubricants, bitumen, raw sewage, and other harmful waste will not be discharged into or alongside rivers, streams, impoundments (e.g., lakes, reservoirs, etc.) or into natural or man-made water courses leading thereto. The Contractor will also comply with the applicable regulations of the ~~Department~~ Division of Natural Resources and other statutes relating to the prevention and abatement of pollution.

See the ~~WVDOH District Environmental Coordinator~~NPDES General Permit at https://dep.wv.gov/WWE/Programs/stormwater/csw/Documents/2024%20CSW/Reissued%20permit%20WV0115924.pdf for information on DEP permit requirements. See the WVDEP Erosion

and Sediment Control Best Management Practice Manual at https://dep.wv.gov/WWE/Programs/stormwater/csw/Documents/E%20and%20S_BMP_2006.pdf for ~~information~~ for details that may be applicable to the Contractor's SWPPP / Erosion and Sedimentation Control Plan~~, erosion and sedimentation control at waste and borrow sites, seeding and mulching frequencies, and maintenance of in-place erosion control features~~.

642.3-RECORDS AND DAILY WORK REPORTS The Project Inspector is responsible for recording in the Daily Work Report all information (e.g., laboratory numbers, observations, quantity measurements, directives to the Contractor) necessary to accurately document the prosecution and progress of the work, justify payment to the Contractor, and protect the Division from any future claims. Contractors, DOH Project Inspectors, Environmental Monitors, and Environmental Coordinators shall use the WVDOH Environmental Construction Inspection Form at https://transportation.wv.gov/highways/TechnicalSupport/Documents/Final%20Environmental%20Construction%20Inspection%20Form%20-%2001.16.25.pdf to document environmental inspection of construction projects. Inspection frequency shall occur in accordance with the WV/NPDES Construction Stormwater Permit. Projects less than one (1) acre should be inspected at least once every seven (7)-calendar days and after every significant rain event, unless otherwise required by local laws or ordinances. See Section 111 for additional information. DWR must include all routine and non-routine events that occur during each production day and reflect an unquestionable basis for acceptance or rejection. Use AASHTOWare Project, and pertinent attachments, to prepare the Diaries and DWRs. If in doubt as to whether information is important or beneficial, record it.

WEST VIRGINIA DIVISION OF HIGHWAYS

ENVIRONMENTAL CONSTRUCTION INSPECTION FORM

A. PROJECT INFORMATION			
Project Name:		Inspection Date:	
State Project #		Inspection Time:	
Federal Project #		Inspector Name:	
Rain in last 24 hrs:		Weather Conditions:	

B. CONSTRUCTION SITE ASSESSMENT

Environmental Protection Measure	Compliant?			Note or Description of Corrective Action with Risk Rating[1]
	Yes	No	N/A	
1. Copies of project permit applications and approvals onsite (e.g., 404, 401, NEPA, construction stormwater, Floodplain).	☐	☐	☐	
2. All required BMPs installed according to plans for current phase of construction.	☐	☐	☐	
3. Perimeter controls installed downslope of disturbed areas.	☐	☐	☐	
4. All materials, equipment, and project activities are contained within the project boundary.	☐	☐	☐	
5. BMPs for instream work being conducted in accordance with permit (e.g., pump around, temp. bypass channel, coffer dam).	☐	☐	☐	
6. Dewatering work area using appropriate BMPs to prevent sediment laden water from leaving work site (e.g., dewatering bag).	☐	☐	☐	
7. Concrete washouts properly set up and maintained.	☐	☐	☐	
8. Storage of petroleum and other equipment maintenance products properly stored.	☐	☐	☐	
9. Spill kit available onsite.	☐	☐	☐	
10. Project is free of mud on the roads outside the project area.	☐	☐	☐	
11. Disturbed areas where no work is undertaken are properly stabilized (e.g., stone, seed and mulch).	☐	☐	☐	
12. Project demonstrates good housekeeping practices. Solid wastes are properly handled and disposed of at an approved facility.	☐	☐	☐	
List other environmental protection measures if applicable.				
13.	☐	☐	☐	
14.	☐	☐	☐	
15.	☐	☐	☐	

[1]Action Risk Rating Scale: 1-Extreme, 2-High, 3-Medium, 4-Low (Additional guidance on risk rating provided in Table 1, next page.)

C. OFFSITE POLLUTION DISCHARGE	
1. Is there evidence of discharge of sediment or other pollutants outside the project boundary? *	☐ Yes ☐ No
2. Has sediment or other pollutants discharged from the site reached State waters? *	☐ Yes ☐ No

*If yes, the contractor's onsite personnel and project foreman should be notified immediately. Provide a brief description of the communication with the contractor in Section E. Include names, method of communication, and plans for corrective action.
WVDEP Spill Hotline: 1-800-642-3074

D. CONCENTRATED STORMWATER DISCHARGE POINTS

Concentrated stormwater discharge points include discharge from basins, traps, and any location where stormwater converges and continues beyond the project's limit of disturbance along a concentrated pathway.

Outlet #	Receiving Stream	Stabilized (Y/N)	Flow (Y/N)	Visual Water Quality (clear, trace, turbid)	Discharge Color

*Attach additional sheets as needed.

E. INSPECTION CLOSEOUT SUMMARY

Provide a brief description of the current construction activities at the site. Note the effectiveness of the current BMPs and whether any additional BMPs are recommended. If corrective actions are needed, provide a brief description of your communication with onsite personnel regarding inspection findings. Include names, method of communication (e.g., text, email, verbal), and plans for corrective actions. Attach additional sheets as needed.

Table 1. ACTION RISK RATING SCALE

Rating	Risk Level	Corrective Action Timeframe	Examples
1	Extreme	Immediate-must be closed out by the end of workday	- Sediment laden water leaving project site - NEPA or 404 permit violation
2	High	Within 24-hours	Critical E&S controls are damaged and need to be reinstalled before a rain event (e.g., perimeter controls washed out)
3	Medium	Within 3 working days	Less critical E&S controls are damaged and need to be reinstalled before a rain event
4	Low	Within 5 working days	Seeding stockpiles