CONSULTANT PREQUALIFICATION REQUIREMENTS AND PROCEDURES

Administration of Contracts for Professional Services

2026 Edition



Prepared by the ODOT
Office of Consultant Services

Department of Transportation
Office of Consultant Services

Version Control Summary

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Consultant Prequalification Requirements and Procedures

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2026	Jan 2026	Section 2.23 Revise Experience Requirement
2026	Jan 2026	Section 2.56 Revise Training Options
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Preface:

Procurement, Management, and Administration of Contracts For Professional Services

Department of Transportation

Program Management and Oversight

Section 5526.02 of the Ohio Revised Code provides authority for the Director of Transportation to "enter into contracts with any qualified firm for professional services in accordance with this chapter." This authority and the remaining sections of ORC 5526 provide the legal foundation for the Department's use of professional services and define the extent of the duties of the Office of Consultant Services. The Department's use of firms that provide professional services is further governed by Federal Highway Administration rules enumerated in 23 CFR 172, Federal Transit Administration rules enumerated in 49- U.S.C. Chapter 53 and Circular FTA 4420.1F, the Ohio Administrative Code and additional sections of the Ohio Revised Code.

23 CFR 172.5 requires that State Departments of Transportation prepare and maintain written policies and procedures for the procurement, management, and administration of engineering and design related consultant services. The documents listed below govern the Department's use of contracts for professional services, including procurement, negotiation, administration, and close-out.

Circular FTA 4420.1F provides contracting guidance for recipients of Federal Assistance awarded by the Federal Transit Administration (FTA) when using Federal assistance to finance its procurements.

Governing ODOT Documents

- Manual for Administration of Contracts for Professional Services
  - Volume 1: Consultant Contract Administration
  - Volume 2: Invoice and Project Schedule (IPS)
  - Volume 3: Scope and Fee System (SAFe)
  - Volume 4: Consultant Fee Estimation Guidance.
  - Volume 5: Consultant Evaluation System
  - Volume 6: PreQ System
- Specifications for Consulting Services
- Consultant Prequalification Requirements and Procedures
- Manual of Procedures for Locally Administered Transportation Projects
- Office of Transit Procurement Manual
- AASHTO Uniform Audit & Accounting Guide (AASHTO Guide)

ODOT's Governance Structure

To provide efficient administration and governance of contracts for professional services, the Director appoints members of various committees that have defined roles in assignment of DBE, EDGE, or SBE Goals, consultant selection, approval of fees, dispute resolution, potential

conflicts of interest, review of Good Faith Efforts and other activities. Committees created by the Director for this purpose are listed below, along with a table that sets out the authority of each committee.

- Consultants Committee
- District Consultants Committees
- Director's Consultant Resolution Board
- Conflict of Interest Waiver Review Committee
- Goals Committee
- Good Faith Efforts Committee

Details about these committees are shown in Table A.

Table A: Authority of the Department's Consultant Committees

☑ = Approval Authority

Activity	Action	Consultants Committee	District Consultants Committees	Director's Consultant Resolution Board	Conflict of Interest Waiver Review Committee	Goals Committee	Good Faith Efforts Committee
Consultant Selection	Rate Letters of Interest/Proposals, shortlist firms, and recommend one firm for selection		☑				
Consultant Selection – All Selection Procedures	Final selection of one firm	☑					
Approval of Fees	New Agreements	☑					
Modifications	Modification of agreements – Refer to Section 4.3.E.2.b. for authority to approve and execute modifications	☑	☑				
Agreements	Individual tasks for on-call agreements (IDIQ)		☑				
Negotiations	Terminate negotiations with a selected firm and enter into negotiation with the firm ranked next most qualified in accordance with ORC 5526.05(C)			☑			

Activity	Action	Consultants Committee	District Consultants Committees	Director's Consultant Resolution Board	Conflict of Interest Waiver Review Committee	Goals Committee	Good Faith Efforts Committee
Dispute Resolution	Resolve disputes including fair and reasonable compensation errors and omissions, sanctions, prequalification, and other issues.			☑			
Consultant Conflict of Interest	In instances of potential consultant conflict of interest, review and approve or deny requests for waivers of the Department's rules, and rule on related issues				☑		
Termination of Agreements	Terminate a consultant agreement in accordance with Section 2.41 of the Specifications for Consulting Services	☑					
DBE, EDGE and SBE Goals	Assign DBE, EDGE and SBE Goals to consultant agreements					☑	
Review Good Faith Efforts required to meet DBE, EDGE, and SBE Goals	In the event that a Consultant is unable to meet a DBE, EDGE or SBE Goal, determine whether the Consultant has made a good faith effort to meet the goal in accordance with 49 CFR 26.53 and Appendix A to Part 26.						☑

Part I—

General Prequalification Information

Department of Transportation

This document has been prepared to explain the Ohio Department of Transportation (ODOT) Consultant Prequalification Requirements and Procedures.

Section 5526 of the Ohio Revised Code empowers the Director of Transportation to enter into contracts for professional services, with the consent of the Controlling Board. The Director may enter into contracts for professional services with any qualified person, firm, partnership or association.

Prequalification of consulting engineering and environmental firms, right of way acquisition individuals and construction inspection individuals is one element of the Department's qualifications-based selection process. The Department will list the minimum level of required prequalification with project notifications for projects that include services for which the Department prequalifies consultants. Only consultants that are prequalified are eligible to be selected. For projects that do not include such services, prequalification will not be required.

1.01— FREQUENCY OF THE PREQUALIFICATION REVIEW

All consultants are required to submit technical prequalification applications to ODOT every two (2) years. Consultants that provide engineering and design related services are required to submit financial and cost accounting information on an annual basis.

> ***Note:*** *Technical Prequalification every two (2) years and Financial and Cost Accounting every year or annual.*

1.02— CONSULTANT PREQUALIFICATION REQUIREMENTS

Prequalification with the Department is based on approval of the following elements:

A. Certificate of Authorization

1. Professional Engineering Services

For firms that provide professional engineering services in accordance with Ohio Revised Code Section 4733.01(D), a current Certificate of Authorization from the State Board of Registration for Professional Engineers and Surveyors in accordance with ORC 4733.16. The State Board of Registration for Engineers and Surveyors requires Consultants to update the firm's Certification of Authorization on a Bi-Annual Basis. Corporations which were granted a charter prior to August 7, 1943, to engage in providing engineering and/or surveying services or were otherwise lawfully providing engineering and/or surveying services prior to November 15, 1982, are exempt from the requirements for these rules. Professional associations which comply with Chapter 1785 of the Revised Code and were incorporated prior to November 15, 1982, are also exempted. A letter from the State Board must be submitted approving either exemption. For additional information regarding certification, please contact

the Ohio State Board of Registration for Professional Engineers and Surveyors, 77 South High Street, Suite 2472, Columbus, Ohio 43215-6108, (614) 466-3651 or (877) 644-6364, or www.peps.ohio.gov.

2. Landscape Architectural Services

For firms that provide Landscape Architectural Services in accordance with Ohio Revised Code Section 4703.30(B) and request to be prequalified for Bicycle Facilities and Enhancement Design, a current Certificate of Authorization from the Ohio Landscape Architects Board in accordance with ORC 4703.331(F). The Ohio Landscape Architects Board requires Consultants to update the firm's Certification of Authorization on an annual basis. For additional information regarding certification, please contact the Ohio Landscape Architects Board, 77 S. High Street, 16th Floor, Columbus, Ohio 43215-6108. Telephone (614) 466-2316 or http://www.arc.ohio.gov/.

3. Environmental Services

For firms requesting prequalification to provide environmental services only, a copy of the certificate issued by the Ohio Secretary of State indicating that your firm is authorized to do business in Ohio.

B. Technical Capability Within the Areas of Prequalification Requested

The Department reserves the right to deny prequalification based on poor consultant performance.

1.03— PREQUALIFICATION CATEGORIES

A. The Department prequalifies consulting firms in the following categories:

- **Bicycle Facilities and Enhancement Design**
- **Roadway:**
  - Non-Complex Roadway Design
  - Complex Roadway Design
- **Interchange Operations / Modification / Justification Study (IOS/IMS/IJS)**
- **Safety Study**
- **Right of Way Plan Development:**
  - Limited
  - Complex
- **Subsurface Utility Location Services**
- **Bridge Design:**
  - Level 1 Bridge Design
  - Level 2 Bridge Design

- **Bridge Inspection:**
  - Level 1 Bridge Inspection
  - Level 2 Bridge Inspection
  - Underwater Dive Bridge Inspection
- **Soils/Geotechnical Services:**
  - Geotechnical Engineering Services
  - Geotechnical Testing Laboratory
  - Geotechnical Field Exploration Services
  - Geotechnical Drilling Inspection Services
- **Traffic Signal Design:**
  - Basic Traffic Signal Design
  - Traffic Signal System Design
  - ITS Design and Operations
- **Highway Lighting Design:**
  - Limited Lighting Design
  - Complex Lighting Design
- **Environmental Services:**
  - Environmental Document Preparation - EA/EIS
  - Environmental Document Preparation - CE
  - Environmental Document Preparation - Section 4(f)
  - Ecological Surveys
  - Stream and Wetland Mitigation
  - Waterway Permits
  - Air Quality Analyses
  - Noise Analyses and Abatement Design
  - Archaeological Investigations
  - History/Architectural Investigations
  - Regulated Materials Review
  - Public Involvement for C1 and C2 Level CE
  - Public Involvement for D1 and Higher Level CE
  - Public Involvement for EA/EIS
- **Construction Management Firm**

B. The Department prequalifies individuals in the following categories:

- **Right of Way Acquisition Services:**
  - Project Management for Right of Way Acquisition Services
  - Title Research

  - Value Analysis
  - Appraisal
  - Appraisal Review
  - Negotiation
  - Closing
  - Relocation
  - Relocation Review
- **Construction Inspection & Administration:**
  - Project Inspector 1
  - Project Inspector 2
  - Project Structure Inspector
  - Coatings Inspector
  - Traffic Signal and Lighting Inspector
  - Soils and Aggregate Inspector
  - Construction Engineer Level 1/Construction Manager
  - Construction Engineer Level 2
- **Construction Technician 1 & 2**

C. Financial and Cost Accounting System

- For projects that include engineering and design related services, as defined by 23 CFR 172.3, consultants must be prequalified in the Financial and Cost Accounting category. Engineering and design related services means program management, construction management, feasibility studies, preliminary engineering, design engineering, surveying, mapping, or architectural related services with respect to a construction project subject to 23 U.S.C. 112(a).
- For projects that do not meet the definition of engineering and design related services, prequalification in the Financial and Cost Accounting category will not be required. Examples of services that do not meet this definition would include right of way acquisition services, traffic counts, financial analysis and statewide planning activities.
- See Part III for detailed information.

> ***Note:*** *The definition of each category of work and the requirements for technical prequalification are included in Part II of this Manual. Financial and Cost Accounting see Part III*

1.04 — EMPLOYMENT REQUIREMENTS

Prequalification status shall be based on personnel employed by the firm. A person may be employed by only one (1) firm for purposes of prequalification with the Department. Only employees that meet the minimum requirements will be considered.

1.05 A — FIRM NAME, ADDRESS, CONTACT PERSON AND E-MAIL ADDRESS

A. Primary Firm Name

Provide the firm's Business Entity Number in order for the system to populate the registered business name on file with the Ohio Secretary of State.

B. Primary Firm Address

Provide a primary firm address for transmittal of all correspondence from the Office of Consultant Services in the firm profile. Only one (1) such address is permitted regardless of the number of offices.

C. Firm Point of Contact

Designate a person to act as the point of contact for the firm, along with a telephone number. All correspondence from the Office of Consultant Services will be addressed to the named contact person at the primary firm address. An additional contact person for PreQ notifications can also be designated in the PreQ system within the Firm Profile.

D. Firm E-Mail Address

Provide an E-mail address for electronic communication with the named contact person and Pre-Q notifications contact person if applicable.

E. Primary Firm Contact Change

A change in the firm's primary address, point of contact, or E-mail addresses, may be initiated by the firm through the firm profile within the PreQ system.

1.05 B — INDIVIDUAL/EMPLOYEE ADDRESS, CONTACT INFORMATION AND E-MAIL ADDRESS

A. Primary Address

Provide a primary address for transmittal of all correspondence from the Office of Consultant Services in the employee profile. Only one (1) such address is permitted.

B. E-Mail Address

Provide an E-mail address for electronic communication.

C. Contact Change

A change in primary address or E-mail addresses, may be initiated through the employee profile within the PreQ system.

1.06 — INVOICE PAYMENT ADDRESS

Within the Firm profile in the PreQ system, when an OAKS ID number is entered, the firm will be required to choose an Invoice Payment Address from the populated addresses. Only one payment address may be selected. Changes to this address can be made in PreQ.

1.07— DBE, EDGE AND SBE STATUS

If the firm is currently certified as a DBE firm (Ohio Disadvantaged Business Enterprise Unified Certification Program) or EDGE firm (Encouraging Diversity, Growth and Equity - Ohio Department of Administrative Services) or SBE firm (Small Business Enterprise), provide this information through the firm profile within the PreQ system.

1.08 — PreQ USE AND BEST PRACTICES

Prequalification requests will only be accepted through the PreQ system and must meet the requirements in this manual.

The following items are PreQ requirements and best practices.

PreQ Instructional Materials:

- Instructional training videos and the PreQ User Manual can be found here: https://www.transportation.ohio.gov/working/engineering/consultant-services/prequal-info

PreQ Requests:

- Requests for initial prequalification must be submitted at least 30 days prior to the Programmatic Group posting to allow time for review.
- Requests for prequalification renewals must be submitted at least 30 days prior to the current category expiration date to allow time for review.
- Expiration dates cannot be extended.
- If a firm submits a prequalification request after a category has expired, the 30 day review period starts when the request is submitted.

- Employees are NOT prequalified in Firm Categories; but are used as key persons for the firm to become prequalified. It is neither required nor necessary for the firm to submit more than the minimum required key persons to obtain prequalification.
- Training certificates and dated requirements must be updated in PreQ prior to their expiration date to maintain prequalification.
- It is NOT necessary to submit a renewal request for review for updates to training certificates and dated requirements unless the category has expired or is approaching expiration. Updating a dated requirement in the system can be done without a formal submission for review during the 2-year approval period.
- When adding additional key persons to an approved firm category outside of the biannual renewal, only choose the minimum required key persons that will satisfy the requirements. This may mean that you select or remove already approved key persons as part of the request. Removing key persons from additional submissions does not remove a key person's approval from their employee dashboard unless the firm prequalification has expired.
- All PreQ users can only be associated with one firm at a time. When moving between firms, the user must disassociate from the previous firm and associate with the new firm.
- When a previously approved key person moves between firms, they must disassociate from the previous firm and associate to the new firm. The approved key person status does not follow the user to the new firm automatically. The new firm must submit the new employee as a key person in the desired category(ies) to ODOT for review and approval before the key person will be reapproved and the firm prequalified in the category(ies).

Requirement Compliance:

- It is the responsibility of the firm and/or employee to notify the Office of Consultant Services within 14 days of an employee disassociating (leaving) a firm.
- PreQ sends various notifications alerting the users/firms that dated requirements are expiring at various intervals to assist the users with scheduling and maintaining dated requirements.
- Categories will be reviewed by Consultant Services for compliance several times a year to ensure that dated requirements and key person requirements are met.
- DBE/EDGE/SBE Firms must reflect the loss of certification in PreQ within 30 days of being notified by the Department.

- Loss of a firm's PE Registration or a key person's PE registration that results in the firm no longer meeting the category requirements, will result in immediate revocation of the impacted category(ies).
- If a user holding an Individual Category Prequalification has an expired dated requirement or other requirement missing, the user has until their next renewal submission to get the dated requirement updated and in compliance.
- If a user, identified as a key person for a firm, has an expired dated requirement or other requirement missing causing the firm to no longer meet the minimum key person requirements, the firm has until their next renewal submission to get the dated requirement updated and in compliance.
- If a user, identified as a key person for a firm, has disassociated from a firm causing the firm to no longer meet the minimum key person requirements, the firm must identify and submit a replacement key person for review in the PreQ system within 60 days. The replacement key person must be approved for the firm to remain in compliance. If after 60 days the firm does not meet the category requirements, prequalification in the impacted category(ies) will be revoked.
- Categories can only be reinstated through a category review submission to ODOT through PreQ.

1.09 — OHIO ADMINISTRATIVE KNOWLEDGE SYSTEM (OAKS)

The State's Office of Budget and Management (OBM) requires that each new vendor complete a New Vendor Information Form to establish an OAKS number. Upon selection for an agreement, the consultant will be required to enter this information into the firm profile within the PreQ system. The process for obtaining the OAKS number can be obtained by going to "supplier.ohio.gov" or calling 877-644-6771.

1.10 — STANDARD FORM 330 ARCHITECT- ENGINEER QUALIFICATIONS

The Department requires that all firms provide the last page of Standard Form 330 (Part II – General Qualifications).

1.11— CURRENT CERTIFICATIONS

In all cases where prequalification requires certification or training by external agencies or the Department, the certifications and/or training approvals must be currently in force at the time of prequalification approval and remain in force during the period of prequalification approval.

1.12— SUBMITTAL REQUIREMENTS

Please adhere to the following requirements for consultant prequalification submittal.

- All requests for initial prequalification, upgrade, and renewal must be submitted via the PreQ system.
- Uploads to the PreQ system must be in one of the following file formats: .doc, .docx, .jpg, .jpeg, .pdf, .png, .rtf, .tif, .txt, .xls, .xlsx
- No paper submissions will be accepted.
- No USB Flash Drive/CD/DVD submissions will be accepted.
- No emailed submissions will be accepted.

> ***Note:*** *Prequalification packages submitted thru USPS mail, USB/CD/DVD, and email will NOT be accepted.*

Part II—

Prequalification Definitions, Requirements and Submittal Requirements

Department of Transportation

ROADWAY DESIGN - GENERAL

The following features are encompassed in roadway design: horizontal and vertical alignments, superelevations, intersections, interchanges, pavements, culverts, storm and sanitary sewers, waterlines, erosion control, small retaining walls, traffic barriers, signing, pavement marking, and maintenance of traffic schemes and details, as well as any devices or structures that may be appurtenant to these features. The preparation of right of way plans and descriptions are considered to be a part of roadway design. Attendant to the design is the preparation of acceptable plans, reports, feasibility and justification studies, and the performance of all related calculations.

Acceptable plans are considered to be plans that are prepared in the format, and to the level of detail prescribed in the ODOT Location & Design Manual - Volumes 1-3, the Sample Plan Sheets, Traffic Engineering Manual, Ohio Manual of Uniform Traffic Control Devices and Design Guidelines for Bicycle Facilities. Plans not prepared in these formats, but which are prepared to a similar level of detail and that exhibit substantial conformance with good highway engineering practice may also be considered acceptable.

2.01—BICYCLE FACILITIES AND ENHANCEMENT DESIGN

A. Definition

Projects involving the construction or reconstruction of a road or off-road bicycle or pedestrian facility and as defined under Ohio Revised Code Section 4703.30(B)(1)(c), but not included under Ohio Revised Code Section 5535.

Typical projects would involve the application of standard highway design principles and practices.

B. Requirements

1. Firms that provide professional engineering services or landscape architectural services shall have at least one (1) professional engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) or Registered Landscape Architect (registered as a Landscape Architect with the Ohio Landscape Architects Board) on permanent staff that has had responsibility for design of two (2) or more projects that meet the above definition, including horizontal and vertical alignments, super elevations, drainage elements including small culvert design, or other significant design elements.
2. Completion of the following course:

- ODOT's Multimodal Design Guide Training
  Successful completion is defined to be attendance at the training courses and receiving a passing score on the test administered at the end of the courses.

C. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board or Landscape Architect Registration with the State of Ohio Architects and Landscape Architects Board
2. Resume
3. Provide details for two (2) or more projects for which the key person had responsibility for the design of elements as described in sections A and B.1 above.
4. Certificate of completion for the training course listed under B.2.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board or Ohio Landscape Architects Board.
2. One (1) key person on permanent staff that meets the above requirements.

2.02—NON-COMPLEX ROADWAY DESIGN

A. Definition

Projects involving the construction or reconstruction of a road, street, or highway. Typical projects would involve the application of standard highway design principles and practices.

B. Requirements

A consulting firm requesting qualification in this category shall have at least one (1) professional engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on permanent staff that has had responsibility for roadway design on two (2) or more projects within the past ten (10) years that meet the above definition.

C. Key Person Submittal Requirements

1. Professional Engineer Key Person
   a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide details for two (2) or more projects within the past ten (10) years for which the engineer has had responsibility for the design of the roadway items listed above that provide specific experience in all aspects of roadway design;

namely, horizontal and vertical alignments, superelevation, intersection and/or interchange design, development of culverts, storm and sanitary sewers, waterlines or any other roadway items listed under 2.01 above.

d. For each project, list the specific elements of roadway design involved with this project. For example: design/check of horizontal alignment, design of intersection improvement, etc.

2. Signing, Pavement Marking, MOT Engineer Key Person
    a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
    b. Resume
    c. Provide certification of completion of the Signing, Pavement Marking, and Maintenance of Traffic Modules of the Office of Traffic Engineering's Traffic Academy. (Course certificate valid for 5 years).

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) key person on permanent staff that meets the above requirements.
3. One (1) Signing, Pavement Marking, MOT Engineer Key Person on permanent staff that meets the above requirements

2.03—COMPLEX ROADWAY DESIGN

A. Definition

Projects involving: (1) a significant length of new highway through an urban area or difficult terrain, (2) intricate geometry (e.g., a freeway-to-freeway interchange), (3) the reconstruction or rehabilitation of a significant length of a multiple-lane highway, or (4) other types of projects with similar degrees of difficulty and required expertise.

B. Requirements

1. At least two (2) professional engineers (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on permanent staff who have each had responsibility for the roadway design for a project within the past ten (10) years that meets one (1) or more of the above definitions.
2. At least one (1) registered professional engineer on permanent staff who has successfully completed the Signing, Pavement Marking, and Maintenance of Traffic modules of the Office of Traffic Engineering's Traffic Academy.

C. Key Person Submittal Requirements

1. Professional Engineer Key Person

a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
b. Resume
c. Provide details for two (2) or more projects within the past ten (10) years for which the engineer has had responsibility for the roadway items that meet one (1) or more of the above definitions for complex roadway design.

2. Signing, Pavement Marking, MOT Engineer Key Person
   a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide certification of completion of the Signing, Pavement Marking, and Maintenance of Traffic Modules of the Office of Traffic Engineering's Traffic Academy (Course certificate valid for 5 years).

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. Two (2) Professional Engineer Key Persons on permanent staff that meet the above requirements.
3. One (1) Signing, Pavement Marking, MOT Engineer Key Person on permanent staff that meets the above requirements.

> **NOTE*: One Professional Engineer can fulfill both the Professional Engineer Key Person Role and the Signing, Pavement Marking, MOT Engineer Key Person Role if the requirements are met for both roles.*

2.04— INTERCHANGE OPERATIONS / MODIFICATION / JUSTIFICATION STUDY (IOS/IMS/IJS)

A. General

Control of access on the Interstate and other freeway systems is considered critical to providing the highest level of service in terms of safety and mobility. ODOT is required to process access point requests in relation to new and existing interchanges on the Interstate and other freeways systems.

B. Definition

Studies involving: (1) New Access - A point of access where none previously existed, (2) Revised Access - Revision of existing ramps or crossroads within the limited access area such that the number of access points will remain the same but the impact on the Interstate/freeway system will be affected, (3) Minor Modification - Changes to existing ramps

or crossroads within the limits of the limited access right of way which will result in no change in the number of lanes, and no impact on the Interstate/freeway system.

C. Requirements

1. At least one (1) professional engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on permanent staff who has successfully completed the Interchange Studies module of Traffic Academy. Successful completion is defined to be attendance at the training module and receiving a passing score on the certification test administered at the end of the module. The trained individual in the consulting firm must be in charge of the Interchange Study and sign the document when submitted to ODOT.
2. The same individual that met the training requirement must meet one (1) or more of the following experience requirements.
    a. Four (4) years of experience in the field of traffic engineering or traffic analysis; or
    b. Four (4) years of experience using the Highway Capacity Software (freeway or signalized intersection modules); or
    c. Direct experience developing the analysis for two (2) Interchange studies

D. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide details of work experience illustrating compliance with one (1) or more of the above experience requirements. Provide specific projects and relevant experience for those projects.
4. Provide certification of completion of the Interchange Studies module of Traffic Academy.

E. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) key person on permanent staff that meets the above requirements.

2.05—SAFETY STUDY

A. General

ODOT annually identifies high crash locations that require studying as part of the Department's Safety Work Plan. In addition, local agencies can also sponsor a safety study being performed at locations under their jurisdiction. These safety studies quantify safety problems and develop counter measures to mitigate them. The safety study is one (1) of the

major factors in determining what locations will receive funding for the construction of counter measures.

B. Definition

Safety studies are a systematic approach to determining the cause of crashes and identifying strategies for improvement of locations with high crash trends, prepared in accordance with the ODOT Safety Study Guidelines in part 1230-6 of ODOT's Traffic Engineering Manual (TEM).

C. Requirements

1. At least one (1) professional engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on permanent staff who has successfully completed the Safety Study module of Traffic Academy with a completion year or 2013 or later. Successful completion is defined to be attendance at the training module and receiving a passing score on the certification test administered at the end of the module.
2. The same individual that met the training requirement must meet one (1) or more of the following experience requirements.
    a. Three (3) years of experience in the field of traffic engineering or traffic operations; or
    b. Direct experience developing the analysis for two (2) safety studies.

D. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide details of work experience illustrating compliance with one (1) or more of the above experience requirements. Provide specific projects and relevant experience in those projects.
4. Provide certification of completion of the Safety Study module of Traffic Academy.

E. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) key person on permanent staff that meets the above requirements.

RIGHT OF WAY PLAN DEVELOPMENT - GENERAL

While right of way plans are a definite, integral part of the roadway construction plans, they are developed as a separate entity and thus require a significant amount of specialized knowledge in the fields of boundary surveying and right of way plan development. A right of

way plan provides information that defines the extent of the right of way required in order to construct and maintain a highway. Right of way plans provide a "picture" showing the information needed to facilitate an accurate appraisal of the proposed taking and serve to expedite the required negotiations leading to the acquisition thereof. In addition, right of way plans serve as official public records documenting that which has been acquired and monumented and are referred to by land professionals forever.

The development of right of way plans must follow sound engineering and surveying practices and conform to the following specifications: (1) ODOT's Right of Way Manuals; (2) ODOT's Real Estate Policies and Procedures Manual; (3) ODOT's Location and Design Manual; (4) ODOT's Location and Design Sample Plan Sheets; (5) ODOT's Survey Manual; (6) ODOT's Standard Construction Drawings; (7) Chapter 4733-37 of the Ohio Administrative Code (O.A.C.); (8) County Conveyance Standards; (9) project specific Scope of Services requirements; (10) other specifications and manuals as applicable.

2.06—LIMITED RIGHT OF WAY PLAN DEVELOPMENT

A. Definition

Limited Right of Way Plan Development is based on ODOT or similar standards, includes the performance of courthouse research (to evidence all ownership and interest rights in a property), the practice of surveying (as defined in O.A.C. 4733.01), the performance of right of way computations, the preparation of right of way plans and the preparation of legal descriptions that include closure checks.

Projects that meet the definition for Limited Right of Way Plan Development are differentiated from complex projects by the following characteristics:

1. Projects located in rural areas with non-developed land (e.g. No subdivisions);
2. A maximum of six (6) parcels;
3. No railroad involvement;
4. No limited access right of way;
5. No other complicating factors that require specific expertise.

B. Requirements

1. A minimum of one (1) professional surveyor (registered as a Professional Surveyor with the Ohio State Board of Registration for Professional Engineers and Surveyors) on permanent staff.
2. Successful completion of ODOT's Right of Way Plan Development Training Course by the professional surveyor.

3. Active involvement by the professional surveyor in performing boundary survey work within the ten (10) years prior to the date of application (includes LPA or ODOT work). This includes but is not limited to research of deeds, maps, road records and plats as well as the preparation of plats and legal descriptions approved and recorded.

C. Key Person Submittal Requirements

1. Professional Surveyor Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide a detailed description of the boundary survey work experience completed within the last ten (10) years and any roadway right of way experience.
4. Provide county approved legal descriptions (current within the past ten (10) years) completed by the professional surveyor, prepared in accordance with the O.A.C. Chapter 4733-37 Standards for Boundary Surveys.
5. Provide certification of completion for ODOT's Right of Way Plan Development Training Course.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) key person on permanent staff that meets the above requirements.

2.07—COMPLEX RIGHT OF WAY PLAN DEVELOPMENT

A. Definition

1. Complex Right of Way Plan Development is based on ODOT or similar standards, includes the performance of courthouse research (to evidence all ownership and interest rights in a property), the practice of surveying (as defined in O.A.C. 4733.01), the performance of right of way computations, the preparation of right of way plans and the preparation of legal descriptions that include closure checks.
2. ODOT distinguishes two (2) distinct areas of responsibility when preparing complex right of way plans and legal descriptions, namely the design function and the review function. The right of way plan designer shall work under the direct supervision of a Professional Surveyor (registered as a Professional Surveyor with the Ohio State Board of Registration for Professional Engineers and Surveyors). The right of way plan reviewer is responsible for signing and sealing all appropriate right of way documents and must be a Professional Surveyor registered in the State of Ohio. A consulting firm's prequalification status will be based on the training and experience of the individual right of way plan designer and the right of way plan reviewer employed by the firm.

Experience as a right of way plan designer or reviewer requires actual hands on performance of right of way plan development and right of way plan reviews. Work in the general oversight of a project or in a strictly managerial capacity does not qualify for right of way plan designer or right of way plan reviewer experience. The right of way designer and the right of way plan reviewer cannot be the same individual.

B. Requirements

The firm must have on permanent staff a right of way plan designer and a right of way plan reviewer that meet the following requirements.

1. Right of way plan designer
    a. Experience and knowledge in right of way plan development on projects comprising a total of ten (10) or more parcels. This includes but is not limited to research of deeds, maps, plats, road records and existing right of way plans of all appropriate agencies, as well as proposed right of way plan design, right of way computation, ODOT right of way plan standards, ODOT CADD standards, right of way legal descriptions and description closure checks.
    b. Active involvement in right of way plan development within the past ten (10) years.
    c. Successful completion of ODOT's Right of Way Plan Development Training Course.
2. Right of way plan reviewer
    a. A minimum of one (1) professional surveyor (registered as a Professional Surveyor with the Ohio State Board of Registration for Professional Engineers and Surveyors) on permanent staff.
    b. Two (2) years of experience in developing public right of way plans on projects comprising a total of twenty (20) or more parcels. This includes but is not limited to research of deeds, maps, plats, road records and existing right of way plans of all appropriate agencies, as well as proposed right of way plan design, right of way computation, ODOT right of way plan standards, ODOT CADD standards, right of way legal descriptions and description closure checks.
    c. Active involvement in right of way plan development within the past ten (10) years.
    d. Successful completion of ODOT's Right of Way Plan Development Training Course.

C. Key Person Submittal Requirements

1. Right of Way Plan Designer Key Person
    a. Resume

b. Provide details for project(s) that demonstrate your right of way plan development experience on projects comprising a total of ten (10) or more parcels as detailed above.
c. Provide approved right of way plans (current within the past ten (10) years) prepared by the designer and checked by a reviewer (P.S. Registered in the State of Ohio).
   Submittal of multiple plan sets comprising the required number of parcels is permitted.
d. Provide county approved legal descriptions (current within the past ten (10) years) as prepared in accordance with the above submittal right of way plans that are signed and sealed by a reviewer (P.S. Registered in the State of Ohio).
e. Provide certification of completion of ODOT's Right of Way Plan Development Training Course.

2. Right of Way Plan Reviewer Key Person
   a. Professional Surveyor Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide details for project(s) that demonstrate your right of way plan development experience on projects comprising a total of twenty (20) or more parcels as detailed above.
   d. Provide approved right of way plans (current within the past ten (10) years) prepared by the designer and checked by a reviewer (P.S. Registered in the State of Ohio).

      Submittal of multiple plan sets comprising the required number of parcels is permitted.

   e. Provide county approved legal descriptions (current within the past ten (10) years) as prepared in accordance with the above submittal right of way plans that are signed and sealed by a reviewer (P.S. Registered in the State of Ohio).
   f. Provide certification of completion of ODOT's Right of Way Plan Development Training Course.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Right of Way Plan Designer Key Person on permanent staff that meets the above requirements.

3. One (1) Right of Way Plan Reviewer Key Person on permanent staff that meets the above requirements.

2.08—SUBSURFACE UTILITY LOCATION SERVICES

A. Definition

Subsurface Utility Location Services is defined as the processes that accurately and comprehensively identify, characterize, and map underground utility facilities, in accordance with the Department's Subsurface Utility Location Services Specifications. It includes traditional records research, coordination with utility owners, designating, locating, surveying, mapping, and data management. The purpose of Subsurface Utility Location Services is to provide high quality utility location information for use during project development and design. Locating and designating are defined as follows:

1. Designating - the process of using a surface geophysical method or methods to interpret the presence of a subsurface utility and to mark its approximate horizontal position on the ground surface.
2. Locating - the process of exposing and recording the precise vertical and horizontal location of a utility.

B. Requirements

The consultant must demonstrate that it has the staff, equipment, experience, and resources to perform all Subsurface Utility Location Services, as follows:

1. The consultant must employ at least one (1) professional surveyor (registered as a Professional Surveyor with the Ohio State Board of Registration for Professional Engineers and Surveyors) with a minimum of two (2) years of experience in subsurface utility location services and have a current Certificate of Authorization from the State Board of Registration for Professional Engineers and Surveyors to provide professional surveying services.
2. A minimum of two (2) additional employees, each with a minimum of two (2) years of experience in successfully providing all quality levels (refer to the Department's Subsurface Utility Location Services Specifications for definitions of quality levels) of subsurface utility location services using the equipment specified in Number 3 below.
3. Equipment available to perform the full range of Subsurface Utility Location Services including one (1) geophysical prospecting vehicle equipped with two (2) various electromagnetic/acoustical designating equipment (QLB), and one (1) vacuum excavation non-destructive vehicle (QLA) and at least one (1) ground penetrating radar (GPR) system.

4. The consultant must employ a single project manager to represent the firm in a liaison capacity with the Department.
5. Capability of providing both electronic and certified hard copy deliverables in accordance with ODOT's CADD Engineering Standards Manual and ODOT's Location & Design Manual – Volume 3.
6. Documented company plan for current quality assurance and quality control procedures.

C. Key Person Submittal Requirements

1. **Professional Surveyor Key Person**
    a. Professional Surveyor Registration with the State of Ohio Engineers and Surveyors Board
    b. Resume
    c. Provide number of years and details of subsurface utility location services experience.
    d. Provide project information demonstrating item c. above.
2. **Subsurface Utility Location Services Employee Key Person**
    a. Resume
    b. Provide number of years and details of subsurface utility location services experience.
    c. Provide project information demonstrating item b. above.
3. **Project Manager Key Person**
    a. Resume
    b. Provide number of years and details of project management experience for subsurface utility location services.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Professional Surveyor Key Person on permanent staff that meets the above requirements.
3. Two (2) Subsurface Utility Location Services Employee Key Persons on permanent staff that meet the above requirements.
4. One (1) Project Manager Key Person on permanent staff that meets the above requirements.
5. Provide details for the equipment listed above, including manufacturer, model number, age, and ownership status (owned or leased).

6. Provide a description of the firm's ability to provide deliverables in an electronic format compatible with the requirements of the ODOT Location and Design Manual, Volume 3, Highway Design.
7. Provide the firm's quality assurance and quality control plan.

BRIDGE DESIGN - GENERAL

ODOT uses two (2) levels to classify firms for their range of bridge design experience and requires the submittal of Level 3 experience to assist the Department in selection of firms for projects with bridges that exceed the Level 2 definition. A consultant's classification level will be based on the experience of the designers, checkers, and reviewers available to the firm.

The Ohio Department of Transportation requires that bridge design computations and bridge plans be made and prepared by an experienced bridge design engineer, the designer, that all bridge computations are independently verified by an experienced engineer, the checker, and that all bridge plans are reviewed by an experienced engineer, the reviewer.

The designer shall be responsible for preparing a design that follows sound engineering practice and conforms to AASHTO, ODOT and other specifications and manuals. The designer shall also be responsible for preparing an accurate and complete set of final bridge construction plans.

The checker shall be responsible for ensuring correctness, constructability and completeness of the plans and calculations and adherence to pertinent specifications and manuals. The checker shall perform and prepare a set of separate, independent calculations verifying all stations, dimensions, elevations, and estimated quantities.

The checker shall independently check all hand performed structural calculations to assure that the structural theory, design formulae and mathematics used by the designer are correct. The intent is not to produce two (2) separate sets of design calculations. However, for atypical designs, fracture critical components, and situations where the designer's theory is unclear or questionable, the checker shall perform and prepare a set of separate, independent calculations. The checker and designer shall resolve all discrepancies and the final product shall reflect mutual agreement that the design is correct.

The checker shall verify all structural calculations performed by computer analysis by preparing independent input for comparison with the designer's input. The checker shall perform an independent analysis of the output and agree with the designer on the final design.

The reviewer is responsible for the overall evaluation of the plans for completeness, consistency, continuity, constructability, general design logic and quality.

Experience as a designer or checker requires actual hands on performance of the calculations and plan development. Work as a reviewer in the general oversight of a project in a strictly managerial capacity does not qualify for design or checker experience.

Firms prequalified for Level 1.1 Bridge Design can perform the design and review functions or check functions for Level 1 bridges. The requirements are included in Section 2.09. For projects that include Level 1 Bridge Design, a consultant prequalified for Level 1.1 Bridge Design may perform the design and review functions, or check function, but not both. A second consultant, prequalified for Level 1.1, Level 1.2 or Level 2 Bridge Design, must be included on the consultant team.

Level 1.2 Bridge Design requirements are included in Section 2.09. Firms prequalified for Level 1.2 Bridge Design can perform the design, check, and review functions for Level 1 bridges in-house.

Level 2 Bridge Design requirements are included in Section 2.10.

2.09A— LEVEL 1.1 BRIDGE DESIGN

A. General

This section is written for the requirements of Level 1.1 Bridge Design. Refer to Bridge Design – General for a more detailed explanation.

B. Definition

Level 1 Bridges consist mainly of bridge types in which the design can be taken from a standard drawing. Consultants with this prequalification may perform design work on the following types of projects:

1. Pre-stressed box beam bridges on capped pile substructures.
2. Single span concrete slab bridges on capped pile substructures.
3. Continuous concrete slab bridges on capped pile substructures.
4. Concrete deck overlay projects.
5. Minor rehabilitation work involving concrete patching, deck joint rehabilitation, parapet safety regrading or other structural repairs not requiring design computation.

C. Requirements

1. The designer shall be a Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors).
2. The designer shall have experience designing a minimum of three (3) bridges of the following types in any combination:
    a. Single span concrete slab bridge.

   b. Continuous concrete slab.
   c. Pre-stressed box beam.
   d. Any Level 2 or 3 structure.
3. The reviewer shall be a Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) with substantial experience in bridge plan preparation.
4. The firm must have an engineer who has performed a hydraulic analysis on a minimum of three (3) structures.
5. Experience in the design of new elements only will be considered.

D. Key Person Submittal Requirements

1. Level 1 Designer Key Person
   a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide project information and bridge plans for a minimum of three (3) bridges that demonstrate experience as a designer or checker on the plans for the bridge types listed in the requirements above.
2. Reviewer Key Person
   a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide information and details of experience in bridge plan preparation..
3. Hydraulic Analysis Engineer Key Person
   a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide project information including bridge plans and hydraulic analysis file for a minimum of three (3) projects that demonstrate experience in performing hydraulic analysis on a structure.

E. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Level 1 Designer Key Person on permanent staff that meets the above requirements.
3. One (1) Reviewer Key Person on permanent staff that meets the above requirements.

4. One (1) Hydraulic Analysis Engineer Key Person on permanent staff that meets the above requirements.

2.09B—LEVEL 1.2 BRIDGE DESIGN

A. General

This section is written for the requirements of Level 1.2 Bridge Design. Refer to Bridge Design – General for a more detailed explanation.

B. Definition

Level 1 Bridges consist mainly of bridge types in which the design can be taken from a standard drawing. Consultants with this prequalification may perform design work on the following types of projects:

1. Pre-stressed box beam bridges on capped pile substructures.
2. Single span concrete slab bridges on capped pile substructures.
3. Continuous concrete slab bridges on capped pile substructures.
4. Concrete deck overlay projects.
5. Minor rehabilitation work involving concrete patching, deck joint rehabilitation, parapet safety regrading or other structural repairs not requiring design computation.

C. Requirements

1. The designer shall be a Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) or an Engineering Intern who has passed the Fundamentals Exam given by the State Board.
2. The checker shall be a registered Professional Engineer
3. The designer and checker shall each have experience designing a minimum of three (3) bridges of the following types in any combination:
    a. Single span concrete slab bridge.
    b. Continuous concrete slab.
    c. Pre-stressed box beam.
    d. Any Level 2 or 3 structure.
4. The reviewer shall be a Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) with substantial experience in bridge plan preparation.
5. The firm must have an engineer who has performed a hydraulic analysis on a minimum of three (3) structures.
6. Experience in the design of new elements only will be considered.

D. Key Person Submittal Requirements

1. Level 1 Designer Key Person
    a. Professional Engineer or Engineer Intern Registration with the State of Ohio Engineers and Surveyors Board
    b. Resume
    c. Provide project information and bridge plans for a minimum of three (3) bridges that demonstrate experience as a designer or checker on the plans for the bridge types listed in the requirements above.
2. Reviewer Key Person
    a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
    b. Resume
    c. Provide information and details of experience in bridge plan preparation.
3. Hydraulic Analysis Engineer Key Person
    a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
    b. Resume
    c. Provide project information including bridge plans and hydraulic analysis file for a minimum of three (3) projects that demonstrate experience in performing hydraulic analysis on a structure.
4. Checker Key Person
    a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
    b. Resume
    c. Provide project information and bridge plans for a minimum of three (3) bridges that demonstrate experience as a designer or checker on the plans for the bridge types listed in the requirements above.

E. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Level 1 Designer Key Person on permanent staff that meets the above requirements.
3. One (1) Reviewer Key Person on permanent staff that meets the above requirements.
4. One (1) Hydraulic Analysis Engineer Key Person on permanent staff that meets the above requirements.
5. One (1) Checker Key Person on permanent staff that meets the above requirements.

2.10— LEVEL 2 BRIDGE DESIGN

A. Definition

Level 2 bridges consist of structure types requiring the most commonly used design procedures and methods and which have geometrics that are not complicated. Consultants with this prequalification may perform work on the following types of projects:

1. All of the work listed under Level 1.
2. Pre-stressed box beam bridges. *
3. Single span and continuous concrete slab bridges. *
4. Single and multi-span rolled beam bridges on tangent alignment with a consistent bridge width.*
5. Single and multi-span constant depth welded plate girder bridge on tangent alignment with a constant bridge width. Generally, spans less than 250 feet will be designed using constant depth girders. *
6. Single and multi-span pre-stressed I-girder bridges on tangent alignment with a constant bridge width. *
7. Deck replacements. Geometry can be tangent or curved. The stringers must be straight, i.e., on a curved structure, the stringers must be doglegged, not curved.
8. Structural repair of Level 1 or Level 2 Bridges, including fatigue retrofits.
9. Structural capacity upgrade.

* Level 2 firms shall be permitted to design any type of substructure.

B. Requirements

1. The designer shall be a Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors).
2. The checker shall be a Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors).
3. In addition to meeting the requirements for Level 1, the designer and checker shall each have experience as a designer or a checker of the following:

   d. Bridge Types

   Single or multi-span, composite, constant depth welded plate girder OR single or multi-span, non-composite constant depth welded plate girder and single or multi-span composite rolled beam

   Prestressed Concrete I-girder

   Note that experience in plate girder design is assumed to provide enough experience to perform rolled beam design. However, experience in rolled beam design alone,

without plate girder experience, is insufficient for qualification under Level 2. Also, the geometry required to qualify for Level 2 is tangent alignment with a constant bridge width.

e. Substructure Types
(Experience in cap and column piers plus 3 of the 4 remaining substructure types listed is required).
    1) Cap and column pier.
    2) Tee type (hammerhead) pier.
    3) Wall type pier.
    4) Stub abutment or integral abutment or semi-integral abutment.
    5) Wall type abutment or 20 feet tall retaining wall

f. Foundation Types
(Experience in all of the listed foundation types is required).
    1) Multi-row pile foundation.
    2) Drilled shaft foundation.
    3) Spread footing foundation.

4. The reviewer shall be a Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) with substantial experience in ODOT plan preparation.
5. The firm must have a Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) who has performed a hydraulic analysis on a minimum of three (3) structures.

C. Key Person Submittal Requirements

1. Level 2 Designer Key Person
   a. Professional Engineer with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide project information and bridge plans for bridges that demonstrate experience as a designer or checker on the plans for the bridge types listed in the requirements above.

2. Reviewer Key Person
   a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide information and details of experience in bridge plan preparation.

3. Hydraulic Analysis Engineer Key Person

a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
b. Resume
c. Provide project information including bridge plans and hydraulic analysis file for a minimum of three (3) projects that demonstrate experience in performing hydraulic analysis on a structure.

4. **Level 2 Checker Key Person**
   a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide project information and bridge plans for bridges that demonstrate experience as a designer or checker on the plans for the bridge types listed in the requirements above.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Level 2 Designer Key Person on permanent staff that meets the above requirements.
3. One (1) Reviewer Key Person on permanent staff that meets the above requirements.
4. One (1) Hydraulic Analysis Engineer Key Person on permanent staff that meets the above requirements.
5. One (1) Level 2 Checker Key Person on permanent staff that meets the above requirements.

E. Level 3 Design Elements

1. Definition
   Level 3 Bridge Design is not a separate prequalification category but serves as a definition of services that exceed the definition of Level 2 Bridge Design. The Department utilizes the Level 3 elements listed below as "subfactors" in Requests for Consultant Services. The Level 3 elements associated with a specific project will be listed with the project notification and the Department will consider the experience of the project team in designing those specific Level 3 elements.
   The Department requires that Level 3 experience be included in resumes for use in evaluating the experience of project team members listed in Letters of Interest and Technical Proposals. Level 3 elements are as follows:

a. Experience in developing practical solutions to layout problems created by complex geometry.
   Acceptable experience includes any one (1) of the following:
   i. Dog-legged steel beam or girder superstructure
   ii. Dog-legged prestressed I-girder superstructure
   iii. Dog-legged box beam superstructure
   iv. Tapered steel superstructure requiring header beams and partial length beams
b. Composite welded plate girder, rolled beam or box girder bridge on curved alignment with curved stringers requiring an analysis that takes into account the stresses developed in the curved longitudinal members due to non-uniform torsion (lateral flange bending). In all cases, design and analysis calculations are required to document the experience.
c. Fatigue and fracture control in steel bridges, including knowledge of the mechanisms that initiate cracks and cause them to propagate and associated repair methods is required. The intended experience is beyond that involved in performing standard fatigue analyses per AASHTO specifications. Acceptable experience includes any one (1) of the following:
   i. Design of a new fracture critical pier carrying girder.
   ii. Any work to repair existing cracks where analysis of the cause of the cracking and the method of repair was proposed by the consultant and accepted by ODOT. Supporting documentation shall include design calculations and plan details.
   iii. Design of any new members involving complicated framing where fatigue prone connections were a concern. The consultant shall explain the specific fatigue problems and show how they were resolved. Projects where the solution was given to the consultant by ODOT, or another consultant are not acceptable.
d. Haunched girders.
e. Steel box girder superstructures.
f. Piers over 45 feet tall.
g. Three-dimensional finite element analysis (designer only).
h. Post tensioning applied to an existing main load carrying bridge member.
i. Finger joints with a neoprene trough.
j. Through girder railroad bridges.
k. Superstructures utilizing post tensioned segmental construction.

l. Steel trusses.
m. Moveable Bridges.
n. Arch Bridges.
o. Other bridges such as cable stayed, suspension, etc.

2.56—ADVANCED BRIDGE HYDRAULICS

A. Definition

ODOT uses this category to classify firms for their range of bridge hydraulic design experience and requires the submittal of project design experience to assist the Department in selection of firms for projects with bridges that span a body of water. The Ohio Department of Transportation requires that bridge hydraulic design computations be made and prepared by an experienced hydraulic design engineer and that all hydraulic computations are independently verified by an experienced hydraulic engineer. This prequalification is for any 2D hydraulic analyses as required by L&D Volume II or the project scope of service. Work includes bridges that have one or more of the following:

1. Complex channel alignments
2. Wide floodplains
3. Multiple barrel buried culvert bridge
4. Floodplains with companion bridges or culverts that divert flow from the primary structure for the design or check AEP
5. Bridge scour analysis using 2D hydraulic analysis variables

B. Requirements

1. A minimum of one (1) professional engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on permanent staff.
2. Successful completion of the following training courses by the professional engineer:
    a. FHWA-NHI- Stream Stability and Scour at Highway Bridges (FHWA-NHI-135046 or 135046V). and
    b. FHWA-NHI-Two-Dimensional Hydraulic Modeling of Rivers at Highway Encroachments (FHWA-NHI-135095 or 135095V). or
    Ohio-LTAP-Two-Dimensional Hydraulic Modeling of Rivers at Highway Encroachments (Virtual Delivery) or
    Aquaveo 2D Hydraulic Modeling for Transportation Hydraulics (Virtual or In-Person)
3. Active involvement by the professional engineer in performing 2D hydraulic analysis work within the ten (10) years.

C. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide project information including hydraulic analysis report for a minimum of one (1) project, within the past ten (10) years, that demonstrates experience in performing a 2D hydraulic analysis.
4. Provide certification of completion for the ~~FHWA NHI~~ courses listed in the requirements above.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) key person on permanent staff that meets the above requirements.

BRIDGE INSPECTION - GENERAL

A. Minimum Requirements

Consultants performing bridge inspections for ODOT must meet the minimum requirements established within the most current:

1. National Bridge Inspection Standards (NBIS),
2. FHWA Bridge Inspectors Reference Manual (BIRM),
3. AASHTO Manual for Bridge Evaluation
4. ODOT Manual of Bridge Inspection

B. Prequalification Categories

For the purposes of Prequalification ODOT uses three (3) categories to classify Consultants:

1. Level 1 Bridge Inspection
2. Level 2 Bridge Inspection
3. Underwater Dive Bridge Inspection

2.11— LEVEL 1 BRIDGE INSPECTION

A. Definition

A Level 1 bridge is any bridge that carries public vehicular traffic and does not meet the definition of a Level 2 Bridge as listed in the following section 2.12.A.

B. Requirements

The firm must have at least two (2) Professional Engineers (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on staff that have successfully completed the following three (3) areas:

1. Successfully completed an FHWA approved comprehensive bridge inspection training course:
   National Highway Institute Safety Inspection of In-service Bridges (FHWA-NHI-130055 or 130056)
   OR
   Both the ODOT Level 1 and ODOT Level 2 Bridge Inspection Training Courses
2. Successfully completed the Non-Redundant Steel Tension Member (NSTM) for Steel Bridges Training Course (FHWA-NHI-130078).
3. Successfully completed 18 hours of Instructor-led FHWA approved bridge inspection refresher training at least once every five (5) years. Approved FHWA bridge inspection refresher training courses include the following:
   a. FHWA-NHI-130053 - Bridge Inspection Refresher Training
   b. ODOT 3-day FHWA approved Bridge Inspection Refresher Training
4. Responsibility (P.E. stamped) for the inspection and report preparation for two (2) or more In-Depth or Fracture Critical Level 1 bridge inspections.

C. Key Person Submittal Requirements

1.

   a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
   b. Resume
   c. Provide the number of years of experience in bridge inspection.
   d. Provide types of non-destructive testing in which you have experience.
   e. Provide a minimum of two (2) In-Depth or Fracture Critical bridge inspection reports where you were responsible (P.E. stamped) for the inspection and report preparation. Photos are not needed.
   f. Provide certification of completion of Comprehensive Bridge Inspection, NSTM and

Refresher Training courses as shown in the above requirements.

> **Note:* *The Department will no longer accept the "Legacy Clause Checklist" as equivalent Comprehensive Bridge Inspection Training.*

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. Two (2) Professional Engineer Key Persons on permanent staff that meet the above requirements.

2.12— LEVEL 2 BRIDGE INSPECTION

A. Definition

A Level 2 Bridge is a bridge that carries public vehicular traffic that meets any one (1) of the following:

1. Any bridge across the Ohio River, or
2. Any Complex Bridge (ex. Moveable, Cable Stay, Suspension) per the ODOT Manual of Bridge Inspection, or
3. Other structure types listed below that exceed the span lengths noted:

Type	Main Span
Cantilever truss	300 feet
Arch, deck & through trusses	250 feet
Concrete deck arch	130 feet
Haunched continuous steel girders	200 feet

Bridges that do not meet this definition are considered Level 1 bridges. The overall bridge length and overall deck area are not considered in the Level 2 definition.

B. Requirements

The firm must have at least three (3) Professional Engineers (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on staff that have:

1. Successfully completed a FHWA approved comprehensive bridge inspection course. Refer to the Level 1 Bridge Inspection Requirements section 2.11.B.1 for examples.
2. Successfully completed the Non-Redundant Steel Tension Member (NSTM) for Steel Bridges Training Course (FHWA-NHI-130078).
3. Successfully completed 18 hours of Instructor-led FHWA approved bridge inspection refresher training at least once every five (5) years. Refer to the Level 1 Bridge Inspection Requirements section 2.11.B.3 for acceptable courses.

4. Responsibility (P.E. stamped) for the inspection and report preparation for two (2) or more In-Depth or Fracture Critical Level 2 bridge inspections.

C. Key Person Submittal Requirements

1.
    a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
    b. Resume
    c. Provide the number of years of experience in bridge inspection.
    d. Provide types of non-destructive testing in which you have experience.
    e. Provide a minimum of two (2) In-Depth or Fracture Critical bridge inspection reports where you were responsible (P.E. stamped) for the inspection and report preparation. Photos are not needed.
    f. Provide certification of completion of Comprehensive Bridge Inspection, NSTM and Refresher Training courses as shown in the above requirements.

> **Note:* The Department will no longer accept the "Legacy Clause Checklist" as equivalent Comprehensive Bridge Inspection Training.*

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. Three (3) Professional Engineer Key Persons on permanent staff that meet the above requirements.

2.13— UNDERWATER DIVE BRIDGE INSPECTION

A. Definition

Bridges that require the inspection of the underwater portion of a bridge substructure and the surrounding channel, which cannot be inspected visually at low water by wading or probing, will require diving techniques. The inspection and inspection personnel that perform such inspections shall conform to the most current minimum standards within:

1. 29 CFR Part 1910, Subpart T- Commercial Operations, Occupational Safety and Health Administration Standards,
2. National Bridge Inspection Standards (NBIS),
3. FHWA Bridge Inspectors Reference Manual (BIRM),
4. FHWA Underwater Bridge Inspection Manual
5. ODOT Manual of Bridge Inspection
6. AASHTO Manual for Bridge Evaluation

B. Requirements

The firm must have at least two (2) Professional Engineers (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on staff that meet the minimum qualifications of an NBIS Program Manager with additional underwater and cross channel profile experience. Specifically, the engineers at a minimum shall meet the following first four requirements:

1. Successfully completed a FHWA approved comprehensive bridge inspection course. Refer to the Level 1 Bridge Inspection Requirements section 2.11.B.1 for examples.
2. Successfully completed FHWA-NHI-130091 - Underwater Bridge Inspection course.
3. Successfully completed 18 hours of Instructor-led FHWA approved bridge inspection refresher training at least once every five (5) years. Refer to the Level 1 Bridge Inspection Requirements section 2.11.B.3 for acceptable courses.
4. Experience in similar underwater inspection.
5. Experience with cross channel profiling (ex. hydrographic surveying, fathometer, or acoustic imaging)
6. Additionally, the firm must have a dive inspection team of at least three (3) people on staff that are all dive certified. Note the minimum number of qualified inspection staff can be 3 individuals; however, these individuals must meet the minimum five (5) roles (2 P.E.'s, 1 Dive Team Leader, and 2 additional Dive Team members). All five (5) roles must be met for prequalification. The Dive team must have the following roles and qualifications established:
    a. Dive Team Leader (DTL): At least one (1) member of the dive inspection team shall be clearly identified as the DTL, meet the qualifications of the Dive Team Members below have:
        i. Successfully completed a FHWA approved comprehensive bridge inspection course. Refer to the Level 1 Bridge Inspection Requirements section 2.11.B.1 for examples.
        ii. Successfully completed FHWA-NHI-130091 – Underwater Bridge Inspection Training
        iii. Successfully completed 18 hours of Instructor-led FHWA approved bridge inspection refresher training at least once every five (5) years. Refer to the Level 1 Bridge Inspection Requirements section 2.11.B.3 for acceptable courses.
    b. The remaining Dive Team Members must be:
        i. Dive certified by a nationally recognized authority, such as Association of Commercial Diving Educators (ACDE)

ii. In sound physical condition
iii. Have a working knowledge and understanding of Occupational Safety and Health Administration for Diving Standards (Subpart T - Commercial Diving Operations)
iv. Have a working knowledge and understanding of decompression limits per the U.S. Navy Dive Manual.

C. Key Person Submittal Requirements

1. Professional Engineer Key Person

a. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
b. Resume
c. Provide types of non-destructive testing in which you have experience.
d. Provide details of experience in cross channel profiling for three (3) bridges and the method(s) used.
e. Provide a minimum of five (5) underwater dive bridge inspection reports where you were responsible (P.E. stamped) for the inspection and report preparation. Photos are not needed.
f. Provide certification of completion of Comprehensive Bridge Inspection, Underwater Bridge Inspection, and Refresher Training courses as shown in the above requirements.

> **Note:* *The Department will no longer accept the "Legacy Clause Checklist" as equivalent Comprehensive Bridge Inspection Training.*

2. Dive Team Leader Key Person

a. Resume
b. Provide Diver Certification Number and issuing agency
c. Provide number of years of experience in bridge inspection
d. Provide number of years of experience in underwater dive bridge inspection
e. Provide types of non-destructive testing in which you have experience.
f. Provide details of experience in cross channel profiling for three (3) bridges and the method(s) used.
g. Provide details for the five (5) most recent underwater bridge inspections completed.
h. Provide certification of completion of Comprehensive Bridge Inspection, Underwater Bridge Inspection, and Refresher Training courses as shown in the above requirements.

> **Note:* *The Department will no longer accept the "Legacy Clause Checklist" as equivalent Comprehensive Bridge Inspection Training.*

3. **Dive Team Member Key Person**

    a. Resume
    b. Provide Diver Certification Number and issuing agency.
    c. Provide a list of courses and/or experience related to underwater dive bridge inspection.
    d. Provide an answer to the questions as required for Dive Team Members in the above requirements.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. Two (2) Professional Engineer Key Persons on permanent staff that meet the above requirements.
3. One (1) Dive Team Leader Key Person on permanent staff that meets the above requirements.
4. Two (2) Dive Team Member Key Persons on permanent staff that meets the above requirements.

> **NOTE*: The minimum number of qualified inspection staff can be three (3) individuals; however, these individuals must meet requirements for the five (5) key person roles.*

GEOTECHNICAL ENGINEERING - GENERAL

The purpose of the geotechnical exploration is to provide geotechnical-related surface and subsurface information necessary for the planning, design, and construction of the project. The extent of exploration is limited to the acquisition of geotechnical data for geotechnical conditions and properties that affect the plans, designs, and construction of ODOT transportation projects, or existing ODOT transportation infrastructure and associated appurtenances. The geotechnical exploration is comprised of four primary tasks and applies to roadway, bridges, retaining walls, miscellaneous structures, and geohazards. The exploration of geohazards is limited to only those conditions warranted, which could affect ODOT transportation plans, designs, construction, or existing infrastructure assets. For some projects, some of these tasks may need to be performed on a preliminary basis for planning purposes. The four tasks are as follows:

- Reconnaissance and Planning
- Boring, Sampling, and Field Testing

- Laboratory Testing
- Geotechnical Exploration Report, including calculations, recommendations, and geotechnical profile plan sheets

These tasks are to be performed by qualified, experienced, and knowledgeable geotechnical consultants, in accordance with the Specifications for Geotechnical Explorations (SGE), Bridge Design Manual (BDM), CADD Engineering Standards Manual, Geotechnical Design Manual (GDM), and all other applicable ODOT Manuals.

2.14— GEOTECHNICAL ENGINEERING SERVICES

A. Definition

The performance of subsurface explorations of soil and rock related to highway design and construction as described in ODOT's SGE, except for Section 400: Boring Sampling and Field Testing, Section 500: Instrumentation and Section 600: Laboratory Testing; and geotechnical design as described in ODOT's GDM and BDM.

B. Requirements

The consultant shall have a qualified staff capable of performing the work described in the latest editions of the GDM and SGE, Sections 300,700 and 800, including creating a Geotechnical Profile as described in Section 702. The Geotechnical Engineering Services consultant shall be responsible for performance and coordination of all geotechnical work. The Geotechnical Engineering Services consultant may subcontract testing work to a Geotechnical Testing Laboratory provided the laboratory meets the prequalification requirements stated herein.

The staff shall be under the supervision of at least one (1) Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) with specialized experience in geotechnical engineering for a minimum of five (5) years.

C. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide the number of years of experience in geotechnical engineering.
4. Provide details for a minimum of five (5) projects that demonstrate experience related to providing transportation geotechnical engineering services.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board

2. One (1) Professional Engineer Key Person on permanent staff that meets the above requirements.

2.15— GEOTECHNICAL TESTING LABORATORY

A. Definition

The performance of geotechnical testing of soil and rock as described in ODOT's SGE, Section 600.

B. Requirements

The consultant shall have a qualified staff capable of performing the work described in the latest edition of the SGE, Section 600. The staff shall be under the supervision of at least one (1) Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors), with a minimum of five (5) years specialized experience in geotechnical engineering.

The Geotechnical Testing Laboratory shall be capable of performing tests on soil and bedrock samples in accordance with standard test procedures adopted by AASHTO and ASTM. All Geotechnical Testing Laboratories shall be accredited as described herein by:

AASHTO re:source
4441 Buckeystown Pike
Suite A
Frederick, Maryland 21704
240-436-4900 or www.aashtoresource.org

The minimum accreditations required are a general laboratory inspection and the following AASHTO or ASTM designation tests:

TEST DESIGNATION

AASHTO	ASTM	TITLE
R58	D421	Dry Preparation of Samples
T88	D422	Particle Size Analysis of Soils
T89	D4318	Determining the Liquid Limit of Soils
T90	D4318	Determining the Plastic Limit and Plasticity Index of Soils
T99	D698	Moisture-Density Relations of Soils (Standard Proctor)
T100	D854	Specific Gravity of Soils
T208	D2166	Unconfined Compression Strength of Cohesive Soil

T216	D2435	One-Dimensional Consolidation Properties of Soils
T236	D3080	Direct Shear of Soil Under Consolidated-Drained Conditions
T265	D2216	Laboratory Determination of Moisture Content of Soils
T267	D2974	Determination of Organic Content in Soils by Loss on Ignition
T296	D2850	Unconsolidated, Undrained Compressive Strength of Cohesive Soils in Triaxial Compression
T297	D4767	Consolidated-Undrained Triaxial Compression Test on Cohesive Soils
-	D4644	Slake Durability of Shales and Similar Weak Rocks
-	D5731	Determination of the Point Load Strength Index of Rock

C. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide the number of years and details of specialized experience in geotechnical engineering.
4. Provide details for a minimum of five (5) projects that demonstrate experience related to providing transportation geotechnical engineering services.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. Provide the most recent general laboratory inspection certificate and proof of current accreditation status.
3. Provide an accreditation certificate list for the AASHTO or ASTM designation tests listed above.
4. One (1) Professional Engineer Key Person on permanent staff that meets the above requirements.

2.16— GEOTECHNICAL FIELD EXPLORATION SERVICES

A. Definition

The performance of geotechnical field exploration by boring, sampling, instrumentation, and field testing of soil, bedrock, and water as described in the latest edition of ODOT's SGE, Section 400: Boring, Sampling, and Field Testing, excluding Subsections 406 and 409; and Section 500: Instrumentation.

B. Requirements

The company shall have the necessary equipment and experience to perform boring, sampling, testing, transporting, and instrumenting of soil, bedrock, and groundwater according to the above definition of Geotechnical Field Exploration Services, including the following minimum requirements:

1. Two (2) full-time operation drill rigs, owned or leased, by the company and meeting the requirements of SGE Subsection 402.2 Rotary Drilling.
2. A total of at least five (5) employees, including a full-time office manager with a minimum of five (5) years of experience performing work or similar work as described in the above definition of Geotechnical Field Exploration Services.
3. Two (2) full-time drill crew chiefs who perform the work in the field and meet the minimum requirements listed below. The number of drill crew chiefs shall be commensurate with the number of drill teams. At least one (1) drill crew chief is required per drill team. Only drill crew chiefs that meet these requirements are eligible to perform geotechnical field explorations.
    a. Three (3) years of experience performing work described in the above definition of Geotechnical Field Exploration Services, including the following minimum experience:
        i. Ten (10) projects drilled according to State or Federal agency requirements
        ii. Five Thousand (5000) linear feet of soil drilling including:
            a. Five Hundred (500) disturbed soil samples obtained by Standard Penetration Testing (SPT) in accordance with AASHTO T206 or ASTM D1586.
            b. Fifty (50) undisturbed soil samples obtained in accordance with AASHTO T207 or ASTM D1587.
        iii. Two Thousand (2000) linear feet of rock coring
        iv. Fifty (50) rock samples preserved according to ASTM D5079, Paragraph 7.5.2 as modified in SGE Subsection 405.5
    b. *CURRENTLY SUSPENDED FOR ADMINISTRATIVE REVIEW*
    In addition to the above experience, the drill crew chief shall have successfully completed the NHI Course 132079 “Subsurface Investigation Qualification”. This course is available from the following:
    National Highway Institute (NHI)
    2600 Park Tower Drive
    Suite 500

Vienna, Virginia 22180
(703) 235-0500 or www.nhi.fhwa.dot.gov

C. Key Person Submittal Requirements

1. **Drill Crew Chief Key Person**
    a. Resume
    b. Provide the number of years and details of experience performing geotechnical field exploration services.
    c. Provide identifying information and details for a minimum of 10 projects drilled and sampled according to State and Federal Agency requirements.
    d. Provide the number of linear feet of soil drilling performed.
    e. Provide the number of disturbed soil samples obtained by SPT in accordance with AASHTO T206 or ASTM D1586.
    f. Provide the number of undisturbed soil samples obtained in accordance with AASHTO T207 or ASTM D1587.
    g. Provide the number of linear feet of rock coring performed.
    h. Provide the number of rock samples preserved in accordance with ASTM D5079, Paragraph 7.5.2 as modified in SGE Subsection 405.5.
    i. *CURRENTLY SUSPENDED FOR ADMINISTRATIVE REVIEW* Certification of completion of the training course in the above requirements.
2. **Office Manager Key Person**
    a. Resume
    b. Provide the number of years and details of experience performing work in the field of geotechnical field exploration services.
3. **Other Geotechnical Staff Key Person**
    a. a. Resume
    b. b. Describe duties related to geotechnical field exploration services.

D. Firm Submittal Requirements

1. Provide a list of employees employed by the firm or geotechnical division.
2. Provide details for two (2) full-time operation drill rigs, including year, make, model, and ownership status (owned or leased).
3. Two (2) Drill Crew Chief Key Persons on permanent staff that meet the above requirements.
4. One (1) Office Manager Key Person on permanent staff that meets the above requirements.

5. Two (2) Other Geotechnical Staff Key Persons on permanent staff that meet the above requirements.

2.17— GEOTECHNICAL DRILLING INSPECTION SERVICES

A. Definition

The performance of geotechnical drilling inspection by completing field boring logs and other records as described in the latest edition of ODOT's SGE, Subsection 409: Field Boring Logs and Other Records, and the Installation Reports of Section 500.

B. Requirements

A firm must have at least one (1) drilling inspector on permanent staff that meets the minimum requirements listed below. Only drilling inspectors that meet these requirements are eligible to perform these duties.

1. Two (2) years of experience performing work described in the above definition of Geotechnical Drilling Inspection Services; or completion of an undergraduate core program in geology, hydrogeology, or other specialized geologic science and one (1) year experience performing work described in the above definition of Geotechnical Drilling Inspection Services; including the following minimum experience:
    a. Three (3) projects logged according to State or Federal agency requirements
    b. One Thousand (1000) linear feet of drilling logged, including at least:
        i. Two Hundred (200) disturbed soil samples obtained by Standard Penetration Testing (SPT) in accordance with AASHTO T206 or ASTM D1586
        ii. Twenty (20) undisturbed soil samples obtained in accordance with AASHTO T207 or ASTM D1587
    c. Twenty (20) rock samples preserved according to ASTM D5079, Paragraph 7.5.2 as modified in SGE Subsection 405.5
    d. Five Hundred (500) linear feet of rock core classification
2. In addition to the above experience, the drilling inspector shall successfully complete the following:
    a. ODOT Soil and Rock Classification Course (once) and course refresher (every 5 years) offered by:

        The Ohio LTAP Center
        Mail Stop 3180
        1980 W. Broad St,
        Columbus, Ohio 43223
        877-800-0031
        LTAP@dot.ohio.gov

b. *CURRENTLY SUSPENDED FOR ADMINISTRATIVE REVIEW*

NHI Course 132079, "Subsurface Investigation Qualification", offered by:
National Highway Institute (NHI)
2600 Park Tower Drive
Suite 500
Vienna, Virginia 22180
(703) 235-0500 or www.nhi.fhwa.dot.gov

C. Key Person Submittal Requirements

1. Resume
2. Proof of meeting educational requirement above.
3. Number of years and description of experience performing geotechnical field drilling inspection services.
4. Identifying information and details for a minimum of three (3) projects which were logged according to State or Federal Agency requirements.
5. Number of linear feet of drilling logged.
6. Number of disturbed soil samples processed which were obtained by SPT in accordance with AASHTO T206 or ASTM D1586.
7. Number of undisturbed soil samples processed which were obtained in accordance with AASHTO T207 or ASTM D1587.
8. Number of rock samples preserved in accordance with ASTM D5079, Paragraph 7.5.2 as modified in SGE Subsection 405.5.
9. Number of linear feet of rock core classification performed.
10. *CURRENTLY SUSPENDED FOR ADMINISTRATIVE REVIEW*

Certification of completion of the training courses in the above requirements.

D. Firm Submittal Requirements

1. One (1) Drilling Inspector Key Person on permanent staff that meets the above requirements.
2. Provide a list of all firm employees that have been approved by ODOT within the PreQ system for the Drilling Inspector key person role.

TRAFFIC SIGNAL DESIGN - GENERAL

There are three (3) categories of prequalification that are based upon knowledge and experience in the field of signal design. For all categories, consultants must have demonstrated experience in design, specifications, and standards. Acceptable plans are considered to be plans that are prepared in the format and to the level of detail prescribed in ODOT's Location & Design Manual Vol. 3 and conforming to ODOT's Traffic Engineering Manual, Ohio Manual of

Uniform Traffic Control Devices, 2070, ATC, and NEMA Traffic Controller Standards and ITE Signal Equipment Specifications. Plans not prepared in these formats, but which are prepared to a similar level of detail and that exhibit substantial conformance with good traffic engineering practice may also be considered acceptable.

2.18— BASIC TRAFFIC SIGNAL DESIGN

A. Definition

Basic Traffic Signal Design includes design of isolated signals or a few signals requiring a simple form of coordination such as a synchronizing unit without the use of interconnect cable, or as a time-of-day coordination with some form of interconnecting cable. This level also includes the addition of signals into an existing coordination system. The design of an extension to an existing typical "Closed Loop" system would be included in this category.

B. Requirements

1. A firm must have at least one (1) Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on staff with a minimum of three (3) years of experience in projects that meet the above definition.
2. The engineer shall have been actively involved in signal design within the past ten (10) years.
3. The engineer must have successfully completed the Traffic Signal module of the Office of Traffic Operations' Traffic Academy.

C. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide the number of years and details of experience in traffic signal design.
4. Provide details for a minimum of two (2) projects involving traffic signal design, completed within the last ten (10) years that demonstrate experience in the design concepts above and the following:
    a. Capacity analysis of signalized intersections.
    b. Data collection, analysis and reports relating to the need for interconnection or coordination of signals.
    c. Traffic signal timing, i.e., vehicle timing, pedestrian timing, timing for pre-timed and actuated operation.
    d. Design of signal support structures, i.e., simple span, box span, mast arm.

e. Methods of preparing time space diagrams and/or progressive timing for arterials.
f. Knowledge of traffic control design (interrelationship of traffic signals with other traffic control devices, such as traffic signs, pavement markings and highway lighting).
g. Utility clearance requirements, i.e., overhead and underground.
h. Various phasing options, types of controllers, local detection alternatives, interconnection, signal displays and cabling.

5. Provide certification of completion of the Office of Traffic Operations' Traffic Academy – Traffic Signal Module.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Professional Engineer Key Person on permanent staff that meets the above requirements.

2.19 A— TRAFFIC SIGNAL SYSTEM DESIGN

A. Definition

Traffic Signal System Design includes a series or network of signals requiring a completely new or a major redesign of a coordinated system. This level would normally involve System Analysis, which includes equipment inspection, volume counts, collect Measures of Effectiveness of existing timing, establish timing parameters with the maintaining agency, simulation modeling of the corridor, creation of timing plans, implementation, and observation, collect Measures of Effectiveness of proposed timing, and delivery of final report and files. This level would normally involve some form of information feedback to a central control point such as traffic engineering office for active corridor management by means of twisted-pair, coax, radio, fiber-optics, etc. This type of coordination system can utilize on-street data from detectors to establish what program of cycle length, offsets and splits will be employed. This type of system is dynamic by virtue of its capability to change or adjust coordination plans to better meet the demands of actual traffic. Rather sophisticated techniques of communications are necessary to accommodate not only traffic signal data, but perhaps for other systems as well, such as video surveillance or dynamic message signs. The capability to analyze existing and projected traffic conditions and to compare, recommend and justify competing coordination systems and communications based upon the economic payback or cost-benefits is also required.

B. Requirements

A firm must have at least one (1) Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on staff that meets the following requirements:

1. A minimum of five (5) years of experience in design of traffic signals.
2. Responsible for the design for a minimum of three (3) projects that meet the definition of Traffic Signal System Design.
3. Actively involved in signal design within the past ten (10) years.
4. Successfully completed the Traffic Signal module of the Office of Traffic Operations' Traffic Academy.

C. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide the number of years and details of experience in traffic signal design.
4. Provide details for a minimum of three (3) projects involving traffic signal system design, completed within the last ten (10) years, that demonstrate experience in the design concepts above.
5. Provide certification of completion of the Office of Traffic Operations' Traffic Academy – Traffic Signal Module.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Professional Engineer Key Person on permanent staff that meets the above requirements.

2.19 B— ITS DESIGN AND OPERATIONS

A. Definition

The Intelligent Transportation Systems (ITS) prequalification is based on knowledge and experience in the field of ITS/Traffic devices and their communications methods. Consultants must have demonstrated experience in design, specifications, and standards. Acceptable plans are plans that are prepared in the format and level of detail prescribed in ODOT's Location & Design Manual Vol. 3 and conforming to ODOT's Traffic Engineering Manual and Ohio Manual of Uniform Traffic Control Devices. Plans not prepared in these formats, but which are prepared to a similar level of detail and that exhibit substantial conformance with good traffic engineering practice may also be considered acceptable. Understanding of Supplemental

Specifications 800, 804/904, 808/908, 809/909, and 896/996 is needed to appropriately design ITS plans. Knowledge of FHWA 23 CFR 940, which includes ITS Architecture and Systems Engineering Analysis, is necessary for the Planning phase of any ITS project.

B. Requirements

A firm must have at least one (1) Professional Engineer (registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors) on staff that meets the following requirements:

1. A minimum of three (3) years of experience in the design of ITS.
2. Responsible for the design for a minimum of two (2) projects that meet the definition of ITS.
3. Actively involved in ITS within the past ten (10) years.
4. Successfully completed the Traffic Signals and ITS Modules 1-8 of the Office of Traffic Operations' Traffic Academy (Course certificate valid for 5 years).

C. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Provide the number of years and details of experience in Intelligent Transportation Systems (ITS).
4. Provide details for a minimum of two (2) projects involving ITS design, completed within the last ten (10) years that demonstrate experience in the design concepts above and the following:
    a. Project experience in electronic data communications systems, i.e., multiplexing, multi- pair communication cables, coaxial cable, radio, and fiber optic cable.
    b. Voltage drop calculations
    c. Interconnect layout plans
    d. Fiber Optics termination diagrams
    e. Splice Enclosure details
    f. Utility clearance requirements, i.e., overhead and underground
    g. Soil requirements for ITS Devices (optional)
    h. Wireless site surveys (optional)
5. Provide certification of completion of the Traffic Signals and ITS Modules 1-8 of the Office of Traffic Operations' Traffic Academy.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Professional Engineer Key Person on permanent staff that meets the above requirements.

2.20— LIMITED LIGHTING DESIGN

A. Definition

Projects requiring highway lighting systems such as isolated intersections or partial interchange lighting, including all associated electrical design and components. Prepares plans for construction of such systems.

B. Requirements

1. At least one (1) lighting designer on permanent staff that has experience in design and plan preparation for highway lighting projects that meet the above definition, including experience in the following project characteristics:
    a. Plan preparation.
    b. Traffic data collection and warrant analysis.
    c. ODOT CMS, ODOT Supplemental Specifications, Standard Construction Drawings, Section 1400 ODOT L&D Manual, AASHTO Guide for Roadway Lighting, ANSI-IES Standard Practice for Roadway Lighting and ODOT Traffic Engineering Manual, or similar documents utilized by other State Transportation agencies.
    d. Experience in Lighting Design using conventional, median mounted and/or tower lighting for partial, intermediate, full interchange and/or continuous highway lighting.
    e. Familiarity with system interrelationships of light source size, luminaire photometric, mounting height and illumination level and uniformity as related to visibility, safety, energy consumption, economics, traffic control devices and roadway geometry.
    f. Knowledge of support hardware including poles, bracket arms, towers, lowering devices and foundations.
    g. Familiarity with electrical codes including; national electrical code, national electrical safety code and utility clearance requirements.
    h. Knowledge of electrical materials, maintenance, and construction practices.
    i. Experience in circuit design including conductor sizing for loading and voltage drop, control equipment, system grounding and fuse protection.
2. Successful completion of the Highway Lighting module of the Office of Traffic Engineering's Traffic Academy.

C. Key Person Submittal Requirements

1. Resume
2. Provide details for a minimum of two (2) projects involving highway lighting design, that demonstrate experience in the design concepts above.
3. Provide certification of completion of the Office of Traffic Operations' Traffic Academy – Highway Lighting Module.

D. Firm Submittal Requirements

1. One (1) Lighting Designer Key Person on permanent staff that meets the above requirements.

2.21— COMPLEX LIGHTING DESIGN

A. Definition

Projects requiring highway lighting systems such as full interchange lighting or continuous highway lighting, including all associated electrical design and components, and preparation of plans for construction of such systems.

B. Requirements

1. A firm must have at least one (1) lighting designer on permanent staff that has had extensive experience in design and plan preparation for highway lighting projects that meet the above definition, including experience in the project characteristics listed under the Requirements section of Limited Lighting Design.
2. Successful completion of the Highway Lighting module of the Office of Traffic Engineering's Traffic Academy.

C. Key Person Submittal Requirements

1. Resume
2. Provide details for a minimum of two (2) projects involving highway lighting design, that demonstrate experience in the design concepts above.
3. Provide certification of completion of the Office of Traffic Operations' Traffic Academy – Highway Lighting Module.

D. Firm Submittal Requirements

1. One (1) Lighting Designer Key Person on permanent staff that meets the above requirements.

2.22— ENVIRONMENTAL DOCUMENT PREPARATION-EA/EIS

A. Definition

Environmental Document Preparation-EA/EIS includes preparation of both Environmental Assessments and Environmental Impact Statements.

1. **Environmental Assessment (EA)**
   An Environmental Assessment is a decision document. An EA is prepared to enable the agency to make a decision as to whether the project requires preparation of an EIS or can be categorically excluded based upon the findings in the EA.
2. **Environmental Impact Statements (EISs)**
   Environmental Impact Statements are prepared for major transportation actions which will involve large amounts of demolition, large numbers of displacements or substantial disruption to local traffic patterns resulting in significant adverse impacts to one (1) or more social, economic, or environmental areas. Coordination with resource agencies and a number of technical environmental studies are expected to be necessary, resulting in the identification of significant adverse impacts, suitable mitigation measures and the preparation of an EIS.

B. Requirements

1. Education – The individual must be a graduate of a college or university with a bachelor's degree in environmental science, planning, engineering, or a closely related field.
2. Qualifying Experience – Consulting firms desiring to function as the lead consultant for the preparation of the Environmental Document during the Project Development/Preliminary Engineering steps of the Project Development Process must have one or more employees meeting ODOT's prequalification requirements who will act as the project manager or as a key professional managing critical portions of this process.

   The individual must have seven (7) years NEPA/Environmental work experience with a Bachelor of Science or Arts degree or five (5) years NEPA/Environmental work experience with Master of Science or Arts degree in order to have qualifying experience.

   A knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's Project Development Process and NEPA Manager's Handbook and how to develop projects that meet the National Environmental Policy Act (NEPA) requirements.

Qualifying Experience is considered to be work and training having to do with the preparation and coordination of acceptable Environmental Assessments and Environmental Impact Statements or Categorical Exclusions. "Acceptable" means documents that have been formally accepted by ODOT or transportation agencies in other states and FHWA; and, for CEs, must be approved documents with minimum comments or revisions. CEs that require multiple revisions and resubmissions will not be considered acceptable as a prequalified document. Acceptable documents must meet all the requirements for environmental documentation spelled out in the Categorical Exclusions Guidance, Feasibility Studies/Alternative Evaluation Report Guidance, FHWA Guidance and other applicable Federal and state guidance, regulations, and laws. Qualifying experience must also include the following:

a. Individuals must have successfully completed the following ODOT training courses:
    1) Air Quality 100
    2) Aesthetic Guidelines
    3) Categorical Exclusion
    4) Section 106
    5) Ecological 100
    6) Environmental Commitments
    7) Farmlands
    8) Feasibility Studies and Alternative Evaluation Reports (FS/AER)
    9) Floodplains
    10) Managing the Environmental & Project Development Process
    11) Noise 100
    12) Project Development Process (PDP)
    13) Public Involvement (PI)
    14) Purpose & Need (P&N)
    15) Reader Friendly Environmental Documents
    16) Regulated Materials Review (RMR) 100
    17) Section 4(f)
    18) Section 6(f)
    19) Waterway Permits 100
    20) Virtual Public Involvement
    21) Writing for the Public
    22) Effective Presentations

The "Managing the Environmental and Project Development Process (NEPA)" course is the only required in person training course from the above list currently offered by ODOT OES. All other trainings required for this prequalification category are available online through the ODOT's Local Technical Assistance Program website. All courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

b. The individual meets one (1) of the following requirements:
    1) Must have specific experience in preparation of EA/EIS(s) or,
    2) Must have specific experience in preparation of at least three (3) higher level CEs (D1-D3). Any combination of these documents is acceptable.

> **Only documents approved within the last ten (10) years of prequalification submission will be considered, including renewals.*

C. Key Person Submittal Requirements

1. Resume
2. Describe your education background as it relates to the requirements above.
3. Provide a list of completed EA/EIS projects on which you were the project manager or principal author as shown in the requirements above.
4. Provide certification of completion of the training courses shown in the requirements above.

D. Firm Submittal Requirements

1. One (1) Key Professional Key Person on permanent staff that meets the above requirements.

2.23— ENVIRONMENTAL DOCUMENT PREPARATION - CE

A. Definition

Categorical Exclusions are actions that meet the definition contained in 40 CFR 1508.4 and, based on past experience with similar actions, do not involve significant social, economic, or environmental impacts. They are actions that:

1. Do not induce significant impacts to planned growth or land use for the area,
2. Do not require the relocation of significant numbers of people,
3. Do not have a significant impact on any natural, cultural, recreational, historic, or other resource,
4. Do not involve significant air, noise, or water quality impacts,
5. Do not have significant impacts on travel patterns; or,

6. Do not otherwise, either individually or cumulatively, have any significant environmental impacts.

B. Requirements

1. Education - The individual must be a graduate of a college or university with a bachelor's degree in environmental science, planning, engineering, or a closely related field.
2. Qualifying Experience - The individual must have three (3) years' environmental work experience with a Bachelor of Science or Arts degree or two (2) years' environmental work experience with a Master of Science or Arts degree in order to have qualifying experience.

   A knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's Project Development Process and NEPA Manager's Handbook and how to develop projects that meet the National Environmental Policy Act (NEPA) requirements.

   Qualifying Experience is considered to be work and training having to do with the preparation and coordination of acceptable Categorical Exclusions. "Acceptable" means documents that have been formally accepted by ODOT and must be approved documents with minimum comments or revisions. CEs that require multiple revisions and resubmissions will not be considered acceptable for meeting prequalification requirements. Acceptable documents must meet all the requirements for environmental documentation spelled out in ODOT's Categorical Exclusion Guidance. (Applicants who have not had the opportunity to work on "acceptable" ODOT documents may be prequalified on a case by case basis if they demonstrate technical expertise in a related environmental field and meet the education and experience criteria)
   Qualifying experience must also include the following:
   a. Individuals must have successfully completed the following ODOT training courses:
      1) Air Quality 100
      2) Aesthetic Guidelines
      3) Categorical Exclusion
      4) Section 106
      5) Ecological 100
      6) Environmental Commitments
      7) Farmlands
      8) Feasibility Studies and Alternative Evaluation Reports (FS/AER)

9) Floodplains
10) Managing the Environmental & Project Development Process
11) Noise 100
12) Project Development Process (PDP)
13) Public Involvement (PI)
14) Purpose & Need (P&N)
15) Reader Friendly Environmental Documents
16) Regulated Materials Review (RMR) 100
17) Section 4(f)
18) Section 6(f)
19) Waterway Permits 100
20) Virtual Public Involvement
21) Writing for the Public
22) Effective Presentations

The "Managing the Environmental and Project Development Process (NEPA)" course is the only required in person training class from the above list currently offered by ODOT OES. All other trainings required for this prequalification category are available online through the ODOT's Local Technical Assistance Program website. All courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

C. Key Person Submittal Requirements

1. Resume
2. Describe your education background as it relates to the requirements above.
3. Provide a list of completed CE projects ~~on which you were the project manager or principal author~~ as shown in the requirements above.
4. Provide certification of completion of the training courses shown in the requirements above.

D. Firm Submittal Requirements

1. One (1) Key Professional Key Person on permanent staff that meets the above requirements.

2.24— ENVIRONMENTAL DOCUMENT PREPARATION - SECTION 4(F)

A. Definition

Environmental Section 4(f) documents as defined in 48 U.S.C. 303, 23 U.S.C. 138 and 23 CFR 774 are prepared for any level of project that affects, or has the potential to affect, a Section 4(f)

resource. Section 4(f) documentation may be a Determination of Use of Section 4(f), a Programmatic Section 4(f) Evaluation or an Individual Section 4(f) Evaluation.

B. Requirements

1. Education - The individual must be a graduate of a college or university with a bachelor's degree in environmental science, planning, engineering, or a closely related field.
2. Qualifying Experience - The individual must have a Bachelor of Science or Arts degree and three (3) years' work experience or a Master of Science or Arts degree with two (2) years of work experience.
   Qualifying experience must also include the successful completion of ODOT's Section 4(f) online training course. The "Section 4(f)" course is valid for a five (5)-year period and must be retaken in order to retain prequalification status.

C. Key Person Submittal Requirements

1. Resume
2. Provide identifying information for a minimum of one (1) project on which you conducted Section 4(f) work that was approved by FHWA/ODOT.
3. Certification of completion of ODOT's Section 4(f) and 6(f) training courses.

D. Firm Submittal Requirements

1. One (1) Key Professional Key Person on permanent staff that meets the above requirements.

2.25— ECOLOGICAL SURVEYS

A. Definition

An Ecological Survey is the required ecological analysis and documentation of ecological resources within a given project area. The following major areas are included: water quality, aquatic ecosystems, endangered species, wetlands, and terrestrial ecosystems. The Ecological Survey presents the data, interprets it and predicts impacts based on preliminary project design.

B. Requirements

Prequalification to perform Ecological Surveys combines the requirements of Aquatic Ecology, Terrestrial Ecology and Wetland Delineation, as well as the successful completion of ODOT's "Ecological Training" class. A consulting firm requesting prequalification in Ecological Surveys should have at least one (1) person on staff who meets the requirements of each discipline (may be different individuals for each discipline). However, each person must successfully

complete ODOT's "Ecological Training" class and retake the class every five (5) years to retain prequalification.

1. **Aquatic Ecology**
   a. **Definition**

The ability to identify aquatic organisms and fish and macroinvertebrate communities and understand how they interact with their environment, including a basic knowledge of water chemistry, interpretation of water quality data and familiarity with highway related water quality impacts. For highway projects requiring new right of way that impact aquatic ecosystems, this work will include identification of wetlands, jurisdictional ditches and streams, ecological data collection and analysis impact prediction. This collected data and ecological assessment will be incorporated into an Ecological Survey Report. Data collection for each stream studied will include completion of either OEPA's Qualitative Habitat Evaluation Index (QHEI) form or their Headwaters Habitat Evaluation Index (HHEI) form, whichever is applicable.

b. Requirements

1) Education – The individual must have a Bachelor of Science degree in biology, environmental science, natural resources, or related field with at least three (3) three (3)-hour courses from or related to those in the following list:
   a) aquatic ecology
   b) fisheries
   c) hydrology
   d) aquatic entomology
   e) limnology
   f) ichthyology
   g) plant taxonomy
   h) potamology

   OR

   a degree as noted above and a minimum of four (4) years of experience in a position including direct responsibility for and participation in conducting surveys for and documenting aquatic fauna and flora
2) Qualifying Experience - Three (3) years with a bachelor's degree or two (2) years with a graduate degree, including:

a) Knowledge of the taxonomy, sampling and/or ecology of Freshwater fish or Freshwater macro invertebrates and water quality data collection and interpretation.
b) An assessment of the impacts of construction projects on freshwater aquatic life, including mitigation measures.
c) Knowledge of Ohio and Federal rare, threatened, and endangered species.
d) A knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's Ecological Manual (most current edition) and Waterway Permits Manual (most current edition) as well as how this work fits into the Project Development/Preliminary Engineering Process. Knowledge of USACE Wetlands Delineation Manual (USACE 1987), the Regional Supplements to the Corps of Engineers Wetland Delineation Manual [Midwest (v.2) and North Central/ North East (v.2)] and the Interim Regional Supplements to the Corps of Engineers Wetland Delineation Manual [Eastern Mountains & Piedmont] and the OEPA Water Quality Standards and the assorted OEPA assessment tools (i.e. ORAM, QHEI, HHEI, etc.).

3) Successful completion of the following ODOT online Training Courses:
   a) Ecological 100
   b) Ecological 200

   All levels of the "Ecological Training" courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

c. Key Person Submittal Requirements

1) Resume
2) A list of each individual's academic coursework or transcript related to aquatic ecology or evidence of qualifying experience surveying for and documenting aquatic fauna and flora.
3) A document or publication demonstrating the above noted Qualifying Experience that was researched and authored by the employee for whom prequalification is requested. Submission of a document or publication is not required if employee's resume includes ODOT-approved Ecological Survey Reports researched and authored by the employee. ODOT projects should be indicated by county, route, section, and Project Identification (PID) number. When submitting documents for multiple employees, the submission must indicate which employees prepared which documents.

4) Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the above training courses.

2. Terrestrial Ecology

a. Definition

The ability to identify terrestrial organisms and plant and animal communities and the understanding of how they interact with their environment. For highway projects requiring new right of way, the work will include data collection, analysis and impact predictions and incorporation of this information into an Ecological Survey report.

b. Requirements

1) Education – The individual must have a Bachelor of Science degree in biology, environmental science, natural resources, or related degree with at least three (3) three (3)-hour courses from or related to those in the following list:

a) vertebrate zoology
b) wildlife ecology
c) herpetology
d) botany
e) plant taxonomy
f) wildlife management
g) mammalogy
h) ornithology
i) terrestrial ecology
j) forestry

OR

a degree as noted above and a minimum of four (4) years of experience in a position including direct responsibility for and participation in conducting surveys for and documenting terrestrial flora and fauna.

2) Qualifying Experience - Three (3) years with a bachelor's degree or two (2) years with a graduate degree, including:

a) Knowledge of the taxonomy, sampling and/or ecology of terrestrial plants and animals.
b) A knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's Ecological Manual (most current edition) and Waterway Permits Manual (most current edition) as well as how this work fits into the Project Development/Preliminary Engineering Process.

c) An assessment of the impacts of construction projects on terrestrial ecology, including mitigation measures.
d) Knowledge of Ohio and Federal rare, threatened, and endangered species.

3) Successful completion of the following ODOT online Training Courses:
a) Ecological 100
b) Ecological 200

All levels of the "Ecological Training" courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

c. Key Person Submittal Requirements

1) Resume
2) A list of each individual's academic coursework or transcript related to terrestrial ecology or evidence of qualifying experience surveying for and documenting Terrestrial fauna and flora.
3) A document or publication demonstrating the above noted Qualifying Experience that was researched and authored by the employee for whom prequalification is requested. Submission of a document or publication is not required if employee's resume includes ODOT-approved Ecological Survey Reports researched and authored by the employee. ODOT projects should be indicated by county, route, section, and Project Identification (PID) number. When submitting documents for multiple employees, the submission must indicate which employees prepared which documents.
4) Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the above training courses.

3. Wetland Delineation

a. Definition

The ability to identify and delineate jurisdictional wetlands as defined by the most current U.S. Army Corps of Engineers' (USACE) Wetlands Delineation Manual, the Regional Supplements to the Corps of Engineers Wetland Delineation Manual [Midwest (v.2) and North Central/ North East (v.2)] and the Interim Regional Supplements to the Corps of Engineers Wetland Delineation Manual [Eastern Mountains & Piedmont] identify isolated wetlands as defined by OEPA's Isolated Wetlands Law, and describe wetlands using OEPA's Ohio Rapid Assessment Method (ORAM) forms.

b. Requirements

1) Education – The individual must meet equivalent to that required for Terrestrial or Aquatic Ecology plus the completion of a recognized wetland delineation training course.
2) Qualifying Experience - Three (3) years with a bachelor's degree or two (2) years with a graduate degree. Qualifying Experience is considered to be work having to do with the classification, delineation, and description of jurisdictional wetlands, including production of the following:
   a) One (1) wetland delineation done in accordance with USACE delineation procedures.
   b) A field study demonstrating competence in sampling and analytical procedures involving wetlands.
   c) An assessment involving the prediction of construction impacts upon wetland function.
   d) A knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's Ecological Manual (most current edition) and Waterway Permits Manual (most current edition) as well as how this work fits into the Project Development/Preliminary Engineering Process.
3) Successful completion of the following ODOT online Training Courses:
   a) Ecological 100
   b) Ecological 200

   All levels of the "Ecological Training" courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

c. Key Person Submittal Requirements

1) Resume
2) A list of each individual's academic coursework or transcript in aquatic and/or terrestrial ecology or evidence of qualifying experience in either discipline.
3) Certificate indicating completion of a wetland delineation training course or equivalent.
4) A document or publication (including a wetland delineation formally approved by the USACE or their designated 404 review agency) demonstrating the above noted Qualifying Experience which was researched and authored by the employee for whom prequalification is requested. Submission of a document or publication is not required if employee's resume includes ODOT-approved Ecological Survey Reports, including at least one (1) wetland delineation, researched and authored by the employee. ODOT projects should be indicated by county, route, section, and Project Identification (PID) number. When

submitting documents for multiple employees, the submission must indicate which employees prepared which documents. The submission must also state that the delineation was approved by the USACE or their designee and/or must include a copy of the USACE's or designee's approval letter.

5) Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the above training courses.

C. Firm Submittal Requirements

1. One (1) Aquatic Ecology Professional on permanent staff that meets the above requirements.
2. One (1) Terrestrial Ecology Professional on permanent staff that meets the above requirements.
3. One (1) Wetland Delineation Professional on permanent staff that meets the above requirements.

2.26— STREAM AND WETLAND MITIGATION

A. Definition

The location, design, construction, restoration, enhancement, monitoring and maintenance of compensatory stream and wetlands. All stream and wetland mitigation plans and specifications must be developed in compliance with the ODOT Location and Design Manual, Volume 3.

B. Requirements

1. The firm must be prequalified to perform Ecological Surveys.
2. Qualifying Experience - Have at least one (1) individual on permanent staff who has designed at least at least one (1) successful stream mitigation project and one (1) successful wetland mitigation project. A successful mitigation design is a completed set of plans and specifications that have been approved by the USACE and/or OEPA and the project sponsor.

   Qualifying experience must also include the successful completion of ODOT's Ecological 100 online training course. The "Ecological 100" course is valid for a five (5)-year period and must be retaken in order to retain prequalification status.

C. Key Person Submittal Requirements

1. Resume

2. A completed set of plans and specifications for one (1) stream and one (1) wetland mitigation project(s) to demonstrate qualifying experience (not required if employee's resume includes ODOT-approved wetland mitigation projects that should be indicated by county, route, section and Project Identification (PID) number). The plans and specifications must have been approved by the USACE and OEPA. When submitting sets of plans and specifications for multiple employees, the submission must indicate which employees prepared which sets. The submission must also state that the proposed mitigation was approved by the USACE and OEPA and include a copy of the USACE approval letter.
3. Certificate indicating completion of a wetland delineation training course or equivalent.
4. Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of ODOT's Ecological 100 online training course.

D. Firm Submittal Requirements

1. One (1) Stream/Wetland Mitigation Professional Key Person on permanent staff that meets the above requirements.

2.27— WATERWAY PERMITS

A. Definition

The preparation of complete waterway permit applications according to the Waterway Permits Manual (most current edition) to obtain the necessary approvals as required by various environmental regulations.

B. Requirements

1. The individual must have an understanding of environmental regulations involving waterway permits as they pertain to transportation projects in Ohio, including, but not limited to:
    a. Clean Water Act (Sections 401 and 404)
    b. Rivers and Harbors Act of 1899 (Sections 9 and 10)
    c. Ohio Revised Code Chapter 6111/Isolated Wetlands Law
2. The individual must have a working knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's Ecological Manual (most current edition) and Waterway Permits Manual (most current edition) as well as how this work fits into the Project Development/Preliminary Engineering Process.
3. Qualifying Experience – The individual must have successfully prepared two (2) applications for projects resulting in a formally approved Section 404 Individual Permit

from the USACE and a Section 401 Individual Water Quality Certification from Ohio EPA. Qualifying projects shall not be more than ten (10) years old. Projects more than ten (10) years old may be considered on a case by case basis.

Qualifying experience must also include the following:

a. Individuals must have successfully completed the following ODOT training courses:
   1) Waterway Permits 100
   2) Waterway Permits 200
   3) Waterway Permits 300
   4) Waterway Permits 400
   5) Ecological 100
   6) Ecological 200

   All levels of the "Waterway Permits and Ecological Training" courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

b. Although not required, a consulting firm requesting qualification to perform waterway permits work should be familiar with ODOT manuals and methods used to perform Ecological Surveys and Stream and Wetland Mitigation.

C. Key Person Submittal Requirements

1. Resume
2. A list of experience with environmental regulations involving waterway permits as they pertain to transportation projects in Ohio.
3. Provide details for ODOT projects including county, route, section, and Project Identification (PID) Number or a complete set of the applications that were submitted for non-ODOT projects that resulted in receiving a Section 404 Individual Permit from the USACE or their designee and a Section 401 Individual Water Quality Certification from OEPA. The submission must accompany copies of the final permit approval letters for non-ODOT projects that do not have county, route, section and (PID) Number.
4. Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the above training courses.

D. Firm Submittal Requirements

1. One Waterway Permit Professional Key Person on permanent staff that meets the above requirements.

2.28A— QUALITATIVE AIR QUALITY ANALYSES

A. Definition

An air quality analysis is performed for highway projects where construction or a constructed project causes an increase in traffic that may create an impact on the surrounding air quality. The analysis must study these impacts for mobile source air toxics (MSATs) for projects requiring such analysis based on factors such as projects that add capacity to roadways.

B. Requirements

1. Education - The individual must have a Bachelor of Science degree in Engineering, Environmental Science or Meteorology or a Bachelor of Arts degree with coursework related to transportation planning.
2. Qualifying Experience – The individual must have three (3) years with a Bachelor of Science or Bachelor of Arts degree or two (2) years with a graduate degree (one (1) year of research or dissertation was related to air quality principles).

   Qualifying Experience is considered to be work associated with air quality principles and modeling techniques and must include the following:
   a. Individuals must have successfully completed the following ODOT online training courses.
      1) Air Quality 100
      2) Air Quality 200

      All levels of the "Air Quality" courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

C. Key Person Submittal Requirements

1. Resume
2. Describe your education background as it relates to the requirements above.
3. List evidence of air quality experience (i.e. NEWP AQ reviews and/or preparation, etc.).
4. Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the above training courses.

D. Firm Submittal Requirements

1. One (1) Air Quality Professional Key Person on permanent staff that meets the above requirements.

2.28B— QUANTITATIVE AIR QUALITY ANALYSES

A. Definition

A quantitative air quality analysis is performed for highway projects where construction or a constructed project causes an increase in traffic sufficient enough to create an impact on the surrounding air quality. The analysis must quantify these impacts for mobile source air toxics (MSATs), particulate matter (PM2.5) and carbon monoxide (CO) for projects requiring such analysis based on non-attainment status or other factors such as projects that add capacity to roadways.

B. Requirements

1. Education - The individual must have a Bachelor of Science degree in Engineering, Environmental Science or Meteorology; including three (3) three (3)-hour courses relating to air quality (i.e., Meteorology, Engineering Principles or Dispersion Modeling); or a Bachelor of Arts degree with course work related to transportation planning; and at least one (1) three (3)-hour course in computer sciences.
2. Qualifying Experience – The individual must have three (3) years with a Bachelor of Science or Bachelor of Arts degree or two (2) years with a graduate degree (one (1) year of research or dissertation was related to air quality principles).

   Qualifying Experience is considered to be work associated with air quality principles and modeling techniques and must include the following:
   a. Research or documentation that demonstrates knowledge of air pollution, meteorology, dispersion modeling and engineering principles.
   b. One (1)-year experience in the use of current USEPA and FHWA accepted computer models (i.e., mobile source emissions model and dispersion model) in the assessment of impacts of construction projects on the ambient air quality, including mitigation measures as required by the Clean Air Acts Amendments of 1990.
   c. Individuals must have successfully completed the following ODOT online training courses.
      1) Air Quality 100
      2) Air Quality 200

      All levels of the “Air Quality” courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

C. Key Person Submittal Requirements

1. Resume
2. Describe your education background as it relates to the requirements above.

3. List of pertinent software used and evidence of air quality modeling experience including two (2) examples of modeling documentation.
4. Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the above training courses.

D. Firm Submittal Requirements

1. One (1) Air Quality Professional Key Person on permanent staff that meets the above requirements.

2.29— NOISE ANALYSIS AND ABATEMENT DESIGN

A. Definition

A traffic noise analysis is performed for new highway construction or highway improvement for the following purposes: defining areas of potential noise impacts for each study alternative, evaluating measures to mitigate these impacts and comparing the various study alternatives on the basis of potential noise impact and associated mitigation costs.

B. Requirements

1. Education - The individual must have a Bachelor of Science degree in Engineering, Environmental Science or a Bachelor of Arts degree with course work related to Transportation Planning, including at least one (1) three (3)-hour course in computer sciences.

   > *(**Note:** Experience may be substituted for education in exceptional cases if expertise in the area can be proven by written examples of work).*

2. Qualifying Experience – The individual must have two (2) years with a Bachelor of Science or Bachelor of Arts degree or one (1) year with a graduate degree.

   Qualifying Experience is considered to be work associated with Noise Impact Assessment and Modeling Techniques and must include the following:

   a. Research or documentation that demonstrates knowledge of noise impact assessment and engineering principles. Attendance of noise impact and assessment courses offered by the FHWA, their agencies or independent consultants is required.
   b. One (1)-year experience or evidence of coursework in the assessment of traffic noise impacts using current noise prediction computer models that incorporate FHWA noise emission factors. FHWA Transportation Noise Model (TNM) for highway noise assessment and FHWA Integrated Noise Model (INM) for airport noise assessment are acceptable models. Experience should also include abatement design as required by

23 CFR 772, “Procedures for Abatement of Highway Traffic Noise and Construction Noise”. Experience in using integrated sound level meters and/or analyzer.

c. Individuals must have successfully completed of the following ODOT online training Courses:
   1. Noise Analysis 100
   2. Noise Analysis 200

   All levels of the “Noise Analysis” courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

C. Key Person Submittal Requirements

1. Resume
2. Describe your education background as it relates to the requirements above.
3. List of noise impact assessment documentation and experience in using monitoring equipment including two (2) examples of noise impact assessment documentation.
4. Certification of completion or eLearning transcript from ODOT’s Local Technical Assistance Program website showing successful completion of the above training courses.

D. Firm Submittal Requirements

1. One (1) Noise Analysis Professional Key Person on permanent staff that meets the above requirements.

2.30— ARCHAEOLOGICAL INVESTIGATIONS

A. Definition

Performance of all levels of investigation for archaeological resources and production of acceptable reports for resources in the project area, study area or area of potential effect, with demonstrated eligibility based on the National Register of Historic Places (NRHP) criteria and guidelines. These levels and reporting requirements have been developed and set forth by ODOT’s "Cultural Resources Manual" (most current version) and by the Ohio Historic Preservation Office "Archaeology Guidelines" (OHPO 1994 or their successors).

B. Requirements

A firm must employ at least one (1) person in Principal Investigator, Project Director or Project Manager role who meets the following requirements:

1. Education – The individual must be able to demonstrate the ability to meet or exceed the Code of Federal Regulations, 36 CFR Part 61, Appendix A in the area of Archaeology.

2. Qualifying Experience - The individual must be able to demonstrate the ability to meet or exceed the Code of Federal Regulations, 36 CFR Part 61, Appendix A in the area of Archaeology. Qualifying experience must also include the successful completion of ODOT's "Section 106" online training course. The "Section 106" course is valid for a five (5)-year period and must be retaken in order to retain prequalification status.
3. The individual shall meet the qualifications as defined by the Ohio Historic Preservation Office as appropriate for each level of survey (OHPO 1994, or their successors). At a minimum, the firm must employ at least one (1) individual who meets the OHPO's qualifications for Project Director and the requirements at 36 CFR 61, Appendix A.
4. The individual must demonstrate the ability to conduct and complete all levels of acceptable surveys of archaeological resources in accordance with "Archaeology Guidelines" (OHPO 1994, or their successors) published by the Ohio Historic Preservation Office and ODOT's "Cultural Resources Manual" (most current version).
5. The individual must demonstrate experience in Midwestern archaeology.

C. Key Person Submittal Requirements

1. Provide a resume detailing education and work experience as it relates to the requirements above.
2. Provide project identifying information and details of duties for a minimum of one (1) project that demonstrates your ability to meet or exceed the Code of Federal Regulations, 36 CFR Part 61, Appendix A in the area of Archaeology.
3. Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the ODOT OES Section 106 Training Course.

D. Firm Submittal Requirements

1. One (1) Principal Investigator/Project Director/Project Manager Key Person on permanent staff that meets the above requirements.

2.31— HISTORY/ARCHITECTURAL INVESTIGATIONS

A. Definition

Performance of all levels of investigation for history/architectural resources and production of acceptable reports for resources in the project area, study area or area of potential effect, with demonstrated eligibility based on the National Register of Historic Places (NRHP) criteria and guidelines. These levels and reporting requirements have been developed and set forth by ODOT's "Cultural Resources Manual" (most current version) and by the Ohio Historic

Preservation Office "How to Complete the Ohio Historic Inventory" (Gordon 1992 or their successors).

B. Requirements

A firm must employ at least one (1) person in Principal Investigator, Project Director or Project Manager role who meets the following requirements:

1. Education - The individual must be able to demonstrate the ability to meet or exceed the Code of Federal Regulations, 36 CFR Part 61, Appendix A in the area of History and/or Architectural History.
2. Qualifying Experience - The individual must be able to demonstrate the ability to meet or exceed the Code of Federal Regulations, 36 CFR Part 61, Appendix A in the area of History and/or Architectural History. Qualifying experience must also include the successful completion of ODOT's "Section 106" online training course and the Creating Permanent Records of Historic Properties Course. Both courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.
3. Demonstrated ability to conduct and complete all levels of acceptable surveys of history/architectural resources in accordance with "How to Complete the Ohio Historic Inventory" (Gordon, 1992) published by the Ohio Historic Preservation Office and ODOT's "Cultural Resources Manual" (most current version).

C. Key Person Submittal Requirements

1. Provide a resume detailing education and work experience as it relates to the requirements above.
2. Provide project identifying information and details of duties for a minimum of one (1) project that demonstrates your ability to meet or exceed the Code of Federal Regulations, 36 CFR Part 61, Appendix A in the area of History and/or Architectural History.
3. Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the ODOT OES Section 106 Training Course and the Creating Permanent Records of Historic Properties Course.

D. Firm Submittal Requirements

1. One (1) Principal Investigator/Project Director/Project Manager Key Person on permanent staff that meets the above requirements.

2.32—REGULATED MATERIALS REVIEW

A. Definition

ODOT conducts Regulated Materials Reviews (RMRs) based on State and Federal laws and regulations which govern the management of materials detrimental to human health and the environment. The presence of Regulated Materials not discovered and addressed during project development can result in excessive project delays, costs, and liability. RMRs are conducted during the Project Development Process. Staff must have a working knowledge of the material and procedures described in the Regulated Materials Review Manual (most current edition).

B. Requirements

A consulting firm requesting prequalification to perform Regulated Material Reviews (RMRs) must employ at least one (1) person on staff who meets the following requirements:

1. Education - The key person shall have an Associate Degree, Bachelor of Science Degree or Bachelor of Arts Degree in engineering, chemistry, geology, or closely related field.
2. Qualifying Experience - one of the following are acceptable qualifying experience:
    a. Associates degree with 5 years of experience conducting RMR Screening with regulatory file reviews, RMR Assessments, and RMR Investigations and/or ASTM Phase I ESAs and ASTM Phase II ESAs
    b. Bachelor's degree with 3 years of experience conducting RMR Screenings with regulatory file reviews, RMR Assessments and RMR Investigations and/or ASTM Phase I ESAs and ASTM Phase II ESAs
    c. Graduate degree with 2 years of experience conducting RMR Screenings with regulatory file reviews, RMR Assessments and RMR Investigations and/or ASTM Phase I ESAs and ASTM Phase II ESAs.
    d. Ohio EPA Voluntary Action Program (VAP) Certified Professional
3. Successful completion of the following ODOT online training courses:
    1) 1) Regulated Materials Review (RMR) 100
    2) Regulated Materials Review (RMR) 200
    3) Regulated Materials Review (RMR) 300
    All levels of the "Regulated Materials Review" courses are valid for a five (5)-year period and must be retaken in order to retain prequalification status.

C. Key Person Submittal Requirements

1. Provide a resume detailing education and work experience as it relates to the requirements above.

2. For key persons with an Associate's degree, Bachelor's degree or Graduate degree, provide the following reports and documents. The applicant must be the primary writer/author on all reports. ODOT reports may be submitted by the project name with the county, route, and section with Project Identification (PID) number. Provide electronic copies of each ASTM Phase I ESA and ASTM Phase II ESA reports submitted.
    a. Submit three (3) ODOT approved RMR Screenings with regulatory file reviews or two (2) approved RMR Assessment reports or two (2) ASTM Phase I ESA reports.
    b. Submit two (2) ODOT approved RMR Investigation reports or two (2) ASTM Phase II ESA Reports.
3. Individuals who are Ohio EPA Voluntary Action Program (VAP) Certifications Professionals provide the following:
    a. Copy of current certification document
    b. Provide the name and address of two (2) No Further Action letters written by the individual
4. Certification of completion or eLearning transcript from ODOT's Local Technical Assistance Program website showing successful completion of the above training courses.

D. Firm Submittal Requirements

1. One (1) Regulated Materials Review Professional Key Person on permanent staff that meets the above requirements.

2.51— PUBLIC INVOLVEMENT – C1 AND C2 LEVEL CE

A. Definition

Public Involvement includes NEPA compliant planning, material development, management, and oversight of public involvement activities for a transportation project.

B. Requirements

The individual must have knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's (ODOT's) NEPA Public Involvement Requirements, Public Involvement Manual for NEPA and the PDP, Public Involvement Toolbox, Project Development Process, and NEPA Manager's Handbook for and how to develop projects that meet the National Environmental Policy Act (NEPA) requirements.

Qualifying experience must also include the following:

Individuals must have successfully completed the following ODOT training courses:

1) OES Public Involvement Training

2) OES Virtual Public Involvement
3) OES Writing for the Public
4) OES Effective Presentations
5) OES Categorical Exclusion
6) OES Project Development Process

All trainings required for this prequalification category are available online through the ODOT Local Technical Assistance Program (LTAP) website. All courses are valid for a five (5) year period and must be retaken in order to retain prequalification status.

C. Key Person Submittal Requirements

1. Resume
2. Describe your background as it relates to the requirements above.
3. Provide certification of completion of the training courses shown in the requirements above.

D. Firm Submittal Requirements

1. One (1) Public Involvement C1 and C2 Level CE key person on permanent staff that meets the above requirements.

2.52— PUBLIC INVOLVEMENT – D1 AND HIGHER LEVEL CE

A. Definition

Public Involvement includes NEPA compliant planning, material development, management, and oversight of public involvement activities for a transportation project.

B. Requirements

1. Qualifying Experience – The individual must have two (2) years in transportation NEPA public involvement experience to have qualifying experience. The individual must also have a knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's (ODOT's) NEPA Public Involvement Requirements, Public Involvement Manual for NEPA and the PDP, Public Involvement Toolbox, Project Development Process, and NEPA Manager's Handbook for and how to develop projects that meet the National Environmental Policy Act (NEPA) requirements. Qualifying Experience is work and training having to do with the preparation and coordination of acceptable NEPA public involvement materials and activities. "Acceptable" means materials/activities that have been formally accepted by ODOT or transportation agencies in other states and FHWA; and, the materials/activities must be approved with

minimum comments or revisions. Materials that require multiple revisions and resubmissions will not be considered acceptable. Acceptable documentation of NEPA public involvement materials/activities must meet all the requirements for environmental documentation spelled out in the Categorical Exclusions Guidance, Feasibility Studies/Alternative Evaluation Report Guidance, FHWA Guidance and other applicable Federal and state guidance, regulations, and laws.
Qualifying experience must also include the following:

2. Individuals must have successfully completed the following ODOT training courses:
    1) OES Public Involvement Training
    2) OES Virtual Public Involvement
    3) OES Writing for the Public
    4) OES Effective Presentations
    5) OES Categorical Exclusion
    6) OES Project Development Process
    7) OES Feasibility Studies and Alternative Evaluation Reports

    All trainings required for this prequalification category are available online through the ODOT Local Technical Assistance Program (LTAP) website. All courses are valid for a five (5) year period and must be retaken in order to retain prequalification status.
3. Must have specific experience in planning, material development/preparation, and oversight of NEPA public involvement activities for a NEPA compliant project.

    Only documents approved within the last ten (10) years of prequalification submission will be considered, including renewals.

C. Key Person Submittal Requirements

1. Resume
2. Describe your background as it relates to the requirements above.
3. Provide project information and details of your duties for at least three (3) completed projects for which you were the NEPA public involvement lead as shown in the requirements above.
4. Provide certification of completion of the training courses shown in the requirements above.

D. Firm Submittal Requirements

1. One (1) Public Involvement D1 and Higher Level CE key person on permanent staff that meets the above requirements.

2.53— PUBLIC INVOLVEMENT – EA/EIS

A. Definition

Public Involvement includes NEPA compliant planning, material development, management, and oversight of NEPA public involvement activities for a transportation project.

B. Requirements

1. The individual must have five (5) years in transportation NEPA public involvement experience to have qualifying experience. The individual must also have a knowledge of the requirements and specifications as stated in the Ohio Department of Transportation's (ODOT's) NEPA Public Involvement Requirements, Public Involvement Manual for NEPA and the PDP, Public Involvement Toolbox, Project Development Process, and NEPA Manager's Handbook for and how to develop projects that meet the National Environmental Policy Act (NEPA) requirements. Qualifying Experience is work and training having to do with the preparation and coordination of acceptable NEPA public involvement materials and activities. "Acceptable" means materials/activities that have been formally accepted by ODOT or transportation agencies in other states and FHWA; and, the materials/activities must be approved with minimum comments or revisions. Materials that require multiple revisions and resubmissions will not be considered acceptable. Acceptable documentation of NEPA public involvement materials/activities must meet all the requirements for environmental documentation spelled out in the Categorical Exclusions Guidance, Feasibility Studies/Alternative Evaluation Report Guidance, FHWA Guidance and other applicable Federal and state guidance, regulations, and laws.

   Qualifying experience must also include the following:
2. Individuals must have successfully completed the following ODOT training courses:
   1) OES Public Involvement Training
   2) OES Virtual Public Involvement
   3) OES Writing for the Public
   4) OES Effective Presentations
   5) OES Categorical Exclusion
   6) OES Project Development Process
   7) OES Feasibility Studies and Alternative Evaluation Reports

8) OES Section 106

All trainings required for this prequalification category are available online through the ODOT Local Technical Assistance Program (LTAP) website. All courses are valid for a five (5) year period and must be retaken in order to retain prequalification status.

3. Must have specific experience in planning, material development/preparation, and oversight of NEPA public involvement activities for a NEPA compliant project.

   Only documents for higher level completed CE documents (D1-D3) approved within the last ten (10) years of prequalification submission will be considered, including renewals.

C. Key Person Submittal Requirements

1. Resume
2. Describe your background as it relates to the requirements above.
3. Provide project information and details of your duties for at least three (3) higher level completed CE documents (D1-D3) completed projects on which you were the NEPA public involvement lead as shown in the requirements above.
4. Provide certification of completion of the training courses shown in the requirements above.

D. Firm Submittal Requirements

1. One (1) Public Involvement – EA/EIS key person on permanent staff that meets the above requirements.

RIGHT OF WAY ACQUISITION SERVICES - GENERAL

Prequalification for Right of Way Acquisition Services differs from other prequalification requirements in that only prequalified individuals are eligible to provide these services. Therefore, individuals are prequalified to provide services irrespective of employment status - either by a firm or self-employed. Firms will not be prequalified for Right of Way Acquisition Services.

Firms may respond to requests for services based on a fully prequalified team of employees and/or subconsultants.

2.33— PROJECT MANAGEMENT FOR RIGHT OF WAY ACQUISITION SERVICES

A. Definition

The process of monitoring all aspects of the acquisition process in an acquisition project to ensure compliance with all Federal and State regulations. Knowledge of and ability to

effectively coordinate all phases and disciplines of the right of way acquisition process during project acquisition is required.

B. Requirements

1. A project manager must have a thorough working knowledge of 23 and 49 CFR, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and its amendments (the Uniform Act), and the ODOT's policy and procedures dealing with all disciplines of right of way acquisition.
2. A minimum of two (2) years of experience working in a supervisory capacity on projects utilizing 23 and 49 CFR and the Uniform Act.
3. Clearly demonstrated past experience in managing complex projects that involve multiple complicated tasks.
4. Experience as a supervisor and manager of a job involving workload identification, assignment of tasks, scheduling performance and monitoring progress of multiple and/or complex real estate parcels.
5. Ability to read, interpret and explain complex highway right of way and construction plans is mandatory.

C. Submittal Requirements

1. Detailed resume
2. Work history and number of years of experience in project management.
3. Provide information for highway projects on which the applicant has performed project management where the Surface Transportation Act and the Uniform Act applied.
4. Provide a list of ODOT right of way training courses successfully completed (including location and year), or their equivalent.
5. Provide a list of real estate courses successfully completed (including location and year).
6. Provide a list of other courses related to real estate/right of way.
7. Provide any additional information that would be pertinent to project management.

2.34— TITLE RESEARCH

A. Definition

Title research is the process of adequately researching all available records and preparing a Title Report documenting the research to identify all parties or entities having any ownership interest in the property to be acquired, to include an abstract of all pertinent data, legal descriptions, all liens (mortgages, recorded judgments, etc.), assessments, taxes, and any encumbrances against the property.

B. Requirements

1. At least one (1) year of prior experience in the research of titles and familiarity with ODOT's Real Estate Manual, 5100 Section procedures for title research and title reports.
2. Experience in public records research and a good working knowledge of the various indices related to records research to document root title in the Title Report.
3. Ability to understand construction and right of way plans in order to prepare title reports, as a title report reflects the same ownerships and information identified within these plans.
4. The applicant shall take the Central Office Title Test. A minimum score of 80% is required. Applicants who fail the test will have the ability to retake the test immediately. The applicant may not prepare the demonstration title report until this requirement is fulfilled.
5. The applicant shall subsequently prepare a title report that demonstrates compliance to ODOT's procedures for title reports. The applicant will be given a Demonstration Title Report Packet, and then will proceed to the appropriate courthouse to do the necessary research, prepare the RE 46 and RE 46-1 and submit the completed packet back to the Office of Real Estate. The packet will then be reviewed and rated for compliance with ODOT policies and procedures and the applicant will be notified of the results.

C. Submittal Requirements

1. Detailed resume
2. Provide the number of years of experience in research of titles and ODOT's Real Estate Manual, 5100 Section.
3. Provide details of your experience in public records research and your working knowledge related to records research to document root title in the title report.
4. Provide details of your training and experience related to your ability to read and understand complex right of way and construction plans.
5. Provide a list of training courses, to include title courses and other real estate courses. Include locations and year(s) of attendance for all listed training.
6. Provide evidence of successful completion of the Central Office Title Test.
7. Provide evidence of successful completion of the Demonstration Title Report Packet.

2.35— VALUE ANALYSIS

A. Definition

The value analysis process is not an appraisal, but a valuation format used by ODOT to establish a Fair Market Value Estimate (FMVE) when an appraisal is unnecessary because the

valuation process is uncomplicated, and the fair market value is estimated at $10,000 or less, based on a review of available data.

B. Requirements

1. Knowledge of basic appraisal procedures, awareness and understanding of ODOT policy and procedures regarding the preparation of the Value Analysis format.
2. Ability to read and understand complex right of way and construction plans.
3. Must be either a Certified or Licensed Appraiser, or satisfactory completion of the following ODOT training classes or their equivalent:
    a. Introduction to Eminent Domain
    b. Appraisal Scoping Checklist
    c. The Process to Obtain Control of the Right-of-Way and the VA Report
    d. Sales Comparison Approach and the VA Report
    e. Resources and the VA
    f. Jurisdictional Exception and the VA
    g. Interpreting Plans to Determine the Valuation Problem (Part A)
    h. Interpreting Plans to Determine the Valuation Problem (Part B)
    i. Common Problems with the VA Report
    j. VA Report

ODOT may also give consideration to individuals who have prepared similar formats in other states so long as documentation and references are provided which prove the individual's ability to comply with the conditions for the waiver of appraisal.

C. Submittal Requirements

1. Detailed resume
2. Provide details of your work experience in appraisal and any related education and training.
3. Provide certification or one of more of the following:
    a. Documentation showing Certified/Licensed Appraiser.
    b. Certification of completion of the ODOT training courses listed above.
    c. Certification of training courses equivalent to the ODOT training courses above.
4. Provide a minimum of two (2) samples of completed Value Analyses (or equivalent) which demonstrate the ability to estimate compensation utilizing a waiver of appraisal valuation format.

2.36— APPRAISAL

A. Definition

The act or process of estimating fair market value. Appraisals prepared for ODOT must be unbiased and supported opinions of value. Appraisals must be prepared on ODOT approved forms for Value Analysis, Value Finding, ODOT Residential R/W Appraisal Reports (URAR), ODOT Summary R/W Appraisal Reports and ODOT Self Contained R/W Appraisal Reports. Appraisals must be compliant with the Uniform Act, 49 CFR 24.102 and 24.103, Ohio Revised Code 163, Ohio Administrative Rules 5501: 2-5-06 and the ODOT - Office of Real Estate's Policy and Procedure Manual Sections 4100 through 4500, and USPAP.

B. Requirements

1. Familiarity with the Uniform Standards for Professional Appraisal Practice (USPAP).
2. State Certification or Licensure as a real estate appraiser from the Division of Real Estate and Professional Licensing, Ohio Department of Commerce.
3. Ability to read and understand complex right of way and construction plans.

C. Submittal Requirements

1. Detailed resume
2. Provide the numbers of years of experience in appraisal.
3. Certification as an AQB Certified USPAP Instructor or provide details of your level of understanding of USPAP including courses taken.
4. Provide details of training and experience related to your ability to read and understand complex right of way and construction plans.
5. List ODOT right of way courses successfully completed (including location and year) and real estate appraisal courses completed.
6. List types of property appraised and any specialty areas.
7. Describe experience in providing expert appraisal testimony in eminent domain cases.
8. List appraisal related work history and experience with emphasis on the eminent domain process.
9. List any affiliations with professional organizations
10. Provide a minimum of two (2) samples of appraisals which demonstrate the ability to estimate compensation utilizing a before and after analysis, i.e., complete self-contained USPAP compliant report.
11. A copy of the appraiser's current appraisal certificate or appraisal license issued by the Division of Real Estate and Professional Licensing, Ohio Department of Commerce.

2.37— APPRAISAL REVIEW

A. Definition

A review appraiser examines reports of other appraisers to determine if the conclusions presented are consistent with the data reported and are reasonable and compliant with all ODOT policy and procedures. The review appraiser considers whether the report is compliant with Federal and State law, ODOT policy and procedures, and whether the conclusions are reasonable given the specific facts and data available. The reviewer is responsible for seeking clarification and or corrections to reports when necessary and determining if the appraisal under review fairly compensates the property owner. The reviewer will recommend to the agency what fair compensation is determined to be based upon the facts and data available.

B. Requirements

1. Certified as a general real estate appraiser by the Division of Real Estate and Professional Licensing, Ohio Department of Commerce.
2. Five (5) years of experience with eminent domain appraisal methodology.
3. Complete understanding of ODOT's policy and procedures, the Uniform Act and the interrelationship of appraisal/appraisal review to the overall acquisition process.
4. Expert knowledge of the Uniform Standards for Professional Appraisal Practice (USPAP).
5. Ability to read and understand complex right of way and construction plans.

C. Submittal Requirements

1. Detailed resume
2. Provide the numbers of years of experience in appraisal.
3. Certification as an AQB Certified USPAP Instructor or provide details of your level of understanding of USPAP including courses taken.
4. Provide details of your understanding of the interrelationship of ODOT's policy and procedures, the Uniform Act and appraisal/appraisal review to the overall acquisition process.
5. Provide details of training and experience related to your ability to read and understand complex right of way and construction plans.
6. List ODOT right of way courses successfully completed (including location and year) and real estate appraisal courses completed.
7. List types of property appraised and any specialty areas.
8. Describe at least five (5) years of experience with eminent domain appraisal methodology.
9. List appraisal related work history and experience with emphasis on the eminent domain process.

10. Describe any experience in providing expert appraisal testimony in eminent domain cases.
11. List any affiliations with professional organizations
12. Provide a minimum of two (2) samples of appraisals which demonstrate the ability to estimate compensation utilizing a before and after analysis, i.e., complete self-contained USPAP compliant report.
13. Provide a minimum of two (2) samples of past appraisal review assignments utilizing either the ODOT Review format or a USPAP review format.
14. A copy of the appraiser's current appraisal certificate or appraisal license issued by the Division of Real Estate and Professional Licensing, Ohio Department of Commerce.

2.38— NEGOTIATION

A. Definition

Negotiation is the process of acquiring property rights from owners for the expansion and rehabilitation of the State's highway system. This process of acquisition includes effectively communicating and offering to the owner, in writing, fair and reasonable compensation in compliance with the Uniform Act, Ohio law and ODOT procedures.

B. Requirements

1. At least one (1) year of prior experience in negotiating rights of way with property owners in a process compliant with the Uniform Act and 49 CFR Part 24.
2. Familiarity with Section 163 of the Ohio Revised Code; Section 5501:2-5-06 of the Ohio Administrative Code; ODOT's acquisition policies and procedures; highway construction and right of way plans; titles; and appraisals.
3. Ability to explain the project; the taking; the impact of the taking to the residue; the acquisition process; the offer; and negotiate in an honest and competent manner with the property owner(s). A negotiator must document all contacts with the owner, and treat all property owners fairly, with respect and dignity.

C. Submittal Requirements

1. Detailed resume
2. Provide the number of years of experience you have in negotiating rights of way with property owners in a process compliant with the Uniform Act and 49 CFR Part 24.
3. Provide details regarding familiarity with Section 163 of the Ohio Revised Code.
4. Provide details regarding familiarity with Section 5501:2-5-06 of the Ohio Administrative Code.
5. Provide details regarding familiarity with ODOT's acquisition policies and procedures.

6. Provide details of training and experience related to your ability to read and understand complex right of way and construction plans.
7. Provide details regarding familiarity with ODOT's policies on Titles and Appraisals.
8. 8 Provide a sample of a completed negotiation package that demonstrates that the negotiation process was done in compliance with the Uniform Act, 49 CFR Part 24 and ODOT's acquisition policies and procedures.
9. Provide a list of negotiation training courses completed. Include locations and year(s) of attendance for all listed training.

2.39— CLOSING

A. Definition

The act or process of the transfer of property through execution of documentation and distribution of compensation.

B. Requirements

An applicant must be prequalified in Title Research to be considered for this category. The applicant shall have at least one (1)-year prior experience in closings and be familiar with all Real Estate Manual sections dealing with closing and the acquisition of real property. The closing agent must be familiar with and able to use ODOT forms RE 44, RE 45 and RE 57.

C. Submittal Requirements

1. Detailed resume
2. Number of years of experience in closing.
3. Verify existing prequalification in Title Research
4. Provide details for a minimum of one (1) highway project where the Surface Transportation Act and the Uniform Act applied on which the applicant has performed closing services on a minimum of five (5) parcels.
5. Provide a list of closing training courses successfully completed (including location and year).

2.40— RELOCATION

A. Definition

The provision of Relocation Assistance to eligible persons or businesses that are displaced from or by highway improvement projects.

B. Requirements

1. At least one (1) year of experience in both residential and non-residential relocation, which is subject to 49 CFR, Part 24. The applicant must have participated in all aspects of relocation parcel clearance, or a cumulative total equivalent, to include a minimum of:
    a. Six Residential Parcels with replacement housing payments
    1) With at least three (3) owner occupants
    AND
    2) With at least three (3) tenant occupants

    b. Five (5) Non-Residential Parcels, not including any Personal Property Only Parcels.
    c. Two (2) Personal Property Only Parcels.
2. Ability to interpret and explain the Relocation Assistance Program along with thorough knowledge of 49 CFR, Part 24.
3. Successful completion (passing grade on all final exams) of ODOT's relocation training courses, or equivalent.
    a. Relocation 101 – Basic Relocations (three (3) days)
    b. Relocation 201 – Advanced Residential Relocations (three (3) days
    c. Relocation 202 – Advanced Non-Residential Relocations (three (3) days)
4. Prior relocation experience on highway projects is preferred.
5. Ability to read, interpret and explain complex highway right of way and construction plans is necessary.

C. Submittal Requirements

1. Detailed resume
2. Number of years of experience in relocation assistance.
3. Provide details for a minimum of three (3) owner/occupant residential parcels on which relocation services were performed where 49 CFR, Part 24 applied.
4. Provide details for a minimum of three (3) tenant occupant residential parcels on which relocation services were performed where 49 CFR, Part 24 applied.
5. Provide details for a minimum of five (5) non-residential parcels (not including any personal property only parcels) on which relocation services were performed where 49 CFR, Part 24 applied
6. Provide details for a minimum of two (2) personal property only parcels on which relocation services were performed where 49 CFR, Part 24 applied
7. Provide certification of completion of the training courses listed above or equivalent training courses including the location, year, and proof of attendance.

2.41— RELOCATION REVIEW

A. Definition

Relocation Review is the process of reviewing the work performed by the person who is actively carrying out the relocation assistance function. This review is to assure that all relocation is performed in compliance with 49 CFR, Part 24 and ODOT policy and procedures.

B. Requirements

1. At least five (5) years of extensive experience in both residential and non-residential relocation, which is subject to 49 CFR, Part 24. Experience supervising, reviewing, or correcting relocation work which has been performed by others is preferred. The applicant must have participated in all aspects of relocation parcel clearance, or a cumulative total equivalent, to include a minimum of:
    a. Thirty Residential Parcels with replacement housing payments
    1) With at least 15 Owner Parcels
    AND
    2) With at least 15 Tenant Parcels
    b. Twenty-Five (25) Non-Residential Parcels, not including any Personal Property Only Parcels.
    c. Ten (10) Personal Property Only Parcels.
2. Ability to interpret and explain the Relocation Assistance Program along with thorough knowledge of 49 CFR, Part 24.
3. Successful completion (passing grade on all final exams) of ODOT's relocation training courses, or equivalent.
    a. Relocation 101 – Basic Relocations (three (3) days)
    b. Relocation 201 – Advanced Residential Relocations (three (3) days)
    c. Relocation 202 – Advanced Non-Residential Relocations (three (3) days)
4. Ability to read, interpret and explain complex highway right of way and construction plans.
5. Successful completion of ODOT's Relocation Review 204 training course every 2 years.

C. Submittal Requirements

1. Detailed resume
2. Provide the number of years of experience in relocation assistance.
3. Provide details for a minimum of fifteen (15) owner occupant residential parcels on which relocation services were performed where 49 CFR, Part 24 applied.
4. Provide details for a minimum of fifteen (15) tenant occupant residential parcels on which relocation services were performed where 49 CFR, Part 24 applied.

5. Provide details for a minimum of twenty-five (25) non-residential parcels (not including any personal property only parcels) on which relocation services were performed where 49 CFR, Part 24 applied
6. Provide details for a minimum of ten (10) personal property only parcels on which relocation services were performed where 49 CFR, Part 24 applied
7. Provide certification of completion of the training courses listed above or equivalent training courses including the location, year, and proof of attendance.
8. Provide certification of completion of the Relocation Review 204 training course.

2.54— VALUE FINDING CERTIFIED RESIDENTIAL (CR)

A. Definition

When the value finding process is completed by a Certified Residential (CR) appraiser, the scope is limited to real property consisting of one-to-four residential units only and subject to the USPAP Competency Rule.

The value finding process is an appraisal format used by ODOT to establish a Fair Market Value Estimate (FMVE) when the valuation process is uncomplicated, and the fair market value is estimated at $65,000 or less, based on a review of available data.

The purpose of the Value Finding appraisal report is to estimate the compensation for the land taken, the contributory value of any site improvements in the take area (if any), and if land is needed temporarily for construction purposes, the estimated rent for the use of that land. This report is used when the acquisition is a partial taking and it is apparent the taking creates a simplistic valuation problem with no loss in market value of the residue property.

B. Requirements

1. Knowledge of appraisal procedures, awareness and understanding of ODOT policy and procedures regarding the preparation of the Value Finding format.
2. Ability to read and understand complex right of way and construction plans.
3. Must be a Certified Residential (CR) Appraiser where the scope of work is limited to real property consisting of one-to four residential units.
4. Must be prequalified in the Value Analysis category, or submitting concurrently for prequalification in Value Analysis and Value Finding CR.
5. Satisfactory completion of the following ODOT training classes or their equivalent:
    a. The Acquisition Process Using the Value Finding
    b. Owner Accompaniment
    c. Procedures for the Value Finding Appraisal Report
    d. Introduction to the Value Finding Appraisal Report

e. Value Finding Case Study Right of Way Plans
f. Value Finding Case Study Construction Plans
g. VF Case Study Appraisal Scoping Checklist
h. VF Case Study Highest and Best Use Determination Needed for Comp Selection
i. VF Case Study Estimating Compensation for the Land Taken
j. VF Case Study Estimating Compensation for Site Improvements Taken
k. VF Case Study Filling Out the VF Appraisal Report

ODOT may also give consideration to individuals who have prepared similar formats in other states so long as documentation and references are provided which prove the individual's ability to comply with the conditions for the waiver of appraisal.

C. Submittal Requirements

1. Detailed resume
2. Confirmation of Appraisal and ODOT Policy Knowledge
3. Certification of Completion of ODOT Highway Plan Reading Training Course or affirmation letter stating years of experience and ability to read and understand complex right of way and construction plans.
4. Confirmation of pre-requisite prequalification in Value Analysis
5. Provide details of your work experience in appraisal and any related education and training.
6. Provide State Certified Residential (CR) Appraisal Certification
7. Provide certification of completion of the following Real Estate Academy certification programs or Non-ODOT Equivalent Training Courses:
    a. VA Certification of Completion
    b. VF Certification of Completion
8. Provide two (2) samples of completed Value Finding (or equivalent) within the past ten (10) years which demonstrate ability to estimate compensation utilizing a similar appraisal valuation format.

2.55— VALUE FINDING CERTIFIED GENERAL (CG)

A. Definition

When the value finding process is completed by a Certified General (CG) appraiser, the scope is not limited and all types of real property may be subject to the USPAP Competency Rule.

The value finding process is an appraisal format used by ODOT to establish a Fair Market Value Estimate (FMVE) when the valuation process is uncomplicated, and the fair market value is estimated at $65,000 or less, based on a review of available data.

The purpose of the Value Finding appraisal report is to estimate the compensation for the land taken, the contributory value of any site improvements in the take area (if any), and if land is needed temporarily for construction purposes, the estimated rent for the use of that land. This report is used when the acquisition is a partial taking and it is apparent the taking creates a simplistic valuation problem with no loss in market value of the residue property.

B. Requirements

1. Knowledge of appraisal procedures, awareness and understanding of ODOT policy and procedures regarding the preparation of the Value Finding format.
2. Ability to read and understand complex right of way and construction plans.
3. Must be a Certified General (CG) Appraiser.
4. Must be prequalified in the Value Analysis category, or submitting concurrently for prequalification in Value Analysis and Value Finding CG.
5. Satisfactory completion of the following ODOT training classes or their equivalent:
   a. The Acquisition Process Using the Value Finding
   b. Owner Accompaniment
   c. Procedures for the Value Finding Appraisal Report
   d. Introduction to the Value Finding Appraisal Report
   e. Value Finding Case Study Right of Way Plans
   f. Value Finding Case Study Construction Plans
   g. VF Case Study Appraisal Scoping Checklist
   h. VF Case Study Highest and Best Use Determination Needed for Comp Selection
   i. VF Case Study Estimating Compensation for the Land Taken
   j. VF Case Study Estimating Compensation for Site Improvements Taken
   k. VF Case Study Filling Out the VF Appraisal Report

ODOT may also give consideration to individuals who have prepared similar formats in other states so long as documentation and references are provided which prove the individual's ability to comply with the conditions for the waiver of appraisal.

C. Submittal Requirements

1. Detailed resume
2. Confirmation of Appraisal and ODOT Policy Knowledge
3. Certification of Completion of ODOT Highway Plan Reading Training Course or affirmation letter stating years of experience and ability to read and understand complex right of way and construction plans.
4. Confirmation of pre-requisite prequalification in Value Analysis

5. Provide details of your work experience in appraisal and any related education and training.
6. Provide State Certified General (CG) Appraisal Certification
7. Provide certification of completion of the following Real Estate Academy certification programs or Non-ODOT Equivalent Training Courses:
    a. VA Certification of Completion
    b. VF Certification of Completion
8. Provide two (2) samples of completed Value Finding (or equivalent) within the past ten (10) years which demonstrate ability to estimate compensation utilizing a similar appraisal valuation format.

CONSTRUCTION INSPECTOR / CONSTRUCTION ENGINEER / CONSTRUCTION TECHNICIAN

2.42A— PROJECT INSPECTOR 1

A. Definition

Inspects construction projects to ensure contractor compliance with state specifications, plans, and/or proposals for roadway work, roadway, drainage, pavement, water works, electrical, maintenance of traffic, traffic work zone, pavement markings, traffic control, signing, topsoil removal, demolition and clearing, foundations for embankment, sub-grades, guardrails and/or median barriers, landscaping slope protection, detours, temporary roads, etc. Verifies plan quantities and calculations with bid plans, prepares and maintains project records and reports (e.g. daily diary, inspection reports, pay item quantities, contractors' construction methods, material testing & inspection), and performs other miscellaneous duties as assigned by the Project Engineer and defined in C&MS 105.09. Notifies the Contractor of non-conforming work. Performs data entry into ODOT's CMS/SITE MANAGER system or local documentation equivalent as directed by the Project Engineer or LPA person in responsible charge (as defined in the LPA participation requirements chapter of the Locally Administered Transportation Projects (LATP) Manual of Procedures).

B. Requirements

1. Construction project technical experience as follows:
   Meet one (1) of the following requirements:
    a. Former ODOT Employee - HT3, HT4 & HT5, TM1, TM2, TM3 or TA
        i. One Thousand Six Hundred (1,600) hours of construction project technical experience evidenced within the last 10 years.
    b. State DOT or Local Public Agency (Local public agency means any city, county, township, municipality, or other political subdivision that may be empowered to

cooperate with the State Transportation Agency in highway matters OR a combination of the two. [23 CFR 635.102])

i. One Thousand Six Hundred (1,600) hours of relevant construction project technical experience as defined in the ODOT Consultant Services Prequalification Manual (Section 2.42A). Hours must be evidenced within the last 10 years either having worked directly for the LPA or a State DOT or for a Consultant working for the LPA or a State DOT.

2. Highway testing certifications including but not limited to:
   a. ACI Concrete Field Testing Technician – Grade I
   b. ACI Aggregate Testing Technician – Level I
      OR
      Ohio Aggregate Level I
3. Demonstrate the successful completion of the following:
   a. ODOT Flexible Pavement Test (Renew every five (5) years)
   b. ODOT Traffic Work Zone Test (Renew every five (5) years)
   ~~c. Complete ODOT Commercially Useful Function (CUF) Training~~

C. Submittal Requirements

1. Detailed resume demonstrating prior public agency experience as outlined in Section B – Requirements.
2. Provide number of hours and details of construction project technical experience.
3. Provide details for a minimum of one project that demonstrates the hours of experience in number 3 and as defined above.
4. Provide certification of completion for the training courses listed in Section B.2 – Requirements.
5. Provide certification of completion for the requirements listed in Section B.3 – Requirements.

2.42B— PROJECT INSPECTOR 2

A. Definition

Inspects construction projects to ensure contractor compliance with state specifications, plans, and/or proposals for roadway work, roadway, drainage, pavement, water works, electrical, maintenance of traffic, traffic work zone, pavement markings, traffic control, signing, topsoil removal, demolition and clearing, foundations for embankment, sub-grades, guardrails and/or median barriers, landscaping slope protection, detours, temporary roads, etc. Inspects minor structural details including, but not limited to; sign structure foundations, guardrail terminal foundations, box culverts, minor culvert end walls, noise wall foundations,

traffic signal and light pole foundations. Verifies plan quantities and calculations with as bid plans, prepares and maintains project records and reports (e.g. daily diary, inspection reports, pay item quantities, contractors' construction methods, material testing & inspection), and performs other miscellaneous duties as assigned by the Project Engineer and defined in C&MS 105.09. Notifies the Contractor of non-conforming work. Performs data entry into ODOT's CMS/SITE MANAGER system or local documentation equivalent as directed by the Project Engineer or LPA person in responsible charge (as defined in the LPA participation requirements chapter of the Locally Administered Transportation Projects (LATP) Manual of Procedures).

B. Requirements

1. Meet requirements of Project Inspector 1
2. Highway testing certifications including but not limited to:
    a. ACI Concrete Field Testing Technician – Grade I
    b. ACI Aggregate Testing Technician – Level I
    OR
    Ohio Aggregate Level I
3. Demonstrate the successful completion of the following:
    a. ODOT Flexible Pavement Test (Renew every five (5) years)
    b. ODOT Traffic Work Zone Test (Renew every five (5) years)
    ~~c. Complete ODOT Commercially Useful Function (CUF) Training~~
4. Meet one (1) of the following requirements:
    a. Associate Degree in Civil Engineering Technology, Construction Engineering Technology or Construction Management or degrees that exceed these requirements.
    b. National Institute for Certification in Engineering Technologies (NICET) Level II in Highway Construction Inspection Certification.
    c. Former ODOT Employee - HT3, HT4 & HT5, TM1, TM2, TM3 or TA
        i. Three Thousand Two Hundred (3,200) hours of construction project technical experience evidenced within the last 10 years.
    d. State DOT or Local Public Agency (Local public agency means any city, county, township, municipality, or other political subdivision that may be empowered to cooperate with the State Transportation Agency in highway matters OR a combination of the two. [23 CFR 635.102])
        i. Six Thousand Four Hundred (6,400) hours of relevant construction project technical experience as defined in the ODOT Consultant Services Prequalification Manual (Section 2.42B). Hours must be evidenced within

the last 10 years either having worked directly for the LPA or a State DOT or for a Consultant working for the LPA or a State DOT.

C. Submittal Requirements

1. Detailed Resume demonstrating experience as outlined in Section B - Requirements
2. Provide one (1) of the following documents:
    a. Associate Degree in Civil Engineering Technology, Construction Engineering Technology or Construction Management or degrees that exceed these requirements.
    b. National Institute for Certification in Engineering Technologies (NICET) Level II in Highway Construction Inspection Certification.
    c. Detailed resume demonstrating prior public agency experience as outlined in Section B – Requirements
3. Provide number of hours and details of construction project technical experience.
4. Provide details for a minimum of one project that demonstrates the hours of experience in number 3 and as defined above.
5. Provide certification of completion for the training courses listed in Section B.2 – Requirements.
6. Provide certification of completion for the requirements listed in Section B.3 – Requirements.

2.43— PROJECT STRUCTURE INSPECTOR

A. Definition

Inspects construction projects to ensure contractor compliance with state specifications, plans, and/or proposals for bridges, structure operations, piling, drilled shafts, excavation, cofferdams, cribs and sheeting, form work, false work, structural steel erection and concrete placement, etc. Verifies plan quantities and calculations with as bid plans, prepares and maintains project records and reports (e.g. daily diary, inspection reports, pay item quantities, contractors construction methods, material testing & inspection), and performs other miscellaneous duties as assigned by the Project Engineer and defined in C&MS 105.09. Notifies the Contractor of non-conforming work. Perform data entry into ODOT's CMS/SITE MANAGER system or local documentation equivalent as directed by the Project Engineer or LPA person in responsible charge (as defined in the LPA participation requirements chapter of the Locally Administered Transportation Projects (LATP) Manual of Procedures).

B. Requirements

1. Prequalified as Project Inspector 2.

2. Successful completion of the Department's Advanced Structures Test. (Renew every 5 years)
   OR
   National Institute for Certification in Engineering Technologies (NICET) Level III in Highway Construction Inspection Certification

C. Submittal Requirements

1. Resume
2. Verification that the applicant is currently prequalified or concurrently requesting prequalification as a Project Inspector.
3. Provide number of months and details of construction project technical experience.
4. Provide certification of completion for the tests listed in Section B – Requirements.

2.44— COATINGS INSPECTOR

A. Definition

Inspects, observes, and documents the surface preparation and painting of structural steel for quality assurance and to ensure contractor compliance with the painting specifications, plans and/or proposals. Maintains records of all work completed. Uses the necessary testing equipment to record the conditions under which the work was done and makes independent measurements of coating dry film thickness. Inspects, observes, and documents the surface preparation and sealing of concrete surfaces for quality assurance and to ensure contractor compliance with the sealer specifications, plans and/or proposals. Notifies the Contractor of non-conforming work. Records the conditions under which the work was completed.

B. Requirements

1. Successful completion of the Department's ODOT Work Type 26 Structural Steel Painting Course (Every 4 years).
2. Successful completion of the Department's ODOT Work Type 57 Sealing of Concrete Surfaces Course (Every 4 years).
3. Successful completion of one (1) of the following requirements:
   a. National Association of Corrosion Engineers (NACE) Certified Coatings Inspector Level 1 Certified
   b. Society for Protective Coatings (SSPC) or Association of Materials Protection and Performance (AMPP) Protective Coatings Inspector Level 1 Certified
   c. Society for Protective Coatings (SSPC) or Association of Materials Protection and Performance (AMPP) Bridge Coating Inspector Level 1

C. Submittal Requirements

1. Resume
2. Provide number of months and details of construction project technical experience.
3. Provide certification of completion for the training courses listed in Section B – Requirements.
4. Provide certification of completion for a minimum of one of the requirements listed in Section B – Requirements.

2.45— TRAFFIC SIGNAL AND LIGHTING INSPECTOR

A. Definition

Inspects construction projects to ensure contractor compliance with state specifications, plans, and/or proposals for traffic signals and highway lighting; and maintenance of traffic, traffic work zone and pavement markings for signal and lighting projects. All as directed by the Department's Project Engineer/Supervisor, to determine if the Contractor is in compliance with contract requirements and to notify the Contractor of non-conforming work; conducts required field tests and other tests that may be required; assists in conducting any necessary project studies or investigations; performs any other related duties that may be required by the Project Engineer/Supervisor. Perform data entry into ODOT's CMS/SITE MANAGER system or local documentation equivalent as directed by the Project Engineer or LPA person in responsible charge (as defined in the LPA participation requirements chapter of the Locally Administered Transportation Projects (LATP) Manual of Procedures).

B. Requirements

1. Successful completion of ODOT Traffic Work Zone Test (Renew every 5 years)
2. International Municipal Signal Association (IMSA) Traffic Signal Construction Technician Level II Certification
   AND
   International Municipal Signal Association (IMSA) Roadway Lighting Technician Level I Certification

C. Submittal Requirements

1. Resume
2. Provide number of months and details of construction project technical experience.
3. Provide certification of completion for the test listed in Section B – Requirements.
4. Provide certification of completion for the certifications listed in Section B – Requirements.

2.46— SOILS AND AGGREGATE INSPECTOR

A. Definition

Inspects construction activities with soil and granular materials and performs compaction testing according to Supplement 1015. Records observations and compaction testing results on appropriate forms. Notifies the Contractor of non-conforming work. Interprets test results and provides recommendations to the Project Engineer.

B. Requirements

1. Successful completion of the ODOT Compaction Testing of Unbound Materials Test (Renew every 5 years)
2. Successful completion of one (1) of the following requirements:
    a. National Institute for Certification in Engineering Technologies (NICET) Level II in Construction Materials Testing Soils Certification
    b. NICET Level II in Geotechnical Engineering Technology – Construction Certification
    c. NorthEast Transportation Training and Certification Program's (NETTCP) Soils and Aggregate Inspector Certification

C. Submittal Requirements

1. Resume
2. Provide number of months and details of construction project technical experience.
3. Provide certification of completion for the test listed in Section B – Requirements.
4. Provide certification of completion for a minimum of one of the certifications listed in Section B – Requirements

2.47— CONSTRUCTION ENGINEER LEVEL 1 / CONSTRUCTION MANAGER

A. Definition

Works under the supervision of an ODOT Project Engineer or LPA Person in Responsible Charge (as defined in the LPA participation requirements chapter of the Locally Administered Transportation Projects (LATP) Manual of Procedures)/ CPE, coordinates inspection of project work including, but not limited to the testing of materials and required documentation to ensure work performed by contractors is in compliance with all state and federal specifications. Correlates and analyzes field data, reviews plans and records, supports, and prepares change orders, assists with dispute resolution, estimates, conducting progress meetings, preparing meeting minutes and other related duties finalize or assist with finalizing and closing out the project. Performs data entry into ODOT's CMS/SITE MANAGER system or local documentation equivalent as directed by the Project Engineer or LPA person in

responsible charge (as defined in the LPA participation requirements chapter of the Locally Administered Transportation Projects (LATP) Manual of Procedures).

Inspects construction projects to ensure contractor compliance with specifications, plans, and/or proposals and subject to ACI Level I certification for concrete testing and successful completion of the ODOT Compaction Testing of Unbound Materials Test for soils testing. Construction Manager must have successfully passed the Department's Advanced Structures Test to inspect structures.

B. Requirements

1. Twenty-four (24) months of construction project technical/management experience.
2. Bachelor of Science degree in Engineering or Engineering Technology from a program accredited by ABET or a Bachelor of Science Degree in Construction Management accredited by ACCE (American Council for Construction Education).

C. Submittal Requirements

1. Resume
2. Provide one (1) of the following documents:
    a. Diploma demonstrating completion of a Bachelor of Science degree in Engineering or Engineering Technology from an ABET accredited program.
    b. Diploma demonstrating completion of a Bachelor of Science degree in Construction Management from an ACCE accredited program.
3. Provide number of months and details of construction project technical experience.
4. Provide details for a minimum of one project that demonstrates the months of experience in number 3 and as defined above.

2.48— CONSTRUCTION ENGINEER LEVEL 2

A. Definition

Works under the immediate supervision of an ODOT Area Engineer or LPA Person in Responsible Charge (as defined in the LPA participation requirements chapter of the Locally Administered Transportation Projects (LATP) Manual of Procedures), manages a construction project or a portion of a construction project ensuring construction work performed will achieve plan and specification intent. Coordinates inspection of project sites, oversees testing of materials and documents work to ensure work performed by contractors is in compliance with all state and federal specifications. Correlates and analyzes field data, reviews plans and records, initiates change orders, prepares time extensions, submits estimates and all other forms necessary to complete a construction project, assists with dispute resolution, estimates, conducting progress meetings, preparing meeting minutes and other related duties finalize or

assists with finalizing and closing out the project. Interprets contract provisions, plan requirements and reviews project records. Calculates final pay quantities. Performs other duties as requested. Perform data entry into ODOT's CMS/SITE MANAGER system or local documentation equivalent as directed by the Project Engineer or LPA person in responsible charge (as defined in the LPA participation requirements Chapter of the Locally Administered Transportation Projects (LATP) Manual of Procedures).

Inspects construction projects to ensure contractor compliance with specifications, plans, and/or proposals and subject to ACI Level I certification for concrete testing and successful completion of the ODOT Compaction Testing of Unbound Materials Test for soils testing.

B. Requirements

1. Sixty (60) months of construction project technical/management experience.
2. Bachelor of Science degree in Engineering from a school with ABET accredited program.
3. Registered as a Professional Engineer with the Ohio State Board of Registration for Professional Engineers and Surveyors.

C. Submittal Requirements

1. Resume
2. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
3. Provide number of months and details of construction project technical experience.
4. Provide details for a minimum of two (2) projects that demonstrates the months of experience in number 3 and as defined above.

2.49— CONSTRUCTION MANAGEMENT FIRM

A. Definition

Administration of construction contracts including engineering services provided in accordance with ORC 4733.01(D), which includes the following duties: "inspection of construction or operation for the purpose of assuring compliance with drawings or specifications in connection with any public or privately-owned public utilities, structures, buildings, machines, equipment, processes, works, or projects...". Agreements that include staff requirements for Construction Engineer Level 1 or 2 generally meet this definition. Agreements that include only inspection services generally do not meet this definition.

B. Requirements

1. The firm must have a current Certificate of Authorization from the State Board of Registration for Professional Engineers and Surveyors in accordance with ORC 4733.16.

2. The firm must employ at least one (1) Construction Engineer Level 2 on permanent staff.

C. Key Person Submittal Requirements

1. Professional Engineer Registration with the State of Ohio Engineers and Surveyors Board
2. Resume
3. Bachelor of Science degree in Engineering from a school with ABET accreditation.
4. Provide the number of months and details of construction project technical/management experience.
5. Provide information for a minimum of two (2) projects that demonstrate experience in construction project management technical/management experience as required in Section 2.48 – Construction Engineer Level 2 above.

D. Firm Submittal Requirements

1. Firm Registration with the State of Ohio Engineers and Surveyors Board
2. One (1) Construction Engineer Level 2 Key Person on permanent staff that meets the above requirements.

2.50— CONSTRUCTION TECHNICIAN

A. Intent of the Program

Provide the project technical/field experience needed to meet the prequalification requirements for a Project Inspector. The Construction Technician program represents a training and mentorship initiative intended to provide an opportunity for participants to gain the knowledge and experience necessary to become Project Inspectors. A primary purpose of ODOT's Construction Technician program is to train and provide increased opportunities for individuals in the engineering consultant industry.

B. Definition

The Construction Technician is an individual not yet prequalified as a Project Inspector. The individual is hired by a firm that provides construction engineering, management, or inspection services. The individual is hired on a full-time or part-time basis and is closely supervised by either a qualified Project Inspector, Construction Engineer or Construction Manager.

C. Minimum Experience and Education

1. **Construction Technician I**
   High School Diploma or high school equivalency (HiSET, TASC, or GED) and the ability

to read, write, and communicate in English and do basic math computation for length, area, and volume. No project technical/field experience required.

2. **Construction Technician II**
    a. Must meet the requirements of Construction Technician I and have a minimum of 800 hours of involvement in activities related to the inspection and testing of highway construction. Of the 800 hours, the experience must be comprised of:
        1) minimum of 400 hours must be full-time experience inspecting or assisting in the inspection of capital highway construction project(s).
        2) A maximum of 400 hours may be full-time experience in closely related construction field work that must involve materials testing, surveying, inspection, and/or management of pavement, structure, or geotechnical work.

        OR
    b. At a minimum, be enrolled in an Associate Degree program or higher in Civil Engineering Technology, Construction Engineering Technology, Construction Management, or enrolled in an ODOT recognized Construction Inspection Workforce Program.

D. Submittal Requirements

1. **Construction Technician I**

    b. Resume
    c. High School Diploma, High School Equivalency (HiSET, TASC, or GED) Document.
    d. Verify that you have the ability to read, write, and communicate in English and do basic math computations for length, area, and volume.

2. **Construction Technician II**
    a. Resume
    b. High School Diploma, High School Equivalency (HiSET, TASC, or GED) Document.
    c. Verify that you have the ability to read, write, and communicate in English and do basic math computations for length, area, and volume.
    d. Provide details of your experience that you have a minimum of 800 hours of involvement in activities related to the inspection and testing of highway construction. Of the 800 hours, the experience must be comprised of:
        1) A minimum of 400 hours must be full-time experience inspecting or assisting in the inspection of capital highway construction project(s).
        2) A maximum of 400 hours may be full-time experience in closely related construction field work that must involve materials testing, surveying,

inspection, and/or management of pavement, structure, or geotechnical work.

OR

3) Provide proof of enrollment in an Associate Degree program or higher in Civil Engineering Technology, Construction Engineering Technology, Construction Management, or enrolled in an ODOT recognized Construction Inspection Workforce Program.

E. Firm Responsibilities

Give support to the Construction Technician in becoming certified in ACI Level I and Ohio Aggregate Level I during the period of employment. Additionally, give support to the Construction Technician in successfully completing both the ODOT Flexible Pavement Test and the ODOT Traffic Work Zone Test. The Consultant Firm should provide for experience in as many technical areas as possible.

F. Firm Submittal Requirements

Once hired and prior to the start of work, submit to the District Construction Engineer the prospective Construction Technician's: (See Appendix A)

1. Resume, and
2. Proposed Training program that includes at a minimum:
    a. A plan for providing experience in as many technical areas as possible, and
    b. A plan for mentoring and supervision, including the name and title of the supervisor.
    c. Proposed Construction Technician I or II.
3. Copy of a high school diploma or high school equivalency (HiSET, TASC, or GED), or proof of enrollment in an Associate Degree Program in Civil Engineering Technology, Construction Engineering Technology or Construction Management or in degree programs that exceed these requirements or enrolled in an ODOT recognized Construction Inspection Workforce Program.

G. Compensation

In accordance with Federal regulation, ODOT will establish a consultant direct salary limitation for the Construction Technician(s) based upon "...an objective assessment of the reasonableness of proposed rates performed in accordance with the reasonableness provisions of the Federal cost principles." ODOT will review these rates annually for adjustment as needed.

The Maximum direct salary rates for Construction Technician I and II will be written directly into the Consultants Agreement.

Part III—

Financial and Cost Accounting System Requirements

Department of Transportation

3.01— ANNUAL SUBMISSION OF FINANCIAL PACKAGE

Per 23 CFR 172 and 23 U.S.C. 112(b)(2)(B), Consultants that provide engineering and design related services must comply with Part 31 of the Federal Acquisition Regulation (FAR Part 31). [1] Engineering and design related services include the following types of work: program management, construction management, feasibility studies, preliminary engineering, design, engineering, surveying, mapping, or architectural related services. Consultants that provide these services are required to have engineering and financial prequalification with ODOT.

Each year, Consultants must submit an updated financial package through the ODOT PreQ system: https://consultantprequalification.dot.state.oh.us/login?returnUrl=%2Fhome. The financial package must be submitted no later than six months after the close of the Consultant's fiscal year. Accordingly, the documents are due by July 1 for calendar-year companies.

Failure to comply with this requirement may result in loss of prequalification with the Department. The financial package consists of all the documentation listed at https://www.transportation.ohio.gov/programs/external-audits/audit-consultant.

The financial package is necessary to provide information about the Consultant's financial and business operations, including the Consultant's cost accounting practices and procedures used to estimate, accumulate, and report contract costs. Staff from the Office of External Audits perform a review to evaluate whether the Consultant's financial and cost accounting system adequately segregates and accumulates allocable, reasonable, and otherwise allowable contract costs and whether indirect cost rates are prepared in compliance with FAR Part 31 and related laws and regulations.

In determining what constitutes a contract cost, FAR Part 31 generally requires the use of the accrual basis accounting in accordance with Generally Accepted Accounting Principles (GAAP). Accordingly, the Consultant must record indirect costs in accordance with GAAP and must consistently allocate these costs to intermediate or final cost objectives, as appropriate.

> *Note: Consultants should refer to the ODOT Office of External Audits website3 for specific details about, and updates to, the submittal requirements. (https://www.transportation.ohio.gov/programs/external-audits/audit-consultant).*

[1]FAR Part 31 is codified in Title 48 of the Code of Federal Regulations (CFR), Part 31. FAR Part 31 is the primary regulatory guidance used to determine allowable contract costs for Federal-aid projects.

3.02— FINANCIAL AND COST ACCOUNTING SYSTEM EVALUATION & MAINTAINING FULL PREQUALIFICATION STATUS

The Office of External Audits staff review all Consultant financial submittals to determine whether Consultants are eligible for full prequalification status. Full prequalification requires the following elements:

An operational financial and cost accounting system that accumulates allowable contract costs in accordance with FAR Part 31, the Cost Accounting Standards (CAS), and related laws and regulations. The financial management system must segregate and remove unallowable contract costs from billings and assign allowable contract costs to specific contracts/projects. An acceptable system tracks both direct and indirect labor costs through payroll, timekeeping, and cost records by contract and work activity. The system also must track direct non-labor costs by contract and accumulate allowable indirect costs, providing for timely determination of allowable indirect cost rates (overhead rates).

The standard requirements for engineering prequalification in the various categories of engineering and design related services as approved by the ODOT Office of Consultant Services.

> *Note: Consultants that require specific guidance regarding the proper design and operation of a FAR-compliant accounting system are encouraged to consult the AASHTO Uniform Audit and Accounting Guide and Defense Contract Audit Agency Pamphlet No. 7641.90 (DCAAP 7641.90: Information for Contractors), specifically Sections 2-301 and 2-302, which discuss accounting system requirements and requirements for labor-charging systems (e.g., internal controls, timecard preparation, and acceptable timekeeping policies).*

Consultants that receive full Contracting status are eligible to perform work under any type of contract, including actual costs plus a net fee, lump sum, rate of pay, unit of work, or other method, as determined by agreement between the Consultant and the Department.

Financial-only Prequalification: In cases where a Consultant is not required to meet the full prequalification requirements and instead seeks only financial prequalification, the Office of External Audits may grant a "financial only" approval status, assuming the Consultant's financial submittal meets the requirements specified in this Chapter. This type of approval may be useful for Consultants that perform municipal work funded solely with local funds.

3.03— AUDITS

The review procedures described in Sections 3.01 and 3.02 are performed at a high level, based on summary financial data submitted by the Consultant. Accordingly, these basic "desk review" procedures generally do not involve audit or review fieldwork; however, in addition to desk review procedures, staff from the ODOT Office of External Audits may perform full audits and/or reviews to obtain reasonable assurance that costs claimed by Consultants are compliant with applicable State and Federal regulations.

Full audits and/or reviews generally involve fieldwork, including review of detailed financial records such as invoices and other supporting documentation, transaction detail obtained from the Consultant's general ledger, and/or related project documentation obtained from the Consultant's job-cost and estimation systems. Accordingly, nothing in the procedures described in Sections 3.01 or 3.02 shall prevent ODOT from performing a full incurred-cost audit or review of costs claimed on an overhead schedule and/or billed to projects as either direct or indirect costs.

Appendix A—

Prequalification Request Forms

Department of Transportation

CERTIFICATES/FORMS/DOCUMENTS

Within the PreQ system, various certificates, forms, and documents are identified as requirements to validate successful completion of the prequalification categories.

Such documents include, but are not limited to: DBE/SBE/EDGE Approval Letters/Certificates, SF330 Form, Professional/Firm Registration(s), Resume, Diploma, Training Certificate(s), Project Design Plan(s), etc.

Required documents will be validated by ODOT at the time the prequalification is submitted and reviewed.

In the event a user cannot locate the required training certificate or document, reach out to the office responsible for the prequalification category for direction.

CONSTRUCTION TECHNICIAN TRAINING REQUEST FORM

DATE*

CONSTRUCTION TECHNICIAN TRAINING PROGRAM

Please attach résumé of proposed Construction Technician, copies of certificates, diplomas, or other information appropriate to demonstrate the individual's experience, education and training received.

INFORMATION TO BE SUBMITTED TO THE ODOT DISTRICT CONSTRUCTION ENGINEER

****Company Name****, through the offered ODOT Construction Technician Program, will create an effective method to recruit, train, develop, and retain personnel to be effective Project Inspectors.

Each Construction Technician will be assigned ****number**** of mentors; ***(identify the name, classification of the mentor(s) and the type of work the mentor(s) will be involved with on the project).***

****NAME****, P.E., will serve as the professional engineering mentor/supervisor. ****NAME**** will act as 'field' mentor and will be there to give advice and provide learning opportunities through on-site communication, construction inspection, plan and specification reading skills, how daily report documentation is prepared and submitted, and skills required to be a successful Project Inspector. Continued communication with the Construction Technician throughout their time in the program with professional engineering mentor/supervisor will be important to the Construction Technician's success. This communication will be used to provide feedback on the Construction Technician's progress and update techniques to provide adequate learning, and a formal feedback meeting will be held *(daily, weekly, monthly).*

Construction Technicians will receive training in: _____. Additionally, Construction Technicians will be required to gain familiarity and review the latest versions of ODOT's Construction & Materials Specifications, Supplementals, Supplemental Specifications, and the Manual of Procedures available on the ODOT website (http://www.dot.state.oh.us/Divisions/ConstructionMgt/Pages/default.aspx). This training will be completed through formal training sessions offered, time spent with prequalified Project Inspector mentors, and other internal training with management personnel. Time spent on active construction sites with a mentor will be critical to the understanding of these contract documents.

PART II— PREQUALIFICATION DEFINITIONS, REQUIREMENTS AND SUBMITTAL REQUIREMENTS

During their time as an Construction Technician, the individual will take the necessary training and testing required for prequalification as a Project Inspector. This includes but is not limited to:

- ACI Concrete Field Testing Technician – Grade I
- ACI Aggregate Testing Technician – Level I
- Ohio Aggregate Level I
- ODOT Flexible Pavement Test
- ODOT Traffic Work Zone Test
- National Institute for Certification in Engineering Technologies (NICET) Level II (if the Construction Technician is not already enrolled in a Civil Engineering or Construction Management degree program).

At the end of the period as a Construction Technician, the individual should have:

- Beginning experience as a Project Inspector;
- Familiarity with and know how to apply the ODOT Construction & Materials Specifications and the ODOT Construction Manual of Procedures to construction sites;
- Experience with completing project documentation using E-Construction, and;
- Proper certifications to become a Prequalified Project Inspector.

Construction Technician Name: _____

Construction Technician Start Date: _____

Consultant Contract ID: _____

ODOT District: _____

Scheduled Test and Test Dates: _____

(ODOT Administered, NICET, etc.)

Certifications Received: _____

Tests Passed: _____

Level of Education Achieved: _____

The ODOT District DCE must be made aware of any changes to this plan.