CONTRACT APPENDIX "A"

SERVICES TO BE FURNISHED BY CONSULTANT

In fulfillment of this Contract, the CONSULTANT shall comply with the requirements of the appropriate regulations and requirements of the Indiana Department of Transportation (INDOT or Department) and Federal Highway Administration (FHWA).

Baseline Information: Owner has furnished the following Project information to Engineer as of the Effective Date. Engineer's scope of services has been developed based on this information. As the Project moves forward, some of the information may change or be refined, and additional information will become known, resulting in the possible need to change, refine, or supplement the scope of services.

Project Title:	Ridge Road Complete Street
Type and Size of Facility:	Principal/Minor Arterial
Description of Improvements:	Provide safer roadway and improved multi-modal access by utilizing design strategies of complete streets.
Expected Construction Start:	2025/2026
Prior Studies, Reports, Plans:	Town of Munster Calumet-Ridge Streetscape Plan
Facility Location(s):	Ridge Road from IN/IL State Line to Columbia Avenue (~1.3 miles)
Current Project Budget:	~$21.4 million (Construction and Professional Services)
Funding Sources:	RAISE Grant and Local Match (80/20)
Known Design Standards:	INDOT, FHWA
Known Project Limitations:	
Project Assumptions:	It is assumed that the roadway will generally be reduced from a 5-lane section to a 3-lane section.
Other Pertinent Information:	

The CONSULTANT shall be responsible for performing the following activities:

TASK 01 Management of Engineering Services and Peer Review

TASK 02 Project Intent Definition
- Alternatives Analysis
- Traffic Data Collection and Analysis
- Preliminary Engineering Assessment

TASK 03 Environmental Services

TASK 04 Topographic Survey Data Collection
- Topographic Survey
- Location Control Route Survey Plat (If Required)

TASK 05 Geotechnical Services

TASK 06 Road Design and Plan Development
- Preliminary Design
- Final Design
- Lighting Design
- Traffic Signal Plan Development

TASK 07 Public Engagement
- Website
- Public Information Meetings/Workshops
- Stakeholder Interviews
- Right of Way Staking

TASK 08 Right of Way Plan Development
- Right of Way Engineering
- Title Research
- Right of Way Staking

TASK 09 Utility and Railroad Coordination
- Utility Coordination
- Railroad Coordination
- Utility Relocation Inspection
- Utility Relocation Staking

TASK 10 Post Design Services
- Bidding/Proposal Phase Services
- Construction Phase Services

TASK 01 Management of Engineering Services and Peer Review

All phases of Engineer's services will include management of Engineer's Project-specific responsibilities, including but not limited to the following management tasks, whether separately tracked and itemized or included as being incidental to other phase and scope task items.

1. Develop and submit an Engineering Services Schedule. The Engineering Services Schedule will:

   a. be consistent with and serve as a supplement to the Schedule of Deliverables set forth in APPENDIX "C".

   b. be updated on a regular basis, and as required to reflect any programmatic decisions by Owner.

   c. include, but not be limited to, an anticipated sequence of tasks; estimates of task duration; interrelationships among tasks; milestone meetings and submittals; anticipated schedule of construction; and other pertinent Project events.

2. Coordinate services within Engineer's internal team, and with Subconsultants and Engineer's Subcontractors.

3. Prepare for and participate in meetings with consultants and contractors working on other parts of the Project that may affect, or be affected by, Engineer's services or resulting construction.

4. Prepare and submit monthly engineering services progress reports to the Owner. Include summary of services performed in period, expected progress in next period, percent completion of current tasks, and a description of major issues or concerns.

5. Special Invoicing: In addition to, or as a substitute for, Engineer's standard invoicing, provide the specified additional information or documentation, following the invoicing procedures indicated: Not Applicable

6. Conduct ongoing management tasks, including:

    a. Maintaining communications records and files pertaining to or arising from Engineer's services;

    b. With respect to Engineer's services and other directly relevant parts of the Project, prepare for and participate in periodic progress meetings with Owner to discuss progress, schedule, budget, issues, potential problems and their resolution; and

    c. Preparing agendas prior to and minutes following all Engineer-led meetings.

In all phases of Engineer's services, Engineer shall prepare draft and final Drawings in accordance with Engineer's CAD standards in reference of INDOT CAD Standards, using Bentley Computer Aided Design (CAD) software.

The source documents for the draft and final Specifications in all phases of Engineer's services will be INDOT Standard Specifications, unless otherwise mutually agreed upon by the parties.

TASK 02 Project Intent Definition

In select cases, a project advanced for design development may call for additional front-end effort to refine or verify essential intent (proposed action, or basic scope); that is, further analyze site conditions, assess corrective treatment options, and define which counter-measure is most cost- effective.

If that initial task is required, the CONSULTANT shall perform those three primary activities and prepare associated documentation — commonly referenced by such titles as, as Project Intent Report, Engineer's Report, Abbreviated Engineer's Report or Engineering Assessment. The report will be written as a compilation of primarily technical engineering features of the project, describing, among other special circumstances, (a) site conditions, (b) status or level of performance for physical infrastructure or service (depending on project type), (c) problem to be addressed (need), (d) alternative solutions targeting the performance problem, (e) discussion of cost and positive effect on performance of treatment alternatives, and (f) statement suggesting the most cost-effective solution. The report is typically made up of written description and supporting tables/charts and sketch-plan engineering drawings. It represents a preliminary improvement plan, outlining primary features of the project (corrective measures), at a level of refinement suitable to enable detailed design development to proceed. The procurement of essential data and analysis shall be limited to no more than necessary to reach a fully informed decision, and the associated report shall document the critical elements of this phase clearly and as concisely as practicable to serve downstream project purposes.

The report is expected to define essential engineering elements of the proposal, addressing the applicable following items: proposal's construction limits and lengths; traffic data and traffic capacity (level-of-service, operational) analyses utilizing the Highway Capacity Manual, with emphasis on the proposed recommendation; crash data and analysis; applicable engineering standards and guidelines, notably design classifications and related controlling criteria; typical and special cross-sections; proposed horizontal and vertical alignments, where necessary to convey the proposal; proposal's plan view superimposed over aerial photographic base maps, and, in select cases, over topographic mapping or other underlying image; where relevant, the access control plan (i.e., location of interchanges, collector-distributors, grade-separations, crossroad extensions and rerouting, local service roads, route transfers); interchange and intersection configurations if applicable; multimodal elements (e.g., grade separations for railroads and pedestrian/bicyclist paths); preliminary hydraulic data and recommendations; traffic signal, sign, and lighting elements; construction, right-of-way, and design engineering cost estimates, and other features of

engineering economic analysis; right-of-way limits and impacts (width, area, type, relocations, parcels, etc.); survey requirements (coverage) for subsequent design activities; construction phasing scheme if necessary; provisional strategy for maintenance of traffic during construction; compatibility with other state and local transportation projects and long-range plans; social, economic, and environmental issues apparent at the engineering assessment phase; and all other relevant civil/transportation engineering issues.

For this Task CONSULTANT shall:

1. Consult with Owner to define and clarify Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations, and identify available data, information, reports, facilities plans, and site evaluations.

    a. If Owner has already identified one or more potential solutions to meet its Project requirements, then proceed with the assessment and analysis of the Owner-identified potential solutions listed here:

        i. Reduce travel lanes from 5 lanes to 3 lanes on Ridge Road within the project area. Utilize the width gained from travel lane reduction to add a multi-use trail on the south side of Ridge Road, curb bumpouts to decrease crosswalk length, and center medians with plantings.

            1) Additional alternatives will be identified, studied, and evaluated at intersections dependent upon traffic data collection. It is anticipated that no more than two alternative solutions at the following signalized intersections:

                a) Ridge Road @ Manor Avenue

                b) Ridge Road @ Hohman Avenue

                c) Ridge Road @ Harrison Avenue (North Leg) *

                d) Ridge Road @ Harrison Avenue (South Leg) *

                e) Ridge Road @ Calumet Avenue

                f) Ridge Road @ Columbia Avenue

                    * Ridge Road @ Harrison Avenue is an offset intersection with each leg separately signalized.

2. Identify potential solution(s) to meet Owner's Project requirements, as needed.

3. Study and evaluate the potential solution(s) to meet Owner's Project requirements.

4. Visit the Site, or potential Project sites, to review existing conditions and facilities, unless such visits are not necessary or applicable to meeting the objectives of the Preliminary Engineering Assessment/Alternatives Analysis.

5. Assess initially available Project information and data, including the Baseline Information set forth at the beginning of this Exhibit A.

6. Advise Owner of any need for Owner to obtain, furnish, or otherwise make available to Engineer additional Project-related information and data, for Engineer's use in the assessment and analysis of potential solution(s) to Owner's Project requirements, and preparation of a related report.

7. After consultation with Owner, recommend the solution(s) which in Engineer's judgment meet Owner's requirements for the Project.

8. Identify, consult with, and analyze requirements of authorities having jurisdiction to permit or approve construction or operation of the portions of the Project to be designed or specified by Engineer, including but not limited to impacts and mitigating measures identified in previously prepared environmental assessments for the Project provided to the Engineer or being concurrently prepared with this project. All environmental services required to develop the appropriate level of documentation for this project shall be developed to meet the National Environmental Policy Act of 1969 (NEPA) regulations and, as appropriate, latest version for the NEPA and Indiana Department of Transportation (INDOT) Decision Making Process, INDOT Procedural Manul for preparing Environmental Documents, and the INDOT Categorical Exclusion Manual. The final NEPA documentation shall be part of the Final Design process as it needs to be representative of the final design to be constructed. Refer to Task 03 for the Environmental Services scope of services. All correspondence and documentation completed at the time of the Report submitted will be referenced/included in the Report.

9. Advise the Owner of any need for Owner to provide data or services of the types described in Article 2 of the Agreement, for use in Project design, or in preparation for Contractor selection and construction.

10. Assist Owner in evaluating the possible use of innovative design, contracting, or procurement strategies; project delivery method; or other strategies, technologies, or techniques for assisting in the design, construction, and operation of Owner's facilities. The subject matter of this paragraph will be referred to in Exhibit A as "Project Strategies, Technologies, and Techniques."

11. Assist Owner in identifying opportunities for enhancing the sustainability of the Project, and pursuant to Owner's instructions, plan for the inclusion of sustainable features in the design.

12. Review with Owner the thresholds established in applicable codes, standards, and design criteria specifically governing the ability of the proposed facilities or improvements to perform, and to absorb or avoid damage without suffering complete or substantial failure. As part of the review, identify additional risk assessment studies or tools that are available to evaluate the susceptibility of the facilities or improvements to natural and man-made events beyond the applicable established thresholds. Upon Owner request, as an additional service, perform additional risk assessment studies or tools to further evaluate system resiliency beyond the applicable established thresholds.

13. Utilities, including Underground Facilities

    a. Review any utility mapping and surveys and other utilities documentation made available by Owner. Take note of observable utilities during Site visit.

    b. Identify, in a preliminary manner and to the extent determinable by such mapping or other information provided by Owner, and by observations at the Site, those utilities (whether above-ground utilities of any type, or Underground Facilities) likely to be affected by the Project

construction and additional utility facilities or extensions that will be needed to serve the Project.

c. If the impact on existing utilities or the need for additional utility facilities or extensions cannot reasonably be determined in a preliminary manner from mapping or other information provided by Owner, or such information was not available from Owner, then assist Owner in evaluating the need to either obtain additional utility mapping and utility documentation during the Preliminary Engineering Assessment/Alternatives Analysis, or undertake other alternative approaches and contingencies to account for utility uncertainties in this phase.

d. Advise Owner of additional utility documentation and coordination needed during the design and construction phases to adequately assess, mitigate, and manage the impact of the Project (including any additional utility facilities or extensions needed to serve the Project) on existing utilities.

e. Use ASCE 38, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" to advise the Owner regarding the extent and identification and mapping of existing Underground Facilities during the design and construction phases.

14. Prepare a Preliminary Engineering Assessment Report (the "Report") which will, as appropriate, contain schematic layouts, sketches, and conceptual design criteria with appropriate exhibits to indicate the agreed-to requirements, considerations involved, and Engineer's recommended solution(s).

    a. For each recommended solution, Engineer will separately tabulate Total Project Cost, itemizing those items and services included within the definition of Total Project Costs.

    b. Engineer will meet with Owner to discuss the draft Report and receive Owner's comments.

15. Perform or provide the following other Preliminary Engineering Assessment/Alternatives Analysis tasks or deliverables:

    a. Establish the design criteria that will be used throughout the project.

    b. Corridor Traffic Analysis

        i. Process data for 11 intersection turning movement counts & 2 72-hour roadway segment counts as collected as an early-start contract. Supplement the data by utilizing 2021 traffic data from INDOT.

        ii. Apply adjustment factors to traffic count data, as appropriate, to account for data collection performed while school is out of session. Comparative traffic count data to be provided by Town of Munster to inform this adjustment or use of available 2021 INDOT traffic data.

        iii. Complete a field visit to verify existing roadway characteristics, including lane geometry and dimensions, regulatory signage, signal phasing and timings, and observed multimodal transportation operations and travel behaviors.

        iv. Summarize existing traffic count data for Ridge Road study corridor and Broadmoor Avenue.

v. Develop future traffic projections for one (1) design horizon for the study corridor, including:

1) Coordination with NICTD to obtain future ADT forecasts for Ridge Road and other parallel corridors (including Broadmoor Avenue) after completion of the proposed road diet.

2) Coordination with the Regional Development Authority (RDA) and Town of Munster officials to estimate one (1) scenario for additional Transit-Oriented Development along the Ridge Road corridor after completion of the West Lake Extension of the South Shore Line.

3) Design year to be identified in coordination with Town officials and the consultant team.

vi. Perform capacity analysis for Ridge Road study corridor under existing conditions and for one (1) future design scenario after implementation of the proposed road diet. Includes signal warrant analysis for Ridge Road/Jackson Avenue intersection under existing and future conditions.

vii. Prepare a high-level review of potential impacts to Broadmoor Avenue as a result of the proposed road diet. Provide recommended mitigation strategies.

viii. Provide recommendations to IEI to inform design development in accordance with the findings of the traffic analysis.

16. Furnish the Report and any other Preliminary Engineering Assessment/Alternatives Analysis deliverables to Owner pursuant to the requirements of the Deliverables Schedule in Exhibit B, and review the deliverables with Owner.

17. Revise the Report and any other Preliminary Engineering Assessment/Alternatives Analysis deliverables in response to Owner's comments, as appropriate, and submit revised deliverables pursuant to the Deliverables Schedule.

Engineer's services under the Preliminary Engineering Assessment/Alternatives Analysis will be considered complete on the date when Engineer has delivered to Owner the final Report (as revised) and any other Preliminary Engineering Assessment/Alternatives Analysis deliverables.

Deliverables:

The draft report prepared by the CONSULTANT shall be submitted directly to the Town of Munster project manager for review. The final report will be transmitted to the Town of Munster project manager for approval by the project's assigned due date. The Town of Munster approved report along with the appropriate number of copies (including an electronic version) will be transmitted for distribution to the Town of Munster project manager.

TASK 03 Environmental Services

All environmental services required to develop the appropriate level of documentation for this project shall be developed to meet the National Environmental Policy Act of 1969 (NEPA) regulations and, as appropriate, latest version for the NEPA and Indiana Department of Transportation (INDOT) Decision Making Process,

INDOT Procedural Manul for preparing Environmental Documents, and the INDOT Categorical Exclusion Manual. The final NEPA documentation shall be part of the Final Design process as it needs to be representative of the final design to be constructed.

The environmental document completed for this project will be coordinated, if needed, with the Environmental Scoping Manager at the INDOT LaPorte District, the INDOT Office of Environmental Services, and as required with the Federal Highway Administration (FHWA).

1. The preparation of then NEPA Document shall include the following services and environmental documentation:

    a. Red Flag Investigation (RFI) document

    b. Early coordination with various required local, state and federal agencies.

    c. Project corridor impact evaluation including:

        i. Ecological Evaluation Form.

        ii. Waters Report and wetland determination/delineation, if applicable.

        iii. Threatened and endangered species review (including Indiana Bat and Northern Long-Eared Bat Range-Wide Programmatic Informal Consultation).

        iv. Karst, Sole Source Aquifers, Wellhead Protection Areas, Ground Water, Surface Water and Drinking Water reviews.

        v. Floodplain review.

        vi. Farmland review and completion of the Farmland Conversion Impact Rating form (NRCS-CPA-106) for corridor type projects.

        vii. Section 6(f) (Land and Water Conservation Fund) and Section 4(f) (public park and recreation land, wildlife and waterfowl refuges and historic properties) reviews and documentation, as necessary.

        viii. Identification and recording of existing documentation in regard to the criteria air pollutants and the confom1ity status of the project.

        ix. Community Impacts, Indirect and Cumulative Impacts, Environmental Justice Analysis.

        x. Determination of the Regulatory Permits required for the project.

    d. Section 106 Consultation including, as appropriate:

        i. Preparation of a "no adverse effect" finding through consultation with the Indiana Department of Transportation (INDOT) Cultural Resources Section (CRS), if needed and the FHWA as required.

    e. Public Involvement: Attend public meetings/open house(s) as needed, and coordinate, present, and document the Public Hearing in accordance with NEPA practices.

2. Items not included with the Environmental Services listed above and, if required, shall be treated as additional services, are:

    a. Relocation Studies.

    b. Stream, Wetland, or Floodway Mitigation plans.

    c. Noise Analysis.

    d. Section 106 requiring an "adverse effect" finding and documentation.

    e. Preparation of a Memorandum of Agreement associated with 36CFR 800.11(e) for an "Adverse Effect."

    f. Endangered species studies or reports beyond the minimum early coordination review.

    g. Archaeological studies beyond a Phase 1a reconnaissance.

    h. Phase I or Phase II Environmental Site Assessment.

    i. Waterway permits including Section 401/404 and Construction in a Floodway.

Deliverables:

The environmental document and/or other studies will be transmitted to OWNER/FHWA electronically for review/approval. The CONSULTANT shall provide copies of all hard copies and electronic correspondence related to the project if specifically requested to do so by OWNER. Otherwise, the CONSULTANT shall maintain a full record of such correspondence for subsequent review by OWNER at their discretion

TASK 04 Topographic Survey Data Collection

When directed, the CONSULTANT shall survey the project location. The CONSULTANT shall obtain deeds of record, subdivision plats, survey plats, section corner location information, highway plans, and section or auditor plats for all properties within the project limits.

1. Field survey data shall conform with the requirements of Title 865 IAC 1-12 et sequential and the Indiana Design Manual, Part III, Location Surveys.
2. As a minimum the survey will include locating all visible features necessary for the proper design of the proposed improvements within the existing and proposed future right-of-way. This shall be done to ensure the most efficient design can be achieved which will minimize land acquisition and relocation costs. These features will include buildings, paved surfaces, shrubs, signs, poles, utilities, manholes, valves and meters, utility locations marked by others, trees equal to and larger than 12 inches and limits of heavily wooded areas.
3. Before field work commences, a IUPPS ticket will be submitted for utility locates along the project route. Any marks placed by the respective utilities or their locators will be tied into the survey and graphically shown on the finished product. As needed, coordination between the survey field crews and on-site utility locators will occur.
4. Sufficient elevation shots (Cross sections at 100 foot intervals maximum with any intermediate breaks included) will be taken so that 1-foot contours can be calculated from a created Digital Terrain Model. These contours will be included in the survey submittal. The survey swath will be

approximately 50 feet from the back edge of the existing sidewalks. In areas where buildings exist inside the 50 feet from back side of sidewalk, the survey will stop at the face of the building. Survey will extend approximately 250 feet to 300 feet north and south of the existing road centerline at each Public Road approach.

5. The Field Survey will be integrated with the United States Public Land System and physical monumentation as necessary to acquire Right of Way (if needed) for this project in accordance with Title 865 IAC 1-12 et sequential.
6. Research will be completed at the Lake County offices or any other entity to facilitate the determination of right of way and property lines.
7. Horizontal control points will be established at no more than quarter mile intervals.
8. Indiana Geospatial Coordinate System, Lake Zone, U.S. Survey Foot, coordinates will be utilized for this project. The design plans should reference these control points so that the survey control can be used to establish the construction centerline.
9. Permanent Vertical control points will be established at no more than quarter mile intervals.
10. If needed, a Location Control Route Survey Plat will be completed to facilitate Right of Way Engineering efforts.
11. If needed, title and encumbrance reports shall be prepared to document property records and be the basis for property acquisition. This work shall be completed by a third-party vendor as a direct expense to the contract on a per parcel basis which is inclusive of all research and copying requirements.

Deliverables:

The CONSULTANT shall provide OWNER with all survey information related to the project, as specified in the Indiana Design Manual (IDM). This includes: a certified survey field book, recorded Location Control Route Survey plat (if required), and all required electronic survey files as defined in the IDM. Deeds of Record, subdivision plats, survey plats, section corner location information and section or auditor plats for all properties within the project limits shall be submitted with Grade Review Plans or other early stage of plan development.

The signature, seal, date and registration number of the land surveyor, registered in the State of Indiana, who was in responsible charge of the survey, shall be affixed to the Survey Book submitted to OWNER, along with current contact information of the surveyor.

TASK 05 Geotechnical Services

The CONSULTANT shall provide the following services associated with this task:

1. Geotechnical recommendations and considerations for foundation soil improvement to support the new pavement, traffic signals, signage, and sewers.

2. Perform Subsurface exploration and a distress survey of the existing pavement along the project alignment.

3. Complete test borings and pavement cores at intervals and to depths in general accordance with INDOT guidelines and engineering judgement for the planned construction. This includes up to:

a. Six borings to 10 ft in depth along the alignment for pavement subgrade evaluation.

b. Six borings to 20 ft in depth along the alignment for pavement subgrade evaluation and sewer construction considerations.

c. Six borings to 40 ft for pavement subgrade evaluation, sewer construction considerations, and cantilever signals/gateway signage as warranted.

d. Five borings to 10 ft in depth adjacent to the percolation test locations.

e. Six pavement cores will be obtained to evaluate the existing pavement.

f. Five downhole percolation tests.

4. Provide a laboratory testing program sufficient to characterize the subsurface conditions and provide geotechnical pavement design parameters,

5. Prepare a geotechnical report. The report will summarize observations and test results and provide geotechnical recommendations for the planned construction.

6. Provide pavement designs for up to three alternatives to accomplish the improvements to the pavement. The alternatives will be selected based on the observations of the pavement, and we will include a cost estimate of the pavement items for comparison.

TASK 06 Road Design and Plan Development

PRELIMINARY DESIGN PHASE (Stage 1 Plans)

After acceptance by Owner of the Report and any other Preliminary Engineering Assessment /Alternatives Analysis deliverables selection by Owner of a recommended solution; issuance by Owner of any instructions for use of Project Strategies, Technologies, and Techniques, or for inclusion of sustainable features in the design, or enhanced resiliency of the design; indication by Owner of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner; and any necessary changes, refinements, and supplementation of the Baseline Information set forth at the beginning of this Appendix "A", Engineer and Owner shall discuss, resolve, and document in writing any necessary revisions to Engineer's scope of services, compensation (through application of the provisions regarding Additional Services, or otherwise), and the time for completion of Engineer's services, resulting from the selected solution, related Project Strategies, Technologies, or Techniques, sustainable design and resiliency instructions, specific modifications to the Project, or changes, refinements, or supplementation of the Baseline Information.

Upon written authorization from Owner, Engineer shall:

1. Review and assess all available Project information and data, including any pertinent reports or studies (whether prepared by Engineer or others) and any related instructions from Owner.

2. Based on the threshold review and assessment of available information and data, advise Owner of any need for Owner to obtain, furnish, or otherwise make available to Engineer any additional information and data, for Engineer's use in the preparation of a Stage 1 Submittal.

3. The Stage 1 Submittal will consist of preliminary drawings, a preliminary list of expected specifications, a preliminary opinion of Construction Cost, and written descriptions of the Project. The Stage 1 Submittal will consider the following matters to the extent applicable to the Project and as necessary to establish the basis of design for proceeding to final design and construction:

    a. The Project concept, intent, performance criteria, desired outcomes, Owner's standards and Owner directed improvements and facility elements as established in the Preliminary Engineering Assessment/Alternatives Analysis and as expressly set forth in the Baseline Information section of this Exhibit A (collectively the "Project Goals").

    b. Recommended appropriate design criteria for each primary portion and significant discipline of the design necessary to address the Project Goals.

    c. Site conditions and characterization as known at the time of, or to be determined during, the Preliminary Design Phase, including topography; subsurface information; Constituents of Concern; cultural, historical, and archaeological resources at the Site; wetlands information; and evaluations of flora and fauna that may be affected by the Project.

    d. The time schedule for completion of the Project in accordance with Project Goals, including any recommended changes to the time required to complete the Final Design Phase (as set forth in Exhibit B, Deliverables Schedule) and estimated schedule(s) for construction.

    e. Identification of major items of materials and equipment, rationale for selection with consideration of quality, suitability, pricing, sourcing, regulatory, and bidding issues affecting recommended selection.

    f. Revised opinions of probable Construction Cost.

    g. The impact of Project Strategies, Technologies, and Techniques, sustainable features, and enhanced resiliency selected by Owner for inclusion in the Project on the Project Goals, schedule and probable Construction Cost, including impact of multiple prime construction contracts, separate procurement of materials or equipment, and other alternate project delivery methods when the Project Goals necessitate and Owner authorizes;

    h. Construction Phase quality assurance and quality control needs affecting development of Drawings and Specifications and other Final Design and Bidding Phase documents.

    i. The effect of permits and authorizations by other entities and utility coordination needs on the Project.

    j. Other matters and information pertinent to addressing the Project Goals.

4. In preparing the Stage 1 Design Submittal, use any specific applicable Project Strategies, Technologies, and Techniques authorized by Owner during or following the Preliminary Engineering Assessment/Alternatives Analysis, and include sustainable features and enhanced resiliency, as appropriate, pursuant to Owner's instructions.

5. Topographical Survey – SEE TASK 04

6. Visit the Site as needed to prepare the Stage 1 Submittal.
7. If at any point in the Preliminary Design Phase it becomes apparent to Engineer that additional reports, data, information, or services of the types described in Article 2 are necessary, then so advise Owner, and assist Owner in obtaining such reports, data, information, or services.
8. Utility and Railroad Coordination Services – SEE TASK 09
9. Develop Landscape/Hardscape plans and specifications based upon work completed during the Town of Munster Calumet/Ridge Streetscape Master Plan (Master Plan) and based on design development.
    a. The concept package will be prepared based on the Master Plan and may include overall plans, enlargements, details, products and materials imagery and plantings. At a minimum, concept plans would address the following items:
        1) Hardscapes and pavements
        2) Site furnishings
        3) Gateway and wayfinding signage
        4) Landscape Plantings
10. Prepare initial draft of a comprehensive permit document that identifies Owner's permit duties, Engineer's permit duties, and Contractor's permit duties, and the schedule for permitting activities.
11. Continue to assist Owner with Project Strategies, Technologies, and Techniques that Owner has chosen to implement in Exhibit A Paragraph 1.03.A.
12. Obtain Owner's instructions, or make recommendation to Owner if none established, regarding Owner's procurement of construction services (including instructions regarding advertisements for bids, instructions to bidders, and requests for proposals, as applicable), Owner's construction contract practices and requirements, insurance and bonding requirements, electronic transmittals during construction, and other information necessary for the finalization of Owner's Bidding/Proposal Documents and Front-End Construction Contract Documents. It is anticipated that EJCDC 2018 Construction Series documents will be utilized for all Bidding/Proposal Documents.
13. Perform or provide the following other Preliminary Design Phase tasks or deliverables:
    a. Preliminary Field Check
        i. The preliminary field check meeting shall take place after the Stage 1 submission and prior to advancing to the final design phase.
        ii. The Owner and utilities shall be invited to attend to coordinate preliminary design elements.
14. Furnish the Stage 1 Submittal, opinion of probable Construction Cost, and any other Preliminary Design Phase deliverables to Owner pursuant to the requirements of the Deliverables Schedule in Exhibit B and review the deliverables with Owner.
        1) Revise the Report and any other deliverables in response to Owner's comments, as appropriate, and submit revised deliverables pursuant to the Deliverables Schedule.

Engineer's services under the Preliminary Design Phase will be considered complete on the date when Engineer has delivered to Owner the final Stage 1 Submittal (as revised) and associated documents, revised opinion of probable Construction Cost, and any other Preliminary Design Phase deliverables.

FINAL DESIGN PHASE

1. After acceptance by Owner of the Stage 1 Submittal and any other Preliminary Design Phase deliverables; issuance by Owner of any instructions for specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner; and any necessary changes, refinements, and supplementation of the Baseline Information set forth at the beginning of this Appendix "A", Engineer and Owner shall discuss, resolve, and document any necessary revisions to Engineer's scope of services, compensation, and the time for completion of Engineer's services, resulting from specific modifications to the Project, or changes, refinements, or supplementation of the Baseline Information.

    a. The number of prime contracts for Work designed or specified by Engineer upon which the Engineer's compensation has been established under this Agreement is one. If more prime contracts are awarded, Engineer shall be entitled to an equitable increase in its compensation under this Agreement.

    b. If more than one prime construction contract is to be awarded for the Work designed or specified by Engineer, then Owner shall define and set forth (in an exhibit to this Agreement, or in a subsequent document) the duties, responsibilities, and limitations of authority of a person or entity that will have authority and responsibility for coordinating the activities among the various prime Contractors, and any resulting changes in the duties, responsibilities, and authority of Engineer.

    c. In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime construction contract, or if Engineer's services are to be separately sequenced with the work of one or more separate design professional consultants or prime Contractors (such as in the case of fast-tracking), Owner and Engineer shall, prior to commencement of the Final Tracings Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding/Proposal, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable under such separate prime construction contracts. This schedule is to be prepared and included in or become an amendment to Appendix "A" whether or not the work under such construction contracts is to proceed concurrently.

2. Upon written authorization from Owner, Engineer shall prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor, in accordance with the Stage 1 Submittal (as revised) and other Preliminary Design Phase deliverables. As part of the preparation of the Drawings and Specifications, Engineer shall prepare interim drafts and final Drawings and Specifications as follows, pursuant to the Deliverables Schedule in Appendix "C":

    a. Stage 2 Design Submittal of all Drawings and Specifications, addressing Owner comments and including appropriate design advancement.

    b. Stage 3 Design Submittal of all Drawings and Specifications, addressing Owner comments and including appropriate design advancement.

    c. Final Tracings Submittal of all Drawings and Specifications that address Owner comments; complete the design; are suitable for estimating and pricing by prospective Contractors; and are complete and ready for construction.

3. In preparing the Specifications (and any bidding, contract, or other documents that are part of Engineer's scope of services), Engineer shall obtain from Owner, Owner's legal counsel, or as listed per the funding requirements any relevant constraints such as requirements for use of domestic steel and iron, other domestic purchasing requirements, statutory restrictions on utilizing proprietary specifying methods, and the like, and comply with or account for such constraints in drafting Specifications, Bidding/Proposal Documents, and other Project documents.

4. Engineer shall prepare or assemble draft Bidding/Proposal Documents and Front-End Construction Contract Documents as follows:

    a. Such documents will be based on the 2018 EJCDC Construction Documents, and on the specific bidding or Contractor selection-related instructions and forms, contract forms, text, or other content received from Owner.

    b. When Engineer is required to use other than the 2018 EJCDC Construction Documents, then as required in the Preliminary Design Phase Owner will furnish to Engineer a copy of the required documents to be used for the Project's Bidding/Proposal Documents and Front-End Construction Contract Documents. Prior to the first Final Design Phase submittal, Engineer will review the bidding and contracting documents furnished by Owner and provide comments to Owner. Engineer will meet with Owner to discuss Engineer's comments. Owner will consider Engineer's recommendations to revise Owner's documents for the Project.

    c. Engineer will furnish to Owner, for review by Owner's legal counsel, the draft Bidding/Proposal Documents and Front-End Construction Contract Documents. Owner and Owner's legal counsel must transmit to Engineer, in a timely manner, one coordinated set of comments and revisions to the draft documents.

5. During the Final Design Phase, the Engineer shall continue to account for above-ground utilities and Underground Facilities as the design advances and is finalized. This may include:

    a. performing the services assigned to Engineer under the Utility Coordination Services described in Exhibit A Paragraph 1.03 above, including but not limited to the design-related tasks in Exhibit A Paragraph 1.03.B.7.

    b. addressing required and proposed activities or mitigations identified in the analysis of utilities and by the Underground Facilities Procedure as having an impact on the final design and considering such in preparing the Drawings and Specifications.

6. Engineer shall perform or furnish the following other Final Design Phase services:

    a. Visit the Site as needed to assist in preparing the final Drawings and Specifications.

    b. Assist with or prepare applications for permits and approvals, as follows:

        1) Update comprehensive permit document created in Preliminary Design Phase for Final Design detail.

        2) Prepare the following applications for Owner's submittal to authorities having jurisdiction over the construction or operation of the Project:

            a) IDEM Construction Stormwater General Permit (CSGP).

        3) Confer with Owner regarding revisions, if any, to the application(s), and make appropriate revisions to the application(s) for Owner's resubmittal to the authority having jurisdiction.

4) Provide technical criteria, written descriptions, and design data for Owner's use in filing applications for permits from or approvals of the authorities having jurisdiction listed above, including applications for review or approval of the final design.

5) Identify and indicate in the Construction Contract Documents the permits and approvals for which Contractor will be responsible, including work permits, building permits, and other permits and approvals that will be Contractor's responsibility; and, in addition, indicate those permits initially obtained by Owner for which Contractor will be a co-permittee, together with associated requirements.

6) Unless expressly indicated otherwise, Engineer's scope and budget includes attending one meeting or conference call with each permit and approval-issuing agency to discuss the Project and receive the agency's comments on the application.

7) Engineer does not guarantee issuance of any required permit or approval.

8) Fees charged by authorities having jurisdiction for such permits or approvals are the responsibility of Owner.

c. Advise Owner of any recommended adjustments to the opinion of probable Construction Cost. Furnish to Owner an updated opinion of probable Construction Cost with the interim and final deliverables of the Drawings and Specifications.

d. After consultation with Owner, include in the Front-End Construction Contract Documents any Electronic Document Protocol addressing specific protocols for the transmittal of Project-related correspondence, documents, text, data, drawings, information, and graphics, in electronic media or digital format, either directly, or through access to a secure Project website.

e. Assist Owner in assembling known reports and drawings of Site conditions, and in identifying the technical data contained in such reports and drawings upon which bidders or other prospective contractors may rely.

f. Review the preliminary schedule for the Construction Phase and advise Owner when initial understanding of the Construction Contract Times must or should be revised, and furnish Owner with recommendations on revisions to the proposed Construction Contract Times.

g. Engineer's project manager and other appropriate staff will participate in the following meetings and conference calls:

1) Draft design review meeting at Owner's office.

2) Up to fifty (50) recurring project progress meetings.

3) Engineer will prepare and distribute minutes of each such meeting and conference call, indicating attendees, topics discussed, decisions made, and action items for follow-up.

h. Perform or provide the following other Final Design Phase activities or deliverables:

i. Final Field Check

1) The final field check meeting shall take place after the Stage 2 submittal and prior to the Stage 3 submittal.

2) The Owner and utilities shall be invited to attend to coordinate final design elements.

ii. Engineer shall provide Lighting Design services for the design project. Tasks to be performed are as follows:

1) Coordinate and determine the optimal light fixture, mounting height, and aesthetic needs of the roadway and pedestrian path.

2) Preliminary and final layout of lighting for the design project. Including lighting both the roadway and adjacent pedestrian path as required to typical roadway light level recommendations.

3) Voltage drop calculations and associated coordination with the Utility Coordination team in order to establish a service point and power requirements for the lighting design.

iii. Traffic Signal Plans

1) Engineer will provide drawings and specifications per Owner or INDOT standards for the six signalized intersections within the project limits.

iv. Roadway Signing and Pavement Markings

1) Engineer will provide drawings and specifications per Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), FHWA, and/or INDOT standards for roadway signing and pavement markings.

v. Based upon feedback received from the Landscape/Hardscape concept package, the final streetscape design will be developed. Associated elements of the streetscape design include:

1) Hardscape plans and details.

2) Site furnishings plans and details.

3) Gateway and wayfinding signage plans and details.

4) Planting plans and details.

7. Engineer shall complete the Final Design Phase as follows:

a. Pursuant to the requirements of the Deliverables Schedule in Exhibit B, furnish for review by Owner, its legal counsel, and other advisors, the final Drawings and Specifications (as set forth in Exhibit A Paragraph 1.04.B.3 above); assembled drafts of other Construction Contract Documents including the draft Front-End Construction Contract Documents; the draft Bidding/Proposal Documents; the most recent opinion of probable Construction Cost; and any other Final Design Phase deliverables, and review the deliverables with Owner.

b. Revise the final Design Phase deliverables in response to Owner's comments, as appropriate, and submit revised deliverables pursuant to the Deliverables Schedule.

c. Engineer's services under the Final Design Phase will be considered complete on the date when Engineer has delivered to Owner the final Drawings and Specifications; assembled drafts of the Front-End Construction Contract Documents; the draft Bidding/Proposal Documents; and any other Final Design Phase deliverables, as revised.

Deliverables:

The CONSULTANT shall submit deliverables to the OWNER in accordance with the Indiana Design Manual and Appendix "C"

TASK 07 Public Involvement

1. Engineer will schedule a kickoff meeting to discuss the detailed scope and schedule of the project public engagement plan. During the meeting the public engagement program, including identifying which design features will be open to public feedback will be necessary as the project progresses will be determined.

2. The website "munster-streetscape.org," which was developed for the Master Plan will be reinstated for use with this phase of the project. Website functions will generally match those in place during the Streetscape Planning efforts. The website will be hosted and updated to reflect design development with features such as a subscribe function, project history and background, documents download, links to community polls and visual preference surveys, and schedules of planned events.

3. Public Events:

    a. **Public Event #1: Mobile Workshop and Web-Based Poll**. During early engineering design, Engineer will develop a mobile workshop designed to reengage the community. The mobile workshop will focus on informing the community about the adopted Streetscape Plan, the current Ridge Road Complete Streets project and anticipated timeline. The workshop may include input activities designed to obtain community preferences for key streetscape items, such as on-street parking vs. rain garden areas along Ridge Road and gateway and wayfinding signage concept selections.

        i. The mobile workshop will be conducted as an online poll, supported by informative poster exhibits. The team would assist the Town with digital and printed distributions, such as social media, Town website, and postings at high visibility locations along Ridge Road and participating businesses. We will make use of community emails provided by past poll participants (450+ emails) to reengage in this project. Community inputs will be summarized into a user-friendly report to share back with the community. Input will be incorporated into the final design plans as appropriate.

    b. **Stakeholder Interviews**. Based on outreach conducted during the Master Plan and recommendations by Owner, Engineer will conduct stakeholder interviews with business and property owners located within the study area. The purpose of interviews is to share information about the project and to hear comments and concerns from business and property owners. Up to twenty (20) formal interviews with the lead Public Involvement personnel are anticipated. Interviews shall be conducted via teleconference or during pre-schedule, In-person interviews. The Engineer design staff will also conduct up to sixty (60) additional conversations via teleconference or pre-scheduled in-person interviews.

    c. **Public Event #2: Public Meeting and Open House**: Following engineering design refinement, Engineer will develop and host a public meeting and open house. The meeting will be designed to include a formal presentation followed by open house activities. The presentation and exhibits will share the final design plans. Final design plans will include technical drawings as well as illustrative exhibits developed to convey the Ridge Road streetscape spaces in three dimensions at key locations. The exhibits will also be developed to connect the final design plans back to the community inputs received during the Streetscape Master Plan. Community inputs will be collected and summarized into a user-friendly report to share back with the community. Input will be incorporated into the final design plans as appropriate.

d. **Public Event #3. Public Hearing**: A public hearing will be conducted to present the final engineering design plans. All exhibits and materials produced during public event #2 would be updated as required. The hearing would include a presentation followed by a public open house and a viewing of exhibits. Community input sheets will be available during the meeting and team members will also be available to address questions and provide interpretation of the documents.

TASK 08 Right of Way Plan Development

1. Right of Way Engineering

   a. The CONSULTANT shall be responsible for activities necessary to certify that the right-of-way has been acquired and the project is clear for construction letting.

   b. The CONSULTANT shall prepare final right-of-way plans, title research, legal descriptions, route survey plats or right-of-way parcel plats, acquisition instruments and other materials to be used in the acquisition of right-of-way in accordance with the Right-of-Way Engineering Procedure Manual, hereinafter called the MANUAL and 865 I.A.C. 1-12.

   c. The CONSULTANT shall compare and study the title information and survey data furnished with it. The CONSULTANT shall write the legal description of every right-of-way parcel in conformity with the MANUAL. Documents, plats and plans prepared by the CONSULTANT are to be checked by the CONSULTANT prior to submittal to INDOT. Documents and plats requiring a seal under this Contract may not be reviewed by INDOT for content.

   d. If the plans, aerial mosaics, title information and surveys are furnished to the CONSULTANT, there is no expressed or implied guarantee that conditions so indicated are entirely representative of those actually existing, or that unforeseen developments will not occur. The CONSULTANT is required to examine carefully all such data and satisfy itself as to the actual conditions. In case of any obvious discrepancy between the information furnished by the OWNER and the actual conditions of the locality, or in case of errors or omissions in said information supplied by the OWNER, the CONSULTANT shall make such corrections or additions on the plans, plats, strips, maps, or mosaics as necessary for the proper carrying out of its services. The CONSULTANT is assumed to have made itself familiar with the plans, aerial mosaics, and surveys, and it shall not plead that OWNER or the CONSULTANT, if any, who prepared those materials should assume responsibility for adding the information thereto as required by this Contract and by the MANUAL. It shall be the CONSULTANT'S duty to immediately inform the OWNER, in writing, of any such defect, error or omission which cannot be resolved without additional title search or field survey, or which cannot be made without altering the design extent or character of the right-of-way limits as shown by the OWNER before proceeding on this portion of the work.

   e. The CONSULTANT may, with prior written approval of the OWNER, undertake additional title research in order to resolve errors or omissions in provided abstracting, as may be deemed necessary by the OWNER for the purpose of completing the work included in this Contract.

f. The CONSULTANT may, with the prior written approval of the OWNER, undertake field surveys for the purpose of checking title of plan data and/or for the acquisition of vital locative and boundary information which is not contained in existing records, as may be considered necessary to complete the work included in this Contract.

g. The CONSULTANT may, when requested in writing from the OWNER, undertake additional field work, such as right-of-way staking or general layout, as specifically instructed by the OWNER. Each right-of- way (parcel) plat and each sheet of legal description and access control clause issued by the CONSULTANT shall be dated and shall bear the signature and seal of the Registered Land Surveyor (Indiana) by whom the same is prepared, or under whose personal supervision the same is prepared by his/ her regularly employed subordinates, and for which he/she takes full responsibility. The CONSULTANT shall bear the responsibility of recording the plats which it prepares.

h. The CONSULTANT shall provide to the OWNER, on appropriate electronic media, a copy of prepared legal descriptions, computer generated land plats and calculated coordinate points that relate to the work.

i. The CONSULTANT agrees to attend such conferences with the officials of the OWNER and other interested agencies, as may be required, in connection with the work. The CONSULTANT will make its services available to the OWNER during the land appraising and acquisition for the interpretation of its work where disagreement may arise. The CONSULTANT will be available during appraising and acquisition in the event unforeseen orunusual conditions arise.

j. The CONSULTANT shall review the construction plans to verify that the right-of-way lines shown match those shown on the final right-of-way plans prior to submitting final construction plans.

Deliverables:

The CONSULTANT shall furnish the Right-of-Way Plans in accordance with Chapter 85 of the Indiana Design Manual. The CONSULTANT will submit each parcel file to INDOT upon completion of the described services.

2. Title Research Services (If Required)

   a. Preparation of Title and Encumbrance Reports – Permanent Right-of-Way

      i. <u>COVER SHEET</u>

         1) The Title and Encumbrance Report cover sheet shall be similar to the INDOT standard report or as directed by the OWNER.

         2) The cover sheet of each Title and Encumbrance Report shall be identified with the Project Number, County, Political Township, Parcel Number, Road Number, and the name of the presumptive fee owner as shown on the right-of-way plans.

         3) A brief legal description shall be provided, including the quarter section or subdivision lot number, section number, township and range numbers

(including direction), the acreage (unless in subdivision), and the assessed values of the land and improvements.

4) The record owner(s), as of the certification date, shall be identified as shown in the instrument vesting title in them. The address of the record owner(s) and recording information shall also be provided.

5) Active mortgages shall be shown on the cover sheet. If multiple mortgages are active, a note may be used to direct the reader's attention to the chain of title.

6) Judgments, easements and tax information shall be identified by the applicable entry numbers from the chain of title. The status of the taxes shall be noted on the cover sheet.

7) The cover sheet shall include the certification statement shown below. The CONSULTANT performing the search shall sign and date the cover sheet.

ii. CAPTION

1) Page 2 shall begin with the identification of the property covered by the Title and Encumbrance Report, hereinafter referred to as the caption. The caption shall be identified by the instrument number of the instrument conveying title to the current fee owner. Sell-offs shall be identified in the same manner. See Section a.iv. for more information pertaining to the caption.

iii. CONTIGUOUS PROPERTY

1) A statement regarding contiguous property shall follow the caption identification. See Section a.v. for more information pertaining to contiguous property.

iv. CHAIN OF TITLE

1) The chain of title shall be presented as entries which address conveyances and encumbrances that affect the caption property. The entries shall be listed chronologically, by date, from the oldest to the newest.

2) The chain of title shall begin with the first conveyance of the caption property which falls at least twenty years prior to the day of the search and provides an adequate legal description. Each instrument which conveys or encumbers the caption, or a portion thereof, shall be listed as an entry in the chain of title. A copy of each instrument shall be attached to the Title and Encumbrance Report and labeled as to its respective entry number and the recorded book and page (or instrument) number.

3) Each entry in the chain of title which conveys the caption, or a portion thereof, shall include the following information: grantor, grantee, type of conveyance or legal action, and recording information.

4) Sell-offs from the caption shall be identified as such and accepted. A copy of

the conveyance from the owner of the caption shall be attached. In additions, instruments referred to in the caption description, or required to define the caption description, shall be copied and attached.

5) If the real estate described in the caption is part of a subdivision, one legible copy of the subdivision plat shall be furnished, including the complete metes and bounds description, dedication, approvals and certificates, etc. One legible copy of the subdivision plats for other subdivisions named in the instruments which convey the caption, or a portion thereof, shall also be furnished.

6) In the event that the last conveying instrument contains an incomplete or faulty legal description, the CONSULTANT shall make a note to that effect

7) When it is necessary to use the legal descriptions from two or more conveying instruments to formulate the caption, each legal description shall be given a tract number for reference purposes.

8) Easements shall be fully described as to grantor, grantee, and complete recording information. A copy of the instrument shall be attached. Blanket easements which affect the entire caption may be described with a statement to that effect.

9) Leases, liens, mortgages, assignments of rent, etc. shall be identified and described by the same method used for easements. In addition, subsequent assignments shall be shown.

10) The tax statement shall be the last entry and include the following information: the name under which the real estate is assessed, the political township, the "Key" number (with each tract identified, if applicable), the amount and current status of the taxes.

11) Defects in the chain of title shall be accompanied by the title researcher's note explaining the defect.

v. <u>CONTIGUOUS PROPERTY</u>

1) A search for contiguous property is required for the Department's Engineering and Condemnation procedures.

2) Contiguous property is property that is owned by the same entity as the caption and 1) has "unity for use" with the caption property, 2) is conveyed in the caption instrument or instruments, or 3) is adjacent to the caption property.

3) Property conveyed in the caption conveyance must be accounted for. It is either contiguous property (requiring a statement to that effect); has been sold off (requiring a copy of the instrument of conveyance); or is beyond a one mile radius of the caption property (requiring a statement to that effect).

4) Property that is known to have "unity of use" with the caption property shall

be shown as contiguous property.

5) Property that is indicated on the plans supplied by the Department as being owned by the same entity as owns the caption property should be accounted for as contiguous. A statement indicating that contiguous property instruments are attached will suffice.

6) A statement indicating that no contiguous property was found is required when none of the above conditions have been met.

7) No liability shall be incurred by the CONSULTANT regarding contiguous property.

vi. AUDITOR/ASSESSOR PLATS

1) The CONSULTANT shall provide one copy of the Auditor's or Assessor's plat(s), which covers the project area, and one copy of any applicable subdivision plat(s).

vii. GENERAL

1) Each Title and Encumbrance Report and the attachments thereto shall be submitted in DUPLICATE.

2) If there are any questions concerning the information required, or any problems that need to be discussed, please feel free to contact the appropriate District Real Estate Manager.

3) The CONSULTANT agrees to testify in court in behalf of the State on title work prepared under this contract should he/she be required to do so by the Department. In consideration for actions taken by the CONSULTANT, the Department will agree in writing to fees for testimony prior to the date the CONSULTANT must testify.

4) The CONSULTANT agrees to follow accepted principles and techniques as shown and necessary interpretation of these furnished by the Department. A parcel that does not meet such requirements shall be further documented without additional compensation to the CONSULTANT

b. Preparation of Title and Encumbrance Reports – Temporary Right-of-Way

i. COVER SHEET

1) The cover sheet shall follow the format as found in the certification statement shown above with the words "TEMPORARY R/W" added to the title.

2) The cover sheet of each Temporary R/W Title and Encumbrance Report shall be identified with the Project Number, County, Political Township, Parcel Number, Road Number, and the name of presumptive fee owner as shown on the right-of-way plans

3) A brief legal description shall be provided, including the quarter section or

subdivision lot number, section number, township and range numbers (including direction), the acreage (unless in subdivision) and the assessed values of the land and improvements.

4) The record owner(s), as of the certification date, shall be identified exactly as shown in the instrument vesting title in them. The address of the record owner(s) and complete recording information shall also be provided.

5) No mortgage search is required for temporary R/W.

6) No judgment or easement searches are required for temporary R/W.

7) The status of the taxes shall be noted on the cover sheet.

8) The cover sheet shall include a certification statement which indicated that the search was abbreviated for temporary R/W purposes only. The CONSULTANT performing the search shall sign and date the cover sheet.

ii. CAPTION

1) Page 2 shall begin with the identification of the property covered by the Title and Encumbrance Report, hereinafter referred to as the caption. The caption shall be identified by the instrument number of the instrument conveying title to the current fee owner. Sell-offs shall be identified in the same manner. See Section a.iv. for more information pertaining to the caption.

iii. CONTIGUOUS PROPERTY

1) A statement regarding contiguous property shall follow the caption identification. See Section a.v. for more information pertaining to contiguous property.

iv. TAXES

1) The "key" number and current status of the taxes shall be noted. Any delinquent taxes shall be identified.

v. GENERAL

1) The CONSULTANT shall furnish a copy of the deed(s) which conveyed the caption to the current fee owner and any sell-offs.

2) Each Title and Encumbrances Report and the attachments thereto shall be submitted in DUPLICATE.

c. Supplemental Title and Encumbrance Reports (Updates)

i. When requested, the CONSULTANT shall provide title work from the date of the original Title and Encumbrance Report to the present date. The CONSULTANT shall provide the following, in duplicate:

1) A cover sheet which identifies changes and the associated recording

documents. In addition, the CONSULTANT shall note the current status of the taxes.

2) Copies of documents recorded since the date of the original Title and Encumbrance Report which affect the caption property.

TASK 09 Utility and Railroad Coordination

All utility coordination services are under the direction of an INDOT Oversight Agent who coordinates with the Project Manager.

The CONSULTANT shall act as a liaison between utility companies and OWNER, answering questions, interpreting plans, coordinating activities, and other actions as needed.

The CONSULTANT shall remain on-point during the construction phase of the project and be pro- active in resolving any utility related issues, facilitating utility relocation work and ensuring utility relocation work is done on schedule so there are no project delays due to utility work.

1. CONSULTANT shall perform utility coordination which shall include the following in accordance with 105 IAC 13 "Utility Facility Relocation on Construction Contracts" for INDOT and federal-aid local projects:

    a. Utility Coordination Project Management, project meetings, and monthly reports

    b. Utility coordination for Environmental Documentation, and utility commitment resolution from environmental document commitment list

    c. Submit Indiana 811 tickets via the Exactix software to get existing utilities located throughout the project scope limits to be surveyed by topographic survey crews once onsite. Scope includes monitoring utility responses through phone calls and emails to ensure locates get completed onsite, and escalating to established project utility coordination contacts if necessary to get onsite locates completed.

    d. Perform IUPPS 811 Design Ticket and area research to determine utilities in the area of the project.

    e. Send out Initial Notice Letters for preliminary contact to all utilities, both public and private, to establish: a point of contact, the location of the utility's facilities within the field survey limits, and documentation of reimbursable property interests if any.

    f. Send out Verification of Existing Facility Letters and plans to all utilities, review response information as they are obtained and update / coordinate the update of the project topographical information.

    g. Notify utilities of the preliminary field check meeting and attend to discuss both locations of existing facilities shown on the plans and potential conflicts between the utilities and the proposed project.

    h. Send out Conflict Analysis Letters to all utilities with revised plans and utility information based on responses from Verification of Existing Facilities and discussions at the Preliminary Field Check to verify any remaining conflicts with the proposed improvements for the project.

i. Review project proposed right-of-way and construction limits with Project Manager against potential utility relocations.

j. Send out Preliminary Final Plans, Requests for Work Plans Letters and Work Plan Documents to each utility. AutoCAD files will be prepared and sent to utilities upon request.

k. Review Utility Relocation Work Plans and Relocation Drawings for possible conflicts with the proposed improvements for the project, and for conflicts between additional utilities and their proposed relocations.

l. Coordinate a final utility coordination meeting if necessary to discuss utility relocations with all relevant utilities.

m. Final meeting with Project Manager to review project construction limits against utility relocations.

n. Prepare, route and coordinate any agreements necessary for utility relocations.

o. Prepare utility special provision and utility relocation Gantt chart for final submittals.

p. Issue all approved work plan letters to the utilities unless otherwise directed by the Owner.

2. Utility Coordination Plan Set Development

   a. Engineer shall develop a utility coordination plan set to show utility topographic information, proposed utility relocating utility locations, and retired-in-place utilities which shall include the following:

      1) Convert project topographic utility information into color and assign utility named layers.

      2) Setup and cut sheets for utility coordination plan set.

      3) Coordination of project information and review of plan set.

      4) Update plans to show relocating and retired facilities per work plans.

3. Utility Relocation Inspection and Staking

   a. Engineer shall perform utility relocation inspection which shall include having construction supervision staff onsite as-needed between final design and notice-to-proceed on construction inspection. The construction supervision staff shall coordinate and attend utility relocation field meetings as necessary, coordinate with the utility coordinator, perform inspection and oversight on all utility relocations on as as-needed basis to help ensure utility facilities are relocated according to their approved work plans.

   b. Engineer shall perform staking of the right-of-way, proposed structures, or other design items necessary for utilities to perform their relocation prior to the contract being let on an as needed basis.

4. Subsurface Utility Engineering (SUE)

a. SUE Coordination and Survey – Engineer shall perform SUE coordination and SUE survey in support of providers Subsurface Utility Investigation (SUI) efforts on an as needed basis which shall include the following:

    1) Prepare SUI plans for use by the provider and coordinate to ensure their efforts cover the SUI scope.

    2) Supervise all SUI efforts to ensure proper locations are potholed and located.

    3) Coordinate sending survey crew back onsite to pick up exact locations and elevations of potholed utilities.

    4) Process survey pothole pickup data.

    5) Review providers SUI submittal information.

    6) Coordinate incorporation of necessary SUI information into project plans and specifications.

b. Subsurface Utility Inspection (Provided by 3rd Party Vendor as an expense)

    1) Engineer shall cause to be made a complete subsurface utility investigation, including but not limited to test holes (QL-A), locate services (QL-B), ground penetrating radar (GPR), and jetting/cleaning and televising pipes, to identify the project's known conflict points and missing utility location information needed to complete the project.

5. Railroad Coordination Services

a. Engineer shall provide coordination services with NICTD and their representatives for the reconstruction of Ridge Road. Railroad Coordination Services include:

    1) Make initial contact with railroad to establish coordination contact information.

    2) Coordinate early coordination meeting(s) with INDOT & Owner (two max).

    3) Initiate requesting preliminary engineering fee and agreement from railroad.

    4) Coordinate Preliminary Engineering (PE) Agreement & cost with railroad.

    5) Issue NTP and PO to railroad authorization to begin preliminary engineering.

    6) Meet with the railroad for a preliminary field check.

    7) Provide assistance as needed to advance coordination between the LPA and railroad.

    8) Provide assistance as needed to coordinate between railroad and existing and relocating utilities for the project.

    9) Prepare railroad construction agreement and route for signatures.

    10) Prepare required railroad final documents, permits, etc.

    11) Attend pre-construction meeting / construction phase railroad kick-off meeting.

12) Remain on-call to attend meetings, etc. during construction.

13) Attend final construction close out meeting with railroad.

6. EXCLUSIONS:

   a. Coordination with railroad for the installation or relocation of LPA's or other private utilities within railroad limits.

   b. INDOT & Owner fees associated with Railroad (permits fee, Preliminary Engineering Agreement Costs, Final Construction Phase / Force Account Agreement costs).

TASK 10 Post Design Services

BIDDING/PROPOSAL PHASE SERVICES

1. After acceptance by Owner of the final Drawings and Specifications; assembled drafts of other Construction Contract Documents, including the draft Front-End Construction Contract Documents; the draft Bidding/Proposal Documents; the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and any other Final Design Phase deliverables, and upon written authorization by Owner to proceed, Engineer shall:

   a. Assist Owner in advertising for and obtaining bids or proposals for the Work; assist Owner in issuing assembled Bidding/Proposal Documents and proposed Construction Contract Documents to prospective contractors; if applicable, maintain a record of prospective contractors to which documents have been issued; attend pre-bid conferences, if any; and receive and process contractor deposits or charges, if any, for the issued documents.

   b. Prepare and issue addenda as appropriate to clarify, correct, or change the issued documents.

   c. If the issued documents require, the Engineer shall evaluate and determine the acceptability of "or equals" and substitute materials and equipment proposed by prospective contractors, provided that such proposals are allowed by the bidding-related documents (or requests for proposals or other construction procurement documents) prior to award of contracts for the Work.

   d. Attend the bid opening; prepare bid tabulation sheets; and assist Owner in evaluating bids or proposals, assembling final Construction Contracts for the Work for execution by Owner and Contractor, and in preparing notices of award to be issued by Owner for such contracts.

   e. Provide information or assistance needed by Owner in the course of any review of bids, proposals, or negotiations with prospective contractors.

   f. Consult with Owner as to the qualifications of prospective contractors.

   g. Consult with Owner as to the qualifications of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors, for those portions of the Work as to which review of qualifications is required by the issued documents.

   h. If Owner engages in negotiations with bidders or proposers, assist Owner with respect to technical and engineering issues that arise during the negotiations.

i. Perform or provide the following other Bidding/Proposal Phase tasks or deliverables:

1) Contractor outreach to promote the project in order to receive as many bids as possible.

j. The Bidding/Proposal Phase will be considered complete upon award of Construction Contracts for the Work and commencement of the Construction Phase, or upon cessation of negotiations with prospective contractors.

CONSTRUCTIN PHASE SERVICES

Following the award of the construction Contract, the CONSULTANT shall be responsible for attending the pre-construction meeting. During the course of construction, the CONSULTANT shall be available at reasonable times during normal working hours to respond to reasonable inquiries concerning the accuracy or intent of the CONSULTANT's plans. All such inquiries shall be made only by persons designated by the OWNER to interpret the plans and Contract documents for the benefit of the contractors and subcontractors performing the work. The CONSULTANT shall not be required to respond to inquiries by persons other than the OWNER's designated representative and shall not be required to engage in exhaustive or extensive analysis or interpretation of the plans.

The CONSULTANT shall not be required to furnish or perform services contrary to Engineer's responsibilities as a licensed professional.

The following services are anticipated for this task:

1. Pre-Construction Conference: Participate in a pre-construction conference prior to commencement of Work at the Site; prepare and distribute agenda for the conference and prepare and distribute minutes of such conference.

2. Electronic Transmittal Protocols: If the Construction Contract does not establish protocols for transmittal of Electronic Documents by Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.

3. Original Documents: If requested by Owner to do so, maintain and safeguard during the Construction Phase at least one original printed record version of the Construction Contract Documents, including Drawings and Specifications signed and sealed by Engineer and other design professionals in accordance with applicable Laws and Regulations. Throughout the Construction Phase, make such original printed record version of the Construction Contract Documents available to Contractor and Owner for review.

4. Schedules: Receive, review, and, subject to the criteria of the Construction Contract, determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the progress schedule, schedule of submittals, and schedule of values. Advise Contractor in writing of Engineer's comments or acceptance of schedules.

    a. Schedules will be acceptable to Engineer as to form and substance:

    b. Contractor's Schedule of Submittals: if it provides a workable arrangement for reviewing and processing the required Submittals.

c. Contractor's Schedule of Values: if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

5. Permits: Provide Owner with copies of technical information and supporting data previously obtained or developed by Engineer for Owner's use, or for Owner to provide to Contractor, in obtaining required permits and licenses delegated to Contractor by Owner.

6. Visits to Site and Observation of Construction: In connection with observations of Contractor's Work while it is in progress:

   a. Make visits to the Site at intervals appropriate to the various stages of the Work, at approximately monthly intervals during periods of active construction, to observe as an experienced and qualified design professional, the progress of Contractor's executed Work. Such visits and observations by Engineer, including its RPR, if any, are not intended to be exhaustive or to extend to every aspect of the Work or to involve detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Construction Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment, as assisted by its RPR, if any. Based on information obtained during such visits and observations, Engineer will determine in general if the Work is proceeding in accordance with the Construction Contract Documents, and Engineer shall keep Owner informed of the progress of the Work. Engineer will make a report of Engineer's visit, summarizing Engineer's general observations and any significant findings.

   b. The purpose of Engineer's visits to the Site, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to by this Agreement and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Construction Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Construction Contract Documents. Engineer will not, during such visits or as a result of such observations of the Work, supervise, direct, or have control over the Work, nor will Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, for security or safety at the Site, for safety precautions and programs incident to any Constructor's work in progress, for the coordination of the Constructors' work or schedules, nor for any failure of any Constructor to comply with Laws and Regulations applicable to furnishing and performing of its work. Accordingly, Engineer neither guarantees the performance of any Constructor nor assumes responsibility for any Constructor's failure to furnish or perform the Work, or any portion of the Work, in accordance with the Construction Contract Documents.

7. Defective Work: If, on the basis of Engineer's observations or as indicated in documentation available to Engineer, Engineer believes that any part of the Work is defective under the terms and standards set forth in the Construction Contract Documents, Engineer will promptly issue written notice to Owner (with copy to RPR) of such defective Work. Such notice will communicate the scope, extent (to Engineer's understanding) of defect, and associated provisions of the Construction Contract Documents.

a. Provide recommendations to Owner regarding whether Contractor should correct such Work or remove and replace such Work, or whether Owner should consider accepting the defective Work in accordance with the provisions of the Construction Contract Documents. Engineer shall give notice to Contractor regarding whether the defective Work should be repaired, replaced, or will be accepted by Owner.

b. However, Engineer's authority to provide this information to Owner or Engineer's decision to exercise or not exercise such authority will not give rise to a duty or responsibility of the Engineer to Contractors, Subcontractors, material and equipment suppliers, their agents or employees, or any other person(s) or entities performing any of the Work, including but not limited to any duty or responsibility for Contractors' or Subcontractors' safety precautions and programs incident to the Work.

8. Compatibility with Design Concept: If Engineer has express knowledge that a specific part of the Work that is not defective under the terms and standards set forth in the Construction Contract Documents is nonetheless not compatible with the design concept of the completed Project as a functioning whole, then inform Owner of such incompatibility, and provide recommendations for addressing such Work.

9. Clarifications and Interpretations: Accept from Contractor and Owner submittal of all matters in question concerning the requirements of the Construction Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Construction Contract Documents. With reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Construction Contract Documents.

10. Non-reviewable Matters: If a submitted matter in question concerns the Engineer's performance of its duties and obligations, or terms and conditions of the Construction Contract Documents that do not involve (a) the performance or acceptability of the Work under the Construction Contract Documents, (b) the design (as set forth in the Drawings, Specifications, or otherwise), or (c) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer will not provide a decision or interpretation.

11. Field Orders: Subject to any limitations in the Construction Contract Documents, Engineer may provide documentation and review necessary for the RPR to prepare and issue Field Orders requiring minor changes in the Work.

12. Change Orders and Work Change Directives: Engineer may Recommend Change Orders and Work Change Directives to Owner, as appropriate, and may provide documentation and review necessary for the RPR to prepare Change Orders and Work Change Directives as required.

13. Change Proposals and Claims

a. Review and respond to Change Proposals. Review each duly submitted Change Proposal from Contractor and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer will not resolve the Change Proposal.

b. Provide information or data to Owner regarding engineering or technical matters pertaining to Claims.

14. Differing Site Conditions: Respond to any notice from Contractor of differing site conditions, including conditions relating to Underground Facilities such as utilities, and hazardous environmental conditions. Promptly conduct reviews and prepare findings, conclusions, and recommendations for Owner's use subject to limitations of Engineer's obligations under this Agreement.

15. Contractor's Submittals: Review and approve or take other appropriate action with respect to required Contractor Submittals, but only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Construction Contract Documents, and for compatibility with the design concept of the completed Project as a functioning whole as indicated by the Construction Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's Submittal schedule that Engineer has accepted.

16. Substitutes and "Or-equals": Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor.

17. Contractor's Completion Documents: Receive from Contractor, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates, or other evidence of insurance required by the Construction Contract Documents, certificates of inspection, tests and approvals, and Shop Drawings, Samples, and other data approved as provided under Item 15 of this Task listed above. Receive from Contractor, review, and transmit to Owner the annotated record documents which are to be assembled by Contractor in accordance with the Construction Contract Documents to obtain final payment. The extent of Engineer's review of record documents will be to check that Contractor has submitted a complete set of those documents that Contractor is required to submit.

18. Substantial Completion: Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, visit the Site in company with Owner, RPR, and Contractor to review the Work and determine the status of completion. Follow the procedures in the Construction Contract regarding the preliminary certificate of Substantial Completion, punch list of items to be completed, Owner's objections, notice to Contractor, and issuance of a final certificate of Substantial Completion. Assist Owner regarding any remaining engineering or technical matters affecting Owner's use or occupancy of the Work following Substantial Completion.

19. Completion and Acceptability of the Work: After notice from Contractor that the Work is complete:

    a. visit the Site with Owner, RPR, and Contractor to determine if the Work is in fact complete and acceptable.

    b. notify Owner with copy to RPR of any part of the Work that is found during the visit to be incomplete or defective, and subsequently confirm that Contractor has corrected any such deficiencies.

    c. follow the procedures in the Construction Contract regarding review and response to Contractor's application for final payment and accompanying documentation.

d. if Engineer is satisfied that the Work is complete and acceptable, provide a notice to Owner and Contractor using EJCDC® C-626, or similar, Notice of Acceptability of Work (attached as Exhibit E), stating that the Work is acceptable (subject to the provisions of the Notice and this Exhibit A) within the limits of Engineer's knowledge, information, and belief, and based on the extent of the services provided by Engineer under this Agreement.

20. Standards for Certain Construction-Phase Decisions: Engineer will render decisions regarding the requirements of the Construction Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth in the Construction Contract for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.