

December 21, 2020

Daryl K. McConnell, PLS
City of Auburn
210 E Ninth St. / PO Box 506
Auburn, IN 46706

**Proposal to Provide Professional Engineering Services
for the Morningstar Road Pedestrian Bridge
City of Auburn, IN.**

A&Z Engineering, LLC (A&Z) would like to thank you and the City of Auburn (CITY) for the opportunity to submit this fee proposal to provide Professional Engineering Design Services for the City of Auburn Morningstar Road Pedestrian Bridge Project.

The City desires to connect a pedestrian bridge (walkway) with railing to the southside of the existing Morningstar Road Bridge, which spans over Cedar Creek Ditch. Also, to install an 8-foot-wide x 50-foot-long concrete trail approach on each side. The work also includes selective topographic surveying, bridge design, permit applications, bid and construction phase services for the CITY.

Introduction

The A&Z team will provide a fee proposal for the engineering design services for the project scope that has been determined from a City request for proposal that was advertised on December 15, 2020. A summary of the proposed fees by categories requested by the CITY is presented below. In addition, we have listed several clarifications or assumptions that affected our fee along with some potential scope items that may be required later.

Scope of Work

Topographic Surveying

- A&Z to begin the process of gathering existing data and initiating topographic survey for any needed elevation and to determine existing ditch's top of bank elevation and known property corners/lines.
- CITY will assist by calling 811 utility locates.
- CITY to provide written permission to access properties
- CITY will provide existing elevations for final pedestrian bridge design profiles to assist in tying in proposed structure.
- A&Z to prepare standard title sheet, index sheet with control points and TBM list, multiple plan sheets for design on CITY provided GIS / AutoCAD aerial images, plan and profile sheets for Morningstar Road and Pedestrian Bridge layout.
- A&Z to prepare standard detail sheet with City of Auburn construction standard details as accessed from email link previously provided.
- CITY provided any existing GIS data (if available) and plan sheets in PDF format & AutoCAD format.

30% Design Documents

- Preliminary Pedestrian Bridge Construction Layout will be presented to City staff – We will complete a preliminary pedestrian bridge layout showing the proposed bridge structure section and elements that make up the new pedestrian structure.
- A&Z will present to City Staff an alternate design option for review and approval. If desired, A&Z will provide construction cost estimate related to proposed alternate before moving forward to 60% design submittal.
- A&Z will contact GME Testing Inc who will undertake field investigations and laboratory testing for soils in the project area to assist in foundation design.
- A&Z and Earth Source will begin the process of erosion control and permitting for approval.
- Utility Coordination – A&Z will identify existing utilities at the project locations and their impact on the proposed pedestrian bridge and obtain utilities workplans if needed.

60% Design Documents

- A&Z to prepare 60% design drawings including refined design and notes based on the City 30% and comments.
- A&Z will prepare initial site restoration details following the City of Auburn construction standards.
- The CITY will provide design criteria for bridge design to share with DeKalb County regarding existing RW and bridge and for the permit application.
- A&Z to investigate any potential utility conflicts where relocations may be needed.
- A&Z to prepare draft bid specifications and construction cost estimates.
- Meet with the City to review design, construction cost estimate, potential utility conflicts and after receiving their comments move forward to the 95%/100% bid documents phase.
- An Indiana Department of Natural Resources (IDNR), Construction in Floodway permit is anticipated.
- Drainage Board Application with illustration of plans & details
- Attend Drainage Board Hearing
- Prepare DeKalb County Floodplain Development Application (if required)
- Rule 5 erosion control permit is anticipated as the project will likely disturb more than 0.5 acres of land.

95% Design/100% Bid Documents

- A&Z to prepare 95% design drawings including refined design and notes based on the City 60% and comments.
- A&Z to provide updated construction cost estimate for base bid and alternate bids and bid documents including special provisions, bid form, form 96, three (3) e-verify documents, providing ad to CITY for publishing in DeKalb Star, etc., required for contractor bidding.
- Meet with City to review 95% design and after receiving final review comments make changes to complete the 100% bid documents phase.

Permit Applications

- Drainage board application with illustration plan and detail
- Attend Drainage Board Hearing.
- Permits applications anticipated are:
 - IDNR Construction in the Floodway
 - IDEM Rule 5 (if required).
- Permit applications will begin when the CITY is comfortable that applicable design will not change significantly.
- CITY will provide supplemental local information needed to complete draft applications.
- Earthsource Inc will prepare initial permit applications for the CITY to review and provide comments.
- CITY to pay any application or permit fees.
- Earthsource Inc to submit all permits and address any regulatory comments.

Bidding Services

- A&Z to provide three (3) sets of bid documents hard copies and electronic submittal to CITY.
- CITY to email bid package to Contractors.
- A&Z to attend and conduct pre-bid conference, prepare and distribute minutes, address contractor's questions, prepare addenda.
- City to email addenda to Contractors.
- A&Z to attend bid opening, review bid packages for completeness, prepare bid tabulation sheet, conduct contractor reference check if bidder not well known by CITY and A&Z, and prepare letter of recommendation to the Board of Works.
- CITY to issue Notice of Award, Agreement, Notice to Proceed to Contractor through Board of Works approval.

COMPENSATION

No work under this Contract shall be performed by the CONSULTANT until the A&Z receives a written notice to proceed (NTP) from the CITY.

Amount of Payment

The CONSULTANT shall receive as payment for the work performed under this agreement for a Lump Sum Not-to-Exceed fee of \$29,100 for the professional engineering design services if approved in writing by the CITY.

The CONSULTANT shall be paid for the work performed under this Contract on a lump sum percentage completed basis in accordance with the following schedule:

Description	Fee
Topographic Survey	\$3,700
30% Design Documents	\$4,100
60% Design Documents	\$4,100
95% Design/100% Bid Documents	\$4,200
Permit Applications	\$7,500
Bidding Services	\$2,300
Geotechnical Testing	\$3,200
Total	\$29,100

Design Alternate 1

The CONSULTANT is providing an alternate design. If the CITY chooses this alternate design, the CONSULTANT shall receive as payment for the work performed under this supplemental agreement for a **Lump Sum Not-to-Exceed** fee of \$23,500 for the professional engineering design services if approved in writing by the CITY.

The CONSULTANT shall be paid for the work performed under this Contract on a lump sum percentage completed basis in accordance with the following schedule:

Description	Fee
Topographic Survey	\$3,700
30% Design Documents	\$2,700
60% Design Documents	\$3,600
95% Design/100% Bid Documents	\$2,800
Permit Applications	\$5,200
Bidding Services	\$2,300
Geotechnical Evaluation	\$3,200
Total	\$23,500

SERVICES NOT INCLUDED:

The following services are not included in the CONSULTANT'S scope of services:

- Drainage Improvements
- Right-of-Way or Easements Engineering
- Right-of-Way or Easements Acquisition
- Environmental Document

Optional Additional Services:

A&Z will provide these services under the optional additional services per an hourly rate in this supplemental. Upon separate authorization additional services and tasks requested will be based upon actual hours worked and paid for at the hourly rate schedule of the various personnel listed in Exhibit B to Proposal and as amended annually.

Proposed Project Schedule:

Schedule shown below is preliminary and to be confirmed by the City of Auburn team

DESCRIPTION	DATE
Notice to Proceed	January 6, 2021
Topography & Base Plans	January 22, 2021
Utility Coordination	February 18, 2021
Geotechnical Report for Approach Design and Abutments	February 1, 2021
County Project Coordination / Approval	February 15, 2021
Structural Analysis /Design/Detailing	February 26, 2021
Preliminary Design Complete	March 5, 2021
Permits Submitted	February 22, 2021
Final Design Complete	March 26, 2021
Final Bid Documents Submit	April 9, 2021
Project Bid Opening	April 29, 2021
Project Construction Award	May 13, 2021
Construction	June 1, 2021 - July 16, 2021

In Witness Whereof, the City and CONSULTANT have, through duly authorized representatives, entered this Agreement. The parties having read and understand the foregoing terms of this Amendment do by their respective signatures dated below hereby agree to the terms thereof.

Sincerely,
A&Z Engineering, LLC



Jamal T. Anabtawi, P.E.
Member, Director of Business Development

We hereby authorize A&Z Engineering, LLC to proceed with the above professional services in accordance with this letter and the attached Terms and Conditions.

City of Auburn, Indiana



Authorized Representative

12-23-20

Date

cc: A&Z Project File

Exhibit A to Proposal

Standard Terms and Conditions for Professional Engineering Services
--

1. Professional Services & Fee

- a. The professional services of A&Z are performed for a lump sum consistent with the scope of work described in the attached Proposal. If the scope of work changes during the progress of this project, A&Z will inform the Client of such change and will submit an estimated cost for such additional work. Upon approval by the Client of the change in scope and estimated cost, A&Z will proceed with the added work.
- b. A fee for an hourly rate services shall be all inclusive for the scope of work agreed upon under this agreement and paid for on an hourly rate according to A&Z current billing rates of the personnel assigned to the project plus reimbursable expenses times a factor of 1.1.
- c. All reports, drawings, specifications, manuals, learning and audio visual materials, boring logs, field data, laboratory test data, calculations, estimates, and other documents prepared by A&Z as instruments of service shall be the property of the Client. Such materials may be copyrighted by A&Z at the Client's discretion. A&Z will maintain in its possession all records related to a specific project up to 3 years from submitting its final product. A&Z shall not be responsible for any changes to the final electronic files once they are turned over to the Client.
- d. The Client recognizes that the site conditions where samples and data are gathered do vary with time and that particularly subsurface conditions may differ from those encountered at the time and location where explorations or investigations are made and, therefore, the data interpretations, and recommendations of A&Z are based solely on the information available. A&Z will be responsible for data it collects, interpretations, and recommendations, but shall not be responsible for the interpretation by others of the information developed.

2. Standard of Performance

A&Z will perform its Services with that level of care and skill ordinarily exercised by other professionals practicing in the same discipline(s), under similar circumstances and at the general time and place where the Services are performed.

3. Expenses

For those extraordinary expenses described in A&Z's proposal, the Client authorizes A&Z, to execute, on behalf of the Client's name, purchases and contracts for consultants: rental or purchase of special equipment: rental of external computers: expendable supplies: test boring and sampling work: aerial mapping: other investigatory or exploratory work: and so forth. Such purchases or contracts shall be by negotiation unless bid invitation is specified in A&Z's proposal. Specialized equipment purchased with Client's approval specifically for the project will become the Client's property upon completion of the work. The Client will be invoiced for the purchase price and completion of the work. The Client will be invoiced for the purchase price and maintenance cost of such equipment or/and all extraordinary expenses at direct cost plus a 10 % surcharge.

4. Invoicing/Payment

- a. A&Z will submit to Client invoices periodically for portions of the work performed (but not more frequently than once per month) unless charges for such periods are minimal, in which event an invoice will be submitted when total charges exceed \$500.00 or when the work is completed, whichever occurs first. All invoice charges are based on U.S. dollars.
- b. Invoices are due within 30 days from date of invoice; all delinquent charges are subject to a service charge of 1-1/2 (1.5%) percent per month or a fraction thereof. Should payment due and unpaid by Client to A&Z, or any invoice within 45 days of the receipt of invoice, A&Z may, upon seven (7) days' written notice to Client, stop work and recover from Client payment for all work executed. In the event that A&Z must initiate collection for its fees and prevails in court, Client is responsible for A&Z costs of collection including reasonable attorney fees.

5. Changed Conditions

- a. A&Z will promptly notify the Client in writing if it discovers conditions or circumstances that were not contemplated at the commencement of this agreement. Subsequent to that notification, Client and A&Z will negotiate one of the following options:
 - i. If practicable, in the judgment of A&Z, the original scope of services will be completed in accordance with the procedures originally intended in A&Z's proposal for the services.
 - ii. The scope of services will be modified and the estimate of charges revised to include study of the previously unforeseen conditions or occurrences, such revision to be in writing and signed by the parties.

6. Insurance and Indemnification by A&Z

- a. A&Z will maintain insurance for claims under the Worker's Compensation Laws, and from General Liability and Automobile Claims for bodily injury, death or property damage arising from negligent performance by A&Z and its employees for the services required by this agreement. A&Z carries public liability and property damage insurance (\$1,000,000 each occurrence/\$2,000,000 aggregate) and worker's compensation insurance. Certificates will be forwarded upon request. Within the limits of said insurance, A&Z agrees to indemnify and save the Client and its members, manager, officers, employees, agents and assignees harmless from and against any loss, damage, injury, or liability to the extent caused by the negligent acts, errors or omissions, intentional misconduct or breach of this agreement by A&Z, A&Z's employees, agents, subcontractors, and their employees or agents.
- b. A&Z will maintain errors and omissions/professional liability insurance in the amount of at least One Million Dollars (\$1,000,000).

7. Indemnification by Client and A&Z

- a. Client and A&Z agrees to indemnify and hold each other harmless, their agents, subcontractors, officers and employees from and against any and all losses to the extent caused by the negligent acts, errors or omissions, intentional misconduct or breach of this agreement by the Client, its employees, agents, subcontractors, and their employees or agents.

8. Terms of Agreement

- a. No modification or changes in the terms of the agreement be made except by written instrument signed by the parties.
- b. Either the Client or A&Z may terminate this agreement for convenience upon their (30 days) written notice delivered or mailed to the other party.

- i. In the event of material breach of this agreement, the party not breaching the agreement may terminate it upon ten (10) days written notice delivered or mailed to the other party, which termination notice shall state the basis for the termination.
- ii. In the event of the termination, other than caused by a material breach of this agreement by the Client, A&Z, Client shall pay A&Z for all services and all expenses performed prior to the termination notice date.

Exhibit B to Proposal

2021 Hourly Rate Schedule

Classification	Invoice Rate
Principal / Senior Project Manager	\$ 168.00
Senior Project Engineer / Project Manager / Senior Consultant	\$ 121.00
Senior Engineer / Senior Surveyor / Senior Designer	\$ 111.00
Engineer / Surveyor / Designer	\$ 101.00
Senior Technician* / Senior Inspector*	\$ 96.00
Technician*/ Inspector*	\$ 86.00
Administrative*	\$ 78.00
Intern Technician* / Intern Inspector*	\$ 71.00
One Person Survey Crew	\$ 125.00
Two Person Survey Crew	\$ 150.00

* Non-exempt personnel subject to overtime rate

2021 Reimbursable Expense Schedule

Expense Item	Expense Rate
Mileage	\$ 0.58/mile**
Photocopies	\$ 0.28/sheet (8.5x11)
Bond – AutoCAD plot	\$ 1.85/sheet (24x36)
Subconsultant Services	Cost + 10%

** Or current IRS standard mileage rate

Hourly and expense rate revisions to reflect increases in cost of living, benefits, etc. take effect on January 1, 2021.

A&Z THE DIFFERENCE...

MORNINGSTAR ROAD PEDESTRIAN BRIDGE CITY OF AUBURN REQUEST FOR PROPOSAL



The City of Auburn proposed pedestrian bridge over Cedar Creek Project illustrates the City's commitment to improving the pedestrian facilities in its jurisdiction. The A&Z Engineering, LLC (A&Z) TEAM will showcase the **A&Z DIFFERENCE** and **why 95% of A&Z's current clients return for future work**. The **A&Z ENGINEERING TEAM** offers the necessary experience, resources and qualifications, along with unmatched familiarity and direct project knowledge.

UNDERSTANDING PROJECT NEEDS

Thank you for inviting A&Z Engineering to submit this proposal for the Morningstar Road Pedestrian Bridge. A&Z has assembled a strong and experienced design Team for this project who understands bridge and structural design and deliver successful projects for our clients. We are fully aware that every project **MUST be properly managed, updated often and communicated** throughout the project development and **delivered on schedule**. Our Team will explain these important steps in more detail within our project approach section.

PROJECT MANAGER

Our highly skilled and knowledgeable Project Manager, Jay Stankiewicz, PE brings more than 20 years of managing successful roadway and bridge projects and will carry the same leadership role into this project.

Jay's main role is to manage the Team and to divide up project tasks among key team members including subconsultants to assure the achievement of all the clients' milestones. No matter what size the project is, **Jay treats all projects the same way and our process for plan development is the same for large or small projects and our staff buys into that philosophy**.

The A&Z Team has successfully completed these types of project services and would like to strengthen our working relationship with the City of Auburn by taking the Lead role on this project. Our bridge and roadway experience, coupled with our technical knowledge and the expertise of our subconsultants offer an **UNMATCHED** combination to complete this pedestrian bridge design project. Our Team consists of **GME and Earth Source** and has worked with on numerous projects similar to this, and there is no need for a learning curve.

INNOVATIVE SOLUTIONS & COST SAVINGS

The A&Z Team visited the site and collected all data necessary for the proposed pedestrian bridge, and is ready to incorporate some innovative ideas and a creative approach for this project. **With our commitment to providing "Value Engineering," we are eager to share some of our experiences and illustrate to the City of Auburn how A&Z would provide a great end product on time and with a competitive edge.**

FIRM PHILOSOPHY

A&Z has always focused on our commitment to our clients. We assure you this philosophy will be at the forefront of our work on this project. A&Z offers the City of Auburn an excellent and experienced Team that understands the importance of providing prompt response, meeting the budget, and keeping the project on schedule. This understanding coupled with our experience and the additional expertise of our teaming partners gives us a distinct advantage over other consultants with similar qualifications.

Most importantly, the **A&Z TEAM HAS A VESTED INTEREST IN THE PROJECTS SUCCESS** and the opportunity to continue working with the City of Auburn.

Respectfully,

Jamal T. Anabtawi, P.E.
Owner, Director of Business Development

- ◆ EXPERIENCED Team..
- ◆ LOCAL Resources.
- ◆ Commitment to CLIENT SATISFACTION

IDENTIFICATION
A&Z Engineering, LLC
1220 Ruston Pass
Fort Wayne, IN 46825

t 260.485.7077
f 260.485.7071

CONTACT PERSON
(authorized to negotiate)
Jamal T. Anabtawi, PE,
Owner and Director of
Business Development
jamal@az-engineering.net

Your Innovative
Engineering
Solutions...
Start to Finish



A&Z ENGINEERING TEAM not only offers the necessary resources and capacity, but an understanding of the importance of providing prompt response, meeting the budget, and keeping the project schedule on target...

A&Z Engineering LLC was established in 2005 as a multi-disciplined civil engineering firm focused on providing our clients professional engineering services of the highest quality and value. The company is comprised of many experienced engineers and designers who have a history of providing transportation engineering and planning services to public and private sector clients in Indiana since the early 1980's. **A&Z has worked with many MUNICIPALITIES for more than 15 years on Projects. As your TEAM LEADER, A&Z** will be responsible for the bridge design and utility coordination services and will be managing all subconsultant tasks.

A&Z will be teaming with the following firms:



GME TESTING was founded in 1999, and they work within a culture of total quality service that adds significant value to the projects that fully demand excellence and solutions to their geotechnical and materials testing needs.

GME understands that communities are facing increasingly challenging budgets and stricter regulations. That is why they focus on helping clients find cost-effective, environmentally sensible solutions to meet their goals.

GME is dedicated to employing state-of-the-art technologies and using up-to-date, efficient resources in addressing geotechnical evaluations and material testing. Professional engineers/ project managers who provide prudent and innovative alternatives while recognizing the importance on how cost constraints drive projects. GME's staff is committed to providing quality and timely services to their clients.

A&Z TEAM BREAKDOWN

FIRM	WORK TYPES
A&Z Engineering	Pedestrian Bridge Design Utility Coordination
Earth Source Inc.	Floodplain Permits
GME Testing	Geotechnical Investigation



EARTHSOURCE INC. (ESI) is an architectural and environmental consulting firm that was founded in 1988. To this day, a broad range of disciplines and experience enables Earth Source to provide extensive and unique land development and environmental services. The working relationships within the firm balance the needs of development with environmental concerns in a creative and site-sensitive manner. Many projects, unable to be constructed in a conventional manner, may be developed economically and aesthetically with our conservation based approach to land development.

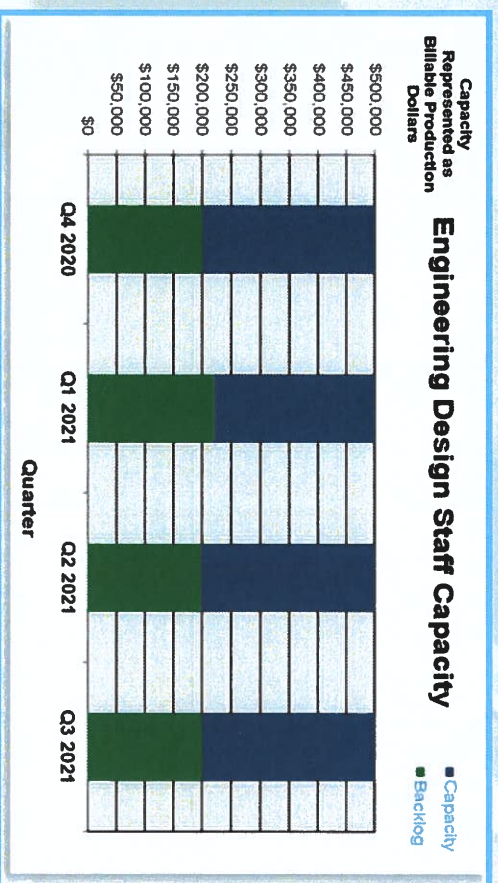
The FIRM provides a multiple types of environmental and historical services, which offers clients the opportunity to use one sub-consultant firm for all aspects of the permitting process instead of multiple firms. ESI's work history includes a wide variety of transportation and mitigation projects ranging from trails to historic bridges and roadway improvements.

TEAM CAPACITY

An important factor to analyze when selecting a consultant is the capacity to handle the proposed work. Having the adequate staff capacity to perform efficient services is as crucial as the qualifications and competence to complete the work. We assure you that our Team's workload-to-manpower availability ratio allows us to provide the attention and commitment this project requires, which is very important in order to meet project milestones and close out. We are ready to "Hit the ground running" and take full responsibility of the design and any permitting activities for this project.

As the graph indicates, A&Z will have immediate capacity to take on a substantial increase of project backlog, at a minimum, an average of \$300,000 per quarter starting in 2021 and will remain the same throughout the remainder of next year. Maintaining an effective workload-to-manpower ratio will allow this project to be completed within an efficient timeline.

A&Z has the availabilities of six professional engineers, two engineering interns, and three senior designers to serve this proposed City of Auburn project.



ASSIGNMENT MANAGEMENT

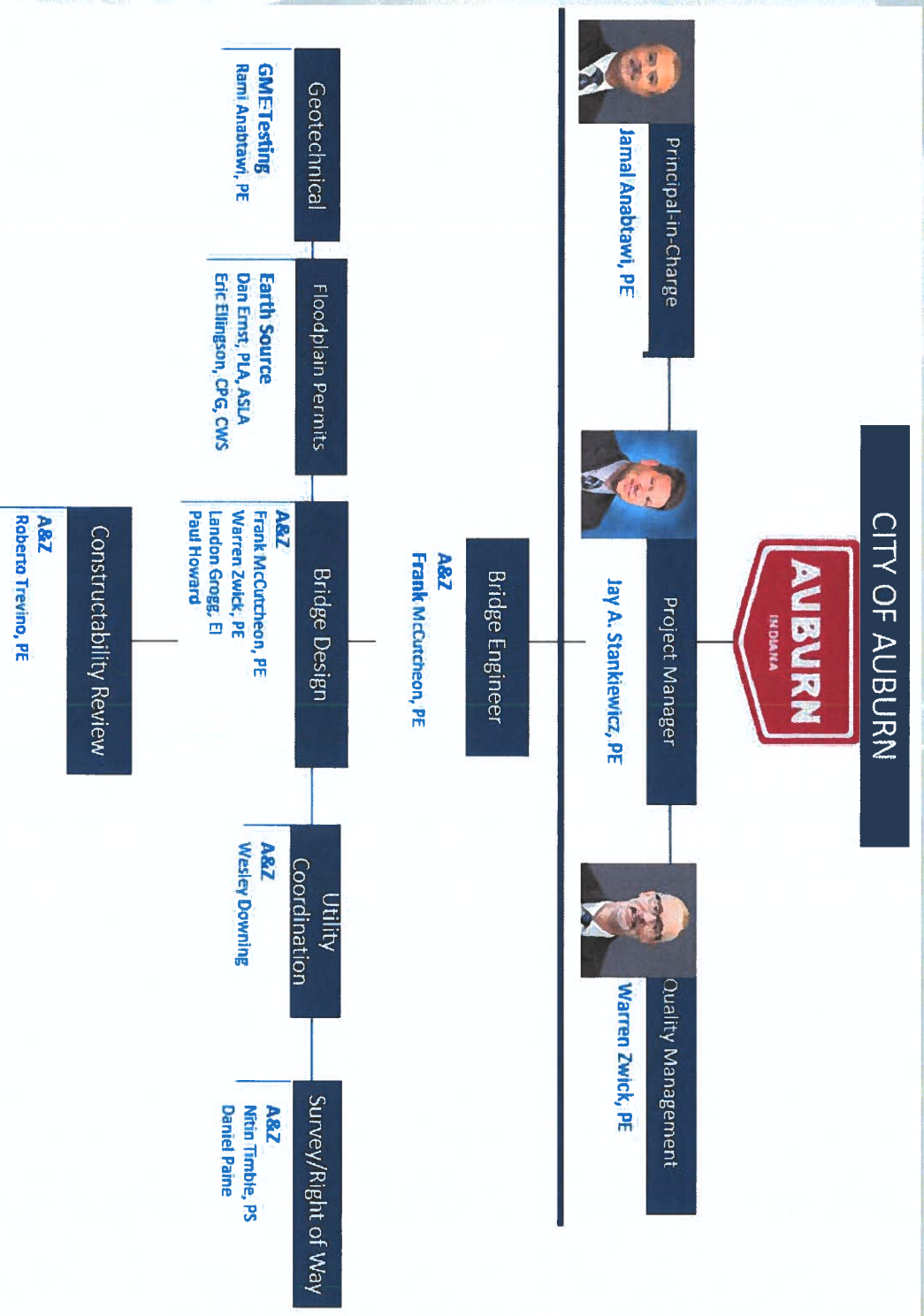
The A&Z Bridge Design Team will comply with the current bridge design standards and specifications and waterway permitting requirements. Upon the selection of A&Z Team, Jay Stankiewicz will contact the City of Auburn for necessary standard contract documents.

The A&Z Team will provided the City of Auburn with fees for the required services. Incidental ancillary services that do not pose hardship or prove burdensome will be performed at no additional cost by the Team. In addition, A&Z has provided the City with the anticipated project schedule and Jay will work closely with the City on any project related items.

Jay will also monitor progress and update the project timeline and notify the City of Auburn if a key deadline is at risk. Adjustments to the timeline will be made after the County's concurrence with future steps will be compressed as practical by the Team to meet the City's planned advertisement for construction of this project. Jay will be responsible for coordinating, scheduling, reporting, and administering the Team effort to achieve the end goal of quality plans, timely completion, and cost estimates within construction budget allocated for the project.

ORGANIZATION CHART for a WINNING TEAM...

- Highly-skilled Project Manager with **20+ years of experience** working in the transportation field
- Understands the importance of providing **prompt response**, meeting the budget, and keeping the schedule on target
- This A&Z Team has worked together on many previous projects, so there will be no learning curve, saving the **City of Auburn** both **time and money** and **delivering a successful project completion**



Our primary objective is to provide quality service to exceed the Client's expectations

TEAM'S DEMONSTRATED QUALIFICATIONS

A&Z ENGINEERING TEAM has a vested interest in the project's success. We are not looking at this as another project, but as a way to prove ourselves to the City of Auburn...



JAY A. STANKIEWICZ, PE | Project Manager
Professional Engineer - Indiana, Michigan and Florida

JAY brings over 20 years of professional experience in many facets of transportation engineering with emphasis in roadway, trail and site projects. Jay is a licensed Professional Engineer with in-depth experience in design and management of municipalities and public works projects.

His work has included **project management** and **design** of horizontal and vertical alignment, intersections, roadside safety, lighting, signage, signals, storm sewers and drainage ditches, construction bid documents, right-of-way plans, stormwater drainage analysis, site design, bike trail design, trailhead design, hydraulic computer modeling, construction inspection, field surveying and right-of-way management.

JAY is well known for his excellent management skills, meeting project deadlines, and plan quality. With this experience, A&Z utilizes Jay to manage project teams, prepare design schemes, estimates, and review design plans.

- **Bridge 59, CR 900 S. | Wells County, IN | Project Manager.**
Replacement of bridge 59 over the Salamonie River. Project included the structure replacement, pavement widening and intersection relocation of CR 900S and CR 510 W, the relocation of CR 510W, ditch drainage, signage, pavement markings, geotechnical investigation, IDEM, IDNR, ACOE permitting, and right-of-way engineering and management.
- **Engle Road Trail | Fort Wayne, IN | LPA Project, Des. No. 1005158 | Project Manager/Lead Designer.**
Federally funded project that consists of a new multi-purpose pathway along Engle Road. Project includes trail construction, pre-fabricated steel truss bridge, mid-block pedestrian signal crossing, drainage considerations, advisory signage, pavement markings, permitting, utility coordination and preparation of a categorical conclusion.
- **Towpath Pedestrian Trail Phase II and III | Fort Wayne, IN | Project Manager/Lead Designer.**
Locally funded project that consists of over three miles of new pedestrian trail along the historic "Towpath Canal." Project includes numerous pedestrian crossings of local streets, two pedestrian bridges, storm sewer design and drainage considerations, advisory signage, pavement markings, permitting, utility coordination, and right-of-way engineering and management.



FRANK MCCUTCHEON, PE | Bridge Engineer
Professional Engineer - Indiana

NHI Certified Bridge Inspection (10 day) | NHI Certified Bridge Inspection Refresher Course (3 day) | ASCE HECRAS Training Course | NHI Certified Fracture Critical Techniques for Steel Bridges | ODOT LRFD Bridge Design Training | Prequalified as a Level 2 Bridge Engineer | Attended INDOT Bridge Conference since 2015

FRANK specializes in Transportation and Traffic Engineering with thorough experience in both the design and construction of municipalities projects. Frank has worked on a variety of project types in the transportation and water resource field. While with the Indiana Department of Transportation, Frank served as the INDOT Fort Wayne District Head Design Engineer where he managed the District's design functions, engineering, and supervising projects such as small structure replacements, roadway resurfacing, and other road and bridge maintenance projects.

FRANK specializes in bridge, small structure, design hydraulic analysis and traffic analysis. Throughout his experience the past 37 years, Frank has been responsible for all design tasks and making sure the design team stayed the course and understands what is at stake. Submitting design plans on time, means INDOT's projects will be on schedule for construction. *The following are some of the small structure projects that Frank has successfully completed:*

- **U.S. 33 Added Travel Lane from US 30 to Cook Road | Allen County | INDOT** | Project includes replacing two existing large corrugated metal pipes under US 33 with new concrete box structures and storm sewer design.
- **S.R. 111. Added Travel Lane | City of New Albany | INDOT** | Project includes replacing three existing large corrugated metal pipes under SR 111 with new concrete box structures and storm sewer design
- **US 27 Added Travel Lane | Adams County | INDOT** | Project includes replacing six existing small structures and one bridge replacement. Four of the small structures were replaced with concrete box structures, one was replaced with a 3-sided concrete box structure and one was replaced with a large corrugated steel pipe arch.

A&Z'S KEY STAFF



LANDON GROGG, EI *Roadway Engineer*

Landon is a Project Manager, Engineer and Utility Coordinator, who's responsibilities include roadway design, site layout and design, storm sewer, and subsurface utility design in conjunction with roadway and site development projects. He is proficient with AutoCAD, Autodesk Civil 3D, and ArcGIS software for use of design and plan development on a variety of projects. Landon's responsibilities include coordination of engineering design and drafting, cost estimates, design summaries and calculations, engineering studies and various reports.



RAFIK EL SHERIF, PE, MBA *Engineer—Structures*

Over his 12 year career, Rafik specializes as a Project Manager/Civil Engineer with A&Z Engineering. He has been involved in road design, Bridge Design, trail design, drainage improvement, site development, and project management of Municipalities and public works projects. Rafik has worked on a variety of project types in the transportation and infrastructure design fields. He has an extensive background in the private development and site design side of civil engineering.



WESLEY DOWNING *Senior Designer / Utility Coordinator*

Wesley is a Project Manager, Senior Designer, and INDOT Utility Coordinator responsible for coordinating the surveying, engineering, design and project development of multiple projects with various degrees of complexity. With over 31 years of experience on INDOT projects, Wesley has been applauded by contractors (such as the Husky Trail project) for his effective coordination and communication efforts.

AAS Architectural Engineering Technology, ITT Technical Institute
INDOT Utility Coordinator



PAUL HOWARD *Sr. Designer*

Paul's project experience include public, private clients, local, state and federal agencies. **For the past 27+ years** Paul has designed and/or assisted in hundreds of civil, transportation and site development projects ranging from small retail business site layouts to multi-million dollar, roadway and bridge construction projects. Design experience includes new roadway construction, roadway reconstruction/rehabilitation, trailways, residential subdivision design, commercial/industrial development design, multi-unit apartment site design, bridge design and detailing.



WARREN ZWICK, PE *Quality Assurance/Quality Control*

Warren is the Co-Owner and Engineering Manager of A&Z Engineering. His responsibilities include: project development for civil and transportation projects and for the management and quality of projects company wide. Warren's experience as a Senior Project Manager and Engineer includes over **33 years** on projects includes extensive experience on civil and transportation projects including, infrastructure improvements, roadway reconstruction and rehabilitation, intersection improvements, traffic signalization, trailways, and public transit facilities.

B.S. Construction Technology, Purdue University
A.S. Civil Engineering Technology, Purdue University
Professional Engineer—IN



DANIEL PAINE *Surveyor*

Daniel has over 14 years of experience in land surveying related to roadway, bridges and trails. He specializes in surveying for the construction of local and private projects. He has been involved with hundreds of projects involving regionally and nationally recognized companies, airports, architectural firms, environmental engineering firms, contractors, as well as City, federal, state, county, and government agencies. Daniel worked for the City of Auburn in the past and understand their expectations.

Sydney Institute of Technology, Diploma of Surveying
South Western Sydney Institute, Mechanical Engineering Certificate IV

A&Z KEY STAFF



RUPERTO TREVINO, PE

Constructability Review

Throughout his 40 year career, Ruperto has served as a design engineer, project manager, and resident project representative during construction implementation of environmental and transportation projects. In this position, he will be involved in project constructability reviews.

Ruperto currently works as a Resident Project Representative and supervises varied inspection projects including water, wastewater systems, storm and sanitary sewers, and coordinating utilities. He serves as the main liaison between contractors, design engineers, utilities, the public, and all other interested parties for A&Z inspection contracts.



JAMAL ANABTAWI, PE

Contract/Invoices/Administrative Role

Jamal is the Co-Owner and Director of Business Development of A&Z Engineering, LLC. His responsibilities include attracting new clients and while working on developing and maintaining A&Z's client base. Jamal works hand-in-hand with local agency representatives such as mayors, council members, and county commissioners on identifying community needs while analyzing, assessing, and scoping the work in conjunction with their engineers, supervisors, and staff in an effort to offer the best solutions and recommendations. Jamal is also authorized to negotiate and sign contracts for A&Z.

MBA, Indiana University
Purdue University, Fort
Wayne, IN, 2018.
BS, Civil Engineering,
Trine University, Ango-
la, IN

Attended and completed
INDOT Bridge Design
Conferences in 2020

SUBCONSULTANTS



DAN ERNST, PLA, ASLA
EARTHSOURCE INC.

Landscape & Green Infrastructure

Daniel Ernst is Vice President and Director of Earth Source Incorporated. Mr. Ernst graduated with a Bachelor of Science degree in Landscape Architecture and an Associate degree in Agriculture from Purdue University (1990). Dan's responsibilities with Earth Source revolve around project management of the Land Plan Group. This includes landscape architecture design, land planning, residential communities, stormwater management and treatment, park and recreation design, fairgrounds site planning, urban, commercial and residential landscape design, native landscapes, soil bioengineering and ecological restoration, erosion and sedimentation control via Indiana "Rule 5" (327 IAC 15-5), and constructed wetland/mitigation design.



ERIC ELLINGSON, CPG, PWS
EARTHSOURCE INC.

Green Infrastructure

Eric Ellingson is President of Earth Source Incorporated and President and founder of Heartland Restoration Services, Incorporated. Mr. Ellingson's credentials include undergraduate work in geology from Indiana University (1985), masters work in Water Resource Management (1987), also from Indiana University, Indiana Certified Professional Geologist, Professional Wetland Scientist and Registered Wetland Delineator. Ellingson brings to Earth Source a background in hydrology/geomorphology, natural resources planning/management, and field experience with Indiana Department of Natural Resources (Division of Nature Preserves). Eric is a member of the Indiana Academy of Science, Society of Wetland Scientists, Society of Ecological Restoration and Past President of the National Wetland Specialist Registration Board. Eric is on the peer review team for the Corps of Engineers Wetland Delineation Manual, Indiana Department of Environmental Management's Wetland Science Advisory Group and has lectured at Ball State, Indiana, Purdue, Ohio State, and Wright State Universities and the Cambridge Institute on topics ranging from wetland hydrology to ecological restoration.



RAMI ANABTAWI, PE
GME TESTING INC.

Geotechnical Engineering & Testing

Mr. Anabtawi has over approximately 29-years of professional experience in geotechnical and materials consulting. Mr. Anabtawi is a senior geotechnical engineer and a corporate leader. He specializes in Geotechnical studies and Foundation Evaluations, Construction & Laboratory Materials Testing, Laboratory Management, On-site Quality Control & Assurance Inspections. Mr. Anabtawi's geotechnical experiences as it relates to municipal, INDOT LPA, trails, roadway projects ranging from a variety of complex projects and includes new and existing roadway alignments.

PROJECT UNDERSTANING

Morningstar bridge is located on Morningstar Road spanning over Cedar Creek. The proposed pedestrian bridge is to span east and west using structural steel beams attached to the southside of the existing bridge by utilizing steel brackets anchored by mechanical fasteners to the side of the bridge and supported at both end bents by steel encased concrete piles to prohibit excessive corrosion. In addition to placing 8-foot-wide x 50-foot-long concrete approaches meeting the new bridge elevation and connecting to a future multi-purpose Greenway Trail.

Upon A&Z's team investigation for the existing condition, it was found that the existing bridge is a pre-stressed concrete pre structure constructed in 1972 making the bridge nearly 50-years old with an efficiency rating of 80%. There is an existing gas line attached along the northside of the bridge deck. Knowing that typical bridge life expectancy is 50 years. A&Z finds:

- Imposing an additional cantilevered dead load (approx. 25-Tons) to the structure no doubt will have a negative impact on the life span of the structure.
- The rehabilitation of the existing bridge will be required in the near future and the proposed pedestrian bridge will be lost.
- Constructing the new bridge utilizing mechanical fasteners product to be anchored on the side of the existing bridge will require extensive and very expensive labor.
- The proposed pedestrian bridge will require a complete traffic closure, the construction process will require multiple cranes and heavy construction equipment for handling steel beams.

A&Z suggests an Alternative design by installing a prefabricated pedestrian bridge that is parallel to the existing Morningstar bridge with minimum separation of 8-foot from the existing bridge and supported independently with end bents and concrete approach slabs to connect to the future multi-purpose greenway. Upon the discussion with Mr. Ben Parker, DeKalb County Superintendent, it was agreed that the alternate design approach is the desired approach.

Clear and concise **COMMUNICATION** with direct access to A&Z Project Manager throughout the project lifecycle.

COMMITMENT TO QUALITY



Our staff and teaming partners recognize the commitment to deliver a quality project. In fact, A&Z developed its own Quality Assurance and Quality Control (QA/QC) procedure and assigns team members from the design and construction departments for compliance and constructability reviews. This quality check is a **must** for A&Z prior to project plan submission.



Scope of work Kick off meeting with City



MAINTENANCE OF TRAFFIC



FINAL DESIGN



BRIDGE AND ROADWAY DESIGN



UTILITY COORDINATION

PROJECT APPROACH

✓ QA/QC

QA/QC, constructability, performance with design standards, and project estimated costs are reviewed by our senior staff and construction engineers before each design stage submission. This ultimately ensures a successful project and a satisfied client.



With more than 30 years of local funded project experience, Warren Zwick, PE, will be responsible for the QA/QC team reviews to achieve maximum accuracy for all assigned projects.

As part of an A&Z design process, our construction staff will be involved in reviewing design plans from a constructability point of view, making sure the project is easily constructed. Our staff will also utilize the experience of **Frank McCutcheon, PE** whom formerly worked at the INDOT Fort Wayne District as head design engineer and as a reviewer while employed with **Texas Department of Transportation**. This process is to ensure our QA/QC process is fulfilled while at the same time having another set of eyes review the project

🗨️ KICK-OFF MEETING

When A&Z receives an assignment, we will immediately request a meeting with the City's staff and openly discuss what knowledge we have about the project. We will also discuss its potential issues, our approach to addressing those issues, how we plan to facilitate agency coordination efforts, and our methods to ensure full compliance relative to potential utility issues, environmental impacts and the overall design. We will converse about project schedules, goals, finances and any necessary details to start scheduling required meetings.

As we gain a full understanding of the assigned project, the City's and the County's needs, we will develop a **Communication Plan** that will provide clear and concise communication strategies with direct access to A&Z's Project Manager.

📅 ESTABLISH SCHEDULE

At the kick-off meeting, it would be the time to share a detailed plan between our team, the City of Auburn and DeKalb County. This is when the initial scope of work, expectations, goals and milestones will be further defined and how A&Z would manage and deliver the final product/project.

A&Z has established a preliminary project schedule (attached) to ensure the achievement of the City's milestones and deliver tasks on time. A project's overall schedule often hinges on successfully obtaining the required permits and approving utility relocation plans. Schedule management and focusing on these items and their respective milestones, will help ensure on-time completion of each task. It is our goal to keep the budgets on track and keep the project moving forward by undertaking various activities and running them parallel to one another.

🛠️ DEVELOP SCOPE AND WORK PLAN

Our management tools and accounting software forces our engineers to manage their assigned task and associated fees and schedule on a daily basis. Our Team understands what is involved in completing design and plan development work to advance projects to a construction-ready status.

A&Z believes in continual stakeholders involvement. Therefore A&Z will prepare a strategic **project work plan** for the project. **The project work plan will detail the scope of work, budget, schedule, staff responsibilities, and subconsultant responsibilities.** This work plan will be distributed among all A&Z Team members, subconsultants, the City of Auburn Project Team and the DeKalb County Highway Supervisor.

In addition to the project work plan, A&Z will provide **monthly status reports**, to ensure seamless communication to brief the project's status, constructability and cost.

We will establish cost-containment practices that involve closely monitoring budgets and ensuring cost-effective solutions. We will also focus on value engineering throughout the project. Utilizing all expertise to address challenges as they arise.

UTILITY COORDINATION

Utilities located within the project become a critical factor that can affect the bridge design. Major utility relocation can cost millions of dollars to the utility as well as project delays. Potential for utility conflicts with the bridge improvements do exist, but we are experienced enough working with utility companies and accustomed to their services. We have assigned Wesley as our INDOT Certified Utility coordinator for your projects. Wesley will coordinate closely with all utilities to assure minimum impact to relocation. Wesley will be responsible to complete the utilities "work plans" and to assure continuous coordination will be implemented for all projects.



A&Z has three certified Utility Coordinators on staff and will assign **Wesley Downing** as our INDOT Certified Utility Coordinator for your projects. Wesley will coordinate closely with all involved utilities to assure minimum impact to relocation. Wesley will be responsible for overseeing the utilities' **work plans** and to assure continuous coordination will be implemented for all projects. Our past experience indicates that several utility issues can be identified prior to the design stage by having an early utility coordination meeting so the potential conflicts can be identified. The use of subsurface utility exploration (SUE) is encouraged. **Our involvement with the utilities will be continuous from the start of design until the project is constructed.**

PROJECT APPROACH

PERMITS

A&Z believes "let the specialist do their thing" therefore A&Z is teaming with Earthsource Inc and will follow the procedures outlined in the CE Manual and work closely with the City of Auburn to provide all Environmental services required for this project and meet all the City's needs.

We have worked with Earthsource on numerous projects and have established an excellent and trusted relationship with their staff. We will use "lessons learned" from previous experience to avoid any delays and to make sure the permitting process will be seamless in getting the final document completed and approved on time. In addition, our Team will take a proactive approach, such as meetings for coordination with permitting agencies and Dekalb County Drainage Board. Permits such as DNR Floodway, 401/404, Rule5/SWPPP, FAA will be undertaken.



COORDINATION

A&Z understands the importance of communication for this project, as our team will be on continuous coordination with the **City Engineer, Dekalb County's engineer and Dekalb County Surveyor** to ensure the delivery of the client's desired project outcome. In addition, our team has worked with Dekalb County on several project and development a great relationship. **Effective communication is critical among the external TEAM, so activities and milestones are coordinated to provide seamless workflow.**



MAINTENANCE OF TRAFFIC (MOT)

The A&Z team fully understands the importance and the challenges associated with the proposed project in relation to maintenance of traffic schemes and the associated costs. Public safety is our #1 concern; therefore, our plan is to work with the City Engineer on creating alternative options for the MOT based on traffic volume, speed, and the complexity of construction. The contractor is expected to work in a safe environment and if necessary we will work with an experienced contractor and propose solutions based on best practices. We are confident we will be able to engineer a safe, practical, and cost effective MOT plan.

PROJECT APPROACH



DESIGN APPROACH

A&Z will provide the City of Auburn with the expertise in the design services of this type of work. We are ready to meet the challenges and complexities of the proposed bridge projects. Our team will provide initial construction cost estimate to the City of Auburn team and provide them with the opportunity to adjust their budget based on the defined scope of work. Our entire team has a well-established working relationship with the City of Auburn and Dekalb County and respectable past performances to go with it.



SURVEY

A&Z has a very experienced and reliable Surveying team to complete the required survey task in a timely fashion. Since there will be no hydraulic analysis required, the survey will include existing structure survey, creek top of bank and an approximate creek geometry.



PROJECT MANUAL AND SPECIFICATIONS

A&Z will provide the City of Auburn with the final project manual to include including project advertisement, project specifications referencing INDOT specifications and Standard drawings, final construction cost estimate and bid tab to be shared with the contractors at the project bid time. During project bid A&Z will attend all meetings associated with the bid process, and prepare addendums clarifying any raised questions.

REPRESENTATIVE PROJECT EXPERIENCE



ANTWERP ROAD BRIDGE | ALLEN COUNTY, IN

The proposed improvements include replacement of the existing Allen County Bridge, Allen County #116010, over the Hamm Interceptor Ditch due to substantial deterioration of the existing structure with very little useful life. The structure will be replaced with a three span continuous concrete span. The substructure will comprise of end bents and piles on circular column pier bents on piles. The bridge width will be widened from the existing 20-ft. to 39-ft. and then tapered to meet the existing roadway outside the bridge limits. The bridge spans will be approximately 26-ft., 32-ft., and 26-ft. with a total span of 86-ft.



FOOTE ROAD BRIDGE | ALLEN COUNTY HIGHWAY DEPARTMENT, ALLEN COUNTY, IN

The proposed improvements include replacement of the existing Allen County Bridge # 116006, over the Hamm Interceptor Ditch due to substantial deterioration of the existing structure with very little useful life. The superstructure will be replaced using solid concrete slab over single or continuous three spans. The substructure will comprise of end bents on piles and column pier bents on piles. The proposed bridge width will be widened from the existing 22.5-ft. to 39.0-ft. and then the roadway will be tapered to meet existing roadway outside the bridge limits. The bridge spans will be approximately 20-ft. each with a total span of 60-ft. depending on hydraulic modelling. A final bridge section will be determined in the preliminary design phase.



BRIDGE 35 | DEKALB COUNTY, IN

Replaced existing bridge structure with a three span, continuous reinforced cast-in-place concrete slab bridge with an overall clear roadway width of 28 ft. The roadway improvements extended 500-ft. each way of the bridge and was widened to allow for a combination of paved and aggregate shoulders. The roadway pavement received profile scarification, milling, and asphalt resurfacing. Guardrail within the project limits was replaced to meet current standards. A&Z teamed with ERI to complete the bridge design.

A&Z ENGINEERING'S BRIDGE DESIGN EXPERIENCE with the support of our subconsultants offers an **UNPARALLELED** **WINNING** combination to exceed project's expectations...

Our primary objective is to provide quality service to exceed the Client's expectations

REPRESENTATIVE PROJECT EXPERIENCE

WHY CHOOSE THE A&Z TEAM?

THE A&Z TEAM HAS A VESTED INTEREST IN THE PROJECT'S SUCCESS and the OPPORTUNITY TO WORK for the City of Auburn.

The A&Z Team is structured to complete this project successfully. This project requires a Team who is **knowledgeable** of the project area, **experienced** in the advertised work type, **versed** in communication, **innovative** in its approach, and **flexible** enough to accomplish all goals for the specific project.

The A&Z Team has been working with Municipalities for many years and has a thorough understanding of design standard and specifications, challenges, and background associated with this bridge structure and has the proper solutions to tasks on hand.

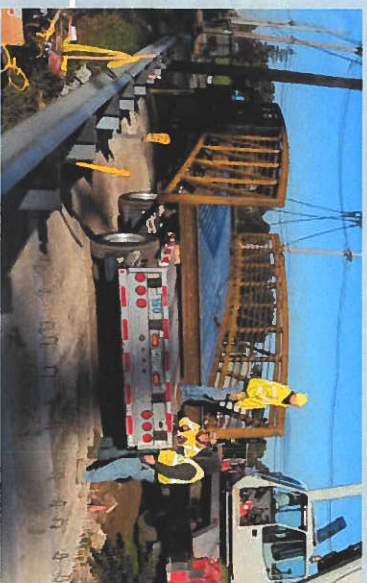
The A&Z Team is committed to making this a successful project for the City of Auburn and looking forward to serve the city on this project. We fully understand the need to lend a hand and help the City of Auburn project managers complete their projects and to pave the way for a long lasting working relationship with the City of Auburn.

You have the company owners commitment to a successful project delivery.



BRIDGE NO. 06 | WELLS COUNTY, IN

The proposed Wells County Bridge No. 06 located on CR 700 S over Rock Creek is a prefabricated single span, two-lane, three-sided arch structure with a span of 29.5 feet. CR 700 S is a rural low volume local chip and seal roadway consisting of two 9-foot lanes, that carries about 200 vehicle per day, with 3% heavy truck traffic primarily during planting and harvesting season. The bridge section consists of a minimum of two 11-foot wide travel lanes with 4-foot shoulders. The new structure remained in its current horizontal alignment but the vertical alignment was lowered based on the structure type selected. Additional roadway embankment was required to accommodate the new bridge width. The approach roadway at each end of the new structure was reconstructed throughout the required transition length to meet the existing roadway widths.



LAKE AVENUE PEDESTRIAN BRIDGE | FORT WAYNE, IN

The project consisted of foundation design and permitting for a prefabricated pedestrian bridge. As part of its Lake Ave. Trail and Sidewalk project, the City proposed a prefabricated truss type pedestrian bridge over the Baldwin Drain. The bridge was designed above the 100-year flood elevation and above the current roadway. A&Z completed the foundation design and details for use in securing the necessary and bid documents.