BILL NO. S-15-04-02

SPECIAL ORDINANCE NO. S-_____

AN ORDINANCE approving PROFESSIONAL SERVICES AGREEMENT - DESIGN ENGINEERING SERVICES FOR COLDWATER RD. CONCRETE STREET REHABILITATION - BETWEEN COLISEUM BLVD. AND WASHINGTON CENTER RD. - WORK ORDER #0062C between A&Z ENGINEERING, LLC and the City of Fort Wayne, Indiana, in connection with the Board of Public Works.

NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF FORT WAYNE, INDIANA:

SECTION 1. That the PROFESSIONAL SERVICES AGREEMENT - DESIGN ENGINEERING SERVICES FOR COLDWATER RD. CONCRETE STREET REHABILITATION - BETWEEN COLISEUM BLVD. AND WASHINGTON CENTER RD. - WORK ORDER #0062C by and between A&Z ENGINEERING, LLC and the City of Fort Wayne, Indiana, in connection with the Board of Public Works, is hereby ratified, and affirmed and approved in all respects, respectfully for:

> All labor, insurance, material, equipment, tools, power, transportation, miscellaneous equipment, etc., necessary for Professional Services Agreement for Design Engineering Services - Coldwater Rd. Concrete Street Rehabilitation - hetween Coliseum Blvd. and Washington Center Rd.- including pavement evaluation, roadway design, landscape architecture, green infrastructure, traffic signals, markings, utility coordination, public participation, maintenance of traffic, permitting, contract documents, bidding, and construction assistance;

involving a total cost of TWO HUNDRED FIFTY-THREE THOUSAND THREE

HUNDRED FIFTEEN AND 98/100 DOLLARS - ($253,315.98). A copy of said Contract is on file with the Office of the City Clerk and made available for public inspection, according to law.

SECTION 2. That this Ordinance shall be in full force and effect from and after its passage and any and all necessary approval by the Mayor.

_____
Council Member

APPROVED AS TO FORM AND LEGALITY

_____
Carol Helton, City Attorney

PROFESSIONAL SERVICES AGREEMENT
DESIGN SERVICES

Coldwater Rd Concrete Street Rehabilitation – between Coliseum Blvd and Washington Center Rd ("PROJECT")
Work Order #0062C

This Agreement is by and between

CITY OF FORT WAYNE ("CITY")

by and through its

Board of Public Works
Suite 210, Citizens Square
200 East Berry Street
Fort Wayne, IN 46802

and

A&Z ENGINEERING, LLC (ENGINEER")
9017Coldwater Road, Suite 500
Fort Wayne, In46825
260-485-7077
260-485-7071 fax

Who agree as follows:

CITY hereby engages ENGINEER to perform the services set forth in Part I - Services ("SERVICES") and ENGINEER agrees to perform the SERVICES for the compensation set forth in Part III - Compensation ("COMPENSATION"). ENGINEER shall be authorized to commence the SERVICES upon execution of this Agreement and written authorization to proceed from CITY. CITY and ENGINEER agree that these signature pages, together with Parts I-IV and attachments referred to therein, constitute the entire Agreement ("AGREEMENT") between them relating to the PROJECT.

APPROVALS

APPROVED FOR CITY

BOARD OF PUBLIC WORKS

BY: _____
Robert P. Kennedy, Chair

BY: _____
Mike Avila, Member

BY: _____
Kumar Menon, Member

ATTEST: _____
Lindsey L. Richards, Clerk

DATE: 3/25/15

APPROVED as to legality and form

APPROVED FOR ENGINEER

BY: _____
Warren J. Zwick, PE, Member

ATTEST: _____
Chanchai Hocharoen, PE, Project Manager

DATE: Feb 12, 2015

PART I

SERVICES

A. GENERAL

ENGINEER shall provide the CITY professional engineering services in the design phase of the PROJECT. These services will include serving as CITY'S professional representative for the PROJECT; providing professional engineering consultation and advice, and furnishing civil, environmental and other customary design services incidental thereto.

B. PROJECT DESCRIPTION

Project will involve the rehabilitation of Coldwater Road between Coliseum Boulevard to Washington Center Road in northern Fort Wayne. The existing pavement is concrete and is in very poor condition. The engineer shall evaluate various options to determine the most cost effective method of rehabilitation of the pavement to maximize its longevity. Options to be considered may include but are not limited to concrete street/joint repair, crack & seat, and HMA overlay of existing concrete pavement. Areas of existing drainage problems shall be addressed in conjunction with City Utilities Engineering as part of this design. This is a curb and gutter cross section which is to be retained with 6-inch curb exposure. Existing pavement width ranges from 67 to 102 feet in width and includes a minimum of two travel lanes in each direction with a center left-turn lane, and auxiliary lanes at intersections. Proposed lane configuration will remain the same, although some of the auxiliary lane lengths will be adjusted to reflect current traffic volumes and remaining length shall be returned to green space. All existing pedestrian infrastructure (sidewalk, curb ramps and bus stops) shall be brought up to Public Rights-Of-Way Accessibility Guidelines (PROWAG) standards. Traffic signals located at Coliseum Blvd, Collins Drive, Essex Lane, Coldwater Crossing and Washington Center Road are to be modernized as needed. All improvements are proposed to be constructed within the existing right-of-way. Typical minimum available right-of-way is 105 feet and all improvements shall be within this existing right-of-way. The intersections of Collins Drive, Essex Lane and Coldwater Crossing will be modified to install slotted left-turn lanes for better line of sight, with left-turn phasing on Coldwater Road to be changed to protected-permissive operation with flashing yellow arrows. The project shall be designed and ready for bidding and construction in the spring of 2016.

1. Pavement Evaluation

   Engineer shall perform a pavement evaluation along the entire described corridor. The evaluation shall be by both visual methods and physical testing methods as determined necessary. The review of alternatives shall include a minimum of 3 alternatives with long term analysis (50 Years) for both HMA and PCC alternatives. The Engineer shall choose the alternatives to review unless a specific alternative is requested to be included by the Owner. The review shall include the estimated capital construction cost and the long term operation cost based on a full life cycle cost analysis (LCCA) using nationally accepted standards and tools. The evaluation shall be done by a licensed engineer or other approved professional with at least 20 years of experience in pavement design and evaluation.

2. Roadway

Roadway shall be rehabilitated with the same width travel lanes and center turn lane. Road alignment shall generally stay the same except grade changes to accommodate the rehabilitation method chosen and where needed changes can provide better cross road drainage. Pavement shall be designed to City of Fort Wayne Arterial Roadway specifications as a minimum. This section of Coldwater Rd is a designated a truck route and roadway shall be designed accordingly. The work includes the updating of existing pedestrian infrastructure (sidewalks, curb ramps, bus stops, etc.) for conformance with the current PROWAG standards. The work also includes the modifications to install slotted left turn lanes ad Collins Dr., Essex Ln., and Coldwater Crossing plus conversion to protected permissive operation utilizing flashing yellow arrow signals along Coldwater Rd.

3. Drainage design

Engineer shall perform a drainage review to determine if any new storm sewers are needed along with sizing and inlet spacing. All runoff shall be directed to tributaries to Stony Run Creek or approved existing storm sewers. All drainage analyses and calculations shall be done in accordance with City Utilities Engineering Design Standards Manual and Master Specifications. All stormwater facilities details shall be in accordance with the aforementioned documents. All drainage calculations and analyses shall be submitted for review by City Utilities.

4. Landscape architecture

Engineer shall provide landscaping exclusive of street trees but with any other recommended plantings of the available green spaces in conjunction with any green alternatives included in the project scope. All plantings shall be coordinated with City of Fort Wayne Parks Department Arborist and Landscape Architect.

5. Green infrastructure

Green infrastructure initiatives shall be incorporated into the design which will be aimed at capturing/reducing runoff as well as treating the first 1-inch of rainfall on site prior to discharge to the Stony Run Creek, or existing storm sewers. Engineer shall recommend green infrastructure alternatives to the City with costs and benefits including maintenance costs. City encourages creative ideas provided they do not pose significant maintenance issues. Prior to development of details, the Engineer shall provide recommended green infrastructure alternatives to the City for discussion. These options may be in the form of samples images, renderings, technical drawings, or specifications such that City staff can fully understand the proposed ideas. These ideas shall be presented along with initial and recurring costs and a recommendation will be made to the City. City staff will evaluate and select a recommended plan as proposed or with possible revisions. Engineer shall complete the design of the selected green infrastructure initiatives once all revisions have been evaluated. Green infrastructure shall be limited to mow-able alternatives except at intersection areas where decorative planting may be considered for differentiation of area and beautification. Green infrastructure initiatives shall address storm water treatment (first inch of runoff) and also address subsurface drainage in lieu of underdrains.

6. Traffic signals, signs and pavement markings

   Engineer shall incorporate the modernization of traffic signals within the project limits as necessary. If existing underground conduit is in usable condition, these shall be reused and detection shall be conventional loops. If condition of all existing conduit at an intersection is unusable, new detection shall be Sensys wireless. Pedestrian signals shall be brought up to PROWAG standards. Existing interconnect shall be reused. All pavement markings shall be included in the design. Pavement markings are to be epoxy paint on both asphalt pavement and concrete pavement.

7. Utility coordination

   Engineer shall coordinate with all existing utilities. While all efforts are to be made to minimize relocation of utilities, if necessary Engineer shall coordinate the development of relocation plans.

8. Public participation

   Engineer shall participate in no less than one public meeting, and shall develop an appropriate number (2 to 3) of perspective renderings and other visual aids to illustrate the proposed project design. These meetings will be held at a location near the project limits or at Citizen's Square.

9. Right-of-way

   All work shall be designed so as to stay within the existing road right-of-way. No right-of-way engineering services shall be necessary for this PROJECT.

10. Maintenance of traffic

    Engineer shall develop maintenance of traffic plans such that two-way traffic will be maintained on Coldwater Road as well as access to all public streets and properties shall be maintained at all times during construction.

11. Permitting

    Engineer shall obtain all necessary permits prior to completion of design services. Required permits as follows:

    1. IDEM – Rule 5 Erosion Control Plan

C. SCOPE OF WORK

The duty of the ENGINEER is to design approved improvements; develop construction drawings, specifications and special provisions. The final construction documents shall be stamped by a Registered Professional Engineer, licensed in the state of Indiana and employed by the ENGINEER. The tasks identified for this project are provided in Attachment 1 – Scope of Services Fee Proposal. The ENGINEER shall develop and provide the following services associated with those tasks:

Project Schedule and Review Meetings

1.1 Prepare and update quarterly the project design schedule.

1.2 Keep the minutes of the Review and Coordination Meetings and distribute these minutes within 7 days of the Review Meeting.

Data Collection and Field Survey

2.1 Research CITY documents for existing mapping, utility information, as-built drawings, information management system and other pertinent data. (City will provide available information)

2.2 Identify utilities and their apparent location from Utility maps.

2.3 Check conflicts with any other proposed projects in the immediate area.

2.4 Contact all utility companies and have the underground utilities field marked along the selected route. (Coordinate with IUPPS)

2.5 Complete a field survey.

Preliminary Design Stages

Develop and submit preliminary design plans at 30%, 60% and 90% design stages as follows:

3.1 Prepare existing site drawings. (See Transportation Engineering Services, Drafting Standards)

3.2 Provide a utility location plan indicating apparent conflict areas.

3.3 Address apparent utility conflicts.

3.4 Compile additional data as needed.

3.5 Advise CITY of need for additional data relative to exploratory digs, pavement cores, soil borings and geotechnical evaluation issues all in accordance with good engineering practices. Provide a plan indicating recommended exploratory digs, pavement corings, soil borings and any areas of special interest prior to performing work. Fee for additional data work proposed shall be approved prior to commencing with the work.

3.6 Determine the final location of the proposed improvements, any permanent or temporary right-of-way or easement requirements.

3.7 Select construction materials and products to be used on this project after review with the City.

3.8 Prepare Preliminary Design Drawings and submit two (2) paper sets of plans and one (1) electronic version of the project drawings (AUTOCAD version 13 and PDF) for each design phase. Incorporate all design improvements.

3.9 Prepare outline of specifications or reference standard specifications to supplement CITY standards.

3.10 Prepare estimate of quantities and estimate of construction costs.

3.11 Attend Preliminary Design Review Meetings with each submittal.

3.12 Attend one public meeting to present and solicit public input on project.

3.13 Comments received from each design submittal shall be addressed with the next submittal.

Final Design

4.1 Prepare draft specifications for the improvements, including special provisions and necessary details to supplement CITY standards.

4.2 Prepare final design drawings. Incorporate comments received during the review meetings and routings.

4.3 Update summary of project quantities.

4.4 Upon approval of Final Design drawings and project specifications, prepare and submit one (1) set of stamped plans, itemized bid, special provisions and itemized engineers estimate and electronic version of the project drawings (AUTOCAD version 13 and PDF) and documents (Microsoft WORD and EXCEL).

Bidding

5.1 Attend Pre-bid Meeting.

5.2 Respond to questions from bidders and manufacturer representatives during bidding as requested by CITY. Responses requiring additional information or clarification not found within the bid documents shall ONLY be addressed by addendum.

5.3 Prepare addenda, as needed to interpret, clarify or expand bid documents. CITY to issue addenda.

5.4 Review and tabulate bids and make recommendation regarding construction contract award to the CITY.

D. SCHEDULE

The project will be completed per attached design schedule. This schedule is based on receiving a Notice to Proceed by April 1, 2015 and receiving prompt review and approvals from CITY.

ACTIVITY	DAYS
Field Survey	60
Pavement Evaluation	45
Preliminary Design	105
Final Design	30
Bidding	15

PART II

CITY'S RESPONSIBILITIES

City shall, at its expense, do the following in a timely manner so as not to delay the SERVICES:

A. INFORMATION REPORTS/CITY UTILITY MAPS/AERIAL MAPS/CONTOUR MAPS

Make available to ENGINEER reports, studies, regulatory decisions and similar information relating to the SERVICES that ENGINEER may rely upon without independent verification unless specifically identified as requiring such verification.

Provide ENGINEER with electronic copies of existing CITY utility maps, aerial maps and contour maps that are readily available.

B. REPRESENTATIVE

Designate a representative for the project who shall have the authority to transmit instructions, receive information, interpret and define CITY'S requirements and make decisions with respect to the SERVICES. The CITY representative for this AGREEMENT will be Shan Gunawardena, City Engineer.

C. DECISIONS

Provide all criteria and full information as to CITY'S requirements for the SERVICES and make timely decisions on matters relating to the SERVICES.

PART III

COMPENSATION

A. COMPENSATION

Compensation for services performed in accordance with Part I – SERVICES of this Agreement will be based on hours actually spent and expenses actually incurred with a not-to-exceed engineering fee of $253,315.98 as summarized in attached Attachment 1. Please note that there is a $30,000 work allowance included in the engineering fee for this project.

ENGINEER's costs will be based on the hours incurred to complete the project times the hourly rates of the various personnel, per Attachment # 2 – Employee Hourly Rate Schedule. All reimbursable costs incurred for the Project will be invoiced at actual cost.

Payment for outside consulting and/or professional services such as Geotechnical, Registered Land Surveyor for easement preparation, or Legal Services performed by a Subconsultant at actual cost to ENGINEER plus ten percent (10%) for administrative costs. The ENGINEER will obtain written CITY approval before authorizing these services.

B. BILLING AND PAYMENT

1. Timing/Format

   a. ENGINEER shall invoice CITY monthly for SERVICES **completed** at the time of billing. Such invoices shall be prepared in a form and supported by documentation as CITY may reasonably require.

   b. CITY shall pay ENGINEER within 30 days of receipt of valid approved invoice.

2. Billing Records

   ENGINEER shall maintain accounting records of its costs in accordance with generally accepted accounting practices. Access to such records will be provided during normal business hours with reasonable notice during the term of this Agreement and for 3 years after completion.

PART IV
STANDARD TERMS AND CONDITIONS

1. STANDARD OF CARE. Services shall be performed in accordance with the standard of professional practice ordinarily exercised by the applicable profession at the time and within the locality where the services are performed. No warranty or guarantee, express or implied, are provided, including warranties or guarantees contained in any uniform commercial code.

2. CHANGE OF SCOPE. The scope of Services set forth in this Agreement is based on facts known at the time of execution of this Agreement, including, if applicable, information supplied by ENGINEER and CITY. ENGINEER will promptly notify CITY of any perceived changes of scope in writing and the parties shall negotiate modifications to this Agreement.

3. SAFETY. ENGINEER shall establish and maintain programs and procedures for the safety of its employees. ENGINEER specifically disclaims any authority or responsibility for general job site safety and safety of persons other than ENGINEER employees.

4. DELAYS. If events beyond the control of ENGINEER, including, but not limited to, fire, flood, explosion, riot, strike, war, process shutdown, act of God or the public enemy, and act or regulation of any government agency, result in delay to any schedule established in this Agreement, such schedule shall be extended for a period equal to the delay. In the event such delay exceeds 90 days, ENGINEER will be entitled to an equitable adjustment in compensation.

5. TERMINATION/SUSPENSION. Either party may terminate this Agreement upon 30 days written notice to the other party in the event of substantial failure by the other party to perform in accordance with its obligations under this Agreement through no fault of the terminating party. CITY shall pay ENGINEER for all Services, including profit relating thereto, rendered prior to termination, plus any expenses of termination.

ENGINEER or CITY, for purposes of convenience, may at any time by written notice terminate the services under this Agreement. In the event of such termination, ENGINEER shall be paid for all authorized services rendered prior to termination including reasonable profit and expenses relating thereto.

6. REUSE OF PROJECT DELIVERABLES. Reuse of any documents or other deliverables, including electronic media, pertaining to the Project by CITY for any purpose other than that for which such documents or deliverables were originally prepared, or alternation of such documents or deliverables without written verification or adaptation by ENGINEER for the specific purpose intended, shall be at CITY's sole risk.

7. OPINIONS OF CONSTRUCTION COST. Any opinion of construction costs prepared by ENGINEER is supplied for the general guidance of the CITY only. Since ENGINEER has no control over competitive bidding or market conditions, ENGINEER cannot guarantee the accuracy of such opinions as compared to contract bids or actual costs to CITY.

8. RELATIONSHIP WITH CONTRACTORS. ENGINEER shall serve as CITY's professional representative for the Services, and may make recommendations to CITY concerning actions relating to CITY's contractors, but ENGINEER specifically disclaims any authority to direct or supervise the means, methods, techniques, sequences or procedures of construction selected by CITY's contractors.

9. MODIFICATION. This Agreement, upon execution by both parties hereto, can be modified only by a written instrument signed by both parties.

10. PROPRIETARY INFORMATION. Information relating to the Project, unless in the public domain, shall be kept confidential by ENGINEER and shall not be made available to third parties without written consent of CITY.

11. INSURANCE. ENGINEER shall maintain in full force and effect during the performance of the Services the following insurance coverage; provided, however, that if a High Risk Insurance Attachment is attached hereto, the requirements of the High Risk Insurance Attachment shall be substituted in lieu of the following requirements;

a) Worker's Compensation per statutory requirements
b)General Liability $1,000,000 minimum per occurrence/ $1,000,000 aggregate (If the value of the projects exceeds $10,000,000 then this shall be $5,000,000 aggregate).
c) Automobile Liability $1,000,000 per occurrence
d) Products Liability $1,000,000 per occurrence
e) Completed Operations Liability $1,000,000 minimum per occurrence

The Certificate of Insurance must show the City of Fort Wayne, its Divisions and Subsidiaries as an Additional Insured and a Certificate Holder, with 30 days notification of cancellation or non-renewal. All Certificates of Insurance should be sent to the following address:
City of Fort Wayne Purchasing Department
200 East Berry Street, Suite 490
Fort Wayne, IN 46802

12. INDEMNITIES. To the fullest extent permitted by law, ENGINEER shall indemnify and save harmless the City from and against loss, liability, and damages sustained by CITY, its agents, employees, and representatives by reason of injury or death to persons or damage to tangible property to the extent caused directly by the negligent errors or omissions of ENGINEER, its agents or employees.

13. LIMITATIONS OF LIABILITY. Each party's liability to the other for any loss, cost, claim, liability, damage, or expense (including attorneys' fees) relating to or arising out of any negligent act or omission in its performance of obligations arising out of this Agreement, shall be limited to the amount of direct damage actually incurred. Absent gross negligence or knowing and willful misconduct which causes a loss, neither party shall be liable to the other for any indirect, special or consequential damage of any kind whatsoever.

14. ASSIGNMENT. The rights and obligations of this Agreement cannot be assigned by either party without written permission of the other party. This Agreement shall be binding upon and insure to the benefit of any permitted assigns.

15. ACCESS. CITY shall provide ENGINEER safe access to any premises necessary for ENGINEER to provide the Services.

16. PREVAILING PARTY LITIGATION COSTS. In the event any actions are brought to enforce this Agreement, the prevailing party shall be entitled to collect its litigation costs from the other party.

17. NO WAIVER. No waiver by either party of any default by the other party in the performance of any particular section of this Agreement shall invalidate another section of this Agreement or operate as a waiver of any future default, whether like or different in character.

18. SEVERABILITY. The various term, provisions and covenants herein contained shall be deemed to be separate and severable, and the invalidity or unenforceability of any of them shall not affect or impair the validity or enforceability of the remainder.

19. AUTHORITY. The persons signing this Agreement warrant that they have the authority to sign as, or on behalf of, the part for whom they are signing.

20. STATUTE OF LIMITATION. To the fullest extent permitted by law, parties agree that, except for claims for indemnification, the time period for bringing claims regarding ENGINEER's performance under this Agreement shall expire one year after Project Completion.

21. CONSENT DECREE NOTIFICATION. ENGINEER shall perform, or cause others to perform, all services undertaken in connection with this Agreement in a good and workman-like manner and in conformance with the terms of the Consent Decree entered in the U.S District Court on April 1, 2008 by the United States and State of Indiana. ENGINEER acknowledges that it has been provided a complete copy of the Consent Decree which can be viewed at:
http://www.cityoffortwayne.org/utilities/images/stories/docs/consent_decree/Consent_Decree.pdf

22. DOCUMENT RETENTION. Notwithstanding any other provision of this Agreement, ENGINEER agrees to preserve all non-identical copies of all documents, records and other information (whether in physical or electronic form) within ENGINEER's possession or control and which relate, in any manner, to the performance of the services undertaken in connection with this Agreement for a period of 1 year after the completion contemplated by the Agreement (the "Retention Period"). Prior to the end of the Retention Period, or at any earlier time if requested by the CITY, ENGINEER shall provide the CITY with complete copies of such documents, records and other information at no cost to the CITY. The copies shall be provided to the CITY on CD or DVD media, and individual files shall be in Adobe PDF format. The individual files shall be contained in a ZIP formatted file, and the filename of the ZIP shall include the name of the project and the ENGINEER. No part of any file shall be encrypted or protected from copying. Such copies shall be accompanied by a verified written statement from the ENGINEER attesting that it has provided the CITY with complete copies of all documents, records and other information which relates to the service contemplated by the Agreement

ATTACHMENT 1

SCOPE SERVICE FEE PROPOSAL SUMMARY

AND FEE BREAKDOWN

Attachment 1 – Scope of Services Fee Proposal for Coldwater Road Concrete Street Rehabilitation

		Item Cost	Section Cost	Item Manhours	Section Manhours
Topographic Survey	Fee	$15,732.00	$15,732.00	142	142
Design Elements					
Pavement Evaluation -Field Testing	Fee:	$9,807.48		93	
Pavement Evaluation	Fee:	$19,797.50		162	
Roadway Design	Fee:	$57,506.00		613	
Drainage	Fee:	$1,391.00		14	
Landscape architecture	Fee:	$5,115.00		47	
Green infrastructure - Alternatives report development	Fee:	$5,861.00		54	
Green infrastructure - Selected alternatives design	Fee:	$15,591.00		141	
Traffic signals, signs, markings	Fee:	$18,698.00		201	
	Sub Total		$133,766.98		1325
Utility Coordination					
	Fee	$7,412.00	$7,412.00	78	78
Public Participation					
	Fee	$8,928.00	$8,928.00	90	90
Maintenance of Traffic					
	Fee	$16,667.00	$16,667.00	182	182
Permitting					
	Fee	$4,192.00	$4,192.00	44	44
Other Contract documents					
Preparation of Specifications	Fee:	$5,145.00		48	
Preparation of Special provisions	Fee:	$5,450.00		51	
Preparation of quantity take-offs	Fee:	$12,954.00		132	
Preparation of line item construction cost estimate	Fee:	$4,012.00		38	
	Sub Total		$27,561.00		269
Bidding					
Attend prebid meeting	Fee:	$620.00		6	
Respond to questions from bidders	Fee:	$2,099.00		20	
Prepare addenda as needed	Fee:	$1,612.00		16	
Review and tabulate bids and make recommendations to City	Fee:	$1,086.00		10	
	Sub Total		$5,417.00		52
Construction					
Attend pre-construction conference	Fee	$880.00		8	
Provide design clarifications to contractor as requested	Fee	$2,460.00		23	
	Sub Total		$3,340.00		31
Reimbursable Expenses	Fee	$300.00	$300.00		
Work Allowance			$30,000.00		
	Total Fee		$253,315.98		2,213

[1] Provide summary of costs seperately

Fee Breakdown			
Description		Design Fee	% Local Firm
Resource International	=	$27,467	
Earth Source, Inc (Local)	=	$30,535.00	13.67%
Apex Consulting (Local)	=	$14,920.00	6.68%
A&Z Engineering	=	$150,394.00	
Total Design Fee	=	$223,315.98	
Work Allowance	=	$30,000.00	
Subtotal	=	$253,315.98	20.35%

Coldwater Road Rehabilitation -Manhour and Fee Summary								
Task Description	A&Z Engineering		Resource International		Earth Source		APEX	
	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours
Topographic Survey	$ 812.00	8					$ 14,920.00	134
Pavement Evaluation -Field Testing	$ 540.00	5	$ 9,267.48	88				
Pavement Evaluation	$ 1,598.00	16	$ 18,199.50	146				
Roadway Design	$ 57,506.00	613						
Drainage	$ 1,391.00	14						
Landscape architecture	$ 840.00	8			$ 4,275.00	39		
Green infrastructure - Alternatives report development	$ 1,106.00	11			$ 4,755.00	43		
Green infrastructure - Selected alternatives design	$ 1,461.00	15			$ 14,130.00	126		
Traffic signals, signs, markings	$ 18,698.00	201						
Utility Coordination	$ 7,412.00	78						
Public Participation	$ 6,768.00	70			$ 2,160.00	20		
Maintenance of Traffic	$ 16,667.00	182						
Permitting	$ 4,192.00	44						
Other Contract documents								
Preparation of Specifications	$ 3,900.00	37			$ 1,245.00	11		
Preparation of Special provisions	$ 4,340.00	41			$ 1,110.00	10		
Preparation of quantity take-offs	$ 12,264.00	126			$ 690.00	6		
Preparation of line item construction cost estimate	$ 2,692.00	26			$ 1,320.00	12		
Bidding								
Attend prebid meeting	$ 620.00	6						
Respond to questions from bidders	$ 1,549.00	15			$ 550.00	5		
Prepare addenda as needed	$ 1,612.00	16						
Review and tabulate bids and make recommendations to City	$ 1,086.00	10						
Construction								
Attend pre-construction conference	$ 880.00	8						
Provide design clarifications to contractor as requested	$ 2,460.00	23						
Reimbursable Expenses	$				$ 300.00			
Total	$150,394.00	1573	$27,466.98	234	$30,535.00	272	$14,920.00	134

	Apex Consulting & Surveying				
	Coldwater Road Rehabilitation - Survey				2/9/2015
	FORT WAYNE, IN.				
ITEM	**DESCRIPTION**	**Service Type**	**HRS**	**RATE**	**TOTAL**
1	Research Plats along proposed route	F	0	55	$ -
2	Control Setup (Horizontal and Vertical)	D	4	130	$ 520
3	Locate Property Corners	E	0	100	$ -
4	Field Collection of Data (From gutterline to back of sidewalk) W/ GPS	D	40	130	$ 5,200
5	Field Collection of Data (detailed Intersections) W/ Total Station	D	24	130	$ 3,120
6	Structure details - (No inverts, just location of structures)	E	8	100	$ 1,600
7	Utility Coordination and Field Locates	E	16	100	$ 1,600
8	Office - Generating Topographic Survey Drawing for Design	C	40	67	$ 2,680
9	Final Q&C of Topographic Survey	A	2	100	$ 200
10	Easement Plat	EPP			$ -
11	Easement Descriptions	EDP			$ -
	TOTAL=				$ 14,920.00
	WE CAN COMPLETE THIS WORK IN 30 WORKING DAYS AFTER NOTICE TO PROCEED,			WEATHER PERMITTING.	

Service Description	Personnel	Invoice Rate
A - Surveyor	Nana Opoku	$100.00
B - Senior Technician CAD/Field	Nana Opoku	$67.00
C - Technician CAD/Field	Som Sirivath	$65.00
D - Two Man Field Crew	Joshua Schaffer and Phillip James	$130.00
E - One Man Field Crew	Christoper McCrea	$100.00
F - Administrative	Nana Opoku and Som Sirivath	$55.00
EPP - Easement Plat Preparation		
EDP - Easement Description Preparation		

Nana Opoku
McCrea Land Surveying, Inc. dba APEX Consulting & Surveying
921 Barr Street, Suite 200
Fort Wayne, IN 46802
PH: 260-755-5993
Fax: 888-808-4177
nopoku@apexsurveying.net

Resource International, Inc.

FEE JUSTIFICATION

MANHOURS BY CLASSIFICATION - FIELD WORK ONLY

A & Z Engineering

Coldwater Road Rehabilitation - City of Fort Wayne, Indiana

Task 1 - Mobilization and Planning	Project Manager	Sr. Project Engineer	Project Engineer	CADD Designer	Sr. Field Technician	Hours	NOTES
Mobilization- hours only	1	3			12	16	Mobilization to the job includes 2 technicians for 8 hours each. This mobilization is for all field tasks.
Task 2 - GPR - Field Only							
Field Work					12	12	
Task 3 - GPR Data Analysis -	Project Manager	Sr. Project Engineer	Project Engineer	CADD Designer	Sr. Field Technician	Hours	
Analysis and reporting - included with Evaluation						0	
Task 4 - Visual Inspection - ASTM D6433	Project Manager	Sr. Project Engineer	Project Engineer	CADD Designer	Sr. Field Technician	Hours	
Inspection per ASTM D6433					12	12	2 technicians in the field
Reporting - included with Evaluation						0	
Task 5 - FWD Testing and Analysis	Project Manager	Sr. Project Engineer	Project Engineer	CADD Designer	Sr. Field Technician	Hours	
FWD -design lane, right wheel path	1				16	17	2 technicians in the field
FWD - calculation of Resilient Modulus of subgrade and pavement structure - included with evaluation						0	
Total Hours	2.00	3.00	0.00	0.00	52.00	57.00	
Hourly Rate	$148.50	$132.00	$99.00	$66.00	$49.50		
TOTAL LABOR COST - Pavement Assessment, Analysis, and Recommendation	$297.00	$396.00	$0.00	$0.00	$2,574.00	$3,267.00	

Equipment & Mobilization		Days	LS	Unit Rate	Mileage	Totals	Notes
GPR	Equipment	1		$1,000.00		$1,000.00	
FWD	Equipment	1		$1,800.00		$1,800.00	
Mileage				$0.44	692	$304.48	One way is 173 miles from Columbus to Fort Wayne (2 vehicles x 2 trips x 173)
Per Diem		4		$30.00		$120.00	
Hotel		2		$120.00		$240.00	
Subtotal Equipment & Expenses						$3,464.48	
Traffic Control Sub		1		$2,536.00		$2,536.00	Traffic control by others
TOTAL DIRECT COSTS - Pavement Assessment, Analysis, and Recommendation						$6,000.48	

TOTAL ESTIMATED COST - Pavement Assessment			$9,267.48	

Coldwater Road Rehabilitation - Manhour Justification and Fee

Roadway Design

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Engr	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative	
Task Description							Totals	
Task: Data Collection & Field Survey	2	2	4	0	0	0	0	8
Research City docs exist mapping, utility, as-builts, etc			1					
Identify major utilities and location from maps			1					
Check conflicts with other projects								
Coordinate with subconsultant		1	2					
Project administration & management	2	1						
Task: Design of Roadway (Preliminary & Final)	64	117	233	196	0	0	3	613
30% / 60% / 90% Preliminary Design Plans								
Prepare project design schedule	3							
Clean-up survey data	1	1	16					
Prepare plan sheets / labeling features	2	4	32	16				
Utility location plan w/ apparent conflict areas		2	2					
Compile additional data as needed		1	1					
Select construction materials / products	1	2	2					
Title sheet and index		1	6					
Typical cross sections	1	4	5					
Curb ramp and sidewalk & raised median design and drafting	4	20	40	40				
Citilink Bus Stop ADA access & Coordination	1	4	4					
Storm drainage design and drafting as needed	1	2	6					
Design erosion control measures as needed	1	2	3					
Design and drafting for pavement repair areas	2	16	24	24				
Misc. Table sheets	1	4	8	8				
Misc. Detail sheets	2	8		24				
30% / 60% / 90% plans QA/QC review and revisions	12	2	24	24				
Submit 30% / 60% / 90% design documents		2		3				
Address comments from 30% / 60% /90 Plans	3	8	24	24				
Project design meetings	1	1	1	1				
Review meeting with City (3 ea)	6	6						
Project coordination 30% / 60% / 90%	3	9	3					
Final Design Plans								
Final design plan preparation	4	6	16	16				
QC/QA and revision for final plans	6	6	16	16				
Project administration & management (30%, 60%, 90% & Final)	9	6				3		
Task: Landscape Architecture	2	6	0	0	0	0	0	8
Coordination / review with city design		2						
Coordination with subconsultant	1	2						
Project administration & management	1	2						
Task: Green Infrastructure Alternative Development	3	6	0	1	0	0	1	11
Coordination / review with city design	1	1						
Coordinate with subconsultant		2						
Incorporate landscaping plans with road plans		1		1				
Project administration & management	2	2				1		
Task: Green Infrastructure Selected Alternative Design	3	5	4	2	0	0	1	15
Incorporate Green design plans with road plans		2	4	2				
Coordination / review with city design	1	1						
Project administration & management	2	2				1		
Task: Pavement Evaluation: Field Testing	2	3	0	0	0	0	0	5
Coordination with sub consultant		2						
Project administration& management	2	1						
Task: Pavement Evaluation	2	8	6	0	0	0	0	16
Coordination with sub consultant		2						
Submit report for review and approval		1						
Incorporate recommendation into design		4	6					
Project administration& management	2	1						
Totals	70	147	247	199	0	0	5	676

Coldwater Road Rehabilitation - Manhour Justification and Fee

Roadway Design

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Engr	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative		
Project Labor Summary									
Task Description								Totals	Labor Totals
Data Collection & Field Survey	2	2	4	0	0	0	0	8	$ 812
Design of Roadway (Preliminary & Final)	64	117	233	196	0	0	3	613	$ 57,506
Landscape Architecture	2	6	0	0	0	0	0	8	$ 840
Green Infrastructure -Alternative Development	3	6	0	1	0	0	1	11	$ 1,106
Green Infrastructure -Selected Alternative Design	3	5	4	2	0	0	1	15	$ 1,461
Pavement Evaluation -Field Testing	2	3	0	0	0	0	0	5	$ 540
Pavement Evaluation	2	8	6	0	0	0	0	16	$ 1,598
Hour Totals	78	147	247	199	0	0	5	676	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 63,863
Labor Totals	$ 9,360	$ 14,700	$ 22,971	$ 16,517	$ -	$ -	$ 315	$ 63,863	
Total Labor Cost									$ 63,863

Coldwater Road Rehabilitation - Manhour Justification and Fee

Drainage

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative	
Task Description							Totals	
Task 2 Design of Drainage	2	5	7	0	0	0	0	14
30% / 60% / 90% Drainage Design								
Design and draft for Potential drainage structure relocation for curb ramps	1	3	6					
QC/QA and revisions		1	1					
Project admin, coordination (Technical)	1	1						
Totals	2	6	7	0	0	0	0	14

Project Labor Summary

Task Description								Totals	Labor Totals
Design of Drainage	2	5	7	0	0	0	0	14	$ 1,391
Hour Totals	2	5	7	0	0	0	0	14	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	83.00		
Labor Totals	$ 240	$ 500	$ 651	$ -	$ -	$ -	$ -	$ 1,391	
Total Labor Cost									$ 1,391

Scope of Services Fee Proposal for Coldwater Road Concrete Street Rehabilitation

Earth Source, Inc.

Design Elements	Item Cost	Man-hours	Principal	PM
Landscape architecture	$4,275*	39	6hrs	33hrs
Green Infrastructure – Alternatives Report development	$4,755	43	8hrs	35hrs
Green Infrastructure – Selected alternatives design	$14,130**	126	30hrs	96hrs
Public Participation	$2,160***	20	2hrs	18hrs
Other Contract documents				
Preparation of Specifications	$1,245	11	3hrs	8hrs
Preparation of Special provisions	$1,110	10	2hr	8hrs
Preparation of quantity take-offs	$690	6	2hr	4hrs
Preparation of line item construction cost estimate	$1,320	12	2hrs	10hrs
Bidding				
Respond to questions from bidders	$555	5	1hrs	4hrs
Reimbursable Expenses	$300			

* Assumes a landscape planting project budget, exclusive of street trees, of approximately $60,000 based upon approximately 3% of the total anticipated project cost. Should budget amount be lower or higher than this amount, then design fees may be negotiated accordingly to an amount agreed upon by engineer and City.

** Assumes maximum Green Infrastructure project budget of $200,000 based upon 10% of total anticipate project cost. Should budget amount decrease, then design fees may be negotiated accordingly to an amount agreed upon by engineer and City.

*** Includes Green Infrastructure and Landscape Plan color rendering for use in the public presentations.

Coldwater Road Rehabilitation - Manhour Justification and Fee

Traffic Signals, Signs and Markings

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative	
Task Description							Totals	
Task Traffic Signal (4 Signalized Intersections)	10	44	0	65	0	0	1	120
30% / 60% / 90% Traffic Signal Design (6-signals)								
Drawing Setup		1		4				
Preliminary Traffic Signal Design and Layout 30%	1	26		35				
Revisions per 30% Plans Comments		3		5				
Design and submit signal plans for 60% plans		3		4				
Revise Plan for 60% plans comments		2		3				
Design and submit signal plan for 90% plans		3		4				
Revise Plan for 90% plans comments		3		3				
Preliminary & Final plans QC/QA review and revisions	5	1		6				
Submit final plans	1			1				
Project Admin & Coordination	3	3				1		
Task Signs	6	14	0	17	0	0	1	38
Drawing Setup		1		2				
Preliminary sign design and layout for 30%	1	3		2				
Revisions per 30% Plans Comments		1		2				
Design Plan for 60% plans & Detail		1		2				
Revisions per 60% Plans Comments		1		2				
Design & Detail for 90% plans		1		2				
Revise per 90% plans comments		1		2				
Preliminary & Final plans QC/QA review and revisions	2	2		2				
Submit final plans Phases 1 and 2		1		1				
Project admin, coordination (Technical)	3	2				1		
Task Markings	7	14	0	21	0	0	1	43
Drawing Setup		1		2				
Preliminary pavement marking design and Layout 30%	2	3		4				
Revisions per 30% Plans Comments		1		2				
Design Plan for 60% plans & Detail		2		3				
Revisions per 60% Plans Comments		1		2				
Design & Detail for 90% plans		1		2				
Revisions per 90% plans comments		1		2				
Preliminary & Final plans QC/QA review and revisions	2	1		3				
Submit final plans Phases 1 and 2		1		1				
Project admin, coordination (Technical)	3	2				1		
Task	0	0	0	0	0	0	0	0
Totals	23	72	0	103	0	0	3	201

Project Labor Summary Task Description								Totals	Labor Totals
Traffic Signal (4 Signalized Intersections)	10	44	0	65	0	0	1	120	$ 11,058
Signs	6	14	0	17	0	0	1	38	$ 3,594
Markings	7	14	0	21	0	0	1	43	$ 4,046
	0	0	0	0	0	0	0	0	$ -
Hour Totals	23	72	0	103	0	0	3	201	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 18,698
Labor Totals	$ 2,760	$ 7,200	$ -	$ 8,549	$ -	$ -	$ 189	$ 18,698	
Total Labor Cost									$ 18,698

Coldwater Road Rehabilitation - Manhour Justification and Fee

Utility Coordination

A&Z ENGINEERING

Project Manhour Budget		Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative	Totals	
	Task Description									
Task		1	4	6	0	2	0	1	14	
30%	Attend Monthly City Utility Meetings (2 ea)			2						
	Send letters to utilities		1	1						
	Send letter & plans to request verification of utility facilities		1	1		2		1		
	Project Admin, Coordination	1	2	2						
Task		2	2	20	0	0	0	2	26	
60%	Attend Monthly City Utility Meetings			2						
	Prepare letters & 60% Plans for Distribution to Utilities		1	1				1		
	Review plans for potential conflicts with utilities		1	4						
	Meeting with utility companies for utility relocations (office)			3						
	On-Site Meeting W/ Utilities			6						
	Request utility relocation plans			2						
	Project Admin, Coordination	2		2				1		
Task		4	11	22	0	0	0	1	38	
90%	Attend Monthly City Utility Meetings (2 ea)			2						
	Quality Control Reviewfor utility Relocations plans		2	3						
	Coordinate with Utilities for Relocation Plans Revisions		2	3						
	Work with Utility for Conflicts Elimination		2	4						
	Project Admin, Coordination	2	1	2				1		
Final	Review Final Relocation Plans		2	4						
	Issue Relocation Plans Approval		2	2						
	Project admin, coordination (Technical)	2		2						
Totals		7	17	48	0	2	0	4	78	

Project Labor Summary

Task Description								Totals	Labor Totals
Utility Coordination Totals	7	17	48	0	2	0	4	78	$ 7,256
Hour Totals	7	17	48	0	2	0	4	78	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 7,256
Labor Totals	$ 840	$ 1,700	$ 4,464	$ -	$ 156	$ -	$ 252	$ 7,412	
Total Labor Cost									$ 7,412

Coldwater Road Rehabilitation - Manhour Justification and Fee

Public Meetings / Presentation Materials

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative	
Task Description							Totals	
Task Attend Public Meetings	7	8	0	0	0	0	0	15
Attend public meetings (assumed 2 ea)	5	5						-
Meeting minutes and distribution	1	2						
Project admin, coordination (Technical)	1	1						
Task Public Meeting Conceptual Renderings	12	7	0	36	0	0	0	55
Prepare project plan renderings		2		24				
Prepare project description and Powerpoint	10	2		6				
Prepare project plans / aerials / displays		2		6				
Project admin, coordination (Technical)	2	1						
0	0	0	0	0	0	0	0	0
Totals	19	15	0	36	0	0	0	70

Project Labor Summary									
Task Description								Totals	Labor Totals
Attend Public Meetings	7	8	0	0	0	0	0	15	$ 1,640
Public Meeting Conceptual Renderings	12	7	0	36	0	0	0	55	$ 5,128
0	0	0	0	0	0	0	0	0	$ -
Hour Totals	19	15	0	36	0	0	0	70	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 6,768
Labor Totals	$ 2,280	$ 1,500	$ -	$ 2,988	$ -	$ -	$ -	$ 6,768	
Total Labor Cost									$ 6,768

Coldwater Road Rehabilitation - Manhour Justification and Fee

Maintenance of Traffic

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative	
Task Description							Totals	
Task Preliminary Design 30%	2	14	0	23	0	0	0	39
Setup Drawing, Legend		2		6				
Prepare Prel. General phasing layout and constr. signs		8		14				
QC/QA and Revisions		2		3				
Project admin, coordination (Technical)	2	2						
Task Preliminary Design 60%	4	23	0	46	0	0	0	73
Markups/Revisions of 30% Drawings		3		6				
Design & Draft Individul Traffic Control Phasing		16		32				
QC/QA and Revisions	2	2		8				
Submittal Document		1						
Project admin, coordination (Technical)	2	1						
Task Preliminary Design 90%	4	12	0	24	0	0	0	40
Markups/Revisions of 60% Drawings		2		6				
Final MOT Plans		6		16				
QC/QA and Revisions	2	2		2				
Project admin, coordination (Technical)	2	2						
Task Final Design	6	8	0	16	0	0	0	30
QA/QC and Revisions	2	2		6				
Prepare Final Design dwgs		2		4				
QA/QC and Revisions	2	2		6				
Project admin, coordination (Technical)	2	2						
Totals	16	57	0	109	0	0	0	182

Project Labor Summary									
Task Description								Totals	Labor Totals
Preliminary Design 30%	2	14	0	23	0	0	0	39	$ 3,549
Preliminary Design 60%	4	23	0	46	0	0	0	73	$ 6,598
Preliminary Design 90%	4	12	0	24	0	0	0	40	$ 3,672
Final Design	6	8	0	16	0	0	0	30	$ 2,848
Hour Totals	16	57	0	109	0	0	0	182	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 16,667
Labor Totals	$ 1,920	$ 5,700	$ -	$ 9,047	$ -	$ -	$ -	$ 16,667	
Total Labor Cost									$ 16,667

Coldwater Road Rehabilitation - Manhour Justification and Fee

Permitting

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative		
Task Description								Totals	
Task Rule 5	4	16	12	12	0	0	0	44	
Rule 5 and SWPPP permit	2	12	12	12					
Furnish permit apps for signatures		3							
Project admin, coordination	2	1							
Task IDEM 401 Permit	0	0	0	0	0	0	0	0	
IDEM 401 Permit									
Furnish permit apps for signatures									
Project admin, coordination									
Project Labor Summary									
Task Description								Totals	Labor Totals
Rule 5	4	16	12	12	0	0	0	44	$ 4,192
IDEM 401 Permit	0	0	0	0	0	0	0	0	$ -
Hour Totals	4	16	12	12	0	0	0	44	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 4,192
Labor Totals	$ 480	$ 1,600	$ 1,116	$ 996	$ -	$ -	$ -	$ 4,192	
Total Labor Cost									$ 4,192

Coldwater Road Rehabilitation - Manhour Justification and Fee

Other Contract Documents

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative	
Task Description							Totals	
Task Specifications	10	27	0	0	0	0	0	37
30% / 60% / 90% outline specifications	2	14						
Final draft specifications	2	6						
Update final draft specifications & QC/QA	4	2						
Submit final Design specifications		3						
Project admin, coordination	2	2						
Task Special Provisions	12	29	0	0	0	0	0	41
Final draft special provisions	4	16						
Update final draft special provisions & QC/QA	4	8						
Submit final Design special provisions	2	3						
Project admin, coordination	2	2						
Task Quantity Take-offs	14	24	88	0	0	0	0	126
30% / 60% / 90% project quantities		8	60					
Final project quantities	4	8	24					
QC/QA & Update final project quantities	6	4	4					
Submitfinal design project quantities	2	2						
Project admin, coordination	2	2						
Task Construction Cost Estimate	6	16	4	0	0	0	0	26
30% / 60% / 90% cost estimate	1	8	2					
Final cost estimate Phases	1	3	2					
Update final cost estimate & QC/QA	2	2						
Submit final design cost estimate		2						
Project admin, coordination	2	1						
Totals	42	96	92	0	0	0	0	230

Project Labor Summary									
Task Description								Totals	Labor Totals
Specifications	10	27	0	0	0	0	0	37	$ 3,900
Special Provisions	12	29	0	0	0	0	0	41	$ 4,340
Quantity Take-offs	14	24	88	0	0	0	0	126	$ 12,264
Construction Cost Estimate	6	16	4	0	0	0	0	26	$ 2,692
Hour Totals	42	96	92	0	0	0	0	230	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 23,196
Labor Totals	$ 5,040	$ 9,600	$ 8,556	$ -	$ -	$ -	$ -	$ 23,196	
Total Labor Cost									$ 23,196

Coldwater Road Rehabilitation - Manhour Justification and Fee

Bidding

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative	
Task Description								Totals
Task 5 Pre-Bid Meeting	1	5	0	0	0	0	0	6
5.1 Attend Pre-Bid meeting		3						
Project admin, coordination	1	2						
Task 5 Bidder Questions	4	8	2	1	0	0	0	15
5.2 Assist with bidder questions, clarifications	3	6	2	1				
Project admin, coordination	1	2						
Task 5 Addenda	4	8	0	4	0	0	0	16
5.3 Prepare addenda, clarifications, interpretations	3	6		4				
Project admin, coordination	1	2						
Task 5 Bid Tabulation	5	3	2	0	0	0	0	10
5.4 Review and tabulate bids, make recommendation	4	2	2					
Project admin, coordination	1	1						
Totals	14	24	4	5	0	0	0	47

Project Labor Summary									
Task Description								Totals	Labor Totals
Pre-Bid Meeting	1	5	0	0	0	0	0	6	$ 620
Bidder Questions	4	8	2	1	0	0	0	15	$ 1,549
Addenda	4	8	0	4	0	0	0	16	$ 1,612
Bid Tabulation	5	3	2	0	0	0	0	10	$ 1,086
Hour Totals	14	24	4	5	0	0	0	47	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 4,867
Labor Totals	$ 1,680	$ 2,400	$ 372	$ 415	$ -	$ -	$ -	$ 4,867	
Total Labor Cost									$ 4,867

Coldwater Road Rehabilitation - Manhour Justification and Fee

Construction

A&Z ENGINEERING

Project Manhour Budget	Sr Project Mgr	Sr Project Eng	Sr Engr / Dsgnr	Engr / Dsgnr	Sr Technician	Technician	Administrative		
Task Description								Totals	
Task Pre-Construction Conference	4	4	0	0	0	0	0	8	
Attend Pre-Construction conference	3	3							
Project admin, coordination	1	1							
Task Construction Clarifications	8	15	0	0	0	0	0	23	
Provide design clarifications to contractor as needed	6	14							
Project admin, coordination	2	1							
Totals	12	19	0	0	0	0	0	31	

Project Labor Summary									
Task Description								Totals	Labor Totals
Pre-Construction Conference	4	4	0	0	0	0	0	8	$ 880
Construction Clarifications	8	15	0	0	0	0	0	23	$ 2,460
Hour Totals	12	19	0	0	0	0	0	31	
Labor Rate	120.00	100.00	93.00	83.00	78.00	68.00	63.00		$ 3,340
Labor Totals	$ 1,440	$ 1,900	$ -	$ -	$ -	$ -	$ -	$ 3,340	
Total Labor Cost									$ 3,340

ATTACHMENT 2

EMPLOYEE HOURLY RATE SCHEDULE

A&Z Engineering, LLC

EMPLOYEE HOURLY RATE SCHEDULE

EMPLOYEE/SERVICE DESCRIPTION	RATE
Principal / Senior Project Manager	$ 120.00
Senior Project Engineer / Senior Consultant	$ 100.00
Senior Engineer / Senior Designer	$ 93.00
Engineer / Designer	$ 83.00
Senior Technician / Senior Inspector	$ 78.00
Technician / Inspector	$ 68.00
Administrative / Clerical	$ 63.00

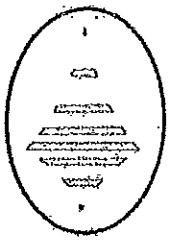
❖ APEX CONSULTING & SURVEYING, INC. ❖

921 Barr Street, Suite 200. Fort Wayne, Indiana 46802
Phone: (260) 755-5993 Fax: (888) 808-4177
Info@apexsurveying.net

EMPLOYEE/SERVICE DESCRIPTION RATE

Classification Invoice Rate
A - Surveyor - $100.00
B - Senior Technician CAD/Field - $ 67.00
C - Technician CAD/Field - $ 65.00
D - Two Man Field Crew - $ 130.00
E - One Man Field Crew - $ 100.00
F - Administrative - $55.00

Service Description	Personnel	Invoice Rate
A - Surveyor	Nana Opoku	$100.00
B - Senior Technician CAD/Field	Nana Opoku	$67.00
C - Technician CAD/Field	Sorn Sirivath & Joshua Schaffer	$65.00
D - Two Man Field Crew	Joshua Schaffer and Phillip James	$130.00
E - One Man Field Crew	Christopher McCrea	$100.00
F - Administrative	Nana Opoku	$55.00



Earth·Source Inc

Billing Rates for services when basis of compensation is hourly cost or additional services.

Effective: 1/01/15
Expires: 12/31/15

Senior Wetland Scientist	$ 135.
Senior Landscape Architect	135.
Project Manager	105.
Professional Wetland Scientist	105.
Professional Landscape Architect	105.
Wetland Specialist II	75.
Professional Design Staff	75.
Field /Design Technician	65.
Secretarial/Computer Services	58.

Expert Witness: testimony, hearings, depositions and preparation will be performed on an hourly basis at twice (2x), the **ESI** rate schedule.

Miscellaneous Reimbursable Charges shall be billed at 1.15 times the actual cost. Reimbursable expenses are generally described as follows:

Reproductions, prints, copies, postage, long distance communications, out-of-town travel, lodging and subsistence expenses, and general out-of-pocket expenses.

Mileage shall be billed at $0.56/mile or prevailing federal rate.

Earth Source, Inc.
14921 Hand Road, Fort Wayne, IN 46818 PH: (260) 489-8511 FAX: (260) 489-8607

RESOURCE INTERNATIONAL, INC.

Standard Unit Price Fee Schedule for Coldwater Road Pavement Rehabilitation City of Fort Wayne, Indiana

Pavement Assessment, Analysis and Recommendations

Project Manager	Per hour	$148.50
Senior Project Engineer	Per hour	$132.00
Project Engineer	Per hour	$99.00
CADD Designer	Per hour	$66.00
Sr. Field Technician	Per hour	$49.50

REIMBURSABLE COSTS

Equipment and Mobilization

Ground Penetrating Rader (GPR)	Per day	$1000.00
Falling Weight Deflectometer (FWD)	Per day	$1800.00
Mileage	Per mile	$ 0.44
Per Diem	Per day	$ 30.00
Hotel	Per day	$ 120.00

6350 Presidential Gateway, Columbus, Ohio 43231
Phone 614-823-4949, Fax 614-823-4990

ATTACHMENT 3

FEE JUSTIFICATION DESCRIPTION

ATTACHMENT 3

Coldwater Road Pavement Rehabilitation
Project No. 12496
Fort Wayne, Allen County, IN

DESIGN SERVICE FEE JUSTIFICATIONS

PROJECT DESIGN SERVICE FEE

A&Z team will provide full engineering and design services for the project scope indicated in Part 1, "**Service**", and the **Attachment 1** of the Professional Services Agreement (PSA). The City's project scope indicated that the project will be to improve on Coldwater Road from Coliseum Blvd to Washington Center Road.

Our design fee, which includes additional key project development steps, is based on the following fee justification:

Field Survey

Topographic Land Surveying Services

- Provide temporary benchmarks with an established elevation to the nearest 0.01. The benchmark shall be established and referenced to NAVD 1988 datum. The description and elevation of the benchmark shall be clearly stated and referenced on the plat of survey.
- Similarly, horizontal control points will be established at the major intersection. The description of each control point shall be clearly stated and referenced on the plat of survey.
- Establish existing site contours at 1-foot intervals, with intermediate contours established every five feet.
- Establish spot elevations within the project site to emulate a 50 to 100-foot square grid pattern from gutter line to back of sidewalk on the east and from gutter line to back of sidewalk on the west side of Coldwater using GPS. The concrete median and marked up concrete panels will be located with elevations.
- Establish spot elevations of all adjacent roadways and streets, including intersections, in a manner to emulate a 50-foot square grid pattern, using a total station.
- Elevations on paving or other hard surfaces shall be to the nearest 0.05' at the major intersections and to the nearest 0.10' throughout the rest of the project, and on other surfaces to the nearest 0.10' to 0.20'.
- Establish the location of structures, above ground, man-made (e.g. paved areas) and natural features, based on visible appurtenances.
- Locate existing trees of 6" and over caliper within a 2" tolerance. In thickly wooded area the perimeter of the woods will also be established.

Utility Land Surveying Services

- Establish the location of existing water services, including the location of all controls, valves and drinking fountains evidenced by above-grade visible appurtenances.
  Sizes and depth of the water services will be retraced per as-built records provided by owner.
- Establish the location of existing communication systems, including the location of all poles, and equipment including associated pads and support systems evidenced by above-grade visible appurtenances.

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- Establish the location of all sanitary sewer manholes, and cleanouts, based on the visible location of manholes encountered during the course of this survey.
- Establish the location of all storm sewer manholes, drainage castings and culverts, based on the visible location encountered during the course of this survey.

Pavement Assessment and Evaluations

The pavement assessment and evaluations will be completed prior to the 30% submission stage. This task will start as soon as A&Z receives a Notice To Proceed (NTP) from the City. The pavement evaluation will be completed within 60 days of authorization of the project. The scope of the services includes the following:

Visual Evaluation - Perform a visual evaluation of the pavement using ASTM D6433, Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys method (Pavement Condition Index) to provide a baseline of the pavement deficiencies including corner breaks, transverse and longitudinal cracking, and faulting. The PCI method allows a complete mapping of the pavement deficiencies and provides a numerical rating from 0 to 100, with 100 representing the best possible pavement condition. The resultant PCI ratings provide an excellent indication of pavement condition and locate higher distress areas.

Ground Penetrating Radar - Rii will use Ground Penetrating Radar (GPR) to evaluate the condition of the existing concrete pavement and subbase materials. The GPR will be used to determine:

- Pavement layer thicknesses
- Moisture conditions
- Utility crossings
- Void in pavement/base structure
- Transverse and longitudinal joint condition

Falling Weight Deflectometer - Utilize Fall Weight Deflectometer (FWD) testing to calculate stiffness-related parameters of the pavement structure. The moduli of individual layers are calculated based on surface deflections induced by the FWD machine and the pavement layer thickness. These moduli provide critical information regarding the pavement's structural condition. The subgrade Resilient Modulus, M_R, is used in MEPDG pavement design. A JILS-20HD heavy FWD will be used with thick pavement structures and where heavy truck loading is normal.

Evaluation and Recommendation - Evaluate all of the collected data as well as any geotechnical information (by others) to assess the current pavement condition and deficiencies to determine a matrix of rehabilitation options. Each option will assessed to determine capital costs of implementation and longevity of treatment/rehabilitation to determine the most cost effective option (life cycle cost analysis). Additionally we will evaluate innovative rehabilitation techniques and solutions that may not currently be in use by the City. These may include "green" options that use recycled materials such as rubber tire asphalt mixtures or recycled concrete aggregate. The City of Fort Wayne design standards and the INDOT 2013 Design Manual will be used to provide a recommended pavement rehabilitation design. A&Z team will provide the evaluation along with the recommended option to the City for acceptance.

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Roadway Design

The roadway design fee includes the design of all roadway design elements (except traffic signal, signage, pavement markings, drainage and maintenance of traffic), design plan preparation, and plan submission. Also included are meeting and project coordination. The activities for the roadway design elements include roadway geometrics, concrete curbs, sidewalks, pavement, ADA requirements, raised median and lane configuration at signalized intersections and erosion control measures.

The plan preparation and submission will be completed in two phases, detailed as follows:

- The preliminary design phase will include preparing plans for 30%, 60% and 90% design stages.
- The final design phase will include completing the remaining 10% of the design plans and submitting them to the City for the purpose of construction plans.

Drainage

The drainage design fee includes minor structure and casting adjustments due to the conflits with the proposed curb ramps and pavement replacement. NO drainage analysis is included in the fee.

Landscape Architecture

The landscape architecture design fee includes the conceptual and final landscape design, specifications and details, exclusive of street trees, of the available green spaces in conjunction with green alternatives included in the project scope. Plantings will be coordinated with the City of Fort Wayne Parks Department Arborist and Landscape Architect and will be carefully selected to tolerate urban conditions and harsh environments.

It is assumed that the construction budget for landscape plantings, exclusive of street trees, will be approximately 3% ($60,000) of the total project construction cost. Should the construction budget be lower or greater than this amount, the design fee for this work may be negotiated accordingly to an amount agreed upon by the engineer and the City.

Green Infrastructure

The green infrastructure design service fee was divided into two separate phases consisting of an Alternatives Report Development phase and the Selected Alternatives Design phase.

The Alternatives Report Development phase consists of preparing an alternatives report with associated benefits, detriments, and costs for review and selection of desired alternatives by the City. This plan will aid in determining ideal locations for implementation of green infrastructure to maximize both the effectiveness of the systems as well as gain the greatest benefit for dollars spent. Post construction maintenance as well as initial and recurring costs will be a driving factor in the selection, placement and design of these systems.

Green infrastructure shall be limited to mow-able alternatives, with the possible exception of intersection areas where decorative planting may be considered for differentiation of area and

beautification. Green infrastructure initiatives shall address storm water treatment (first inch of rainfall) and also address subsurface drainage in lieu of underdrains.

The Selected Alternatives Design phase consists of preparing the design plans for the alternatives selected by the City for implementation. Since the selected alternatives may vary in number, scope and complexity, it is assumed, as directed by the City, that the construction budget for the selected alternatives will be no greater than 10% ($200,000) of the total project construction cost. Should the construction budget be lower or greater than this amount, the design fee for this work may be negotiated accordingly to an amount agreed upon by the engineer and the City.

Traffic Signals, Signs and Markings

The design fee includes the design of traffic signal modifications for 4 intersections, new pavement markings for both northbound and southbound lanes and additional new traffic signs.

Utility Coordination

Utility Coordination is very important on this project and must be carefully executed to prevent delays, and increased construction costs. Knowing the location existing underground utilities and conflicts will expedite the design and allow the engineers to meet the letting schedule. Wesley Downing, an INDOT certified utility coordinator, will be assigned as the utility coordination leader making sure the line of communication stays open throughout the design phase.

Public Meetings/presentation materials

This work item includes having key project representatives attend and present at not more than two public meetings. The meeting preparations include developing rendered perspective and plan view figures which illustrate the proposed project design. We will also develop a typical streetscape cross section illustration.

Maintenance of Traffic (MOT)

The MOT design fee includes plan preparation, design of multiple construction phases and traffic control devices.

Permits

The only construction permit required for this scope of work is an IDEM Rule 5 Permit. The services to obtain the permit would include development of temporary erosion and sediment control plans necessary to be included in the construction plans, as well as developing Stormwater Pollution Prevention Plan (SWPPP) to be submitted to Allen County Soil and Water Conservation District. All costs associated with this permit (public notice, application fee are included in the fee. It is anticipated that the IDEM Section 401 water quality certification is not required for the project.

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Coldwater Road Pavement Rehabilitation
Project No. 12496
Fort Wayne, Allen County, IN

Contract Documents

The contract documents including quantity calculations, cost estimates, special provisions and specifications. A copy of the draft contract document will be prepared and submitted for review and comments for the Preliminary Design and Final Phases.

The final contract documents will be completed after the City concurs with the 90% design. The final contract documents will be completed and will be ready for bidding in early February 2016.

Prepared by:

A&Z ENGINEERING

DIGEST SHEET

Department: Transportation Engineering

Resolution Number: N/A (W/O# 0062C)

Title of Ordinance: Coldwater Rd Concrete Street Rehabilitation – between Colisem Blvd and Washington Center Rd. – (LPA Consultants Agreement – A&Z Engineering LLC.)

Awarded To: A&Z Engineering LLC.

Amount of Contract: Agreement fee of $253,315.98 which sets the original contract amount of which 100% is locally funded by infrastructure bond.

Number of Bidders: 5 Proposals, 3 Selected for CSP proposals

Description of Project (Be Specific):
Contract is between the City of Fort Wayne and A&Z Engineering LLC for Design Engineering including pavement evaluation, roadway design, landscape architecture, green infrastructure, traffic signals, markings, utility coordination, public participation, maintenance of traffic, permitting, contract documents, bidding, and construction assistance. Project includes a $30,000 work allowance.

What Are The Implications If Not Approved:
If the project improvements do not occur, the roadway will continue to deteriorate, complaints will increase and public safety will decrease.
This project has been in the long range transportation plan for many years and we have received requests for improvements from area residents, commuters and businesses. If this contract is not approved, existing and future traffic conditions will continue to deteriorate.

If Prior Approval Is Being Requested, Justify: N/A

Additional Comments: A&Z Engineering was selected using the City's competitive sealed proposal selection process to perform the design engineering on this project. The request for proposals was sent to all interested consultants and we received five proposals. These proposals were reviewed and scored by city guidelines and A&Z was selected as the most responsive firm. They have been involved with many design projects for the City, County and surrounding communities who have been pleased with their services. The contract, including the set rates for each service have been reviewed and approved by Public Works.

Patrick Zaharako
Signature

4/1/15
Date