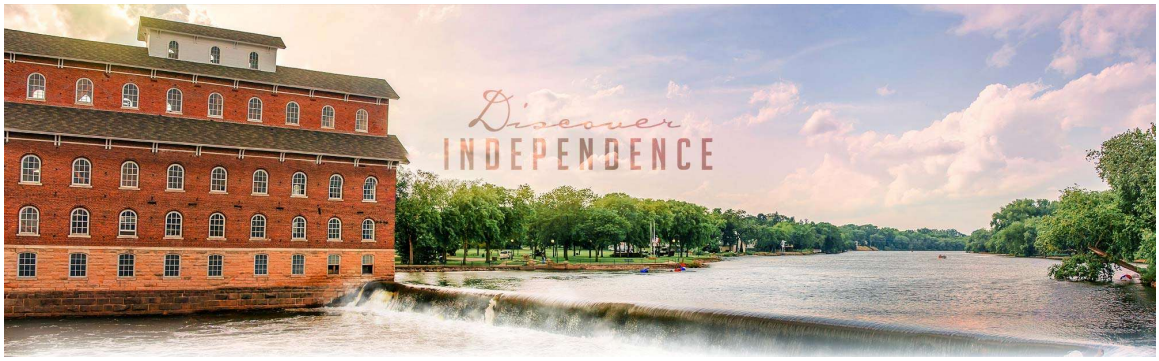

City of Independence Statement of Qualifications and Proposal for Storm Drainage Improvements in the 812 3rd Street NW Area Project

February 16, 2024

Submitted By:
Crawford Engineering & Surveying, Inc.
118 Third Avenue NE, PO Box 793
Independence, Iowa 50644
Telephone: 319/334-7077
Email: cesi2@indytel.com

Crawford
Engineering & Surveying

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CRAWFORD
Engineering & Surveying, Inc.

118 Third Avenue NE
Post Office Box 793
Independence, Iowa 50644
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(319) 334-7078 Fax

February 16, 2024

Mr. Matthew R. Schmitz
City Manager
City of Independence, Iowa
331 1st Street East
Independence, Iowa 50644

RE: Statement of Qualifications and Proposal
Storm Drainage Improvements in the 812 3rd St. NW Area

Dear Matthew,

Crawford Engineering is pleased to submit our Statement of Qualifications and Proposal for the Storm Drainage Improvements in the 812 3rd St. NW Area. We appreciate the relationship we have with the City of Independence staff and leadership. Over our company's 40-year history with the City, we have and will continue to serve as an extension of your staff for this important storm water analysis and improvements project. Crawford Engineering is uniquely qualified to perform the tasks outlined in the request. We possess intimate knowledge of the existing storm sewer system and are familiar with areas of localized flooding that have occurred. The recently completed stormwater study in the Northwest part of town gives us particular insight to the challenges of the area.

We have a proven track record of working with City staff to provide critical data and design solutions to the City's infrastructure challenges. We are ready to continue that partnership with you to perform this work and provide tangible stormwater solutions for our community.

The attached document follows the outline provided in the Storm Drainage Improvements RFQ/P invitation. We are confident the information contained within this proposal will demonstrate our experience and expertise with stormwater analysis and implementing system improvements.

We appreciate the opportunity to work with you on this project and look forward to continuing our relationship with you and your staff.

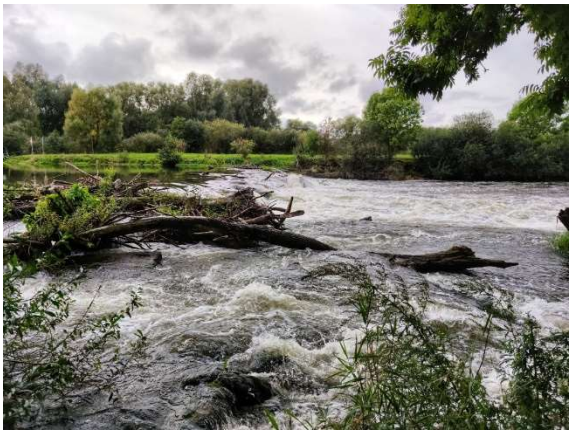
Sincerely,

CRAWFORD ENGINEERING & SURVEYING, INC.

Mark A. Crawford, P.E. & L.S.I.

Part 1: Statement of Qualifications

Introduction



Periodic flooding has occurred in Northwest areas of Independence. Specifically, residential areas along 10th Avenue NW and 5th Street NW, and the Independence Premium Foods industrial site along 4th Street NW. Several solutions exist to help alleviate flooding in the residential areas, and improve the standing water condition at Independence Premium Foods. Crawford Engineering has a proven history of providing storm water drainage solutions for the City of Independence and we are prepared to deliver meaningful results for this challenge too. As local business owners and members of this community, we have a vested interest in seeing these stormwater improvement projects completed successfully.

Qualifications:

Firm Background

For over 40 years, Crawford Engineering & Surveying has worked with the City of Independence to successfully complete critical infrastructure improvement projects. We have worked with city staff to navigate the ever-changing planning, prioritizing, and funding challenges associated with capital improvements projects. Specifically, we have teamed with the City to perform targeted stormwater studies within separate and unique drainage basins, and developed a funding mechanism that designates money for stormwater improvements. Our team of licensed Engineers and licensed Land Surveyors have the knowledge and expertise to help the City solve the drainage issues near the 10th Avenue NW and 5th Street NW area.

We perform stormwater modeling using the latest technology in AutoCAD and StormCAD software programs. Our stormwater modeling software has proven ideal for all types of drainage projects, from large scale runoff studies to small site detention pond designs. We have expertise in performing runoff analysis and stormwater computations using both SCS TR-55 and the modified Rational Method to evaluate pipe capacities and overland flow / open channel flow performance.

Similar Project Experience

Crawford Engineering has qualified professionals with extensive experience completing stormwater drainage studies, stormwater project planning and design. We have included some recent notable projects below. A table of additional successfully completed, local projects is also included below. Each project shown in the table represents an initial storm water study of the project area. Each study looked at a specific area, developed alternatives for drainage solutions, and evaluated feasibility.

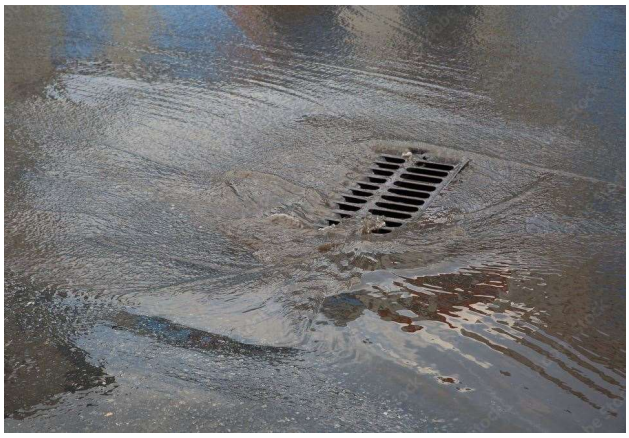
Funding Opportunities

Crawford Engineering is familiar with grant applications and administration on various types of public infrastructure projects. Specifically, we have completed stormwater projects funded through Iowa's Community Development Block Grant (CDBG) program. We were also instrumental in developing the City's Storm Water Utility Fund, an exclusive source for stormwater projects within our community. With the current SRF application related to the new wastewater treatment plant, the City has an opportunity to apply for Sponsored Project Funding through the SRF loan program. The amount available for sponsored projects is 10% of the Clean Water SRF loan balance. This project may also be a candidate for the Storm Water Best Management Practices loan program offered through the Iowa Finance Authority (IFA). This loan offers incentives for constructing infiltration and detention-based stormwater quality practices, similar to those identified in our Proposal.

Crawford Engineering has facilitated over $6.3 million of infrastructure project funding for the City of Independence over the last seven years.

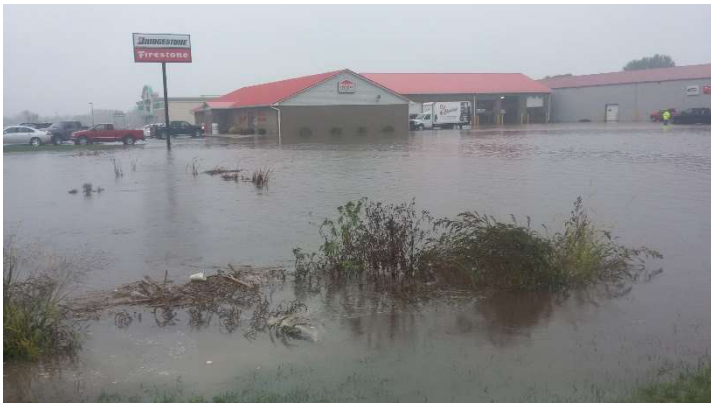
Independence Northwest Area Drainage Study

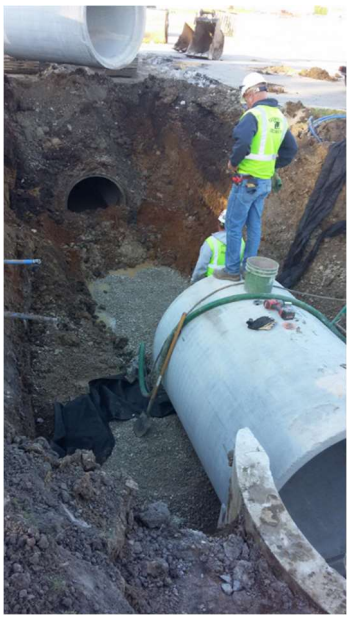
Following several moderate rainfall events, community members expressed concerns about localized flooding in the west area of Independence. The City selected Crawford Engineering to conduct and engineering study and capacity analysis of approximately 345 acres in the northwest and southwest part of town. As part of the study and analysis, recommendations and planning estimates were developed and prioritized for future storm sewer improvement projects.



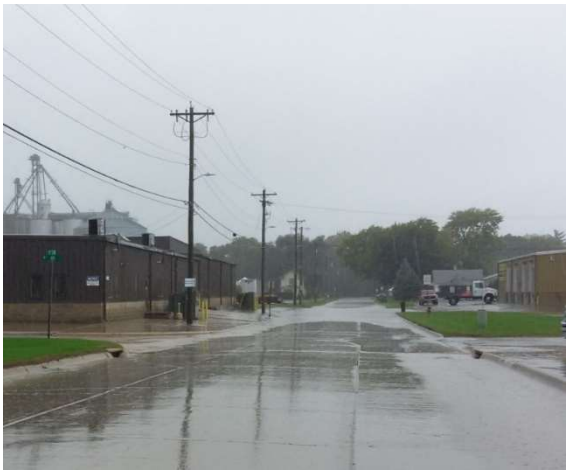
Independence Highway 150 South Stormwater Study & Improvements

Localized flooding in the Highway 150 South commercial and industrial corridor prompted the City Council to retain the services of Crawford Engineering to conduct a study of the drainage basing and capacity analysis of the stormwater infrastructure. Upon completion of the study, a combination of infrastructure improvements and stormwater management best practices were implemented to alleviate the occurrence of flash flooding and related impacts to the area businesses.





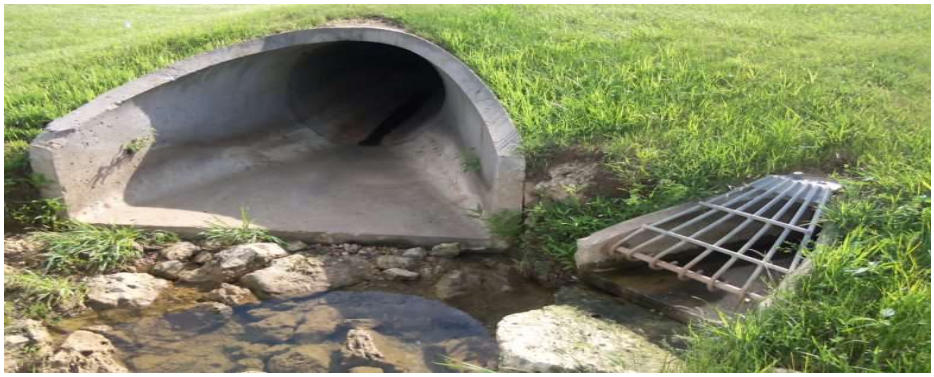
Independence NE Area Stormwater Study



Two specific drainage basins in the NE quadrant of Independence had experienced localized flooding, and the City Council retained Crawford Engineering to conduct a drainage study. A complete inventory of the existing public storm sewer system was performed in the Study Area. A capacity analysis and performance assessment of the existing public storm sewer system was also performed. The Study identified limitations of the existing system and provided recommendations for system upgrades. The Final Report identified alternatives and provided detailed cost estimates for future improvement options. Maintenance improvements have already been implemented and storm sewer improvements were completed in 2023.

Independence West Side Drainage Study

Crawford Engineering was engaged to perform and Drainage Study for the West Side of Independence to document the facilities and conditions related to the existing stormwater runoff in the Northwest Independence Watershed. The conditions discovered during the Study included capacity limitations in the existing drainage system and needed open channel improvements. The Study resulted in the implementation of a design alternative outlined in the final report. Consequently the 1st Street West Outfall Storm Sewer Project was constructed along what is known today as Mustang Way, west of the Elementary School complex.



Previous Work Performance					
Crawford Engineering Stormwater Study / Drainage Improvement Projects					
and Construction Costs Summary					
Project	**Type of Construction**	**Estimate**	**Contractor Low Bid**	**Final Construction Cost**	**Contractor**
6th Avenue SW Independence, Iowa	Storm Sewer Construction	$35,000	$28,230	$28,173	Tschiggfrie Excavating
Jackson Avenue Culvert Independence, Iowa	Culvert Replacement	$154,470	$92,000	$98,947	Skyline Construction Company
17th Street SE Independence, Iowa	Storm Sewer Construction	$36,507	$37,535	$32,495	Horsfield Construction Company
Enterprise Drive Independence, Iowa	Storm Sewer Construction	$96,770	$100,240	$88,341	Allied Construction Company
1st Street West Independence, Iowa	Outfall Storm Sewer	$49,377	$45,977	$45,284	Tschiggfrie Excavating
Southridge Addition Independence, Iowa	Storm Sewer Outfall	$60,500	$45,500	$39,676	Skyline Construction Company
Westside CDBG Storm Sewer Improvements Oelwein, Iowa	Storm Sewer, Culvert and Storm Inlet Construction	$389,154	$364,500	$357,800	Happel Excavating
CDBG Drainage Improvements Quasqueton, Iowa	Storm Sewer, Culvert, Open Channel Construction	$210,390	$186,345	$187,700	Mid-State Construction

Key Personnel

Our team consists of experienced Civil Engineers and Land Surveyors who have successfully performed studies, designed, and managed numerous stormwater projects. One of the many advantages of hiring a local engineer, with first-hand knowledge of the stormwater challenges, is that we can remain close to the rapidly changing details that can occur during a flash flood event. We can attend to the specifics of construction and will be onsite to provide the necessary oversight to ensure project progresses smoothly to completion. Our local staff will be available at a moment's notice throughout the project. Our team members are owners of the company and community members that live, work, and play here in Independence.

- **Brian M. Crawford, E.I. & P.L.S. – BSCE Iowa State University, May 2000**

  Principle, Civil Engineer Professional Land Surveyor, Project Engineer

  Brian has over 20 years of experience in the planning, design, and construction of public and private infrastructure projects including streets, storm, and sanitary sewer, and water conveyance systems. He also has experience in storm water analysis and regional detention design for handling increased runoff associated with land development.

  - Independence West Area Storm Water Improvements / Mustang Way Storm Sewer
  - Dollar Tree Site Developments & Stormwater Detention Projects, Various Iowa Locations
  - Schoitz Hospital Campus Re-development & Stormwater Design, Waterloo, Iowa

- **Lawrence G. Crawford, P.E. & P.L.S. – BSCE Iowa State University, December 1984**
  Principal, Civil Engineer, Project Manager, Senior CADD Designer, and Land Survey Coordinator

  Larry has over 35 years of experience in municipal engineering design and construction, including storm sewer analysis and design, and storm water management.

  - Independence West Side Drainage Study & Report
  - Highway 150 Reconstruction Stormwater System Upgrades, Independence, IA
  - Westside CDBG Stormwater System Improvements, Oelwein, IA

- **Mark A. Crawford, P.E. & L.S.I. – BSCE Iowa State University, December 1997**
  Principle, Civil Engineer, Project Manager, Land Surveyor Intern, Project Engineer

  Mark has over 25 years of experience in planning, design, construction, and project management of municipal infrastructure projects, including drainage systems, storm sewer conveyance, hydraulic analysis, and public involvement. Mark has administered projects utilizing federal, state, and local funding.

  - 12th Street NE 2023 Storm Sewer Improvements, Independence, IA
  - Teagarden Area Drainage Improvements, Ames, IA
  - Four Mile Creek Drainage Study, Ankeny, IA
  - Oakwood Drive Drainage Improvements, Pleasant Hill, IA

- **Daniel T. Crawford, P.E. & P.L.S. – BSCE Iowa State University, May 1974**
  Principal, Civil Engineer, Land Surveyor, Project Manager and Land Survey Coordinator

  Dan has over 45 years of experience in planning, design, and construction of civil engineering projects. Dan has extensive knowledge in municipal streets and county highway projects. Responsibilities include planning, field survey control, design engineering, construction management, and project closeout. Dan has been involved in project management for the past 40 years and is familiar with direct contact with municipal clients.

  - 14th Street NE Drainage Study – Independence, Iowa
  - Saylorville Dam Embankment Construction, Army Corps of Engineers – Polk County, Iowa
  - Drainage District #1 Improvements – Cedar County, Iowa

References

Crawford Engineering takes pride in the quality of work we perform and appreciate the many relationships we have developed through our years of service here in Northeast Iowa. As you decide who will be helping you make future improvements in our community, we encourage you to contact those we have served and worked with to complete similar projects to those you are considering. We have included a list of references with contact information below.

Jeff Stickfort
One-Site Development
Phone: 319-290-4357

Ron Dunt, City Manager
City of Hampton
Phone: 641-456-4853

Mark Jackson, City Manager
City of Story City
Phone: 515-733-2121

Matt Greiner, Director of Public Works
City of Johnston
Phone: 515-278-0822

Mike Schroeder, Contractor
Tschiggfrie Excavating Co.
Phone: 563-590-1476

Tom Stewart, Street Superintendent
City of Oelwein
Phone: 319-283-5440

Dave Kluesner
Council – City of Farley, Iowa
Phone: 563/744-6265

Dick Anstoetter, Contractor
Anstoetter Construction
Phone: 563/590-0502

Steve Diers, City Administrator
City of Charles City
Phone: 641/257-6300

Alan Johnson, City Administrator
City of Anamosa
Phone: 319/462-6055

Erin Learn, City Clerk
City of Manchester & Delaware
Phone: 563-922-2838

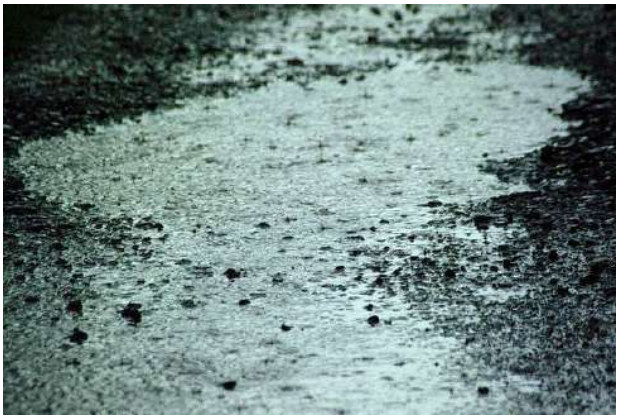
John Joiner, P.E., Director of Public Works
City of Ames
515-239-5160

Ryan Heiar, City Administrator
City of North Liberty
Phone: 319-626-5700

Tim Donnelly, Street Department (thru 2021)
City of Independence
Phone: 319-213-0621

Part 2: Engineering Proposal

Project Background



We have reviewed the Request for Qualifications and request for Proposals for engineering services related to storm drainage improvements in the 812 3rd St. NW area. We are familiar with the property and drainage characteristics, and have collected data related to the city's storm sewer assets as part of a recently completed study and storm water inventory in the area. After a review of available information related to the drainage characteristics in the project area, and evaluation of existing site conditions it is likely that development and the absence of underground storm sewers and increased rainfall intensities have resulted in inadequate surface drainage and the existence of localized flooding in the study area. It appears that the impacts are not limited to the IPF site. Impacts also include existing residences north and northwest of the IPF site.

Project Assessment & Design Alternates

As requested in the RFQ/RFP; we explored 4 possible design alternates to alleviate these conditions. Each design alternate includes on site grading improvements at the Independence Premium Foods facility (IPF). The design alternates we evaluated to alleviate localized flooding in this area include:

1. Increasing the outlet capacity to the storm outlet on 8th Ave NW directly east of the facility
2. Re-directing runoff to 10th Ave NW and increasing the outlet capacity to the storm sewer outlet on 10th Ave NW
3. Re-directing runoff to 4th Street NW and developing a new storm outlet along 4th Street NW to the Wapsipinicon River
4. Utilizing a portion of the existing IPF property to develop one or more storm water detention facilities to store runoff and providing a discharge structure that will facilitate a controlled release to the existing storm sewer or sewers on 8th Ave and 10th Ave.

Proposal Recommendations

Design Alternates #1 and #2 (increasing storm capacities in upper sections of storm sewer systems) are likely to have negative impacts on downstream properties. Our previous study identifies capacity limitations in the downstream storm sewer segments on 1st Street leading to the Wapsipinicon River, and 10th Ave to the Liberty Trail Ditch and Dry Run Creek. Although Alternates #1 and #2 may alleviate the problems near the 812 3rd Street NW and Independence Premium Foods site, it only moves these stormwater challenges downstream to areas that are already problematic. For these reasons, we do not recommend pursuing alternates 1 and 2 at this time.

Design Alternate #3 involves installing storm sewer through an established neighborhood to the river. This option is likely to conflict with existing utility mains, service lines, and require removal and replacement of driveways, sidewalks and street paving which significantly increases construction costs related to storm sewer installation. After looking at costs associated with this alternate and overall feasibility, we do not recommend pursuing alternate 3 at this time.

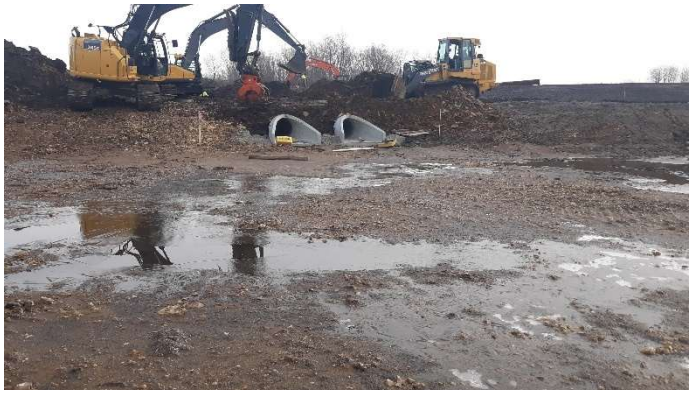
Engineering Services Summary

We recommend the city pursue Design Alternate #4 that includes a combination of IPF site improvements and public storm sewer upgrades to reduce or eliminate localized flooding in the project area. This design alternate minimizes impact to downstream properties and maximizes utilization of existing city storm sewer infrastructure. This proposal includes the following scope of engineering services to facilitate design and bidding for this work.

Proposed Engineering Services for Design Alternate #4:

a) Conduct a Detailed Topographic Survey of the project area.
b) Evaluate Drainage performance and quantify limitations based on the survey.
c) Downstream capacity analysis – already completed.
d) Coordinate with IPF to determine their site needs and Prepare detailed paving plan, parking lot layout plan and site grading plan and storm runoff computations to size one or more on site detention facilities with controlled release structure in accordance with the Iowa Stormwater Manual and Iowa SUDAS Specifications.
e) Prepare detailed construction plans for discharge line or lines from controlled release structure or structures and connections to existing public storm sewer.
f) Provide bid items descriptions, estimated quantities, bid form and project specifications and assist city with advertising, bidding and securing a contract with a qualified contractor to perform the improvements.
g) Assist the city with securing all necessary permits related to the construction.

We estimate the fees associated with the above scope of services at $21,000.



We anticipate and look forward to an opportunity to meet with city officials and representatives from IPF to discuss and receive feedback on Design Alternate #4. We are prepared to make amendments to the above scope based on the feedback and collaboration of interested parties to ensure a solution that meets the needs of all parties. Depending on the outcome of that collaboration effort, we are prepared to enter into an engineering services agreement for the agreed upon scope of work.