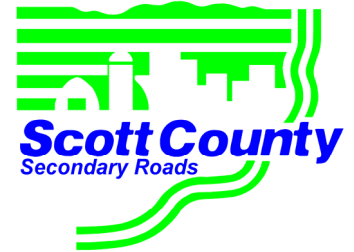


SCOTT COUNTY ENGINEER'S OFFICE

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ANGELA K. KERSTEN, P.E.
County Engineer

ELLIOTT R. PENNOCK, E.I.T.
Assistant County Engineer

TARA YOUNGERS
Senior Administrative Assistant

MEMO

TO: Mahesh Sharma
County Administrator

FROM: Angie Kersten, P.E.
County Engineer

SUBJ: Contract Amendment for Professional Design Services for a Road and Stormwater Reconstruction Project in Unincorporated Mt. Joy

DATE: November 28, 2023

On April 13, 2023, our department entered into a contract with MSA Professional Services (MSA) to perform professional design services for a road and stormwater reconstruction project in the unincorporated Mt. Joy area north of 210th Street (see attached project location map). Construction of the project is programmed for FY2025 and is budgeted at \$8,500,000 (ARPA funding). The project is on schedule for a September 2024 letting.

The proposed improvements include reconstruction of the road infrastructure at the intersection of 210th Street and Brady Street. The intersection is a two-way stop controlled with stop signs on Brady Street. In June 2023, a developer submitted a proposal for a new Big 10 Mart convenience store and gas station to be built at the southeast corner of this intersection. We requested the developer to perform a traffic impact study to determine if an increase in traffic from the proposed development would impact the operation of this intersection.

The study indicated that movements at the intersection operate satisfactorily for existing and developed projections of the Big 10 Mart. However, the study noted that left turn movements from Brady Street onto 210th Street will drop to unsatisfactory levels with additional development along the corridor. Long wait times for left turn movements can lead to poor turning decisions and an increase in failure to yield the right-of-way crashes.

We discussed these findings with MSA and determined that if traffic control improvements will be warranted by future development within the next twenty years, those improvements should be constructed as a part of our project while the existing infrastructure is being reconstructed. Development is presently occurring on the east side of Brady Street south of 210th Street within the City of Davenport jurisdiction and there is a potential commercial development project on 210th Street west of this intersection.

We evaluated building a multi-way stop, traffic signal, and roundabout. The annual average daily traffic on 210th Street at this intersection is 7,400 vehicles per day and on Brady Street is 1,120 vehicles per day. Based on the volume of traffic, existing four-lane roadway cross-section, and proximity to a railroad crossing; the multi-way stop is not recommended. Both a traffic signal and roundabout are recommended solutions. Although a traffic signal is acceptable, we are recommending to build a roundabout.

Roundabouts improve traffic flow by allowing continuous flow traffic to enter the intersection. All entering vehicles yield to traffic circulating the roundabout. Although each entering vehicle is required to slow down, the time stopped while waiting is significantly reduced. Roundabouts improve safety by reducing the number of conflict points between vehicle paths and eliminate severe crash types including head-on crashes, right-angle “broadside” crashes and left turning crashes.

As noted above, the project already included full reconstruction of the road infrastructure at this intersection. The additional cost to build a roundabout at this intersection is estimated at \$200,000. The additional cost to build a traffic signal is estimated at \$300,000. MSA has completed an updated preliminary cost estimate for the project and including the roundabout, the total project cost is still under the \$8,500,000 budget.

MSA submitted an amendment to our contract for professional design services of the roundabout and the lump sum fee for the work is \$65,000. Listed below is the total contract cost, including the amendment, for the professional design services:

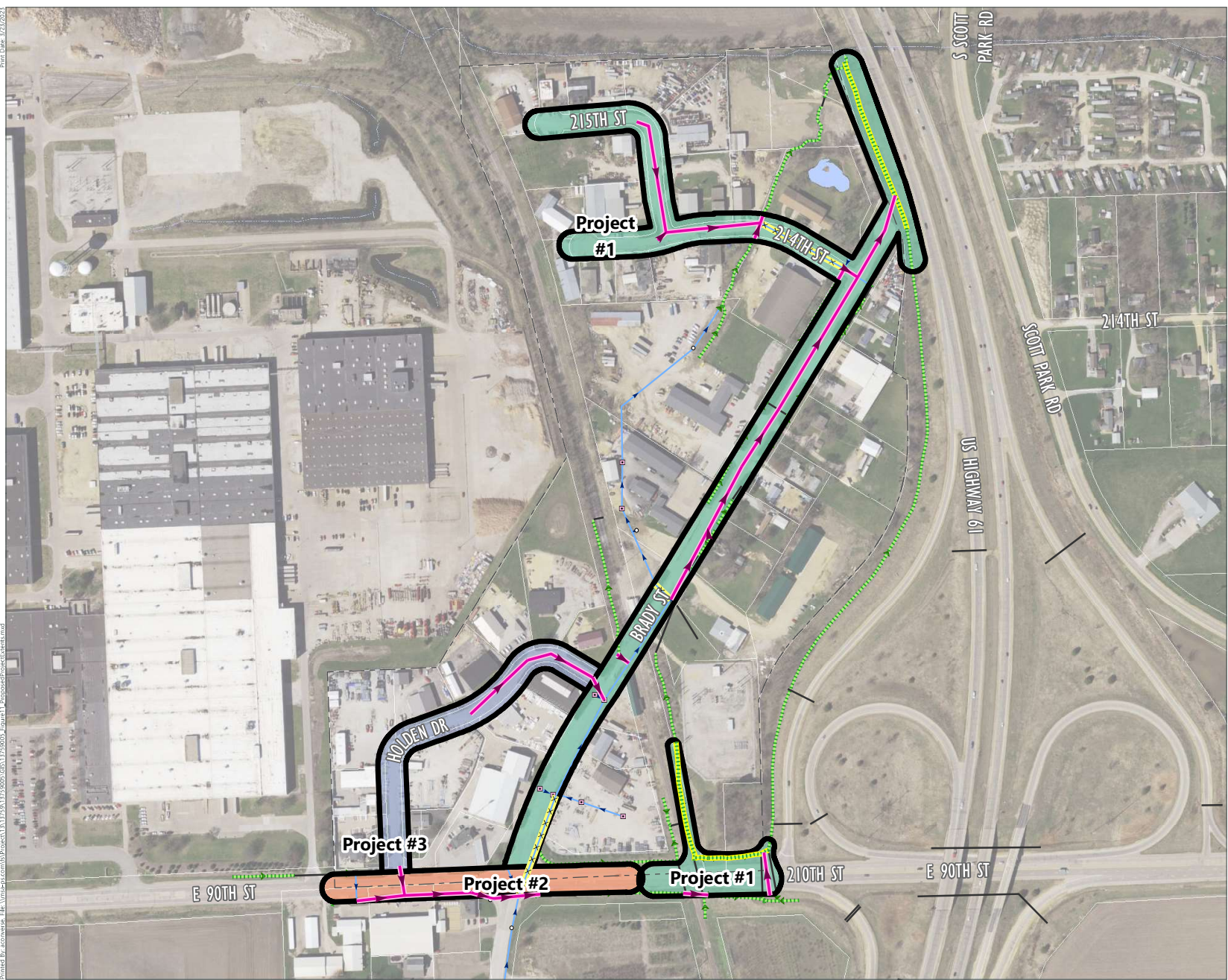
• Fixed Fee Professional Design Services:	\$561,600
• Estimated Fee for Time & Materials Services:	\$69,100
• Lump Sum Fee for Roundabout Design Services:	<u>\$65,000</u>
ESTIMATED TOTAL:	\$695,700

The total project design fee is approximately 8.2% of the total project construction cost estimate of \$8,500,000. Typical professional design services can cost around 10% of total project construction estimates.

The fee to perform this work is included in our amended FY2024 budget. We have sufficient funds in our secondary road fund balance to allocate towards designing the roundabout. I recommend amending our contract with MSA Professional Services, Inc., to perform the design of a roundabout at the intersection of 210th Street and Brady Street for a lump sum cost of \$65,000. Included with this memo is the amendment to our contract. A MSA representative will be virtually attending the Committee of the Whole meeting to provide a brief presentation on roundabouts and will be available to answer any questions.

Print Date: 9/26/2025

Printed By: jcozart@msa.com | Project: 13139391330005 | User: jcozart | 13139391330005 | 9/26/2025 | 11:42:00 AM



Proposed Project Extents

Figure 11

Mt Joy Stormwater System
Drainage System Analysis

Scott County, IA

Project Extents

- Project #1
- Project #2
- Project #3
- Study Area
- Manhole
- Storm Inlet
- Stormwater Pipe
- Stormwater Culvert
- Ditch
- Proposed Improvements
- Stormwater Pipe to be Removed
- Change to ditch grading

Data Sources:
Aerial: IA State



Amendment No: 1

MSA Project Number: 13759007
Date of Issuance: November 27, 2023

This is an amendment to the Agreement dated April 13, 2023 and does acknowledge that MSA Professional Services, Inc. (MSA) is authorized to begin work on the following project amendment:

MSA PROFESSIONAL SERVICES, INC (MSA)

Address: 2117 State St, #200, Bettendorf, IA 52722

Phone: (563) 445-3501

Representative: Amber Converse

Email: aconverse@msa-ps.com

SCOTT COUNTY, IOWA (OWNER)

Address: 950 E. Blackhawk Trail, Eldridge, IA 52748

Phone: (563) 326-8640

Representative: Angela Kersten, PE

Email: angela.kersten@scottcountyiowa.gov

Project Name: Scott County Iowa Road Reconstruction with Stormwater Improvements in Unincorporated Mt. Joy

The project scope has changed due to: Intersection revisions at 210th St & Brady St to include a roundabout.

The scope of the work authorized is: See Attachment A: Scope of Services

The lump sum fee for the work is: \$65,000

Any attachments or exhibits referenced in this Amendment are made part of this Agreement. Payment for these services will be on a lump sum basis.

Approval: MSA shall commence work on this project in accordance with your written authorization. This authorization is acknowledged by signature of the authorized representatives of the parties to this Amendment. A copy of this Amendment signed by the authorized representatives shall be returned for our files. If a signed copy of this Authorization is not received by MSA within seven days from the date of issuance, MSA may stop work on the project.

SCOTT COUNTY, IOWA

Angela Kersten, PE

Conty Engineer

Date: _____

MSA PROFESSIONAL SERVICES, INC.



Jason Miller, PE

Service Line Leader

Date: 11/21/2023



Amber Converse

Project Manager

Date: 11/21/2023

AMENDMENT 1
SCOPE OF PROFESSIONAL SERVICES

The proposed amendment covers the additional design and design revisions necessary to modify the current preliminary design and construction documents at the intersection of 210th Street & N Brady Street from a two way stop to a multi-lane roundabout. Additionally, N Brady Street from 210th Street to Holden Drive will be modified from the currently proposed four-lane pavement section to a two-lane pavement section.

The following lists the professional services that shall be provided by MSA by and/or under the direct supervision of a Professional Engineer and/or Professional Land Surveyor licensed to practice in the State of Iowa, as applicable.

Fee breakdown will be as follows:

Lump sum work includes Project Management & Administration and Engineering Design & Construction Documents.

Project Management & Administration (LUMP SUM)

MSA shall manage & coordinate project team, budget & schedules including the following:

- Provide general project management & administration duties including coordination with County staff, review of project costs, invoices & general administrative activities.
- Maintain communication with County staff throughout the design.
- Provide monthly progress update to County.
- Employ documented QA-QC procedures throughout the design of the project.

A Roundabout Design Engineer from MSA shall prepare and attend design review meetings (virtually) including the following:

- Monthly meetings with County staff during project duration.
- Conceptual (50%) design review. Coordinate with County
- Check (90%) plans review. Coordinate with County
- Final (100%) plan review with County

Engineering Design & Construction Documents Preliminary & Final (LUMP SUM)

MSA shall complete engineering design & construction drawings (plans) for the reconstruction of 210th Street and N Brady Street to a multi-lane roundabout. Tasks include the following:

- Finalize the horizontal geometrics based on the conceptual layout that was presented to the County on 11/9/2023. The design will be optimized using our experience in roundabout design to best fit the existing right-of-way and skew of the intersection.
- Design alignments and profiles along the approach, central island, and outside curb returns.
- Vertical design of roundabout and intersection.
- Determine the jointing layout for concrete pavement that compliments the construction staging plan.
- Street light recommendations for light placement for roundabout. No detailed design or photometrics are included.
- Develop plan and profile, cross section, and details sheets for the proposed roundabout.
 - Detail sheets include:
 - Typical sections
 - Construction details
 - Intersection details
 - Paving grades

- Permanent signing and marking
 - Alignment details
- Pavement structure will match what is being proposed within the original project.
- Provide preliminary roundabout plans to the County for review/comment and incorporate changes as appropriate.
- Prepare final roundabout plans to be included in construction drawings for local letting.
- Engineering design will follow local standards; SUDAS design guidance.
- Modifications to the preliminary storm sewer system to accommodate a multi lane roundabout.
- Modifications to the preliminary road alignment and section along 210th St and N Brady Street.
- Modifications to preliminary plans and estimate to incorporate roundabout.

Deliverables

MSA shall provide construction documents, as defined in the original scope, for the follow deliverables:

- Design plans will be provided in electronic PDF format.
- Concept (50%) design plans with construction cost opinion
- Final (100%) design plans with construction cost opinion
- Provide final CAD design files as needed for bidding.

Additional Services

- Detailed roundabout intersection lighting design, photometrics, conduit routing, pole base and pole design.
- Legal survey, property owner meetings, ROW acquisition and/or coordination.

THE COUNTY AUDITOR'S SIGNATURE CERTIFIES
THAT THIS RESOLUTION HAS BEEN FORMALLY
APPROVED BY THE BOARD OF SUPERVISORS ON

DATE

SCOTT COUNTY AUDITOR

RESOLUTION
SCOTT COUNTY BOARD OF SUPERVISORS
DECEMBER 7, 2023

APPROVAL OF THE CONTRACT AMENDMENT TO PERFORM PROFESSIONAL
DESIGN SERVICES FOR A ROAD AND STORMWATER RECONSTRUCTION
PROJECT IN UNINCORPORATED MT. JOY

BE IT RESOLVED BY the Scott County Board of Supervisors as follows:

- Section 1. That Scott County entered into a contract with MSA Professional Services, Inc., on April 13, 2023, to perform professional design services for a road and stormwater reconstruction project in unincorporated Mt. Joy, contingent on the unit prices listed in the contract.
- Section 2. That Scott County approves an amendment to this contract to include professional design services of a roundabout at the intersection of 210th Street and Brady Street for a lump sum fee of \$65,000.
- Section 3. That the County Engineer be authorized to sign the contract documents on behalf of the Board.
- Section 4. That this resolution shall take effect immediately.