



**AGENDA**  
**Public Works & Utilities Committee**  
**Special Meeting**  
**Village Hall**  
**1900 Hassell Road, Hoffman Estates, IL 60169**

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**September 9, 2024**

**Council Chambers**

**Immediately following  
Planning, Building & Zoning**

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1. **CALL TO ORDER/ROLL CALL**
2. **PUBLIC COMMENT**
3. **NEW BUSINESS**
  - A. Approval of design engineering services agreement with Hey & Associates of Chicago, IL for the Grand Canyon Parkway and Illinois Boulevard Storm Sewer Projects, in an amount not to exceed \$92,170
4. **ADJOURNMENT**

*Further details and information can be found in the agenda packet attached hereto and incorporated herein and can also be viewed online at [www.hoffmanestates.org](http://www.hoffmanestates.org) and/or in person in the Village Clerk's office. The Village of Hoffman Estates complies with the Americans with Disabilities Act (ADA). For accessibility assistance, call the ADA Coordinator at 847/882-9100.*



**AGENDA ITEM REPORT**  
Public Works & Utilities Committee  
September 9, 2024  
ITEM 3A

**REQUEST:** Approval of design engineering services agreement with Hey & Associates of Chicago, IL for the Grand Canyon Parkway and Illinois Boulevard Storm Sewer Projects, in an amount not to exceed \$92,170

**FROM:** Alan Wenderski, Director of Engineering  
Andy LoBosco, Senior Project Manager

**ITEM TYPE:** Agreement - Committee

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**REQUEST SUMMARY**

Proposed storm sewer improvement locations are located on Grand Canyon Parkway (Community Park to IL 72) and Illinois Boulevard (Kingman Lane to Evanston Street) as detailed on the attached location map. Both locations are included in the multi-year stormwater rehabilitation program for corrugated metal pipe (CMP) with improvements planned for 2025. Due to street resurfacing work scheduled in 2025 within or adjacent to the storm sewer project limits, both storm sewer improvement locations are planned to be included within the Street Revitalization Project bid to limit public inconvenience and take advantage of project economies of scale.

Due to staff vacancies within the Engineering Division during 2024, an RFP was issued in August to prequalified consultants to provide design engineering for the Grand Canyon Parkway and Illinois Boulevard storm sewer improvement locations. The consultant professional services are necessary to keep these planned improvements on schedule for 2025 construction.

Four proposals were received (Baxter & Woodman, Chastain, Civiltech, and Hey & Associates) and were reviewed by staff. The proposals were evaluated based on project approach and understanding, experience on comparable projects, and proposed project schedule.

Upon review, it was determined that Hey & Associates was the best firm for this project based on staff evaluation of the criteria above. After selection, staff received and reviewed the detailed scope, hours, and fee proposed by Hey & Associates. The scope, hours, and fee were revised per staff comment and are included in the attached engineering agreement. The full scope will be completed at the not-to-exceed cost of \$92,170. Completion of design engineering is scheduled for February 2025 to coordinate with the expected Street Revitalization Project bidding schedule.

A summary of the scope of design engineering services includes:

1. Data Gathering

2. Preliminary Design and Alternatives Analysis
3. Permitting
4. Final Plans, Specifications, and Estimate

The not-to-exceed cost assumes that full removal and replacement of existing storm sewer pipes will be required to complete the improvements. Alternatives analysis will be completed to determine the feasibility of more cost-effective trenchless rehabilitation methods for portions of the project. If determined feasible, actual design engineering costs will be reduced.

### **FINANCIAL IMPACT**

No funds were budgeted in 2024 for this work as the design work was planned to be completed by in-house staff. Due to staff vacancies throughout the year, Development Services Department salary savings for 2024 exceed the total not-to-exceed cost of \$92,170. General Fund Balance is available for the full amount of \$92,170.

### **RECOMMENDATION**

Approve the design engineering services agreement with Hey & Associates for the Grand Canyon Parkway and Illinois Boulevard Storm Sewer Projects, in an amount not to exceed \$92,170.

### **ATTACHMENTS**

1. Illinois & Grand Canyon Location Map
2. Grand Canyon-Illinois Storm Design Agreement - Hey Assoc

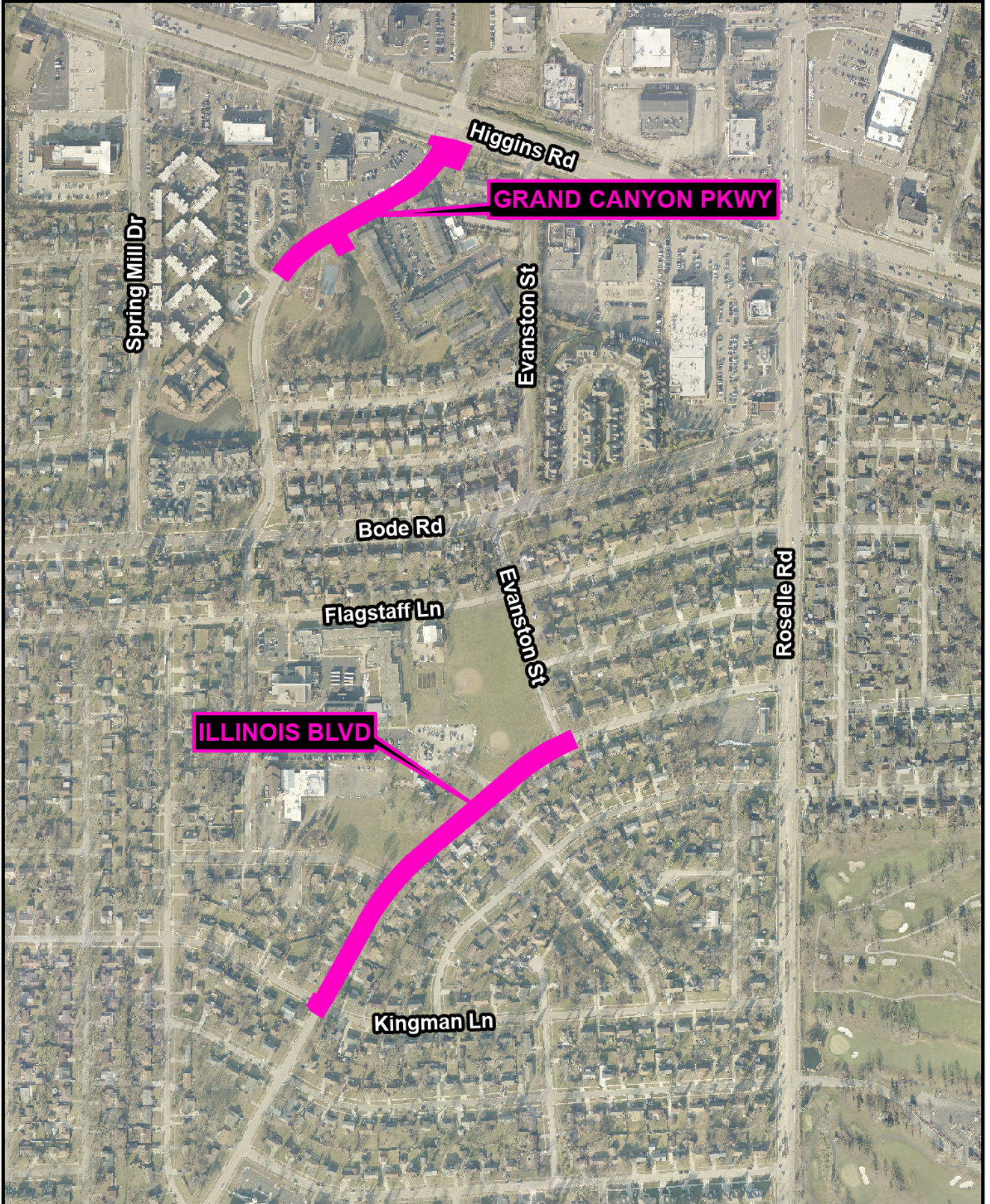


# VILLAGE OF HOFFMAN ESTATES

GRAND CANYON PKWY & ILLINOIS BLVD



1" = 500 feet  
0 125 250 500 750 1,000 Feet



# Village of Hoffman Estates Engineering Services Agreement

This Professional Services Agreement (the “Agreement”) is made and entered into this \_\_\_\_ day of September, 2024, by and between the VILLAGE OF HOFFMAN ESTATES, ILLINOIS, a municipal corporation located at 1900 Hassell Road, Hoffman Estates, IL (“Village”) and Hey & Associates, Inc., with a principal place of business at 8755 W. Higgins Road, Chicago, IL (“Contractor”) and sets forth the terms and conditions under which Contractor agrees to perform certain land surveying services as set forth below.

This Agreement is made pursuant to Hoffman Estates RFP dated August 2, 2024 and Contractor’s Proposals dated August 26, 2024 attached hereto as Exhibit A and incorporated herein by reference.

## 1. SERVICES

Contractor shall perform engineering services detailed in scope of services, attached hereto as Exhibit A and incorporated herein by reference, at various locations within the Village of Hoffman Estates, Illinois.

Other than what is provided in Paragraph 3 below, Village shall not be responsible for the cost of materials and equipment necessary for the performance of the Services.

No claim for services furnished by Contractor, not specifically provided for in this Agreement, shall be allowed by the Village nor shall Contractor perform any services or furnish any material not covered by this Agreement without prior written approval by Village. Such approval shall be considered a modification of this Agreement.

## 2. TERM AND TERMINATION

This Agreement shall be effective and binding upon execution. The parties agree that the time for completion of the services outlined in Exhibit A is February 28, 2025. Failure to complete the services outlined in Exhibit A by the completion date shall be considered a breach of this Agreement unless an extension is agreed to in writing by both parties.

## 3. FEES AND PAYMENT TERMS

The total cost for services shall not exceed cost of \$92,170.

Costs include all mobilization, equipment and labor charges incurred throughout the duration of the services. Traffic control, heavy clearing, root cutting, waste hauling and disposal, structure location, municipal water usage license, fees, permits, and or deposits are not considered part of the fee.

Any fee for additional services must be agreed to in writing by the Village.

Contractor shall not incur any expenses or costs on behalf of the Village or in performing the Services, other than what is provided for above, unless Village specifically authorizes in advance such expenses or costs in writing. Such additional expenses may include, but are not limited to, travel and lodging expenses.

#### 4. RELATIONSHIP OF THE PARTIES

In performing Services hereunder, Contractor shall at all times act as an independent contractor and not as an agent or employee of Village. The Services shall be completed to the satisfaction of Village; however the actual details of the Services shall be under Contractor's control. Contractor agrees to comply with all applicable state and federal statutes and the Municipal Code of the Village. Contractor further agrees to indemnify and hold Village harmless for any and all claims made arising out of Contractor's breach of the obligations contained in this paragraph.

Contractor is in no way authorized to make any agreement, warranty or representation on behalf of Village or to incur any expenses or implied obligation on behalf of Village without first obtaining Village's prior written consent.

#### 5. INSURANCE

At Contractor's sole expense, Contractor shall be required to maintain at all times insurance of such types and such amounts, as are necessary to cover responsibilities and liabilities on a project of the character contemplated under this proposal. The Consultant shall meet all insurance requirements as stated in Article 107.27 of the "Standard Specifications for Road and Bridge Construction" adopted January 1, 2022. All insurance policies obtained for the project shall include the Village of Hoffman Estates and its duly authorized representatives as an additional insured.

Village shall be named as an additional insured and the address for certificate holder must read exactly as:

Village of Hoffman Estates  
1900 Hassell Rd.  
Hoffman Estates, IL

#### 6. THIRD PARTY MATERIALS

Contractor will not prepare any deliverables or other material for Village that contains any limitations by third parties on its use without first securing either (i) Village's prior written approval of such limitations, or (ii) the third party's prior written waiver of such limitations. Contractor will not use any materials produced or provided by any third party ("Third Party Materials") having said limitations without having secured the appropriate licenses or prior written approval of each said third party. In addition, Contractor will not, without Village's prior



If to Contractor:                    Jeff Wickenkamp  
   Hey & Associates, Inc.  
   8755 W. Higgins Road, Suite 835  
   Chicago, IL 60631  
   Email: jwickenkamp@heyassoc.com

10. GOVERNING LAW AND VENUE

The parties agree this Agreement has been executed and delivered in Illinois and that their relationship and any and all disputes, controversies or claims arising under this Agreement shall be governed by the laws of the State of Illinois, without regard to conflicts of laws principles. The parties further agree that the exclusive venue for all such disputes shall be the Circuit Court in Cook Village, Illinois, and the parties hereby consent to the personal jurisdiction thereof.

11. COMPLIANCE WITH LAWS

Each party hereto covenants and agrees to comply with all applicable federal, state, and local laws, codes, ordinances, rules and regulations.

12. SEVERABILITY

The invalidity or unenforceability of any particular word, phrase, sentence, paragraph or provision of this Agreement shall not affect the other words, phrases, sentences, paragraphs or provisions hereof. This Agreement shall be construed in all respects as if such invalid or unenforceable provisions were omitted and the remainder construed so as to give them meaningful and valid effect. It is the intention of the parties that if any particular provision of this Agreement is capable of two constructions, one of which would render the provision void and the other of which would render the provision valid, the provision shall have the meaning which renders it valid.

13. WAIVER

Either Party's failure to insist upon strict compliance with any provision hereof or its failure to enforce any rights or remedy in any instance shall not constitute or be deemed to be a waiver of any provision, right or remedy.

14. ENTIRE AGREEMENT

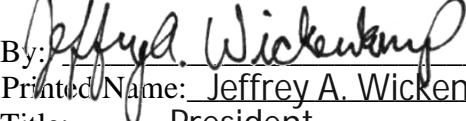
This Agreement constitutes the entire agreement and understanding of the parties with regard to the subject matter contained herein and supersedes all prior agreements and understandings between the parties dealing with such subject matter, whether written or oral. No agreement hereafter made between the parties shall be binding on either party unless reduced in writing and signed by the party sought to be bound thereby.

IN WITNESS WHEREOF, the Parties have executed this contract as of the date first written above.

**The Village of Hoffman Estates**

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Hey & Associates, Inc.**

By:  \_\_\_\_\_  
Printed Name: Jeffrey A. Wickenkamp  
Title: President  
Date: 8/30/24

# GRAND CANYON PARKWAY AND ILLINOIS BOULEVARD STORM SEWER REPLACEMENT

FOR THE  
VILLAGE OF HOFFMAN ESTATES

ENGINEERING DIVISION  
ATTENTION: MR. ALAN WENDERSKI, P.E.  
1900 HASSEL ROAD  
HOFFMAN ESTATES, ILLINOIS 60169



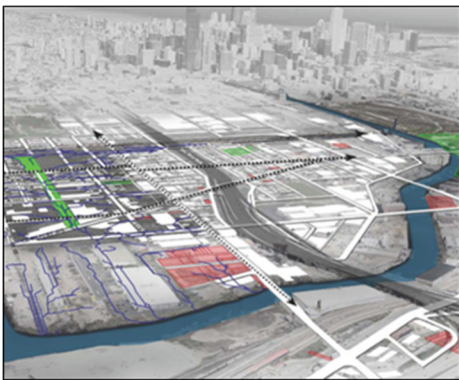
SUBMITTED BY

***Hey and Associates, Inc.***

8755 W. Higgins Rd. Suite 835

Chicago, IL 60631

773-693-9200



**PROJECT APPROACH ..... 1**

**FIRM EXPERIENCE ..... 5**

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**PROJECT SCHEDULE..... 12**

**SCOPE OF SERVICES WITH HOURS AND FEES ..... 13**

**PROJECT UNDERSTANDING**

We understand that the Village of Hoffman Estates (Village) is planning to replace failing CMP storm sewers within the rights-of-way of Illinois Boulevard between Kingman Lane and Evanston Street and Grand Canyon Parkway between the existing Community Park detention basin and Higgins Road. CMP Sewers are notorious for having structural issues due to material erosion from flowing sediment and corrosion from roadway deicing salts. Based on a review of the provided request for proposals, questions and answers, and previous work completed by our company, we propose the following Project Approach and Scope that demonstrates our understanding of this project.

**1.0 DATA GATHERING**

We anticipate conducting the following tasks for data collection and gathering to assist with preliminary and final design to ultimately prepare the Plans, Specifications and Estimates (PSE).

**1.1 Topographic and Drainage Survey**

We understand that the Village has conducted survey in the right-of-way within the project limits of Grand Canyon Parkway and Illinois Boulevard. The limits also include areas outside of the Grand Canyon Parkway right-of-way including the area between the right-of-way and the detention basin and the storm sewer outlet southeast of the intersection of Grand Canyon Parkway and Higgins Road. We will create a topographic survey drawing using the CSV file provided by the Village and perform a pickup survey if required.

At this time, we have not included any scope, hours or fees for easement documentation assistance or preparation. If requested, we can provide that information to the Village depending on the final design.

**1.2 Status of Utilities**

We will request a JULIE design stage ticket utility request for both corridors and identify utilities located within the rights-of-way and easements. We will coordinate with the utility companies by providing engineering plans for their use and review for possible relocation and/or protection needs.

**1.3 Permit Identification and Agency Coordination**

Grand Canyon Parkway is within mapped floodplain within the current proposed project limits. Although the proposed work under this project would fall under the installation of utilities other than qualified sewers, work within a floodplain will require a MWRD WMO permit.

Higgins Road is under the jurisdiction of IDOT. The atlas provided and Cook County Viewer shows the existing headwall of the dual 48" pipes is located just south of IDOT right-of-way. IDOT will likely require review of the downstream effects of this project to the current capacity of the existing 12' x 6' box culvert under Higgins Road. Hey will prepare hydraulic capacity calculations of the proposed storm sewer and existing 12' x 6' box culvert as part of this project if required. Hey has also prepared a drainage investigation for IDOT to develop alternatives to address the erosion in the West Branch Tributary A of Salt Creek along the north side of Higgins Road between Grand Canyon Parkway and Roselle Road. We have the XP-SWMM model for this investigation if H&H modeling is required by IDOT and would also request any model updates from the Village for the study currently being completed for this area.

**2.0 PRELIMINARY DESIGN**

As noted in the RFP, the Village is planning on replacing failing CMP storm sewers along Grand Canyon Parkway and Illinois Boulevard. This project is part of a larger project prepared by the Village for street rehabilitation.

**2.1 Grand Canyon Parkway**

The Village is proposing to replace dual 48” CMP storm sewers from the existing Community Park pond to the existing outlet south of Higgins Road. The headwall structure for the dual 48” pipe for the Community Park pond outlet includes a V-notch weir. The village is proposing to restore the park pond as a separate project including shoreline stabilization, streambed rehabilitation, and rock riffle installation. From the headwall, the dual 48” pipes bends to the right and runs along the southeast parkway of Grand Canyon Parkway. There are multiple blind connections from commercial and residential properties and the inlets from Grand Canyon Parkway. According to the Village atlas, the sanitary sewer and water main run on the opposite side of the roadway and there will be one water service crossing.

The memorandums from W-T Engineering provided by the Village summarize the modeling results for different storm sewer replacement alternatives. According to the RFP, the Village has determined that a downstream pipe area of approximately 25 square feet is required for this location. This is equivalent to two 48” pipes or a 4’ x 6.5’ box culvert which were analyzed in the August 1, 2024 memorandum from W-T Engineering. Including pond modification at Community Park, it was found that two 48” RCP sewers will eliminate overland flow. W-T analyzed a 6.5’ height and 4’ wide box culvert which will also eliminate overland flow but we did not see an analysis for a 4’ height and 6.5’ wide box culvert. The August 12, 2024 memorandum from W-T analyzed additional pipe sizes and configurations and recommended a 4’ x 4’ box culvert or dual 42” RCP sewers. Hey will evaluate each pipe configuration in both memorandums and determine the best alternative based on constructability and cost.



The proposed sewer will be designed to be constructed within the southeast parkway of Grand Canyon Parkway in the same location as the existing 48” CMP sewer to be replaced. Construction of the proposed storm sewer will involve removal and replacement of sidewalk, driveway aprons, curb and gutter, trees and signage which will be coordinated with the Village’s street restoration project. At the downstream end of the sewer there will likely be disturbance of an existing traffic signal pole with an emergency vehicle system detector and flagpoles for the Village of Hoffman Estates Apartments. Past street view images show there is a history with settlement and erosion problems between the existing sidewalk along Higgins Road and the headwall. These issues will be addressed in final engineering.

Hey will also provide an alternative for trenchless pipe rehabilitation such as cured-in-place pipe lining (CIPP). Rehabilitation methods will be a solution to wall corrosion, deterioration at the invert, and minor seepage at joints. The sewer videos provided by the Village show a location where a hole has developed at the invert within the west pipe. This pipe will require replacement. Other locations seems to show minor pipe deflection which CIPP lining will not correct. We also recommend installing junction manholes at the locations of the blind connections. It appears that a total of 3 manholes will be added.

### 2.2 Illinois Boulevard

The Village is proposing rehabilitation of the existing CMP storm sewer along the northwest parkway of Illinois Boulevard between Kingman Lane and Evanston Street. The pipe size is 24" between Kingman Lane and Glendale Lane and 30" between Glendale Lane and Evanston Street. The pipe has numerous blind connections from sewer laterals from inlets along Illinois Boulevard and Chino Park. Approximately 97 feet of sewer from STMH-2835 to a manhole southwest of Evanston Street is RCP sewer.



The structural condition of the CMP sewer appears to be decent based on observation of the sewer videos provided by the Village. Concerns are deterioration at the invert of the pipe and seepage at pipe joints and blind connections. Based on the information provided, we recommend trenchless sewer repair such as cured-in-place pipe (CIPP) lining. This method will be a solution for the deteriorating inverts and seepage in the joints. The 97 foot run of the existing RCP storm sewer southwest of Evanston Street is in good condition and will not require rehabilitation. For the blind connections, we recommend constructing junction manholes. It appears that a total of five manholes will be added and redirection of some storm sewers from the curb inlets at the driveway access to Chino Park and Geronimo Street will be required.

If pipe replacement is the preferred method, Hey will provide preliminary design for replacement of the CMP storm sewer with RCP. The storm sewer is within the northwest parkway of Illinois Boulevard. The sanitary sewer is located at the center of the roadway and the water main is within the parkway on the opposite side. The preferred alignment will likely be within the same trench as the existing storm sewer with the pipe sizes to remain the same. The change to RCP will improve conveyance due to the lower roughness coefficient. At the blind connections, we recommend junction manholes to be installed similar to the rehabilitation method. The 97 foot run of the existing RCP storm sewer southwest of Evanston Street will not require replacement.

### 2.3 Technical Memorandum

Hey will prepare preliminary design for the following alternatives for storm sewer improvements at Grand Canyon Parkway and Illinois Boulevard:

- Replacement of the existing storm sewer.
- Trenchless rehabilitation with installation of manholes at the blind connections.
- Trenchless rehabilitation with existing blind connections in place.

An alternative analysis technical memorandum will be prepared and submitted to the Village outlining the pros and cons of each alternative and provide a cost estimate for each.

### 3.0 PERMIT APPLICATIONS

As mentioned earlier in this proposal, a MWRDGC WMO permit will be required due to work within a floodplain. We will also submit to IDOT for a highway permit for work within the Higgins Road right-of-way. We do not anticipate any other permit applications at this time.

### 4.0 PLANS, SPECIFICATIONS, AND ESTIMATES (PS&E)

Following the completion of preliminary engineering design and Village review, we will proceed with preparing PS&Es which is scheduled for completion in January 2025. Hey will submit PS&E documents to the Village for milestones 60%, Pre-Final (90%), and Final (100%) so that the Village can provide input into and review of the design throughout the process. We will prepare plans and specifications in accordance with Village guidelines and IDOT style plans, quantities, standards and pay items will be used to the extent practicable.

Our typical plan set for this type of work typically includes: Cover Sheet, General Notes / Legend, Summary of Quantities, Existing Conditions, Demolition, Drainage / Utility Plan & Profile, Soil Erosion and Sediment Control, Restoration and Landscape Plans (if not covered by the street rehabilitation project), and Details. Specifications (or Special Provisions) will typically be provided as a list for 60% and written documents for subsequent submittals. Based on the engineering plans, Hey will provide a summary of quantities and an opinion of probable cost for the milestone submittals.

We will also have an explicit Status of Utilities sheet and/or Special Provision to aid the Contractor and utility coordination will be included in the PS&E preparation.

Following milestone submittals, we would anticipate the Village to provide review comments which would be addressed in the subsequent submittal.

**5.0 CONSTRUCTION DOCUMENTS AND BIDDING**

We will assist the Village with final construction bid documents, special provisions, additional permitting coordination, response to potential bidder’s questions, bid tab analyses, and award recommendations. We will prepare PDF formats of bid documents but assume that the Village will provide front-end contractual forms as necessary.

**6.0 PROJECT MANAGEMENT AND MEETINGS**

Hey will conduct project management and communication to ensure the project’s success. In addition, we anticipate up to providing a minimum of bi-weekly status update emails as well as up to 4 either in-person or virtual meetings.



**FIRM EXPERIENCE / PAST PERFORMANCE**

As requested in the RFP, a table of recent projects and references of similar work is provided below.

Project Name	Brief Scope	Project Manager	Contact Information
<p>Niles Sewer Projects</p> <ul style="list-style-type: none"> <li>Cleveland Relief Sewer</li> <li>Howard St Relief Sewer</li> <li>Greenwood Stormwater Basin</li> <li>Oketo Avenue Relief Sewer</li> <li>Lawrencewood/Oasis Relief Sewer</li> </ul>	<p><b>Scope:</b> Hey was retained to prepare construction documents for two relief sewer corridor projects (Cleveland and Howard) which included over 8,500 feet of 24- to 72-inch storm sewer. Other work included sewers, roadways, watermain, traffic signals and permitting. Greenwood Stormwater Basin included over 14 ac-ft of storage and over 3,500 feet of new storm sewer.</p> <p><b>Role/Responsibility:</b> Hey was the lead engineer for this project and was responsible for construction plans, specifications, cost estimates, permitting, permitting, and other infrastructure improvements</p> <p><b>Unique Project Information:</b> As part of the Greenwood Stormwater Basin project, Hey completed the design of 500 feet of new 8" water main across a proposed park and stormwater basin to close a loop with a dead end water main. Hey also assisted in the design of reconstruction of an adjacent street to the park with curb and gutter, off-street parking, and permeable pavers.</p>	<p>Tim O'Brien, PE</p>	<p>Village of Niles</p> <p>Tim O'Brien, PE</p> <p>847-588-7900</p> <p>tco@vniles.com</p>
<p>Arizona Boulevard Storm Sewer Improvements</p>	<p><b>Scope:</b> Hey and Associates, Inc. (Hey) was retained by the Village of Hoffman Estates to prepare plans, specifications and estimates for approximately 1,200 feet of storm sewer. The improvements were partially funded by a Department of Commerce and Economic Opportunity Grant (DCEO) and required a quick turnaround of plans for bidding and construction within the grant's timeline. The project included the evaluation of storm sewer routings and Hey determined that the best routing was to avoid replacement of a failing CMP in rear yards and rerouting the sewer through Village parkway.</p> <p><b>Role/Responsibility:</b> Hey was the lead engineer for this project and was responsible for construction plans, specifications, cost estimates, permitting, permitting, and other infrastructure improvements.</p> <p><b>Unique Project Information:</b> Storm sewer corridor evaluation. Utility relocation.</p>	<p>Al Wenderski, PE</p>	<p>Village of Hoffman Estates</p> <p>Al Wenderski, PE</p> <p>847-252-5802</p> <p>Alan.wenderski@hoffmanestates.org</p>
<p>Debolt-Linden-Gierz Drainage Study and Design</p>	<p><b>Scope:</b> Hey was hired to prepare a stormwater study and construction documents for improved sewer and watermain services including over 5,800 feet of storm sewer. Roadway designs were updated to match Village standards.</p> <p><b>Role/Responsibility:</b> Hey was the lead engineer for this project and was responsible for construction plans, specifications, cost estimates, permitting, permitting, and other infrastructure improvements</p> <p><b>Unique Project Information:</b> Along with storm sewer and water main improvements, an existing alley was reconstructed with new asphalt pavement and valley gutter on both sides.</p>	<p>Julie Lomax, PE, CFM</p>	<p>Village of Downers Grove</p> <p>Julie Lomax, PE, CFM</p> <p>630-493-8821</p> <p>jlomax@downers.us</p>

**FIRM EXPERIENCE / PAST PERFORMANCE (CONTINUED)**

Project Name	Brief Scope	Project Manager	Contact Information
<p>Roberts Road Drainage Improvements Preliminary Engineering</p>	<p><b>Scope:</b> MWRD hired Hey to conduct preliminary engineering for the Roberts Road drainage system improvements in Palos Hills. Work includes detailed data collection, hydraulic modeling, alternative analysis, and preliminary engineering plans for a 10' x 2' box storm sewer connecting Roberts Road to the Lucas Diversion Ditch. Deliverables include preliminary plans, specifications, cost opinions and a project report. Final engineering would follow completion of this phase.</p> <p><b>Role/Responsibility:</b> Hey was the lead engineer for this project and was responsible for GIS analyses, XP-SWMM modeling, alternative analysis, cost opinions, plan development, and reporting.</p> <p><b>Unique Project Information:</b> Preliminary design included a proposed 10' x 2' box storm sewer along 101st Street and 78th Avenue, 60" storm sewer along 103rd Street, and an 84" storm sewer from 103rd Street to the Lucas Ditch. Reconstruction of 101st Street, 78th Avenue, and the middle lane of 103rd Street. Relocation of an 8" water main and 4" sanitary force main along 78th Avenue.</p>	<p>Dylan Cooney, PE</p>	<p>MWRDGC Dylan Cooney, PE 312-751-4041 cooneyd@mwrdd.org</p>
<p>Addison Creek Channel Improvements</p>	<p><b>Scope:</b> Hey was originally retained in 2011 to prepare preliminary engineering plans for 5 miles of various structural and stabilization improvements along Addison Creek to reduce flooding for over 2,000 homes and structures. Final engineering has been completed and the project currently out for bid. Work included detailed site and civil engineering for the improvements and adjacent property restoration.</p> <p><b>Role/Responsibility:</b> Hey was the prime contractor for this project and was responsible for construction plans, specifications, cost estimates, permitting, land acquisition/easement, and other infrastructure improvements. Unsteady hydraulic modeling.</p> <p><b>Unique Project Information:</b> Detailed Civil3D design for stream improvements, grading, roadways, watermain, storm and sanitary sewer improvements. Three bridges are proposed to be removed in Bellwood which included removal of existing water mains under the bridges and extending and looping new watermains. A new roadway was designed to link the three streets after the bridges are to be removed. Assisted with permitting and approval from the IEPA.</p>	<p>Michael Cosme</p>	<p>MWRDGC Michael Cosme 312-751-3092 cosmem@mwrdd.org</p>

## **PROJECT TEAM**

As requested, we have provided 1-page resumes for four key staff:

**Todd Thorholm, PE—Civil Engineer V**

**Patrick Lach, PE, CFM—Principal Civil Engineer, QA/QC**

**Kyle Solner, PE—Civil Engineer IV**

**Evan Owens, EIT—Civil Engineer II**

Our staff is currently working on the Hoffman Estates Village Hall Parking Lot project. Design work will continue to the end of December 2024. However, we have the staff capability and availability to work on the Grand Canyon Parkway and Illinois Boulevard Storm Sewer Project.

We have additional Civil Engineers in the Grade I through Grade V range that could work on this project in addition to the above staff in order to meet the anticipated schedule.



## Todd C. Thorholm, P.E.

### Civil Engineer

Mr. Thorholm has 27 years of civil engineering design and management experience involving municipal, commercial and residential projects in Illinois and across the country and is currently working in the Chicago office. His areas of expertise include site design, grading plans, earthwork, utility design, hydrologic and hydraulic modeling, water resources design, pavement condition inspections and pavement design, cost estimating, and specification preparation. He also has understanding of the Americans with Disabilities Act (ADA) guidelines for site accessible routes and parking.

**Village of Niles** - Tier 1 Final Engineering Design, Niles, Illinois. Design and plan preparation for the development of final engineering solutions to mitigate flood damages in separate and combined sewer areas in the Village of Niles.

**Village of Niles**—Greenwood Stormwater Basin, Niles, Illinois. Design, plan preparation, cost estimating, preparation of project specifications, and permitting for a proposed stormwater storage basin, permeable paver roadway/parking, watermain extension, and new storm sewer to mitigate flooding in residential and commercial areas.

**Village of Niles** - Tier 3 Storm Sewer Improvements, Niles, Illinois. Plan preparation for small storm sewer projects in Niles, Illinois to reduce flooding in residential areas.

**Village of Niles**—Oketo Avenue Stormwater Improvements. Prepared plans and specifications for storm sewer separation project. The project involved 600+ feet of new 36-inch storm sewer that connected to an existing storm sewer that was part of a previous sewer separation project.

**Village of Niles**—Infiltration/Inflow Control Program. Prepared report on probable causes and proposed repair of sanitary and storm sewers where infiltration/inflow was identified by Hey and Associates using smoke testing. Viewed sewer videos, village atlases, and conducted site visits to identify causes of infiltration/inflow and proposed methods to correct and repair storm and sanitary sewers and structures and remove identified cross connections.

**Village of Hoffman Estates**—Arizona Boulevard Storm Sewer Replacement Project. Plan and specifications prepared for a new 36-inch storm sewer along Arizona Boulevard to replace an aging storm sewer located in rear yards of a residential subdivision. Parkway and sidewalk restoration and replacement sanitary and water services affected by the new storm sewer.

**Village of Downers Grove** — Debolt, Linden, and Gierz Storm Sewer Improvements. Design of drainage and infrastructure improvements including new storm sewer, reconstruction of an alley with drainage gutters, ADA sidewalk improvements, and a water main extension.

### Education

B.S., Civil Engineering, Iowa State University – 1995

### Previous Employment

Senior Project Engineer, Zimmer Consultants, Ltd., Oakbrook, Illinois, March 2011 – October 2013

Project Manager, Greengard, Inc., Lincolnshire, Illinois, January 2006 – January 2009

Project Manager, Manhard Consulting, Ltd., Vernon Hills, Illinois, November 1996 – January 2006

Civil Engineer, Johnson, Johnson, & Roy, Chicago, Illinois, July 1995 - September 1996

Summer Intern, Illinois Department of Transportation, Schaumburg, Illinois, May 1994 – August 1994

### Registration & Certifications

IL Professional Engineer, No. 062-054239

IDOT S-14 Documentation of Contract Quantities Cert. No. 24-22332



## Patrick M. Lach, P.E., CFM

Principal Civil Engineer

Mr. Lach has 19 years of water resources and civil engineering experience and management, is a registered professional engineer, a certified floodplain manager and recently served as President of the Illinois Section of the American Society of Civil Engineers. He currently serves as a Senior Civil Engineer for Hey and Associates and is responsible for civil engineering staff in the Chicago office. His areas of expertise include civil and site design, stormwater infrastructure design, green infrastructure planning and design, and hydrologic and hydraulic modeling practices. He has extensive experience in developing design plans, specifications, cost estimates, and construction observation for civil engineering and water resources design projects, watershed plans, feasibility studies, and hydrology/hydraulic studies for both public and private entities.

### Education

B.S., Civil Engineering, University of Notre Dame, Notre Dame, Indiana, 2001

### Previous Employment

Drainage Engineer, HDR Engineering, Inc., Chicago, Illinois, 2005-2007

Civil Engineer, Camp, Dresser & McKee, Inc. (CDM), Chicago, Illinois, 2001-2005

### Registration & Certification

IL Professional Engineer, No. 062-058745

WI Professional Engineer, No. 39017-006

MI Professional Engineer, No. 6201053889

IN Professional Engineer, No. PE10809287

IL Certified Floodplain Manager, IL-10-00569

Qualified Engineer Review Specialist,

E-0189 Kane County

**Metropolitan Water Reclamation District of Greater Chicago** – Addison Creek Channel Improvements Final Engineering, various municipalities in Cook County, Illinois. Managed the project team to develop construction documents, permits, and cost estimates for channel conveyance improvements, gabions, soldier pile walls, civil infrastructure, utilities, and recreational park improvements.

**Metropolitan Water Reclamation District of Greater Chicago** – Roberts Road Drainage Improvements Preliminary Engineering, Palos Hills, Illinois. Mr. Lach managed and oversaw the hydraulic modeling, storm sewer design, preliminary engineering plans and specifications to reduce the risk of urban flooding.

**Village of Niles** — Tier 1 Engineering Design, Village of Niles, Illinois. Prepared plans and specifications for sewer designs, detention basin grading, site restoration, and utility relocation.

**Village of Hoffman Estates** – Hassell Road Culvert Replacement Project, Hoffman Estates, Illinois. Performed hydraulic modeling, designed replacement culverts, prepared construction plans and specifications and obtained permits for three separate culverts for the Poplar Creek East Branch under Hassell Road.

**Illinois State Toll Highway Authority** – Ronald Reagan Memorial Tollway Reconstruction and Add Lane, M.P. 137.2 (Route 83) to M.P. 140.5 (I-290), DuPage County, Illinois. Mr. Lach was the Drainage Design Lead completed the design of bridges, culverts, storm sewers, ditches, and detention basins.

**Village of Downers Grove** – Debolt / Linden / Gierz Drainage Improvements, Downers Grove. Oversaw hydrologic and hydraulic XP-SWMM model development and assisted with alternative developments.

**Cook County Department of Transportation and Highways** – Hydraulic and Wetlands Services, Cook County, Illinois. Mr. Lach served as the project manager and completed hydraulic reports, location drainage studies, drainage design plans,



## Kyle Solner, P.E.

### Civil Engineer

Mr. Solner has 7 years of experience in civil and water resources engineering as a Civil Engineer for Hey and Associates, Inc. in Chicago. His areas of expertise include civil and site design, stormwater infrastructure design, and green infrastructure planning and design. He is proficient in AutoCAD Civil 3D and has experience developing design plans, specifications, and cost estimates for a multitude of civil engineering and water resources projects in Illinois, Wisconsin, and Indiana.

**Metropolitan Water Reclamation District of Greater Chicago** — Addison Creek Channel Improvements Final Engineering, various municipalities in Cook County, Illinois. Design and planning for an estimated \$60 million of channel conveyance improvements, gabions, soldier pile walls, civil infrastructure, utilities, and a recreational park improvements, regularly utilizing AutoCAD Civil 3D Site Design tools, Pipe Networks, and Corridors using custom-made Sub-Assemblies to meet specific project needs, in addition to assisting with obtaining proposed easements, drafting plans, permitting, preparing cost estimates, and managing a multitude of tasks across all aspects of the project.

### Education

B.S., Civil and Environmental Engineering,  
University of Illinois at Urbana-Champaign,  
Urbana, IL 2016

A.S., Engineering Science, College of Lake  
County, Grayslake, IL 2013

### Previous Employment

Environmental Engineering Intern, CDM  
Smith, Chicago, Illinois, June 2015-August  
2015

### Registration & Certification

IL Professional Engineer, No. 062-073760

**Village of Niles** — Greenwood Basin Final Engineering, Niles, Illinois. Site design, detailed grading, and complex earthwork volume analysis performed in AutoCAD Civil 3D for 5-acre park to add new pond with overlooks, parking lot, winding walks, various plantings, lighting and other electrical components, storm sewers, and an event lawn with approximately 7.5 acre-feet-worth of underground stormwater storage chambers beneath.

**Allied Tube & Conduit** — Zinc Capture and Treatment Systems, Harvey, Illinois. Designed stormwater improvements to decrease the discharge of zinc from the project site and harvest roof runoff to offset city water demand for process water makeup by treating and reusing the water on-site.

**Village of Downers Grove** — Debolt-Linden-Gierz, Downers Grove, Illinois. Conducted site survey and used AutoCAD Civil 3D to develop the base model for the project area and design 6,000-feet of new storm sewer to improve drainage of a six-block residential area.

**Metropolitan Water Reclamation District of Greater Chicago** — Roberts Road, Palos Hills, Illinois. Assisted with hydraulic analysis of alternative models for storm sewer relief sewers.

**Village of Hoffman Estates** — Almond and Audubon Culverts, Hoffman Estates, Illinois. Performed hydrologic and hydraulic modeling using XPSWMM to test the proposed alternatives and compare them with the design criteria.

**Village of Niles** — Greenwood Basin Preliminary Engineering, Niles, Illinois. Modeled existing and proposed conditions in XPSWMM for the implementation of drainage



## Evan Owens

Civil Engineer

Since starting at Hey and Associates, Inc. in Chicago a little over a year ago, Ms. Owens has completed permitting and site design of riverine and urban drainage systems, trail system design and grading, streambank stabilization, and stormwater management projects with experience in construction management. She has also conducted many erosion and sediment control inspections of construction sites in Northeastern Illinois. She is proficient in using a variety of engineering software’s such as AutoCAD Civil 3D, HEC-RAS, HEC-HMS, MicroStation, and ArcGIS Pro which she has used for site design, hydrologic and hydraulic analysis for a wide variety of projects.

**City of Waukegan-** Waukegan, Illinois industrial warehouse improvements. Assisted with the design of storm sewer route and defining the areas tributary to the proposed storm sewer. Assisted with the preparation of the IEPA permits and the SWPPP.

**City of Harvey -** MVAH Partners, Harvey, Illinois residential Senior Lofts for low income families. Assisted with the permit applications and plan set setup. Designed the site plan based on existing conditions.

**City of Chicago—** Chicago, Illinois Gardner School. Assisted with the final layout of utilities , permit applications, and plan set setup with the city of Chicago’s standards. Designed a Maintenance of Traffic plan per request from the city of Chicago.

**Village of Somerville—**Somerville, Wisconsin. Assisted with the final layout of proposed utilities. Assisted with the final engineering of probable costs, permit applications, and plan set setup for the changes in design.

**City of Rochelle—** Rochelle, Illinois residential Senior Lofts. Assisted with the permit applications, and plan sheet setup. Designed the demolition plan based on the phases for demolition for the project. Assisted with the final layout of proposed storm sewer due to the project’s low point being on the high end of the site.

**Illinois Department of Transportation—**IL Route 31, McHenry County, Illinois. Assisted with the layout for proposed bioswales and landscape quantities for largescale highway expansion project.

**Lower DuPage River Watershed Coalition—**Lower DuPage River Restoration, Plainfield, IL. Calculated construction quantities and cost estimates and assisted with edits to the final permit and bid set of plans utilizing Civil 3D.

**Village of Addison—**LaLonde-Diversey Storm Sewer. Prepared alternatives for design of a proposed storm sewer to improve flooding conditions in an existing residential neighborhood. Challenges included designing a storm sewer around an existing radio tower with underground radial wires and a shallow storm sewer.

### Education & Previous Employment

Civil Engineering, Jackson State University,  
2021

Staff Engineer

Manhard Consulting,  
2021-2023

### Professional Memberships & Services

American Society of Civil Engineers,  
2016– Present

Society of Women Engineers,  
2018-Present

National Society of Black Engineers,  
2019– Present

**PROJECT SCHEDULE**

A detailed project schedule is provided below. Project kick-off is scheduled in September 2024 and PS&E is to be completed January 2025 with project bidding in February 2025.

		No. of Days:																	
		6	13	20	27	34	41	48	55	62	69	76	83	90	97	104	111	TBD	
		Date:																	
		9/23/2024	9/29/2024	10/6/2024	10/13/2024	10/20/2024	10/27/2024	11/3/2024	11/10/2024	11/17/2024	11/24/2024	12/1/2024	12/8/2024	12/15/2024	12/22/2024	12/29/2024	1/5/2025	1/12/2025	Bidding Phase
Task	Description																		
<b>1</b>	<b>Data Gathering</b>																		
	Topographic Survey and CAD																		
	Status of Utilities																		
	Geotechnical and Soil Testing																		
	Permit Identification and Agency Coordination																		
<b>2</b>	<b>Preliminary Design Phase</b>																		
	Plan Alternates Preparation																		
	Alternative Analysis Technical Memorandum																		
	Cost Estimates for Alternates																		
<b>3A</b>	<b>Permit Applications - MWRD WMO</b>																		
	Stormwater Narrative																		
	Permit Applications																		
	Plan Revisions and Submittal																		
<b>3B</b>	<b>Permit Applications - IDOT</b>																		
	Submittal and Plan Revisions																		
	Permit Applications																		
<b>4</b>	<b>Plans, Specifications &amp; Estimates</b>																		
	Final Engineering Plans for 60% Submittal																		
	Specifications / Special Provisions																		
	Engineer's Opinion of Probable Cost																		
	Utility Coordination																		
	Revisions for 98% Submittal																		
	Revisions for 100% Submittal																		
<b>5</b>	<b>Construction Documents and Bidding</b>																		
	Bid Assistance																		
	Response to Questions (assume up to 10)																		
<b>6</b>	<b>PM and Meetings</b>																		
	Project Management																		
	Meetings (Assume 4)																		
	<b>Totals:</b>																		

**SCOPE OF SERVICES WITH HOURS AND FEES**

A detailed scope of services is provided in the previous section under the Project Approach.

We understand that project bidding for the storm sewer replacement and street rehabilitation project will occur in February 2025 for construction that same year.

We would plan on providing a minimum of bi-weekly status update emails in conjunction with up to 4 meetings.

A detailed breakdown of hours and cost is provided on the following page.

Village of Hoffman Estates  
 Grand Canyon Parkway/Illinois Boulevard Storm Sewer Replacement  
 Scope of Services with Hours and Fees

Task	Description	Lach - QA/QC Principal CE	Thorholm - Project Manager CE V	Solner - CE IV	Owens - CE II	Gordon - CE II	Total Hours	Labor	Reimbursable Costs	MSET (Geotech)	Cost of Task	Totals
1	<b>Data Gathering</b>	\$210	\$175	\$165	\$135	\$135						\$ 7,140
	Topographic Survey and CAD		4	8		24	36	\$ 5,260	\$ 100		\$ 5,360	
	Status of Utilities		2		8		10	\$ 1,430			\$ 1,430	
	Permit Identification and Agency Coordination		2				2	\$ 350			\$ 350	
2	<b>Preliminary Design Phase</b>											\$ 17,690
	Plan Alternates Preparation	2	8	12	24		46	\$ 7,040			\$ 7,040	
	Alternative Analysis Technical Memorandum	1	12		16		29	\$ 4,470			\$ 4,470	
	Cost Estimate for Alternates	4	12		24		40	\$ 6,180			\$ 6,180	
3A	<b>Permit Applications - MWRD WMO</b>											\$ 5,330
	Stormwater Narrative	1	8				9	\$ 1,610			\$ 1,610	
	Permit Applications				4		4	\$ 540			\$ 540	
	Plan Revisions and Submittal		12		8		20	\$ 3,180			\$ 3,180	
3B	<b>Permit Applications - IDOT</b>											\$ 3,720
	Submittal and Plan Revisions		12		8		20	\$ 3,180			\$ 3,180	
	Permit Applications				4		4	\$ 540			\$ 540	
4	<b>Plans, Specifications &amp; Estimates</b>											\$ 50,445
	<u>Final Engineering Plans for 60% Submittal</u>	4					4	\$ 840			\$ 840	
	Cover Sheet				1		1	\$ 135			\$ 135	
	General Notes / Legend				4		4	\$ 540			\$ 540	
	Summary of Quantities		4		4		8	\$ 1,240			\$ 1,240	
	Existing Conditions				4		4	\$ 540			\$ 540	
	Demolition - Grand Canyon Parkway		4		10		14	\$ 2,050			\$ 2,050	
	Drainage & Utility Plan and Profile - Grand Canyon		6	6	18		30	\$ 4,470			\$ 4,470	
	SESC - Grand Canyon		4		8		12	\$ 1,780			\$ 1,780	
	Restoration Plan - Grand Canyon		6		12		18	\$ 2,670			\$ 2,670	
	<b>Total - Grand Canyon Parkway</b>	<b>0</b>	<b>20</b>	<b>6</b>	<b>48</b>	<b>0</b>	<b>74</b>	<b>\$ 10,970</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,970</b>	
	Demolition - Illinois Boulevard		4		10		14	\$ 2,050			\$ 2,050	
	Drainage & Utility Plan and Profile - Illinois		6	6	16		28	\$ 4,200			\$ 4,200	
	SESC - Illinois		4		6		10	\$ 1,510			\$ 1,510	
	Restoration Plan - Illinois		6		12		18	\$ 2,670			\$ 2,670	
	<b>Total - Illinois Boulevard</b>	<b>0</b>	<b>20</b>	<b>6</b>	<b>44</b>	<b>0</b>	<b>70</b>	<b>\$ 10,430</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,430</b>	
	Details			4	8		12	\$ 1,740			\$ 1,740	
	Specifications / Special Provisions	4	16	8			28	\$ 4,960			\$ 4,960	
	Engineer's Opinion of Probable Cost	4	12		24		40	\$ 6,180			\$ 6,180	
	Utility Coordination			4	12		16	\$ 2,280			\$ 2,280	
	Revisions for 98% Submittal	2	16	8	16		42	\$ 6,700			\$ 6,700	
	Revisions for 100% Submittal	2	8	6	8		24	\$ 3,890			\$ 3,890	
5	<b>Construction Documents and Bidding</b>											\$ 2,045
	Bid Assistance	1		2	2		5	\$ 810			\$ 810	
	Response to Questions (assume up to 5)	1	2		5		8	\$ 1,235			\$ 1,235	
6	<b>PM and Meetings</b>											\$ 5,800
	Project Management	4					4	\$ 840			\$ 840	
	Meetings (Assume 4)	4	12		12		28	\$ 4,560	\$ 400		\$ 4,960	
	<b>Totals:</b>	<b>34</b>	<b>182</b>	<b>64</b>	<b>288</b>	<b>24</b>	<b>592</b>	<b>\$ 91,670</b>	<b>\$ 500</b>	<b>\$ -</b>	<b>\$ 92,170</b>	<b>\$ 92,170</b>

Rehabilitation with MH's at Connections	<b>Alternates</b>											
	Demolition - Grand Canyon Parkway		4		6		10	\$ 1,510			\$ 1,510	
	Drainage & Utility Plan and Profile - Grand Canyon		4	4	16		24	\$ 3,520			\$ 3,520	
	SESC - Grand Canyon		2		4		6	\$ 890			\$ 890	
	Restoration Plan - Grand Canyon		4		8		12	\$ 1,780			\$ 1,780	
	<b>Total - Grand Canyon Parkway</b>	<b>0</b>	<b>14</b>	<b>4</b>	<b>34</b>	<b>0</b>	<b>52</b>	<b>\$ 7,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,700</b>	
	Demolition - Illinois Boulevard		4		6		10	\$ 1,510			\$ 1,510	
	Drainage & Utility Plan and Profile - Illinois		4	4	12		20	\$ 2,980			\$ 2,980	
	SESC - Illinois		2		4		6	\$ 890			\$ 890	
	Restoration Plan - Illinois		4		8		12	\$ 1,780			\$ 1,780	
<b>Total - Illinois Boulevard</b>	<b>0</b>	<b>14</b>	<b>4</b>	<b>30</b>	<b>0</b>	<b>48</b>	<b>\$ 7,160</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,160</b>		
Rehabilitation Only	Demolition - Grand Canyon Parkway						0	\$ -			\$ -	
	Drainage & Utility Plan and Profile - Grand Canyon		4	4	12		20	\$ 2,980			\$ 2,980	
	SESC - Grand Canyon						0	\$ -			\$ -	
	Restoration Plan - Grand Canyon						0	\$ -			\$ -	
	<b>Total - Grand Canyon Parkway</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>12</b>	<b>0</b>	<b>20</b>	<b>\$ 2,980</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,980</b>	
	Demolition - Illinois Boulevard						0	\$ -			\$ -	
	Drainage & Utility Plan and Profile - Illinois		4	4	12		20	\$ 2,980			\$ 2,980	
SESC - Illinois						0	\$ -			\$ -		
Restoration Plan - Illinois						0	\$ -			\$ -		
<b>Total - Illinois Boulevard</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>12</b>	<b>0</b>	<b>20</b>	<b>\$ 2,980</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,980</b>		